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Title : Fujitsu-Hitachi Proposal for MPEG2
Purpose: Proposal

1. Introduction

This document gives a description of our proposal for MPEG2 video coding scheme for the Kurihama test. Our proposal is a result of collaboration in a subgroup of Japanese national body. Although Fujitsu Ltd. and Hitachi Ltd. had preregistered their proposals individually (no.10 and no.13), we have agreed to propose one joint coding scheme to the Kurihama test in order to reduce the time required for proposal evaluation.

The main purpose of the collaboration is to establish an MPEG2 video coding scheme which has the full compatibility with MPEG1 video coding/decoding scheme. As MPEG(i.e., MPEG1 and MPEG2) is intended to be a generic coding scheme, the compatibility between MPEG1 and MPEG2 should not be affected by any particular conditions such as bit rate, frame rate, picture size, and so on. The basic structure of our proposal is the Hierarchical Laplacian Pyramid Coding (HLPC), with each stage similar to MPEG1. The HLPC realizes full-compatibility between MPEG1 and MPEG2.

2. General codec outline

The HLPC consists of three stages. Figure 2.1 shows the block diagram of the HLPC encoder. The first stage is the MPEG1 stage which encodes low resolution odd field pictures. The MPEG1 stage is fully compatible with the MPEG1 encoders and produces an MPEG1 bitstream.

The second stage is the additional stage (MPEG2-odd), which encodes the difference between the source odd field pictures and the MPEG1 stage's local decoded pictures. The second stage is very similar to the first stage except for the format and resolution of the source input signals.

The third stage (MPEG2-even) encodes even field pictures. In order to improve coding efficiency, reference is made not only to previously decoded even field pictures, but also to odd field pictures decoded by the first and the second stage. .Information in a lower stage is used by higher stages, but information in a higher stage is not used by lower stages. This rule is necessary to realize the compatibility with MPEG1.

Each stage produces its bitstream independently and three bitstreams are then multiplexed into one MPEG2 bitstream.

In the decoding process, the MPEG2 bitstream is demultiplexed into three bitstreams which are decoded at their respective stage. The figure 2.2 shows the block diagram of the HLPC decoder.

When the bit rate of the first stage is set to zero, the MPEG1 stage produces no MPEG1 bitstream. The remaining two stages of the HLPC can encode input video signals correctly and produce two bitstreams, those are multiplexed into one MPEG2 bitstream. The HLPC also can decode such an MPEG2 bitstream properly. In this case, the compatibility between MPEG1 and MPEG2 is not realized but picture quality will improve a little. When the bit rates of MPEG2-odd and MPEG2-even are set to zero, the HLPC encoder will automatically encode as MPEG1 encoder. The HLPC decoder can also decode MPEG1 bitstream.

3. Source format

The source picture format of the HLPC is CCIR Rec. 601 525/60 format.

First, CCIR Rec. 601 525/60 (4:2:2) format signal is separated into odd fields and even fields. Second, vertical filtering and subsampling are performed on chrominance signals in each field resulting 4:2:0 format signals. The decimation filter of the SM3 reference model is used. Third, horizontal filtering and subsampling are performed for both luminance and chrominance signals to produce S.I.F pictures for the 1st MPEG1 stage as described in SM3. As a result, the internal source format of MPEG1 stage consists of 240 luminance lines and 120 chrominance lines per field, with 360 luminance samples and 180 chrominance samples per line. The field rate is 30 Hz. Figure 3.1 summarizes the source format of this stage.

The internal source format of MPEG2-odd and MPEG2-even stages, which is shown in Figure 3.2, consists of 240 luminance lines and 120 chrominance lines per field, with 720 luminance samples and 360 chrominance samples per line. The field rate is also 30 Hz. Figure 3.3 shows the decimation filter used above operations.

At the decoding process, S.I.F.of MPEG1 stage and 4:2:0 sampling format of MPEG2-odd and MPEG2-even stage are converted to the CCIR Rec. 601 4:2:2 format as shown in Figure 3.4. and Figure 3.5, using the interpolation filter of the SM3 reference model. Figure 3.6 shows the interpolation filter.

4. Layered structure of video data

In the HLPC scheme, the source video signal is divided into three separate video signals and coded into three bitstreams by their corresponding encoders. The video data in each stage has a similar structure to the CD 11172 bitstream as described below. Bitstreams of all stages are multiplexed in the system layer, as described in chapter 9.

4.1 Sequence layer

A sequence consists of a number of successive Group of Pictures.

4.2 Group of Pictures (GOP) layer

In all stages of the HLPC, there is a common GOP consisting of 12 pictures. Except for the MPEG2-even stage, a GOP includes 1 intra-coded picture (I-picture), 3 predictive-coded pictures (P-picture) and 8 bidirectionally predictive-coded pictures (B-picture). The GOP begins with the first B-picture between the previous P-picture and an I-picture and ends with the P-picture.

All pictures in the 3rd MPEG2-even stage are B-pictures. Figure 4.1 shows an example of the GOP Structure.

4.3 Picture layer

In each stage of the HLPC, a picture consists of 15 slices. Figure 4.2 shows the picture structure.

4.4 Slice layer

A slice in the 1st stage consists of a row of 22 macroblocks, and that of the 2nd MPEG2-odd and 3rd MPEG2-even stage consists of a row of 44 macroblocks. It begins at the left edge of the picture and ends at the right edge of the picture.

Quantization adjustment is performed at the slice layer. The structure of slice is depicted in Figure 4.3

4.5 Macroblock layer

In each stage of the HLPC, a macroblock consists of 4 luminance blocks (16 pixels x 16 lines) and 2 chrominance blocks (1 Cb and 1 Cr, 8 pixels x 8 lines).

Motion estimation and compensation are performed at the macroblock layer. Figure 4.4 illustrats the macroblock structure.

4.6 Block layer

In each stage of the HLPC, a block consists of an array of 8 pixels x 8 lines of video signal. Transformation, quantization and variable length coding are performed at the block layer. The block is shown in Figure 4.5

5. Motion estimation and compensation

To exploit temporal redundancy, motion compensated prediction and interpolation techniques are used. The motion compensation scheme of the HLPC is basically the same as SM3 except for the 3rd MPEG2-even stage as shown in Fig.4.1. In the MPEG2-even stage, only B-pictures are present and the following motion compensations are used.

1) Forward predictive compensation from past even field.
2) Backward predictive compensation from future odd field.

3) Bidirectionally predictive interpolation from past and future odd fields.

In the each stage of the HLPC, the interpolation is performed by simple averaging, without taking into account temporal distance of reference fields. Motion compensation is carried out on both the luminance and chrominance pixels of each macroblock. The vector used for chrominance is derived by halving the component values of the corresponding vector for luminance and rounding the magnitude to half a pel.

In the 1st stage, motion vectors are estimated using the previous odd field (forward vector) and the future odd field (backward vector) as a reference picture. The range of motion vectors is +/-7.5 pixels and +/-7.5 lines with half-pel accuracy in both directions. Motion estimation in this stage is the same as the SM3. Please note that half-pel accuracy in this stage corresponds to single pel accuracy in the 2nd MPEG2-odd and 3rd MPEG2-even stage.

In the 2nd MPEG2-odd stage, motion vectors of the cosited macroblocks in the 1st MPEG1 stage are used to reduce the total amount of calculation for motion vector estimation. The two times values of the 1st stage's motion vectors are used as an offset of motion vector estimation and additional motion vectors are searched only in the area of +/-2 pixels and +/-2 lines with half-pel accuracy.

In the 3rd MPEG2-even stage, motion vectors of the 1st MPEG1 stage may also be used to reduce the total amount of calculation. But some weighting operation is needed to adjust the temporal distance difference, because the 3rd stage is different from the 1st and 2nd stages in the temporal direction. These points are remained as our future study.

In the MPEG2-even stage, 3 motion vectors are calculated using the previous even field (forward vector1), the previous odd field (forward vector2) and the future odd field (backward vector). The range of motion vectors is +/-15.5 pixels and +/-7.5 lines with half-pel accuracy in both directions.

Motion estimation is performed on a 16 pixels x 16 lines macroblock of luminance pixels. Search of motion vectors is accomplished using original pictures only. A motion vector is chosen which minimizes the sum of the 16 x 16 absolute differences.

6. Mode and mode selection

In the MPEG1 stage and the MPEG2-odd stage, modes and mode selection are the same as those in SM3 (MPEG90/041,Section 6). In the MPEG2-even stage, modes and mode selection are similar to section 6 in SM3, with the differences as follows.

1) Picture modes

Only interpolated pictures (B-picures) are present in picture mode.

2) Inhibit of forward prediction

When the even field immediately follows an intra odd field, forward prediction mode should not be selected. This rule is necessary to realize the random access capability.

3) Macroblock types

The order in which the block type is determined is depicted in Figure 6.1 (Decision tree A). Decision tree B is the same as Figure 6.3B in SM3.

Table 6.1 shows the brief comparison between MPEG1 and the HLPC about modes.

7. Transformation and quantization

Transformation and quantization of each stage of the HLPC is the same as section 7 in SM3. Table 7.1 shows the comparison between MPEG1 and the HLPC about transformation and quantization.

8. Coding

Coding of the HLPC is almost the same as section 8 in SM3. In the MPEG2-odd stage and MPEG2-even stage, MB escape code is adopted if macro block address exceeds 22. Table 8.1 summarizes the comparison between MPEG1 and the HLPC. Although the motion vector estimation is performed hierarchically, motion vectors of each stage are coded independentlly in each bitstream respectively.

9. Video multiplex layer

In the video elementary stream layer, the multiplex layer of the HLPC is the same as in section 9 in SM3. The MPEG1, MPEG2-odd and MPEG2-even stages are all independent from each other in the video bitstream. In the MPEG2-even stage, picture type information (see P.50 in SM3) is the same as in SM3, even though only B-pictures are present. Table 9.1 shows the comparison between MPEG1 and the HLPC about video multiplex layer. The syntax diagrams of video multiplex layer are shown in Figure 9.1, 9.2, 9.3, 9.4, 9.5, 9.6 and 9.7.

In the system layer, each video stream is separated into several packets, each of which contains packet overhead data and one picture data. Those packets are interleaved with other packets from other stage's video streams and other elementary streams, such as associated audio streams and privately encoded user streams.

10. Rate control and coder regulation

The rate control and coder regulation of the HLPC is performed independently in each satge. Basic scheme of rate control is the same as SM3 except virtual buffer size and associated quantizing parameter. In the MPEG1 stage, rate control and coder regulation is the same as in section 10 in SM3. In the MPEG2-odd stage and MPEG2-even stage, the rate control and coder regulation is the same as in SM3 with the following exceptions:

1) Video buffer size

Video buffer size is 120kbits when the bitrate is 4Mbps, and 240kbits when the bitrate is 9Mbps.

2) Calculation of quantizing parameter(QP)

QP is defined as QP=2+b/2 when the bitrate is 4Mbps, and QP=2+b/4 when the bitrate is 9Mbps (because QP ranges from 2 to 62).

The video buffer is initially set to one quarterfull. Brief comparison between MPEG1 and the HLPC about rate

control and coder regulation is shown in table 10.1.

11. Functionality

11.1 Compatibility

The HLPC has the full compatibility with MPEG1. According to parameter selection, it can produce following bitstreams.

1) Only the MPEG1 bitstream, which can be decoded by MPEG1 decoders and the HLPC decoder.

2) The MPEG1, MPEG2-odd and MPEG2-even bitstreams, which can be decoded by MPEG1 decoders using only the MPEG1 bitstream and can be decoded by the HLPC decoder using whole bitstreams.

3) MPEG2-odd and MPEG2-even bitstreams, which can be decoded by the HLPC decoder using both bitstreams.

The HLPC decoder can decode both MPEG1 encoder's output bitstreams and the HLPC's output bitstreams.

note: the test sequences used in the Kurihama test were decoded from bitstreams which consist of only MPEG2-odd and MPEG2-even bitstreams.

11.2 Random access

The HLPC has the random accessability. A GOP includes 1 I-picture, and all odd fields can be produced by decoding from the nearest preceding I-pictute in both MPEG1 and MPEG2-odd stage. When the even field immediately follows an I-picture of odd field, forward prediction mode is inhibited in the MPEG2-even stage. Therefore, the target frame can be accessed by starting from the nearest preceding I-picture (see Figure 4.1).

Maximum access time for a stop motion image is about 0.40 sec, when the target frame is the frame immediately preceding the I-picture. This does not include the time necessary to seek the top of the I-picture.

11.3 Fast forward/Fast reverse

The HLPC can perform Fast Forward(FF) and Fast Reverse(FR) playback. In FF/FR playback mode, only I-picures of odd fields are decoded and used. Even fields are displayed by repeating those odd fields. FF/FR playback speed can be controlled by changing the display repetition times of a decoded I-picture and the number of I-pictures that are skipped.

We will demonstrate FF/FR playback at 4 times faster and 8 times faster than the normal playback speed. In the first case, every I-picture is decoded and repeated 3 times to display. In the later case, I-pictures are decoded or skipped alternately, and each decoded I-picture is displayed 3 times. The data rate is about 3.7Mb/s and 7.3 Mb/s when total data rate is 4 Mb/s and 9 Mb/s, respectively.

12 Estimation of hardware implementation

12.1 Encoder

The HLPC encoder consists of three stages : MPEG1,MPEG2-odd and MPEG2-even. (Figure 12.1, 12.2, 12.3 and 12.4)

12.1.1 Hardware size estimation

12.1.1.1 Number and size of picture buffers for encoder

352 * (240+120) x 8 bit 8
704 * (240+120) x 8 bit 25
704 * (240+120) x 9 bit 9

12.1.1.2 Size of coded data buffer

MPEG1 ..... 120k bit
MPEG2-odd ..... 240k bit
MPEG2-even ..... 240k bit

12.1.2 Module information

12.1.2.1 MPEG1

memory..... 8.3M bit
additions..... 26.6G bit/s
multiplications..... 98.4M bit/s
table..... 28.4k bit

12.1.2.2 MPEG2-odd

memory..... 18.5M bit
additions..... 21.4G bit/s
multiplications..... 189.6M bit/s
table..... 28.4k bit

12.1.2.3 MPEG2-even

memory..... 16.5M bit
additions..... 72.7G bit/s
multiplications..... 189.6M bit/s
table..... 28.4k bit

12.1.2.4 Up/Down-sampling and picture buffer

memory..... 42.6M bit
additions..... 668.8M bit/s
table..... 49.2k bit

12.2.Decoder

The HLPC decoder also consists of three stages : MPEG1,MPEG2-odd and MPEG2-even. (Figure 12.5, 12.6, 12.7 and 12.8)

12.2.1 Number and size of picture buffers for decoder

352 * (240+120) * 8 bit 2
704 * (240+120) * 8 bit 7
704 * (240+120) * 9 bit 2

12.2.2 Size of coded data buffer

MPEG1 .....120 kbit
MPEG2-odd ..... 240 kbit
MPEG2-even ..... 240 kbit

12.2.3 Module information

12.2.3.1 MPEG1

memory ..... 3.2M bit
additions ..... 4.3G bit/s
multiplications ..... 98.8M bit/s
table ..... 6.5M bit

12.2.3.2 MPEG2-odd

memory ..... 7.9M bit
additions ..... 8.6G bit/s
multiplications ..... 197.6M bit/s
table ..... 6.5M bit

12.2.3.3 MPEG2-even

memory ..... 245k bit
additions ..... 8.5G bit/s
multiplications ..... 197.6M bit/s
table ..... 6.5M bit

12.2.3.4 Up-sampling and picture buffer

memory ..... 14.2M bit
additions ..... 182.4M bit/s
table ..... 16.4k bit

(bit/s : 'number of operation' x 'width of data' per second)

13 Estimation of encoder/decoder delay

13.1Delay time of the encoder

The delay time of the HLPC encoder is calculated as follows:

D = max(DMPEG1, DMPEG2-odd, DMPEG2-even)

DMPEG1 = DCOD1 + DVB1 + DMUX1

DMPEG2-odd= DCOD2-odd + DVB2-odd + DMUX2-odd

DMPEG2-even = DCOD2-even + DVB2-even + DMUX2-even

where DCODx : Video coding delay of stage x

DVBx : Video Buffer delay of stage x

DMUXx : Multiplex delay of stage x

In 4Mbps HLPC system (MPEG1/MPEG2-odd/MPEG2-even = 1.5/1.5/1.0Mbps, I/P/B = 10:5:1), maximum value of D is approximately 370ms which is occurs in MPEG2-even stage. Mean value of D is approximately 300 - 330. Time chart of HLPC encoder is shown in Figure 13.1. The reasons of the delay are as follows:

13.1.1 Video coding delay

In video coding, 7.5 frames delay (250ms) is caused in maximum.

1)MC detection time for MPEG1

The MC detection for B1 field for example can be carried out only after P4 field is input, since P4 field is used in backward motion detection.

2)Encoding time for MPEG1

The encoding time for each field is estimated to be equal to input time (1 field).

3)MC detection time for MPEG2-odd

The MC detection for MPEG2-odd delays 3 fields compared with MPEG1, since the MC detection for P4 field of MPEG2-odd for example refers the local decoded P4 field of MPEG1.

4)Encoding time for MPEG2-odd

The encoding time for each field is estimated twice as long as that for MPEG1, since the number of MB of MPEG2-odd is twice.

5)MC detection time for MPEG2-even

The MC detection for MPEG2-even delays about 5 fields compared with MPEG2-odd, since the MC detection for E1 field of MPEG2-even for example refers the local decoded B2 field of MPEG2-odd.

6)Encoding time for MPEG2-even

The encoding time for each field is estimated as long as that for MPEG2-odd, since the number of MB of MPEG2-odd and -even is same.

13.1.2 Video buffer delay

The occupancy of three Video Buffers (VB) for MPEG and MPEG2-odd vary rapidly, according to the picture type I, P, and B. Then, the delay time through the VBs varies, i.e. the delay time is the longest for the I picture, and is the shortest for the B picture just before the I picture since the I picture is assigned the most number of coded bits. In the 4Mbps HLPC system , delay time is approximately 90ms which is the time for send one I picture (180kbit) in 1.5Mbps. This delay does not count because MPEG1 and MPEG2-odd are not dominant.

13.1.3 Multiplex delay

The VBs mentioned above are supposed to be output at the constant bit rate (1.5/1.5/1.0 Mbps for example) and

these three bit streams are multiplexed to single bit stream (4.0 Mbps for example). The delay for multiplexing is negligible.

Further, to minimize the delay in the decoder, MPEG2-even field is delayed 2 fields comparing with the corresponding MPEG1 and MPEG2-odd fields, because the decoder can not decode E1 field for example until B2 field is decoded. In worst case, MPEG2-even field which is sent immediately after MPEG2-odd I field delays approximately 120ms.

13.2 Delay time of the decoder

In the HLPC system, delay time of the decoder is approximately 250 ms. A time chart of the decoder is shown in Figure 13.4. Delay time is calculated as follows;

Estimation:

1) maximum decoding time of each field is 1 field time(17 ms).
2) Total amount of bits in each field is almost fixed according to the bit assignment.
   -4 Mb/s ; odd fields [MPEG1,2-odd] : even fields [MPEG2-even] = 3 Mb/s : 1 Mb/s
   I : P : B = 10 : 5 : 1
   -9 Mb/s ; odd fields : even fields = 6 Mb/s : 3 Mb/s
   I : P : B = 10 : 5 : 1

	4 Mb/s	9 Mb/s
odd fields		
	I = 364 kb/field (91.0 ms)	I = 727 kb/field (80.8 ms)
	P = 182 kb/field (45.5 ms)	P = 364 kb/field (40.4 ms)
	B =36.4 kb/field (9.1 ms)	B =72.7 kb/field (8.1 ms)
even fields		
	E =33.3 kb/field (8.3 ms)	E = 100 kb/field (11.1 ms)

Calculation:

Delay time D is

D = D'+ x

= (I + P + 3B + 5E + 17) + x ms (see Figure 13.4)

x must satisfy the following conditions:

B + E <= 33.3 ms * 1 + x (for display of 14 th frame)
P + B + 2E <= 33.3 ms * 2 + x (15 th)
P + 2B + 3E <= 33.3 ms * 3 + x (16 th)
P + 3B + 4E <= 33.3 ms * 4 + x (17 th)
2P + 3B + 5E <= 33.3 ms * 5 + x (18 th)
2P + 4B + 6E <= 33.3 ms * 6 + x (19 th)
2P + 5B + 7E <= 33.3 ms * 7 + x (20 th)
I + 2P + 5B + 8E <= 33.3 ms * 8 + x (21 st)
I + 2P + 6B + 9E <= 33.3 ms * 9 + x (22 nd)
I + 2P + 7B +10E <= 33.3 ms *10 + x (23 th)

I + 3P + 7B +11E <= 33.3 ms X11 + x (24 th)
I + 3P + 8B +12E <= 33.3 ms X12 + x (25 th)

In the case of 4 Mb/s; x >= 28 ms, D = 233 ms
9 Mb/s; x >= 25 ms, D = 226 ms

14. References

-1. MPEG90/041,MPEG video Simulation Model Three (SM3)
-2. MPEG91/185, CD 11172.

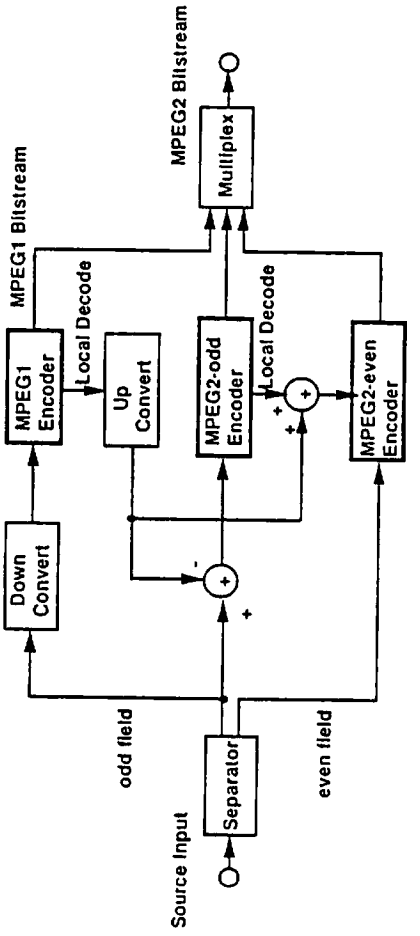

Figure 2.1 Block Diagram of HLPC Encoder

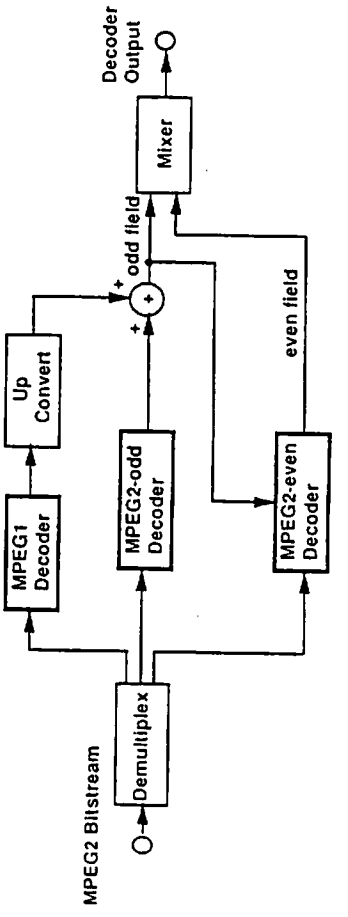

Figure 2.2 Block Diagram of HLPC Decoder

Figure 3.1 Source Format for MPEG1 Stage

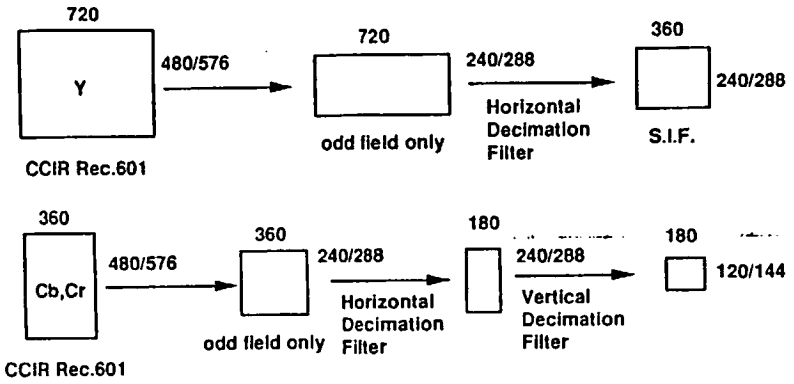

Figure 3.2 Source Format for MPEG2-odd and MPEG2-even Stages

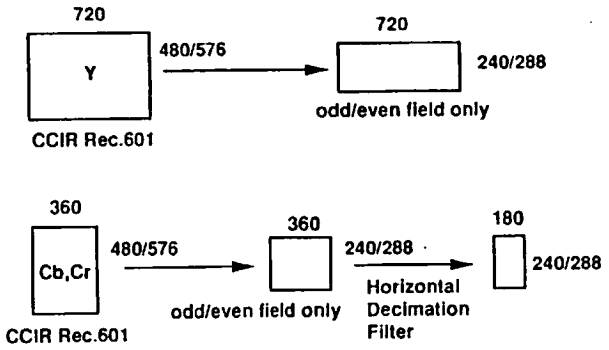

Figure 3.3 Decimation Filter

-29	0	88	138	88	0	-29	//256

Figure 3.4 Convert from MPEG1 Stage to Output Format

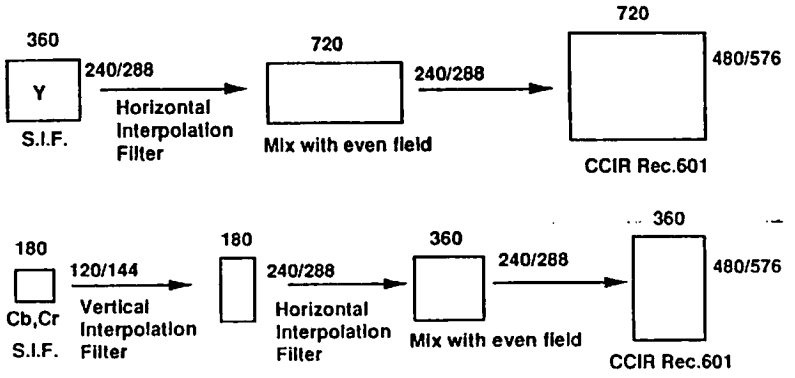

Figure 3.5 Convert from MPEG2 Stages to Output Format

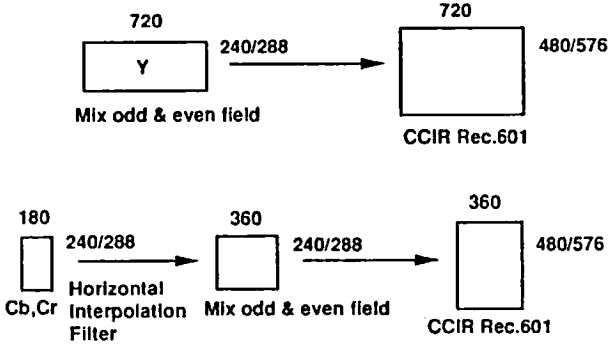

Figure 3.6 Interpolation Filter

-12	0	140	256	140	0	-12	//256

Figure 4.1 Group of Pictures and Motion Compensation

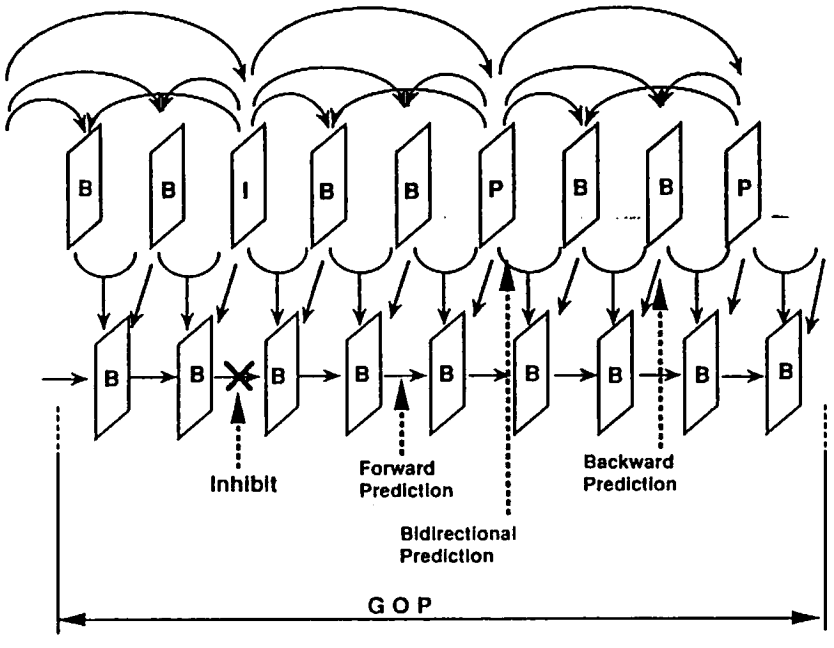

Figure 6. 1 Decision Tree A of MPEG2-even

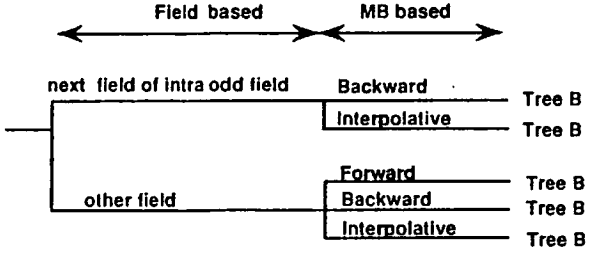

Figure 4.2 Picture Structure

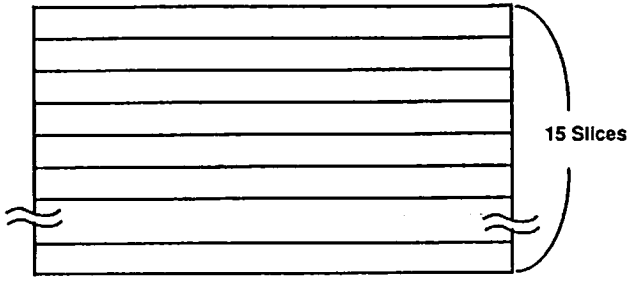

Figure 4.3 Slice Structure

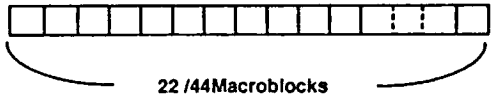

Figure 4.4 Macroblock Structure

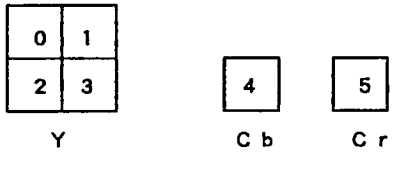

Figure 4.5 Block Structure

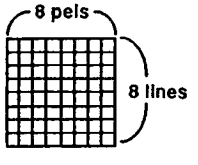

Table 6.1 Comparison of Mode and Mode Selection between MPEG1 and HLPC

Functions	HLPC Stages		
	MPEG1	MPEG2 -odd	MPEG2 -even
Picture modes	Same	Same	B Pictures only
Macroblock types in intra fields	Same	Same	not exist
Macroblock types in predicted fields	Same	Same	not exist
Macroblock types in interpolated fields	Same	Same	Intra Forward Prediction from even Backward Prediction from odd Interpolative from odd

Same: same as MPEG1

Table 7.1 Comparison of Transformation and Quantization between MPEG1 and HLPC

Functions	HLPC Stages		
	MPEG1	MPEG2 -odd	MPEG2 -even
Quantization of intra fields	Same	Same	Same
Quantization of predicted and interpolated fields	Same	Same	Same
Inverse quantization	Same	Same	Same

Same: same as MPEG1

Table 8.1 Comparison of Coding between MPEG1 and HLPC

Functions	HLPC Stages		
	MPEG1	MPEG2 -odd	MPEG2 -even
Macroblock addressing	Same	MB escape code for 23 - 44th macroblocks	MB escape code for 23 - 44th macroblocks
Macroblock type	Same	Same	Same
Motion vectors	Same	Same	Same
Coded block pattern	Same	Same	Same
Intraframe coding	Same	Same	Same
Non intraframe coding	Same	Same	Same
Coding of transform coefficients	Same	Same	Same

Same: same as MPEG1

Table 9.1 Comparison of Video Multipex Layer between MPEG1 and HLPC

Function	HLPC Stages		
	MPEG1	MPEG2 -odd	MPEG2 -even
Video multiplex arrangement	Same	Same	Same

Same : same as MPEG1

Table 10.1 Comparison of Rate Control between MPEG1 and HLPC

Functions	HLPC Stages		
	MPEG1	MPEG2 -odd	MPEG2 -even
Rate control and coder regulation	Same	Buffer size and QP are different	Buffer size and QP are different

Same : same as MPEG1

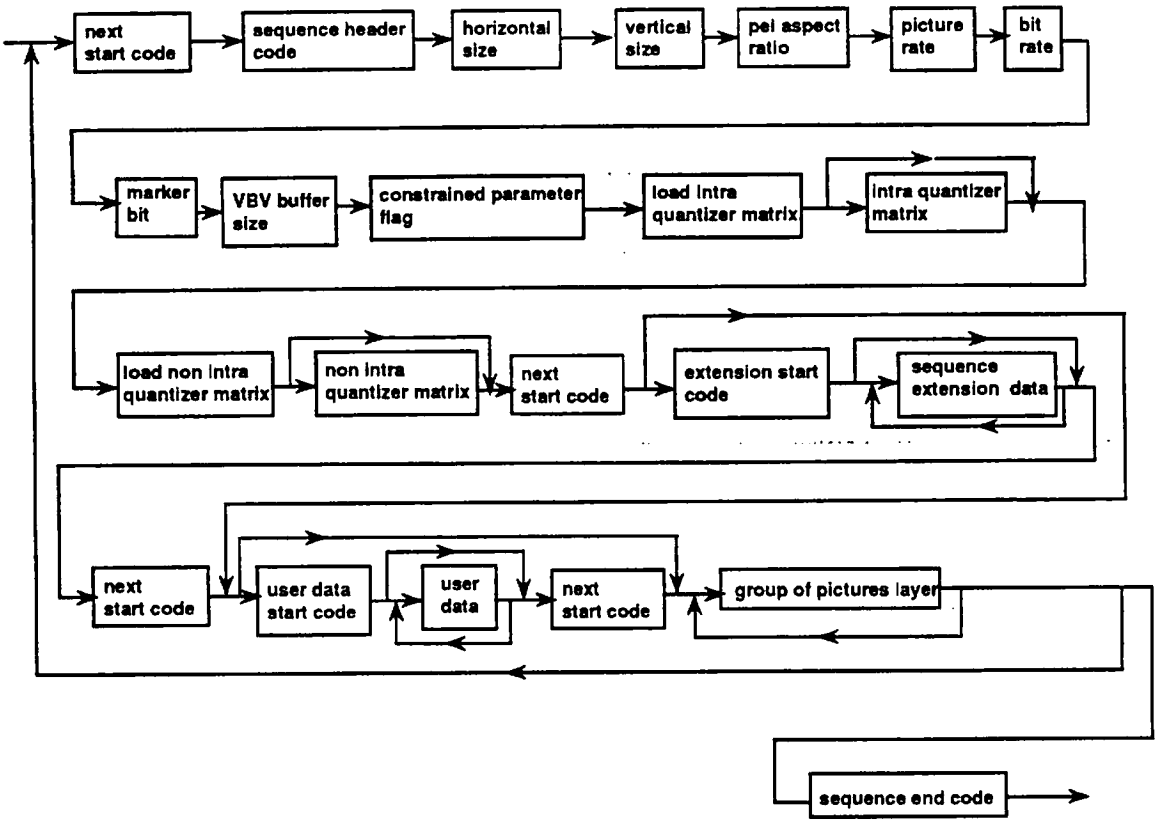

Figure 9.1 Video sequence layer

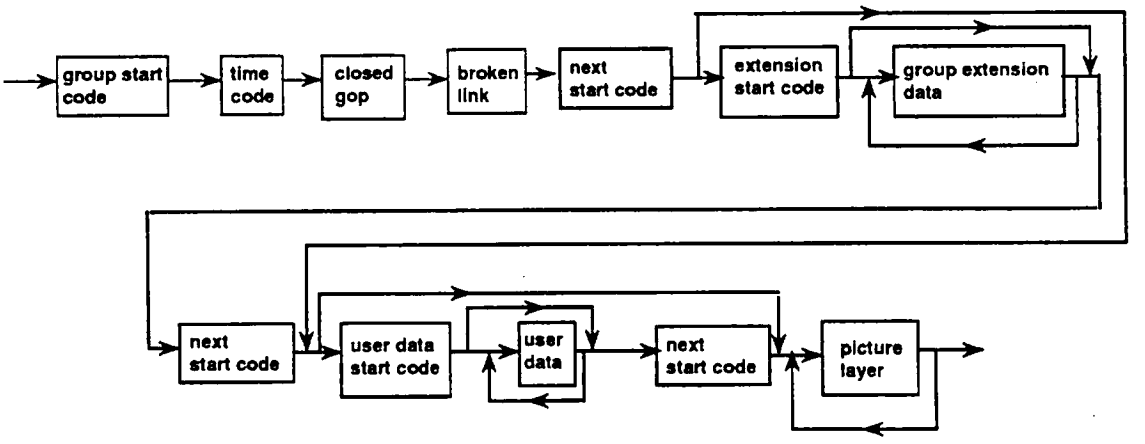

Figure 9.2 Group of pictures layer

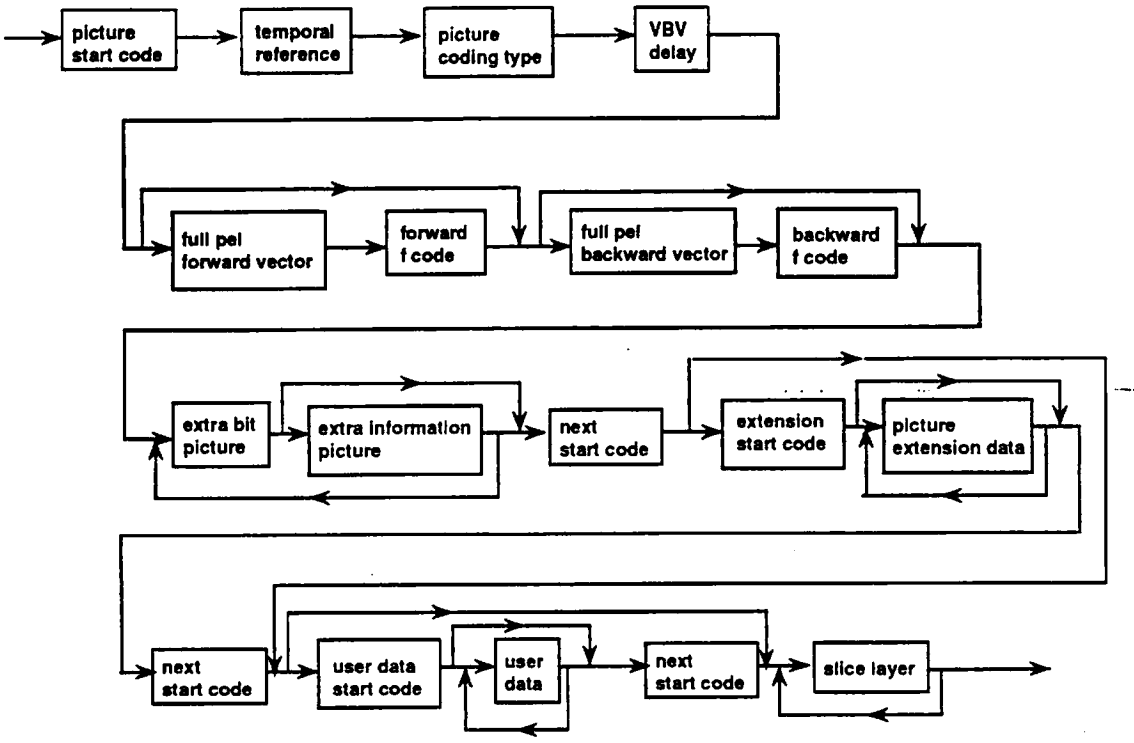

Figure 9.3 Picture layer

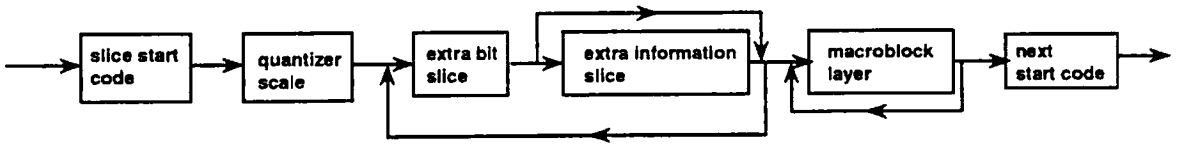

Figure 9.4 Slice layer

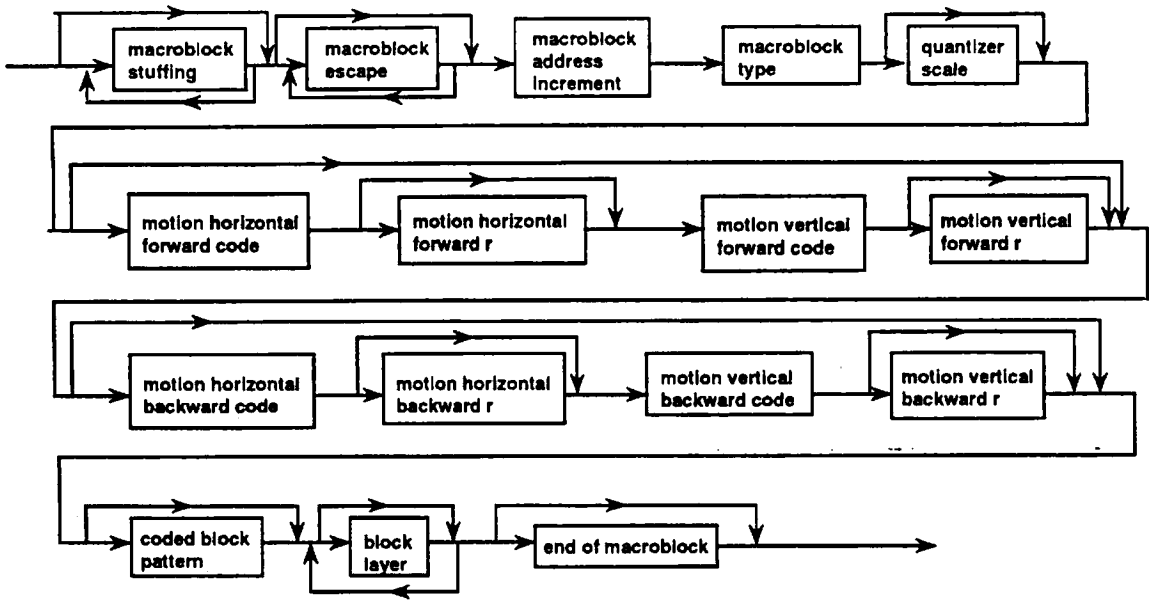

Figure 9.5 Macroblock layer

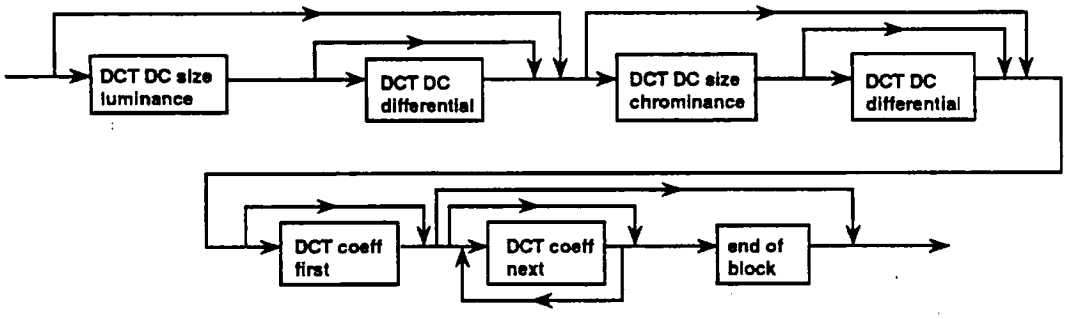

Figure 9.6 Block layer

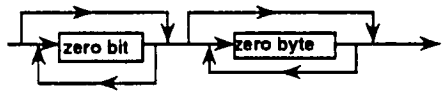

Figure 9.7 Definition of next start code

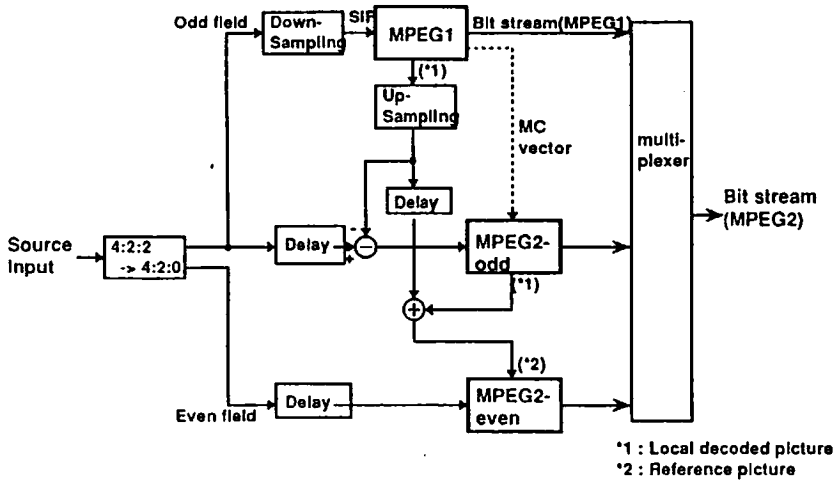

Figure 12.1 Block Diagram of HLPC Encoder

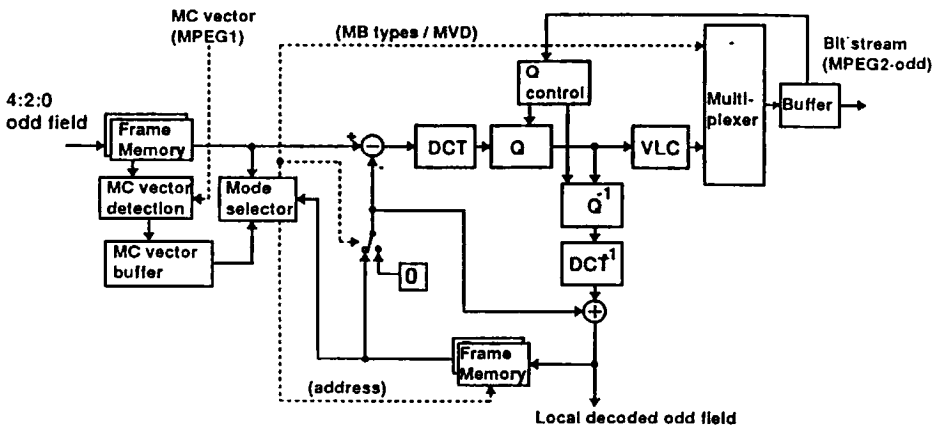

Figure 12.3 Block Diagram of MPEG2-odd Encoder

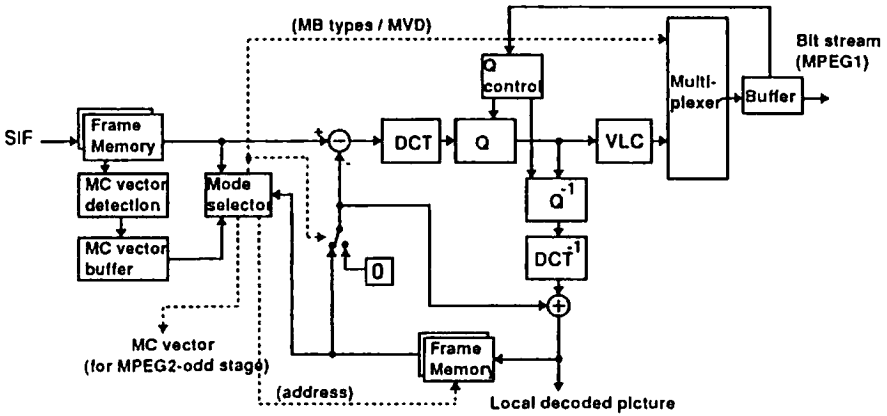

Figure 12.2 Block Diagram of MPEG1 Encoder

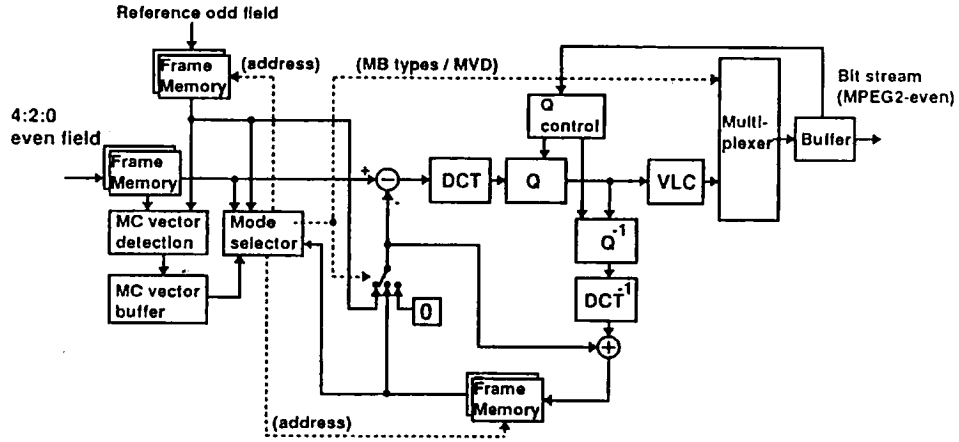

Figure 12.4 Block Diagram of MPEG2-even Encoder

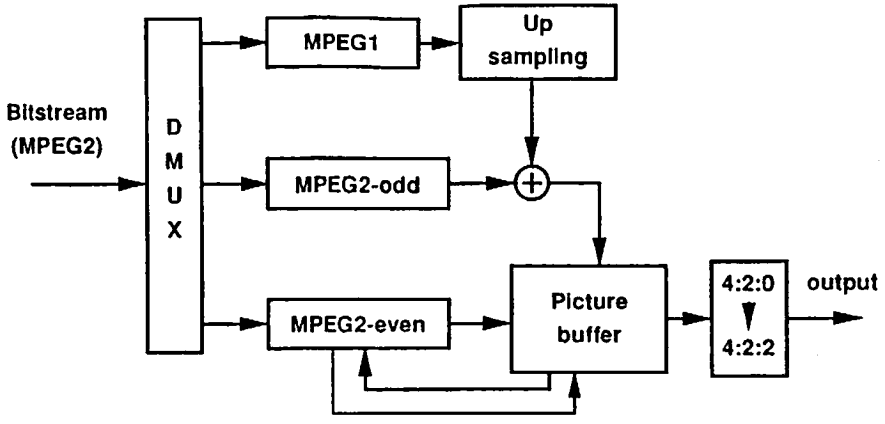

Figure 12.5 Block Diagram of HLPC Decoder

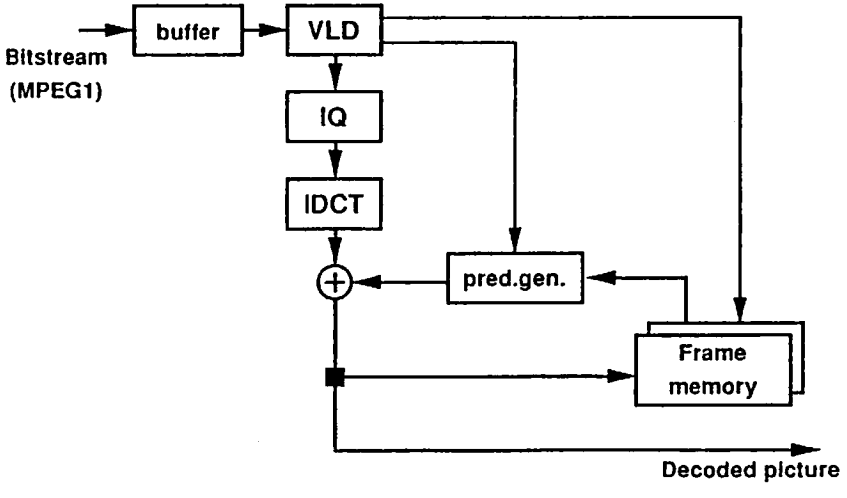

Figure 12.6 Block diagram of MPEG1 Decoder

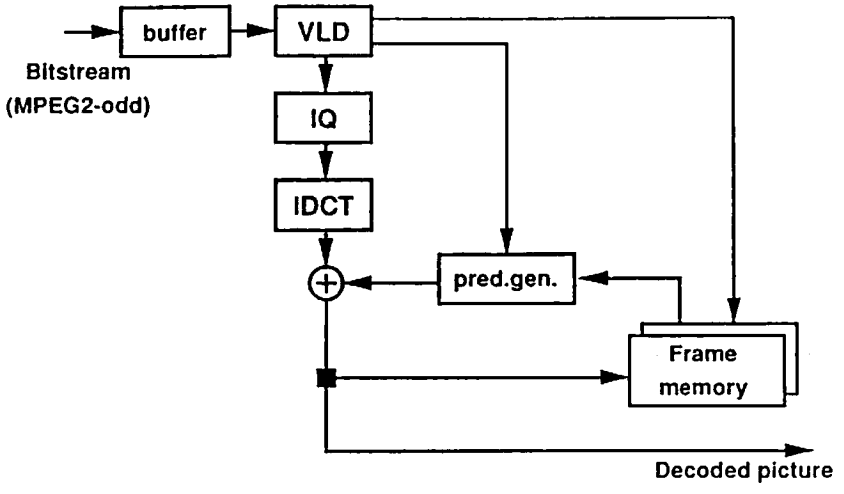

Figure12.7 Block diagram of MPEG2-odd Decoder

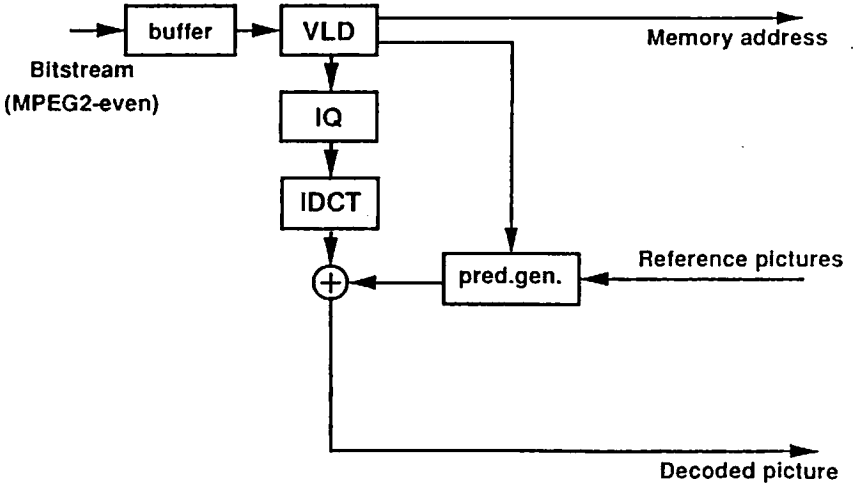

Figure12.8 Block diagram of MPEG2-even Decoder

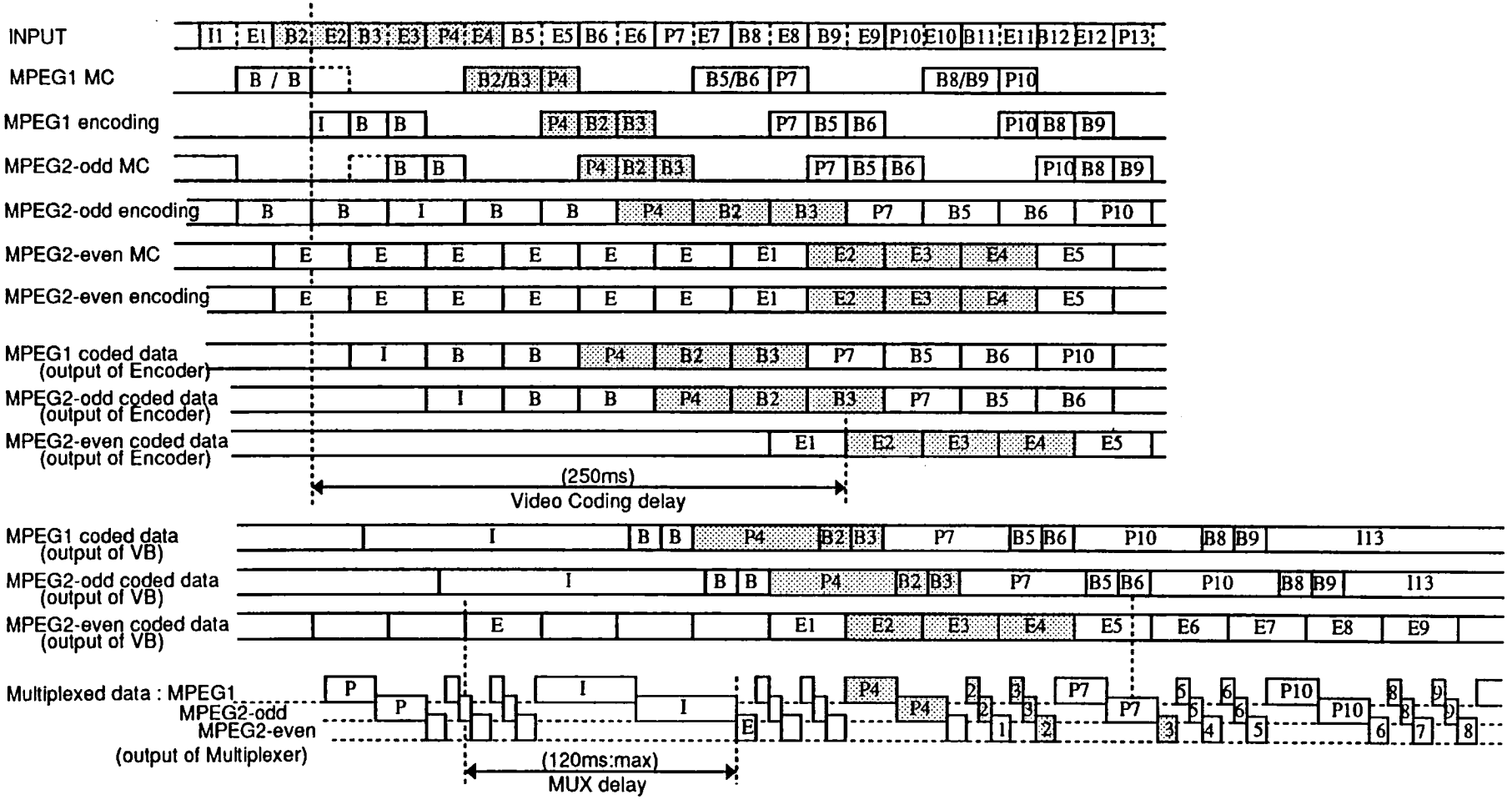

Figure 13.1 Delay of HLPC Encoding

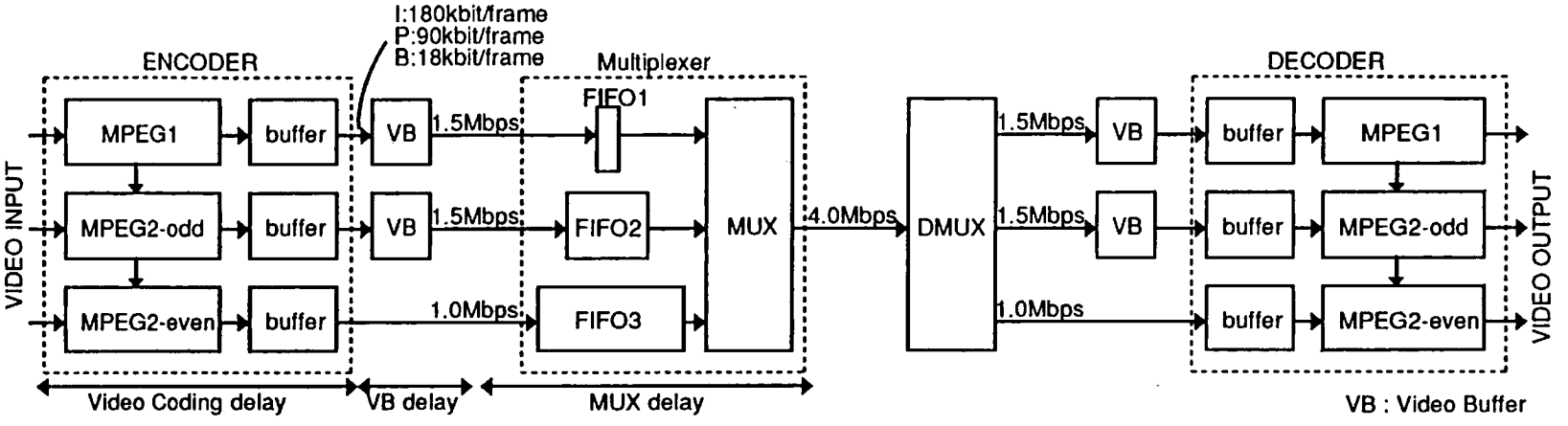

Figure 13.2 HLPC System Layer (4.0Mbps)

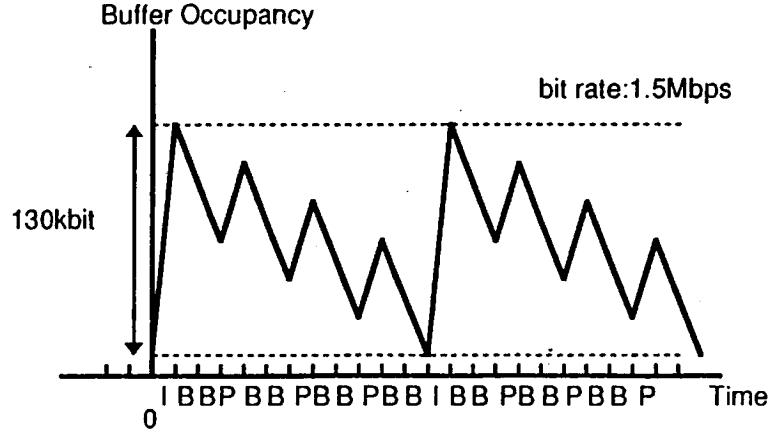

Figure 13.3 Video Buffer Occupancy of MPEG1/MPEG2-odd

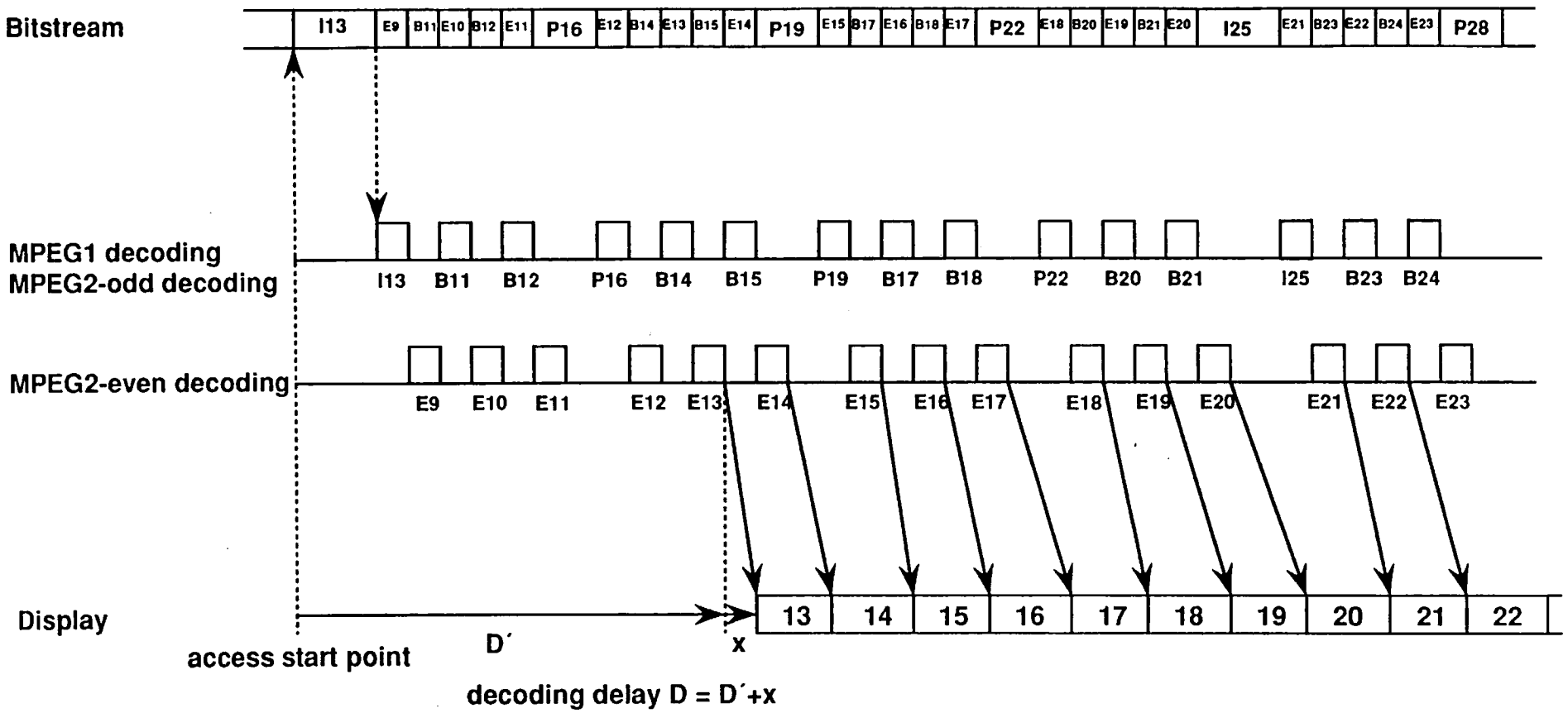

Figure 13.4 Delay of HLPC Decoding

Appendix

Cumulative bit count once every 0.4 second

Time		0.0 - 0.4	0.4 - 0.8	0.8 - 1.2	1.2 - 1.6	1.6 - 2.0	2.0 - 2.4	2.4 - 2.8	2.8 - 3.2
Number of bits	Flower Garden 4Mbps	1,687,328	1,586,448	1,596,752	1,599,624	1,594,496	1,584,232	1,599,344	1,598,184
	Flower Garden 9Mbps	3,668,120	3,573,416	3,595,792	3,592,664	3,590,928	3,585,072	3,590,528	3,591,768
	Popple 9Mbps	3,522,856	3,608,056	3,583,928	3,570,464	3,605,984	3,571,832	3,620,216	3,648,160
	Table Tennis 4Mbps	1,711,200	1,622,664	1,514,968	1,571,944	1,575,432	1,590,784	1,576,712	1,595,216
	Table Tennis 9Mbps	3,695,056	3,607,832	3,539,488	3,574,248	3,524,592	3,633,872	3,528,248	3,591,896
	Mobile & Calendar 4Mbps	1,713,856	1,571,096	1,597,048	1,605,896	1,610,320	1,602,088	1,591,680	1,602,232
	Mobile & Calendar 9Mbps	3,685,896	3,567,208	3,606,248	3,607,176	3,616,864	3,596,824	2,575,848	3,622,264

Time		3.2 - 3.6	3.6 - 4.0	4.0 - 4.4	4.4 - 4.8	4.8 - 5.0
Number of bits	Flower Garden 4Mbps	1,686,088	1,536,408	1,595,440	1,572,176	1,129,896
	Flower Garden 9Mbps	3,701,984	3,509,480	3,600,464	3,562,616	2,363,824
	Popple 9Mbps	3,605,480	3,616,464	3,614,016	3,582,136	2,322,096
	Table Tennis 4Mbps	1,631,832	1,585,512	1,636,032	1,609,928	1,076,224
	Table Tennis 9Mbps	3,628,552	3,577,688	3,612,240	3,598,040	2,376,552
	Mobile & Calendar 4Mbps	1,585,240	1,595,536	1,585,752	1,590,936	1,082,592
	Mobile & Calendar 9Mbps	3,572,656	3,582,736	3,586,864	3,595,712	2,337,200

several items of total amount of each sequence

ITEM		Flower Garden 4Mbps	Flower Garden 9Mbps	Popple 9Mbps
Number of bits for	Macro attributes	1,414,816	1,605,594	1,685,576
	End of block	792,570	1,248,120	1,627,472
	Motion Vectors	1,198,402	1,186,067	2,276,777
	coefficients total	16,960,628	41,486,875	39,881,863
	Total	20,366,416	45,526,656	45,471,688

ITEM		Table Tennis 4Mbps	Table Tennis 9Mbps	Mobile & Calendar 4Mbps	Mobile & Calendar 9Mbps
Number of bits for	Macro attributes	1,301,974	1,576,967	1,464,892	1,711,024
	End of block	675,730	1,130,656	737,790	1,145,120
	Motion Vectors	1,138,969	1,125,962	808,623	791,971
	coefficients total	17,181,775	41,598,327	17,322,967	41,905,381
	Total	20,298,448	45,431,912	20,334,272	45,553,496

List of bitstream

```
-rw-rw-rw-   1 usr   group      1913763 Nov  7 16:08 flower4m_odd
-rw-rw-rw-   1 usr   group       632039 Nov  7 16:06 flower4m_even
-rw-rw-rw-   1 usr   group      3813487 Nov  7 10:10 flower9m_odd
-rw-rw-rw-   1 usr   group      1877345 Nov  7 16:11 flower9m_even
-rw-rw-rw-   1 usr   group      1911850 Nov  7 17:03 mobile4m_odd
-rw-rw-rw-   1 usr   group       629934 Nov  7 16:27 mobile4m_even
-rw-rw-rw-   1 usr   group      3818889 Nov  7 10:18 mobile9m_odd
-rw-rw-rw-   1 usr   group      1875298 Nov  7 16:31 mobile9m_even
-rw-rw-rw-   1 usr   group      3806973 Nov  7 15:32 popple9m_odd
-rw-rw-rw-   1 usr   group      1876988 Nov  7 15:39 popple9m_even
-rw-rw-rw-   1 usr   group      1909530 Nov  7 10:23 tennis4m_odd
-rw-rw-rw-   1 usr   group       627776 Nov  7 16:18 tennis4m_even
-rw-rw-rw-   1 usr   group      3808040 Nov  7 10:34 tennis9m_odd
-rw-rw-rw-   1 usr   group      1870949 Nov  7 16:23 tennis9m_even
```

-number of bits and SNR for each frame

Flower Garden 4Mbps

Frame Number		1	2	3	4	5	6	7	8	9	10
Odd SNR for Y	[dB]	34.2164	31.8555	31.3348	33.2913	31.0936	30.9249	31.9297	31.3124	30.7552	31.9627
Cb		35.2543	34.9259	34.4664	34.4614	33.8651	33.6619	33.0821	33.5909	33.3677	33.3672
Cr		36.4501	35.7582	35.5811	35.5170	35.0254	34.7435	34.3745	34.3059	34.1735	34.0723
Mean value of step size		12.9334	22.2666	24.6666	15.0666	25.0666	26.1334	18.4000	22.9334	24.8000	17.6000
Even SNR for Y	[dB]	30.4371	29.1203	29.1441	29.3117	29.1319	28.7388	28.2257	28.1916	28.2900	28.4551
Cb		32.7290	32.1590	32.2610	32.3317	32.1385	32.0457	31.7417	31.4497	31.3265	31.3868
Cr		34.8993	34.2424	34.3160	34.2085	33.9401	33.9554	33.7159	33.4692	33.3516	33.2655
Mean value of step size		22.2666	35.7334	32.0000	30.0000	29.7334	31.7334	35.0666	33.7334	33.0666	32.5334
Total SNR for Y	[dB]	32.0256	30.3777	30.2053	30.9605	30.1058	29.7990	29.7974	29.5816	29.4542	29.9670
Cb		31.3702	31.1520	31.0895	31.1352	30.9747	30.8764	30.6457	30.6553	30.5798	30.6128
Cr		33.6715	33.2583	33.2406	33.1828	32.9525	32.8107	32.5762	32.4641	32.4117	32.3257
Number of bits		455736	68624	66616	211280	75384	80608	209120	73824	70984	204024

Frame Number		11	12	13	14	15	16	17	18	19	20
Odd SNR for Y	[dB]	30.5532	30.2407	33.3324	30.5507	30.5465	31.5405	29.3558	29.1009	31.1191	29.9623
Cb		33.1025	34.5074	34.6368	34.0225	33.7027	33.4159	32.7676	32.8372	32.2020	32.4876
Cr		34.0288	35.3850	35.6780	35.0468	34.6464	34.4771	34.0741	33.9479	33.4924	33.3766
Mean value of step size		23.4666	26.6666	15.2000	23.6000	25.6000	18.9336	26.8000	29.6000	19.4666	24.8000
Even SNR for Y	[dB]	28.0514	28.1510	27.9245	27.3166	27.7205	27.8705	27.6733	27.6721	27.2634	26.8686
Cb		31.3072	31.9093	32.9350	33.1082	32.4096	32.1782	31.7147	31.8513	32.1513	31.8289
Cr		33.2485	34.1859	34.8375	34.7214	34.3026	34.0331	33.7338	33.8993	33.8049	33.3881
Mean value of step size		33.4666	36.9334	41.7334	44.0000	39.4666	36.0000	35.7334	37.8666	41.8666	43.0666
Total SNR for Y	[dB]	29.2283	29.1753	29.9381	28.7422	29.0114	29.4321	28.5374	28.4318	28.8792	28.2486
Cb		30.5315	31.0059	31.3889	31.3511	31.0851	30.9240	30.6488	30.7181	30.6212	30.5883
Cr		32.2831	32.9562	33.2074	33.0265	32.7901	32.6464	32.4710	32.5252	32.3554	32.1587
Number of bits		87296	83832	398608	71352	59056	199128	82544	82592	220184	66224

Frame Number		21	22	23	24	25	26	27	28	29	30
Odd SNR for Y	[dB]	29.6139	30.4751	31.1368	31.0077	33.0890	30.3741	30.5178	33.0277	31.4275	30.9384
Cb		32.1380	31.7522	34.0863	34.1442	34.4826	34.1105	34.0683	34.1181	33.9937	33.6789
Cr		33.1253	32.8309	34.7100	35.0806	35.4506	34.9983	34.9268	35.0773	34.8237	34.4833
Mean value of step size		25.7334	21.6000	20.9334	22.4000	15.8666	23.0666	26.6666	15.2000	22.2666	22.1334
Even SNR for Y	[dB]	27.0863	27.3332	27.4890	27.7515	27.8421	27.4058	28.0044	28.1780	27.7381	27.7703
Cb		31.4864	31.3765	31.3762	31.5783	31.9705	31.4479	31.8331	31.8452	31.7197	31.5443
Cr		33.1634	33.1296	33.1283	33.4424	34.0757	33.5380	33.7853	33.8072	33.7301	33.4644
Mean value of step size		39.7334	37.2000	36.4000	36.6666	38.1334	20.5333	36.6666	34.6666	35.7334	36.5334
Total SNR for Y	[dB]	28.2722	28.7291	29.0440	29.1847	29.8194	28.7444	29.1861	30.0611	29.3056	29.1755
Cb		30.3807	30.2344	30.8034	30.9273	31.2048	30.9315	31.0726	31.1214	31.0426	30.9006
Cr		31.9889	31.8745	32.4396	32.6830	32.9851	32.6513	32.7803	32.8785	32.8196	32.5869
Number of bits		62264	199736	71624	73136	399968	75248	56904	208304	75432	66424

Frame Number		31	32	33	34	35	36	37	38	39	40
Odd SNR for Y	[dB]	32.0441	31.1215	30.7883	32.1326	30.7089	31.1305	33.0415	32.1891	31.6848	32.2413
Cb		33.2929	33.3711	33.3627	33.0629	34.6119	34.1612	34.3856	34.5164	34.0549	33.4609
Cr		34.1765	34.1718	34.1004	33.8974	35.3839	35.1226	35.4380	35.3716	35.0340	34.6629
Mean value of step size		17.3334	21.8666	23.3334	16.2666	22.6666	24.1334	15.7334	19.6000	19.2000	16.0000
Even SNR for Y	[dB]	28.2374	28.1316	28.0908	28.1866	27.5722	27.7127	27.8260	27.4727	27.5058	27.5742
Cb		31.4877	31.3304	31.1838	31.9871	32.3466	32.2271	32.0934	31.7296	31.3761	31.6527
Cr		33.2547	33.0759	32.9803	33.8671	34.1759	34.1339	34.3151	34.0163	33.6971	33.7848
Mean value of step size		33.7334	32.9334	33.0666	34.5334	39.2000	39.7334	38.9334	42.4000	37.4666	37.2000
Total SNR for Y	[dB]	29.8399	29.4783	29.3376	29.8289	28.9865	29.1972	29.7962	29.3229	29.2139	29.4115
Cb		30.8309	30.7904	30.7389	30.8907	31.3475	31.2202	31.2124	31.1129	30.8606	30.7734
Cr		32.4402	32.4084	32.3203	32.5511	33.0767	32.9477	33.0754	32.9724	32.7163	32.6413
Number of bits		205928	72720	70976	223904	86568	54376	405080	53048	70656	211632

Frame Number		41	42	43	44	45	46	47	48	49	50
Odd SNR for Y	[dB]	31.0462	30.6973	31.3235	29.7427	29.3192	30.8340	31.2440	31.7019	32.1644	30.8478
Cb		33.6466	33.2079	32.3327	32.2204	32.1085	31.5880	34.0869	34.0429	33.5154	33.3083
Cr		34.6213	34.3139	33.7672	33.5397	33.4422	32.9459	34.8664	34.9674	34.6815	34.4573
Mean value of step size		22.8000	21.4666	17.8666	25.3334	27.6000	18.6666	21.6000	20.5334	17.4666	22.4000
Even SNR for Y	[dB]	27.4330	27.2550	27.0987	27.0937	26.7027	26.6535	26.8092	27.1044	27.4052	26.7913
Cb		31.7213	31.3940	31.0489	31.2920	31.0955	30.9742	30.8645	30.8189	32.1612	32.7349
Cr		33.7210	33.5063	33.2223	33.2682	33.1683	33.1107	32.9868	33.0093	34.0508	34.2643
Mean value of step size		37.8666	39.0666	38.0000	38.9334	42.5334	43.0666	41.2000	39.3334	40.2666	45.4666
Total SNR for Y	[dB]	28.9774	28.7468	28.8187	28.3224	27.9194	28.3611	28.5861	28.9238	29.2652	28.4645
Cb		30.8430	30.6154	30.2332	30.2426	30.1355	29.9221	30.4534	30.4478	30.7842	30.9179
Cr		32.6384	32.4467	32.1571	32.0924	31.9863	31.7361	32.2031	32.2608	32.5331	32.5431
Number of bits		69984	68728	219528	83784	73920	217408	60528	65328	399904	70240

Frame Number		51	52	53	54	55	56	57	58	59	60
Odd SNR for Y	[dB]	30.2681	31.3636	29.6698	28.1283	31.4954	29.9102	30.0261	30.4086	31.1757	31.8487
Cb		32.5568	32.4680	32.5374	32.3054	32.5271	32.3300	32.5060	31.8603	34.0812	34.1516
Cr		33.9461	33.8158	33.8714	33.7438	33.9244	33.6500	33.6230	33.2255	34.8678	35.0271
Mean value of step size		24.0000	16.8000	25.0666	33.3334	18.0000	24.6666	25.0666	23.5334	25.5334	20.4000
Even SNR for Y	[dB]	26.7874	27.2814	27.8415	27.0134	26.6236	26.7951	26.8708	26.5993	26.7829	26.9923
Cb		32.2012	31.7865	31.8901	31.3288	31.1893	31.0209	31.0550	31.1157	31.0494	30.9971
Cr		34.0454	33.8527	33.9341	33.6218	33.5044	33.1906	33.1694	33.2815	33.2439	33.3162
Mean value of step size		42.9334	37.7334	36.8000	41.6000	44.8000	41.0666	40.1334	42.5334	42.0000	40.0000
Total SNR for Y	[dB]	28.2906	28.9619	28.7637	27.6380	28.5114	28.1819	28.2709	28.2016	28.5486	28.8769
Cb		30.5897	30.4187	30.4559	30.1820	30.1637	30.0456	30.1077	29.9753	30.4734	30.4796
Cr		32.3069	32.2105	32.3325	32.1925	32.2026	31.9607	31.9935	31.9222	32.3264	32.4334
Number of bits		65848	214440	96280	90360	198360	66432	75480	190384	58856	68112

Frame Number		61	62	63	64	65	66	67	68	69	70
Odd SNR for Y	[dB]	32.4377	30.0568	29.6565	31.2126	30.7784	30.3613	30.6728	31.3692	31.1378	31.6012
Cb		33.6567	33.4650	32.8749	32.1550	32.7728	32.2128	31.5046	32.9962	32.7864	32.4148
Cr		34.8405	34.5377	34.1548	33.6612	33.7502	33.4305	32.9340	33.6071	33.5689	33.2827
Mean value of step size		16.4000	25.4666	26.5334	17.6000	23.3334	22.5334	19.7334	20.2666	20.1334	16.6666
Even SNR for Y	[dB]	27.1455	26.5367	26.5412	26.5398	26.6052	26.4935	26.6170	26.8849	27.1143	27.2224
Cb		31.6616	32.1851	32.2569	31.9678	31.5883	31.1172	30.8650	30.7440	30.6526	30.8288
Cr		33.8299	34.0165	34.1665	33.9693	33.6880	33.3056	33.0398	32.8532	32.7707	32.8920
Mean value of step size		41.8666	46.6666	45.0666	44.8000	42.4000	42.6666	41.2000	37.6000	35.6000	36.0000
Total SNR for Y	[dB]	29.1328	28.0518	27.9277	28.3778	28.3112	28.1128	28.2901	28.6750	28.7787	28.9843
Cb		30.6521	30.7712	30.6491	30.3811	30.4335	30.1182	29.8298	30.1404	30.0525	30.0121
Cr		32.5410	32.5000	32.4051	32.1874	32.1384	31.8747	31.6101	31.7357	31.7250	31.6869
Number of bits		409344	69256	72368	216182	66760	70656	202192	63256	69768	216880

Frame Number		71	72	73	74	75	76	77	78	79	80
Odd SNR for Y	[dB]	31.8778	31.4158	31.9440	30.5356	30.7443	31.0140	30.9773	31.3094	31.2226	31.1579
Cb		34.4226	33.8068	33.3111	33.4264	33.3827	32.4352	33.2018	33.0502	32.2070	32.9819
Cr		35.0707	34.6720	34.4816	34.4835	34.4285	33.9319	34.0212	33.9525	33.4183	33.6904
Mean value of step size		22.6666	19.4666	16.5334	22.0000	21.3334	17.4666	21.9334	20.0000	17.3334	20.6666
Even SNR for Y	[dB]	26.8893	26.8164	27.0423	26.7084	26.7870	26.6255	26.8150	27.0866	26.9675	26.8011
Cb		30.7568	30.6931	31.3960	31.4111	31.6363	31.9684	31.4974	31.2345	31.0477	30.8635
Cr		32.7828	32.7721	33.5066	33.5580	33.6875	33.8236	33.6099	33.4702	33.2909	33.0849
Mean value of step size		38.6000	39.2000	40.0000	44.4000	39.0666	40.4000	40.6666	36.8000	37.3334	38.5334
Total SNR for Y	[dB]	28.8061	28.6362	28.9375	28.3160	28.4323	28.3895	28.5184	28.8065	28.6958	28.5573
Cb		30.3626	30.2002	30.3239	30.4108	30.4363	30.3750	30.4157	30.3033	30.0405	30.1726
Cr		32.0705	31.9458	32.1020	32.1848	32.2294	32.1700	32.1001	32.0691	31.8299	31.8510
Number of bits		59472	68112	423984	51224	72032	224448	53864	68352	225080	64192

Frame Number		81	82	83	84	85	86	87	88	89	90
Odd SNR for Y	[dB]	30.9856	31.8062	30.8676	31.5354	32.2066	31.7423	31.7191	31.6854	31.9671	31.7926
Cb		32.9032	32.5192	33.1218	34.2810	33.4639	33.7491	33.5966	32.6799	33.4607	33.3247
Cr		33.6510	33.4478	33.8816	34.9840	34.5872	34.5543	34.3833	33.8938	34.0745	33.9830
Mean value of step size		20.5334	16.1334	23.4666	21.3334	16.5334	21.4666	19.7334	16.4000	20.1334	19.0666
Even SNR for Y	[dB]	27.1033	27.4617	27.2706	27.2873	27.1529	27.0103	26.9811	26.9688	27.1934	27.0543
Cb		30.7214	30.6543	30.4978	30.5552	31.4791	31.6147	31.5548	31.2831	30.8964	30.6379
Cr		32.9175	32.7861	32.5639	32.6916	33.6008	33.5010	33.4877	33.2634	32.8790	32.7112
Mean value of step size		36.9334	34.6666	34.2666	35.3334	40.1334	44.5334	39.2000	38.4000	36.1334	35.7334
Total SNR for Y	[dB]	28.7274	29.2148	28.8100	29.0144	29.0848	28.8640	28.8363	28.8182	29.0578	28.9095
Cb		30.1352	30.0325	30.0755	30.3023	30.5242	30.6737	30.5821	30.2679	30.3155	30.1655
Cr		31.8182	31.6886	31.7374	32.0120	32.2450	32.2198	32.1472	31.9376	31.8883	31.7826
Number of bits		68544	211912	63456	72256	423152	49016	71672	214520	61680	71984

Frame Number		91	92	93	94	95	96	97	98	99	100
Odd SNR for Y	[dB]	32.0702	31.4175	30.9673	31.2550	31.6340	31.4898	32.2648	29.4881	28.6764	31.0462
Cb		32.6901	33.0507	32.7049	32.0080	34.1278	33.9437	33.4337	33.3906	32.6222	31.9535
Cr		33.6118	33.6839	33.3856	33.0768	34.8942	34.7439	34.5693	34.3346	33.6725	33.1542
Mean value of step size		15.4666	22.0000	20.2666	17.0666	22.9334	19.7334	16.4000	27.8666	31.6000	18.2666
Even SNR for Y	[dB]	27.1702	26.8242	26.7433	26.8368	26.7929	27.1314	27.2410	26.4440	26.3383	26.0544
Cb		30.6700	30.5749	30.3486	30.2998	30.2684	30.3266	31.8567	32.0387	31.7984	31.5776
Cr		32.5456	32.4517	32.2597	32.3557	32.4225	32.4262	33.7452	33.8924	33.8212	33.5311
Mean value of step size		35.4663	37.2000	38.2666	37.2000	37.2000	35.8666	38.5334	45.7334	45.7334	46.9334
Total SNR for Y	[dB]	29.0654	28.6427	28.4636	28.6090	28.6739	28.8882	29.1659	27.8073	27.4545	27.9713
Cb		30.0213	30.0517	29.8628	29.6827	30.1196	30.1155	30.4844	30.6289	30.3598	30.0967
Cr		31.6098	31.6227	31.4309	31.3851	31.9209	31.8860	32.3174	32.3715	32.1020	31.8154
Number of bits		219056	67608	68656	222448	56128	72064	425552	78416	75032	222120

Frame Number		101	102	103	104	105	106	107	108	109	110
Odd SNR for Y	[dB]	28.5405	28.2275	30.2232	28.2287	27.6554	29.4775	28.1464	27.9101	31.3649	29.5721
Cb		31.7973	31.7431	31.1936	31.2485	31.1289	30.6220	32.7382	32.4184	32.8705	32.9614
Cr		32.9909	32.8802	32.4275	32.3063	32.0870	31.6728	33.5658	33.5411	33.8407	33.6764
Mean value of step size		29.3334	33.0666	21.8666	29.7334	34.4000	23.6000	30.6666	35.7334	20.1334	25.8666
Even SNR for Y	[dB]	25.9670	25.9241	25.7491	25.4490	25.5668	25.9575	25.5482	25.6646	25.8756	25.7656
Cb		31.2900	30.9055	30.4832	30.2386	30.1984	30.6236	30.7129	30.5575	31.1447	31.5891
Cr		33.1908	32.9025	32.5480	32.2209	32.1162	32.5877	32.5499	32.5477	33.1685	33.3221
Mean value of step size		45.8666	47.3334	48.4000	49.0666	47.7334	48.6666	50.5334	49.4666	50.9334	51.8666
Total SNR for Y	[dB]	27.1682	27.0273	27.5358	26.7222	26.5883	27.4726	26.7579	26.7455	27.9071	27.3667
Cb		29.9800	29.8697	29.5510	29.4421	29.3671	29.3309	29.9217	29.8043	30.0970	30.2612
Cr		31.6703	31.5422	31.2771	31.0586	30.9187	30.9271	31.4928	31.4756	31.7589	31.7689
Number of bits		85328	74352	208064	79176	75208	206280	89280	67280	382920	68152

Frame Number		111	112	113	114	115	116	117	118	119	120
Odd SNR for Y	[dB]	29.0628	29.8703	28.4742	28.1662	29.9279	28.8088	28.5043	29.8755	30.6227	31.1154
Cb		32.3777	31.5303	31.4540	31.4221	30.9847	31.3614	31.1726	30.8059	33.3644	33.3863
Cr		33.2858	32.7186	32.6118	32.4979	32.1375	32.2033	32.0928	31.8018	33.9668	34.1232
Mean value of step size		28.0000	23.0666	28.5334	30.8000	21.3334	27.4666	28.9334	21.7334	23.8666	20.0000
Even SNR for Y	[dB]	25.7598	25.5986	26.0244	25.6588	25.6743	25.8710	25.5908	25.5533	25.6914	26.0631
Cb		31.7319	31.3814	31.2786	30.7986	30.5958	30.5883	30.3884	30.2303	30.1739	30.1809
Cr		33.4088	33.1803	33.0208	32.7560	32.5416	32.3917	32.1927	32.2185	32.1986	32.3156
Mean value of step size		49.6000	48.6663	46.2666	48.9334	48.4000	45.0666	47.3334	47.2000	45.0666	42.6666
Total SNR for Y	[dB]	27.2069	27.3313	27.1813	26.8363	27.4019	27.1984	26.9098	27.2994	27.5940	27.9949
Cb		30.1605	29.8133	29.7640	29.6248	29.4226	29.5171	29.3960	29.2418	29.8145	29.8504
Cr		31.6850	31.4381	31.3549	31.2512	31.0846	31.0513	30.9580	30.8871	31.4552	31.5707
Number of bits		70008	186800	80312	72352	202536	80336	70792	206368	52952	62880

Frame Number		121	122	123	124	125	126	127	128	129	130
Odd SNR for Y	[dB]	31.5296	30.2010	30.3517	30.8975	30.5435	30.7292	31.0293	29.2679	28.9980	30.2967
Cb		32.9466	33.0561	32.8588	31.8926	32.5729	32.5861	31.8977	32.0573	31.6655	31.1070
Cr		34.0499	34.0982	33.8806	33.3567	33.4350	33.3104	33.0338	32.8899	32.6737	32.3095
Mean value of step size		18.6000	24.1334	24.0000	18.0000	21.4666	21.0666	17.6000	26.6666	27.3334	19.0666
Even SNR for Y	[dB]	26.5215	26.3198	26.3963	26.1644	26.0719	26.4433	26.4957	26.3835	25.8683	25.8203
Cb		31.1265	31.2738	31.5112	31.3329	31.1333	30.7402	30.5925	30.6924	30.5457	30.3437
Cr		33.1467	33.2259	33.4997	33.4079	33.2744	32.9432	32.6437	32.6433	32.5299	32.4219
Mean value of step size		42.8000	46.8000	43.4666	45.2000	45.0666	42.1334	38.8000	40.0000	44.9334	44.4000
Total SNR for Y	[dB]	28.4426	27.9430	28.0409	28.0178	27.8582	28.1803	28.2982	27.6932	27.2593	27.6074
Cb		30.1316	30.2304	30.2697	29.9386	30.0440	29.9182	29.6759	29.7354	29.5778	29.3508
Cr		31.8610	31.9240	31.9805	31.7744	31.7382	31.5403	31.3386	31.2962	31.2089	31.0319
Number of bits		407136	55760	76896	223456	69936	57328	207496	86184	69392	222056

Frame Number		131	132	133	134	135	136	137	138	139	140
Odd SNR for Y	[dB]	30.6744	31.3775	31.1529	30.5462	31.0735	31.2077	31.1649	31.5219	31.7370	31.2181
Cb		33.6386	33.5116	32.7332	32.9151	32.8450	32.1178	32.8740	32.8664	32.3088	32.8024
Cr		34.2168	34.1883	33.8001	33.8403	33.7625	33.3345	33.6015	33.6691	33.3863	33.4686
Mean value of step size		24.8000	19.7334	18.6666	22.9334	20.5334	16.4000	18.9334	18.2666	15.0666	21.6000
Even SNR for Y	[dB]	25.8847	25.9639	26.1822	26.1074	26.0099	25.9294	26.2294	26.4098	26.5994	26.4334
Cb		30.1620	30.1043	30.7851	30.2879	29.8311	29.4571	29.6613	29.5915	29.4646	29.2420
Cr		32.2651	32.1824	32.7759	32.5673	32.3508	32.0517	32.0290	31.9134	31.7186	31.4889
Mean value of step size		24.4000	41.2000	43.7334	47.6000	43.2000	43.3334	40.5334	37.3334	36.1334	36.6666
Total SNR for Y	[dB]	27.7523	27.9788	28.0942	27.8852	27.9442	27.9135	28.1332	28.3559	28.5512	28.3002
Cb		29.8295	29.7560	29.8273	29.7433	29.5588	29.2355	29.4811	29.4471	29.2851	29.2862
Cr		31.4706	31.4260	31.5303	31.5155	31.4486	31.2134	31.2764	31.2684	31.0931	31.0438
Number of bits		52344	67456	414344	48484	68536	220224	61104	66936	212584	68832

Frame Number		141	142	143	144	145	146	147	148	149	150	151
Odd SNR for Y	[dB]	30.5413	31.7170	31.9016	32.0223	31.2380	30.0134	30.4735	30.2567	31.1068	28.4563	33.1137
Cb		32.5620	32.2539	34.0680	33.9117	32.6850	32.7172	32.5188	31.4067	33.4718	32.0699	34.2435
Cr		33.3900	33.1904	34.6118	34.5859	33.7494	33.7503	33.5233	32.9816	33.8128	33.1827	34.2845
Mean value of step size		20.2666	15.0663	23.4666	17.6000	17.7334	24.2666	22.5334	17.8663	17.3334	25.3334	6.7333
Even SNR for Y	[dB]	26.4825	26.7740	27.0266	27.0059	26.6026	26.0702	25.9704	25.6846	25.6965	25.6440	
Cb		29.2791	29.4527	29.6391	29.6201	30.5569	30.8639	31.1488	30.9216	30.6892	30.3068	
Cr		31.4053	31.4332	31.5811	31.4320	32.6065	32.7308	32.9186	32.8951	32.7312	32.4206	
Mean value of step size		38.6666	35.7334	34.9334	33.7334	39.0666	46.1334	42.6666	44.1334	42.1334	42.4000	
Total SNR for Y	[dB]	28.1567	28.6796	28.9161	28.9295	28.4313	27.7111	27.7648	27.4965	27.7106	26.9282	
Cb		29.2475	29.2648	29.6869	29.6168	29.7503	29.8432	29.8735	29.4933	29.8220	29.4239	
Cr		30.9977	30.9420	31.3607	31.2547	31.4286	31.4091	31.3965	31.2093	31.3661	31.0880	
Number of bits		65464	223280	49744	71280	434168	53688	73720	225944	80304	97408	164664

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Frame Number		1	2	3	4	5	6	7	8	9	10
Odd SNR for Y	[dB]	37.7155	34.9355	34.1479	38.1579	34.5012	33.9455	36.5525	34.9070	34.1296	36.6869
Cb		39.2563	37.8640	37.1989	38.1305	36.6709	36.6228	36.5795	36.8228	36.4489	37.0178
Cr		39.6232	38.4310	38.0166	38.7983	37.3561	37.1389	37.0542	37.0176	36.7187	37.0348
Mean value of step size		6.9334	12.4000	14.6666	7.0666	13.6000	15.2000	9.4666	12.4000	14.1334	8.9334
Even SNR for Y	[dB]	33.3831	32.9925	33.7819	34.5191	34.3939	33.6636	33.2105	33.4447	33.5679	34.0339
Cb		34.8534	35.0923	35.3828	35.7588	35.5759	34.8991	34.7503	34.6589	34.8200	35.1558
Cr		36.3008	35.9577	36.2261	36.3275	36.1781	35.8457	35.5001	35.3670	35.4152	35.5950
Mean value of step size		15.3334	17.3334	14.0000	12.2666	12.1334	13.8666	15.2000	13.8666	13.4666	12.6666
Total SNR for Y	[dB]	35.1277	33.9538	34.0587	36.0657	34.5448	33.8999	34.6653	34.2122	33.9373	35.2585
Cb		32.4241	32.3555	32.3128	32.5413	32.3351	32.1557	32.0930	32.0909	32.1001	32.2793
Cr		34.6674	34.3311	34.3299	34.4787	34.1596	33.9281	33.7547	33.6965	33.6764	33.7465
Number of bits		821600	115522	162488	476016	189440	186624	440504	186472	175112	441432

Frame Number		11	12	13	14	15	16	17	18	19	20
Odd SNR for Y	[dB]	34.4396	32.8215	37.2000	33.7316	33.5674	35.9987	32.6719	32.0423	35.8449	33.4743
Cb		36.1703	37.0170	39.1253	37.0239	36.4355	36.6462	35.1413	35.7049	35.8456	35.5565
Cr		36.5672	37.7010	39.2197	37.6984	37.0599	37.1297	36.0925	36.2000	36.0442	35.8488
Mean value of step size		12.2666	16.6666	7.4666	13.4666	15.6000	10.1334	15.4666	18.2666	10.1334	13.6000
Even SNR for Y	[dB]	33.3043	32.5192	32.2924	31.7653	32.8435	33.4086	32.9278	32.4196	31.9090	31.4249
Cb		34.6305	34.0060	35.1222	35.2940	35.1196	35.1630	34.6163	33.9864	34.0268	33.8751
Cr		35.2858	35.3071	36.6424	36.4143	36.0068	35.9166	35.4823	35.2863	35.3606	34.9197
Mean value of step size		14.0000	16.8000	18.9334	19.4666	15.0666	13.7334	14.4000	16.0000	18.6666	19.2000
Total SNR for Y	[dB]	33.9326	32.7653	34.1846	32.7357	33.2880	34.6110	32.8956	32.3244	33.5431	32.4274
Cb		32.0179	32.0032	32.5586	32.4101	32.2865	32.2880	31.9551	31.9151	31.9364	31.8450
Cr		33.5310	33.7798	34.3749	34.0863	33.8483	33.8255	33.5260	33.5435	33.5233	33.3060
Number of bits		226344	190536	803720	179904	156408	431120	198872	193880	465644	173360

Frame Number		21	22	23	24	25	26	27	28	29	30
Odd SNR for Y	[dB]	32.7633	35.2004	34.7572	33.9103	37.5892	33.4493	33.0097	37.4543	34.6942	33.8901
Cb		35.1465	35.3243	36.9557	37.0035	39.2091	37.1036	37.0049	37.9131	37.0998	36.4683
Cr		35.4742	35.5108	37.2834	37.6234	39.1191	37.8906	37.6220	38.1917	37.4846	36.8924
Mean value of step size		15.7334	11.2000	10.9334	13.7334	7.4666	13.7334	17.0666	8.13347	12.2666	13.7334
Even SNR for Y	[dB]	32.2930	32.9470	32.9560	33.0369	32.1879	32.0689	33.0544	33.6153	32.6233	33.0283
Cb		34.2657	34.4116	34.4909	34.6326	34.2360	34.5895	35.0178	35.1769	34.4252	34.6242
Cr		34.8405	34.9447	35.0075	35.0311	35.6864	35.2249	35.6647	35.8094	35.3415	35.1995
Mean value of step size		15.8666	14.4000	14.4000	14.6666	19.2000	17.8666	14.8000	13.8666	15.4666	14.5334
Total SNR for Y	[dB]	32.6194	34.0268	33.8615	33.5493	34.1956	32.8020	33.1296	35.2214	33.6340	33.5355
Cb		31.8528	31.9238	32.2115	32.2989	32.5186	32.3539	32.4716	32.6817	32.3679	32.3044
Cr		33.1710	33.2021	33.6109	33.7474	34.1833	33.7939	33.9543	34.1666	33.9419	33.7259
Number of bits		157360	433960	199440	179768	815248	184928	151688	448272	190920	168544

Frame Number		31	32	33	34	35	36	37	38	39	40
Odd SNR for Y	[dB]	36.5388	34.4982	33.7282	36.6988	34.0135	33.8462	37.2256	35.2956	34.6615	36.5979
Cb		36.6623	36.2927	36.1865	36.7154	37.3537	37.2854	39.0725	38.1318	37.2311	36.7888
Cr		36.9474	36.6229	36.5272	36.9505	37.8781	37.6114	38.7894	38.3914	37.6887	37.3725
Mean value of step size		9,2000	12.1334	14.5334	8.6666	12.2666	14.8000	7.7334	10.8000	11.7334	8.8000
Even SNR for Y	[dB]	33.7251	33.6412	33.4712	32.8424	31.7524	32.4548	32.2168	32.3254	32.7830	32.5469
Cb		35.0256	34.9759	34.7693	34.5279	34.2094	34.8985	34.4172	34.7627	34.6181	34.4262
Cr		35.3531	35.1759	35.0674	35.6607	35.4583	35.4829	35.8486	35.5644	35.4357	35.4012
Mean value of step size		13.3347	13.4666	13.4666	15.2000	18.5334	16.8000	17.3334	18.1334	14.6666	15.4666
Total SNR for Y	[dB]	35.0056	34.1462	33.6954	34.4535	32.8350	33.1927	34.1335	33.6590	33.7191	34.2139
Cb		32.4961	32.4203	32.3531	32.3151	32.3167	32.4806	32.5432	32.5315	32.3384	32.1593
Cr		33.7973	33.7158	33.6157	33.8631	33.9910	33.9091	34.2020	34.0679	33.8322	33.7583
Number of bits		443104	187184	171240	472464	219584	142616	817672	151720	178296	450600

Frame Number		41	42	43	44	45	46	47	48	49	50
Odd SNR for Y	[dB]	34.4133	33.7672	35.6305	33.0112	32.3114	35.2565	34.9301	34.7199	36.7860	34.1527
Cb		36.6963	35.9099	35.4819	34.9491	35.0239	34.9523	37.2767	37.3530	38.2394	36.8224
Cr		37.0523	36.5014	36.0599	35.5572	35.5322	35.2570	37.4926	37.5473	38.2060	37.3788
Mean value of step size		12.1334	13.2000	9.8666	14.0000	17.0666	10.2666	10.5334	12.2666	8.2666	12.4000
Even SNR for Y	[dB]	32.2546	32.2424	32.3375	31.8909	31.1819	31.1596	31.7537	32.3355	31.9760	30.9898
Cb		34.0309	34.1397	33.9863	33.3897	32.9581	33.0155	33.3997	33.7203	34.4917	35.0089
Cr		35.1639	34.9405	34.7587	34.5503	34.1967	34.0165	34.1741	34.4222	36.0232	36.4083
Mean value of step size		16.2666	16.6666	15.3334	16.2666	18.8000	18.9334	16.5334	15.6000	17.4666	21.3334
Total SNR for Y	[dB]	33.2988	33.0358	33.7767	32.5126	31.8077	32.8395	33.1553	33.4637	33.8442	32.3870
Cb		32.0528	31.9361	31.7555	31.4554	31.3290	31.2960	31.7251	31.8518	32.1325	32.0875
Cr		33.6638	33.4425	33.2416	33.0456	32.8776	32.6604	33.1048	33.2343	33.8045	33.7718
Number of bits		188296	168072	449968	211432	178968	442888	187976	167424	816672	176568

Frame Number	51	52	53	54	55	56	57	58	59	60
Odd SNR for Y [dB]	33.1647	35.7236	32.8975	30.8731	35.5214	33.2268	33.0945	34.8767	34.8814	34.7369
Cb	35.3128	35.6861	34.8599	34.5808	35.4990	34.8746	35.4189	34.9159	37.0230	37.1153
Cr	36.3477	36.3908	35.9302	35.5962	36.0846	35.5749	35.8039	35.5249	37.3722	37.4810
Mean value of step size	14.9334	9.4666	14.4000	20.9334	10.4000	13.7334	15.2000	12.0000	10.8000	12.2666
Even SNR for Y [dB]	31.6439	32.8681	32.3497	31.1379	30.9292	31.8155	31.6579	31.2188	31.8110	32.1502
Cb	34.5960	34.8175	34.1322	33.3933	33.5985	33.7338	33.4138	33.0484	33.6356	33.6558
Cr	35.9372	35.7591	35.7651	35.0848	34.9073	34.7396	34.6315	34.3748	34.4564	34.4399
Mean value of step size	17.7334	14.0000	15.6000	19.8666	20.6666	16.6666	16.8000	18.4000	17.3334	16.1334
Total SNR for Y [dB]	32.4357	34.1629	32.7125	31.1022	32.7423	32.5617	32.4146	32.7711	33.1779	33.3513
Cb	31.7715	31.8359	31.5597	31.2694	31.4510	31.3380	31.3707	31.2153	31.7041	31.7456
Cr	33.4169	33.3816	33.3770	33.1239	33.1727	32.9335	33.0103	32.8796	33.2067	33.2820
Number of bits	160536	453616	235472	200680	418984	176712	180008	419992	181832	169856

Frame Number	61	62	63	64	65	66	67	68	69	70
Odd SNR for Y [dB]	35.8973	33.0802	32.4696	35.7092	34.1990	33.7767	35.1998	35.1004	34.5512	36.2367
Cb	37.9826	36.5812	35.7025	35.3545	35.8609	35.1979	34.7627	36.3206	36.0205	35.9251
Cr	37.9051	37.0374	36.4562	36.0709	36.2589	35.7498	35.3070	36.4557	36.3311	36.2386
Mean value of step size	8.5334	14.5334	16.5534	9.6000	12.6666	13.0666	10.5334	10.9334	12.0000	8.8000
Even SNR for Y [dB]	31.6629	30.7341	30.9565	31.3369	31.4904	31.3689	31.9954	32.4501	32.7209	32.3737
Cb	33.8661	34.1894	33.8584	33.8099	33.3476	33.0699	33.7069	34.0644	34.1172	33.5468
Cr	35.2883	35.4952	35.5772	35.2306	34.7282	34.2682	34.3682	34.5002	34.6224	34.3599
Mean value of step size	18.2666	21.8666	19.6000	18.4000	17.3334	17.4666	15.8666	14.2666	13.7334	14.8000
Total SNR for Y [dB]	33.3809	31.8482	31.7451	33.0922	32.7345	32.5056	33.4062	33.6737	33.6379	33.9867
Cb	31.9346	31.8322	31.6039	31.5405	31.5119	31.2862	31.3413	31.6780	31.6431	31.4808
Cr	33.6021	33.4771	33.3435	33.1532	33.0652	32.7595	32.6534	32.9100	32.9577	32.8672
Number of bits	826888	175464	172560	450688	177136	178304	433248	174024	175152	461496

Frame Number	71	72	73	74	75	76	77	78	79	80
Odd SNR for Y [dB]	35.6520	34.4433	36.2783	33.6250	33.6290	35.4056	34.3964	34.5335	35.7470	34.7578
Cb	37.9082	36.9891	37.9167	36.7217	36.6616	35.5095	36.2666	36.0864	35.3190	36.2356
Cr	38.2182	37.4354	37.9478	37.2903	37.1244	36.4723	36.6036	36.4970	35.9187	36.4090
Mean value of step size	10.0000	11.8666	8.2666	12.5334	1.93347	968000	11.4666	12.1334	9.4666	11.2000
Even SNR for Y [dB]	31.8271	31.8599	31.2500	30.9837	31.6284	30.9493	31.6580	32.5060	31.9003	31.8108
Cb	33.1773	33.6695	33.6487	34.0954	33.9830	33.6532	34.0339	34.2284	33.6223	33.5962
Cr	33.9944	34.0689	35.1881	35.1790	35.2229	35.1166	35.0042	35.0023	34.6301	34.3977
Mean value of step size	16.4000	16.4000	18.4000	20.1334	16.2666	18.2666	16.9334	14.5334	15.8666	16.1334
Total SNR for Y [dB]	33.4290	33.0599	33.1714	32.2042	32.6121	32.7269	32.9125	33.5001	33.5086	33.1366
Cb	31.5978	31.5910	31.6630	31.7160	31.6446	31.4695	31.6639	31.7007	31.4264	31.5704
Cr	33.0242	32.9194	33.2629	33.2501	33.2532	33.1392	33.0909	33.1130	32.8516	32.8858
Number of bits	192288	167824	833216	140680	189392	465424	161784	172128	462480	177680

Frame Number	81	82	83	84	85	86	87	88	89	90
Odd SNR for Y [dB]	34.2835	36.3306	34.7183	34.4197	36.5349	35.0191	34.7377	36.2373	35.3138	35.1783
Cb	35.9590	36.1301	36.0881	37.4764	38.2532	37.4503	37.0657	36.1924	36.9366	36.6491
Cr	36.1351	36.2282	36.2855	37.6818	38.1537	37.6196	37.2627	36.7864	36.9888	36.8645
Mean value of step size	12.2666	8.6666	10.8000	12.5334	8.1334	11.6000	12.1334	8.9334	10.9334	11.0666
Even SNR for Y [dB]	32.5074	33.0280	32.7147	32.4132	31.3749	31.4030	32.0783	32.3006	32.7263	32.5495
Cb	34.0641	34.3014	34.0470	33.5734	33.7656	34.3154	34.1409	34.1843	34.2294	34.0170
Cr	34.4794	34.5743	34.4084	34.2288	35.2631	35.1170	35.1184	34.8975	34.6068	34.3721
Mean value of step size	14.6666	13.7334	14.0000	14.8000	18.8000	20.0000	15.7334	15.2000	14.1334	14.2666
Total SNR for Y [dB]	33.4029	34.4702	33.6995	33.3992	33.3274	32.9427	33.3052	33.9350	33.9277	33.7655
Cb	31.6791	31.7723	31.6724	31.7211	31.9262	32.0273	31.9011	31.7582	31.8694	31.7359
Cr	32.9036	32.9116	32.8673	33.0201	33.4217	33.3178	33.2278	33.0677	33.0522	32.9282
Number of bits	174568	449040	186944	180144	830144	140248	175520	452272	171448	176872

Frame Number	91	92	93	94	95	96	97	98	99	100
Odd SNR for Y [dB]	36.6868	34.9415	34.3615	35.9067	35.6307	34.3196	36.5879	32.6023	31.3679	35.4866
Cb	36.5240	36.4610	35.7294	35.3365	37.4626	36.9331	38.1156	36.4055	35.2644	35.1860
Cr	36.7486	36.5778	36.0599	35.8438	37.7413	37.3383	38.0890	36.8505	35.8595	35.6008
Mean value of step size	8.2666	11.3334	12.0000	9.0666	9.8666	12.2666	8.1334	15.8666	20.0000	10.1334
Even SNR for Y [dB]	32.6450	31.9140	32.1511	32.2178	32.1293	32.5449	31.5613	30.3668	30.4116	30.3950
Cb	33.9551	33.4055	33.6805	33.6471	33.6411	33.8271	33.9761	34.3041	33.7156	33.4368
Cr	34.3235	34.0685	34.0745	34.1643	34.1387	34.2441	35.4942	35.6045	35.3937	34.9759
Mean value of step size	14.1334	15.8666	15.3334	15.0666	15.0666	14.4000	18.0000	22.5334	21.0666	20.9334
Total SNR for Y [dB]	34.3094	33.2667	33.2148	33.7794	33.6339	33.4398	33.4823	31.4399	30.9631	32.3315
Cb	31.6569	31.4943	31.4239	31.3379	31.6574	31.6530	31.8358	31.7651	31.4226	31.3016
Cr	32.8662	32.7879	32.6340	32.6268	33.0263	33.0005	33.5401	33.4387	33.1015	32.8739
Number of bits	461048	181400	172816	458904	189920	181176	841112	186216	179000	457096

Frame Number	101	102	103	104	105	106	107	108	109	110
Odd SNR for Y [dB]	31.7985	31.2778	34.6630	31.6003	30.4709	34.1003	31.6975	30.4948	36.9555	32.9791
Cb	34.5621	34.5347	34.5117	34.0513	34.0181	33.8884	35.7028	35.4054	37.6310	36.4420
Cr	35.0760	34.8919	34.7233	34.3568	34.2046	34.1022	35.9812	35.9846	37.9975	36.8844
Mean value of step size	16.8000	20.0000	11.8666	17.0666	21.3334	12.6666	16.4000	22.4000	8.6666	14.6666
Even SNR for Y [dB]	30.4334	30.3932	30.0804	29.8152	30.0460	30.3352	29.7179	29.8249	30.2918	30.0466
Cb	32.8417	32.6172	32.2639	32.2311	32.0535	32.7312	32.8894	32.8067	33.4854	33.9530
Cr	34.4383	34.0459	33.6478	33.2746	33.1235	34.1648	34.0114	34.0049	35.1306	35.3426
Mean value of step size	20.4000	20.9334	22.0000	21.7334	20.6666	21.8666	23.2000	22.1334	22.6666	22.9334
Total SNR for Y [dB]	31.1609	30.9130	31.8910	30.7176	30.3556	31.9195	30.6966	30.2498	32.5518	31.3675
Cb	31.0430	30.9926	30.8454	30.6968	30.5973	30.7444	31.1048	31.0606	31.5377	31.5234
Cr	32.6121	32.4535	32.2773	31.9841	31.8558	32.1274	32.4846	32.4816	33.1528	33.0491
Number of bits	206368	181584	469000	195256	180552	441440	228656	165704	783448	170056

Frame Number	111	112	113	114	115	116	117	118	119	120
Odd SNR for Y [dB]	32.1029	34.4647	31.9176	31.1128	34.4587	32.2589	31.5746	34.5944	34.3593	34.2096
Cb	35.4026	34.6809	33.9888	34.1192	34.1432	34.1617	34.0582	34.1667	36.6174	36.6147
Cr	35.8302	35.1111	34.5515	34.5041	34.4387	34.4494	34.4038	34.3973	36.7117	36.8189
Mean value of step size	17.2000	12.5334	16.0000	18.9334	11.6000	15.4666	17.7334	11.6000	11.0666	12.0000
Even SNR for Y [dB]	30.3539	30.3267	30.5181	29.8139	30.2377	30.4558	30.0375	30.0448	30.5841	31.1105
Cb	33.7081	33.5048	32.8766	32.4831	33.0654	32.5072	32.1918	32.2562	32.4355	32.8940
Cr	35.2775	34.7696	34.2864	34.0383	33.8596	33.6140	33.3454	33.2876	33.2872	33.4658
Mean value of step size	20.5334	20.2666	19.4666	22.6666	20.9334	19.0666	20.6666	20.4000	48.4000	17.0666
Total SNR for Y [dB]	31.2388	32.0181	31.2594	30.5167	31.9520	31.3621	30.8386	31.8469	32.1714	32.4869
Cb	31.3020	31.0951	30.7976	30.7226	30.8598	30.7120	30.5958	30.6343	31.0391	31.2134
Cr	32.8364	32.5354	32.2680	32.1951	32.1488	32.0668	31.9805	31.9844	32.3791	32.5065
Number of bits	179872	407048	211344	181040	419864	205680	175744	434792	174960	165632

Frame Number	121	122	123	124	125	126	127	128	129	130
Odd SNR for Y [dB]	36.1177	33.5031	33.3045	35.2735	33.9708	34.0967	35.5507	32.5072	31.9780	34.9122
Cb	37.7667	36.5663	36.2488	35.2503	35.6417	35.6793	35.3140	34.9580	34.5613	34.5022
Cr	37.7243	37.1346	36.6176	35.8206	35.9605	35.8915	35.7046	35.2233	34.9041	34.6773
Mean value of step size	9.2000	13.2000	14.5334	10.0000	12.0000	12.4000	9.6000	15.2000	16.6666	10.4000
Even SNR for Y [dB]	31.0563	30.7847	30.9348	30.6532	30.5908	31.6083	31.8220	31.0204	30.1460	30.2617
Cb	33.5321	33.9743	33.7294	33.4128	33.1463	33.6551	33.4686	32.6365	32.3169	32.5039
Cr	34.9724	35.0112	35.2044	34.9469	34.6012	34.4342	34.2478	33.8624	33.4669	33.3590
Mean value of step size	18.8000	21.0666	18.5334	19.6000	19.3334	16.2666	15.6000	17.6000	20.8000	19.8666
Total SNR for Y [dB]	32.9855	32.0322	32.0576	32.4735	32.0575	32.7743	33.3955	31.7981	31.0651	32.0897
Cb	31.5741	31.5849	31.5006	31.2214	31.2098	31.3237	31.1778	30.8884	30.7269	30.7376
Cr	33.1424	33.0954	33.0970	32.8302	32.7356	32.6018	32.4774	32.2619	32.0953	31.9713
Number of bits	826192	150696	186744	461776	178176	162856	443816	213888	171704	449560

Frame Number	131	132	133	134	135	136	137	138	139	140
Odd SNR for Y [dB]	34.4949	34.6525	35.6813	33.7615	34.2178	35.7047	34.3918	34.6874	35.9489	34.4705
Cb	36.8259	36.6317	37.3342	36.4435	36.5054	35.6490	35.9834	36.1666	35.8496	36.0108
Cr	36.9533	36.8342	37.2904	36.9079	36.7536	36.1373	36.2367	36.4206	36.0347	36.1069
Mean value of step size	10.8000	11.3334	9.2000	12.8000	12.1337	9.3334	10.9334	10.9334	8.8000	11.4666
Even SNR for Y [dB]	30.8568	31.0837	30.4209	30.4115	30.6348	30.7886	31.2369	31.6157	31.8592	31.4059
Cb	32.7250	32.6882	32.9715	33.0952	32.4338	32.6153	32.9432	33.0896	33.1344	32.6447
Cr	33.3017	33.3603	34.5360	34.1169	33.7122	33.4634	33.5436	33.5846	33.6417	33.3376
Mean value of step size	17.2000	16.8000	20.2666	22.0000	18.5334	18.1334	16.6666	15.3334	14.8000	16.0000
Total SNR for Y [dB]	32.4032	32.6090	32.3966	31.8688	32.1644	32.6829	32.6316	32.9831	33.5370	32.7709
Cb	31.1068	31.0401	31.2038	31.1965	31.0105	30.8876	31.0322	31.1004	31.0527	30.9435
Cr	32.3340	32.3330	32.7399	32.6139	32.5079	32.3025	32.3510	32.4165	32.3196	32.2520
Number of bits	180480	174576	823080	134432	178688	463560	167232	172280	454808	187656

Frame Number	141	142	143	144	145	146	147	148	149	150	151
Odd SNR for Y [dB]	33.4730	36.0012	35.6481	35.0556	36.0332	33.3573	33.5464	34.6608	34.1442	31.0467	38.0784
Cb	35.4566	35.6144	37.4874	37.0321	37.3508	36.1077	35.8437	34.5496	36.3304	34.0904	38.5350
Cr	35.7470	35.7271	37.7015	37.3712	37.4019	36.8111	36.2619	35.3661	36.7428	35.2796	38.1959
Mean value of step size	16.5334	14.6666	14.6666	13.8666	19.2000	22.1334	19.3334	19.4666	18.1334	17.8666	8.2666
Even SNR for Y [dB]	31.5282	32.1254	32.2692	32.3018	30.6149	30.1565	30.2809	30.2376	30.4786	30.5214	
Cb	33.1166	33.4163	33.5247	33.4859	32.8345	33.3357	33.2313	33.0831	32.8637	32.5699	
Cr	33.4504	33.6877	33.8217	33.7530	34.4388	34.4790	34.6930	34.4503	34.1649	33.6655	
Mean value of step size	12.8000	8.8000	9.6000	10.6666	8.5334	13.2000	13.6000	10.2666	10.4000	17.0666	
Total SNR for Y [dB]	32.4902	33.7422	33.7356	33.5616	32.6264	31.5661	31.7113	32.0964	32.0332	30.8760	
Cb	31.0009	31.0925	31.3837	31.2858	31.1305	31.0856	31.0057	30.7159	30.8683	30.4757	
Cr	32.2384	32.2886	32.6932	32.5708	32.7241	32.5608	32.5114	32.2332	32.3884	31.9812	
Number of bits	161112	467256	172672	179840	841128	150224	178864	463400	207920	214288	308000

Popple 9Mbps

Frame Number	1	2	3	4	5	6	7	8	9	10
Odd SNR for Y [dB]	36.9352	34.9696	34.6981	37.9882	35.1842	34.7972	37.9579	35.2229	34.8641	38.1902
Cb	41.6725	39.1788	38.6889	40.9144	39.3015	38.4614	41.1076	39.0818	38.4754	40.9582
Cr	41.7254	39.4525	39.0016	40.7546	39.3834	38.9523	40.9518	39.4473	38.7889	40.9629
Mean value of step size	6.0000	12.8000	14.1334	7.4666	12.2666	13.8666	6.6666	12.0000	13.2000	6.5334
Even SNR for Y [dB]	35.1198	34.5474	35.3728	35.4149	35.3883	35.4275	35.4288	35.4156	35.4733	35.3811
Cb	38.0620	37.1316	38.3848	38.3997	38.1891	38.1174	38.3639	38.1075	38.2941	38.0523
Cr	38.5545	37.6110	38.6991	38.6585	38.4448	38.5995	38.6446	38.3058	38.5392	38.3628
Mean value of step size	13.0666	14.5334	11.3334	11.2000	11.2000	11.2000	10.9334	10.9334	10.9334	11.0666
Total SNR for Y [dB]	36.0309	34.8509	35.1199	36.6113	35.3827	35.1985	36.6094	35.4158	35.2557	36.6600
Cb	36.0240	35.5736	35.6975	35.9548	35.7388	35.5039	35.8954	35.6228	35.4843	35.8003
Cr	37.5794	36.8300	37.0508	37.4377	37.0612	36.9488	37.3955	36.9755	36.8654	37.2663
Number of bits	827336	155512	173792	429320	199272	171560	435880	189288	174536	446840

Frame Number	11	12	13	14	15	16	17	18	19	20
Odd SNR for Y [dB]	34.0273	34.5983	36.9933	35.0095	34.6332	38.1611	35.2650	34.9398	38.0695	35.1917
Cb	37.4315	38.2444	41.4886	38.8912	38.3763	41.0971	39.1674	38.6004	41.2545	39.0978
Cr	37.9878	38.6347	41.5445	39.0775	38.8737	40.9952	39.3425	39.1176	41.1331	39.4350
Mean value of step size	17.3334	14.4000	5.8666	12.6666	13.7334	6.6666	11.7334	13.0666	6.6666	12.1334
Even SNR for Y [dB]	35.2819	35.1985	35.3536	34.4435	35.3573	35.3169	35.4102	35.3566	35.3728	35.3948
Cb	37.8570	38.1003	38.3078	36.9585	38.0846	37.9274	37.9751	38.0564	38.1081	37.9644
Cr	38.0596	38.3724	38.7684	37.4928	38.5000	38.4303	38.2382	38.4751	38.3832	38.2881
Mean value of step size	11.4666	11.4666	11.6000	14.6666	11.2000	11.3334	11.0666	11.2000	11.2000	11.2000
Total SNR for Y [dB]	34.7071	34.9856	36.1941	34.8149	35.0778	36.6078	35.4346	35.2408	36.6127	35.3896
Cb	35.2442	35.4534	35.9680	35.3431	35.5230	35.8883	35.5951	35.5833	36.0261	35.7208
Cr	36.4668	36.7137	37.4120	36.5269	36.7543	37.1665	36.7861	36.8343	37.2539	36.9185
Number of bits	153840	165680	873256	155872	171304	449248	193080	175704	440672	186616

Frame Number	21	22	23	24	25	26	27	28	29	30
Odd SNR for Y [dB]	34.8049	38.1981	34.3481	34.9071	37.3335	35.3492	34.8142	38.3574	35.1658	34.8727
Cb	38.6922	41.1662	37.8561	38.7933	42.4066	39.4163	38.5783	41.4243	39.3145	38.6267
Cr	39.0402	40.9445	38.4609	39.1815	42.3810	39.3729	38.8263	41.1711	39.4692	38.9285
Mean value of step size	13.4666	6.5334	15.4666	13.6000	5.7334	11.8666	13.8666	6.4000	12.4000	13.6000
Even SNR for Y [dB]	35.4106	35.3945	35.3672	35.5150	35.4373	34.6471	35.5357	35.5362	35.4828	35.5558
Cb	38.0248	37.9811	37.8028	38.2166	38.3612	37.1715	38.4294	38.5630	38.3725	38.3514
Cr	38.3611	38.3925	38.2136	38.6086	38.8100	37.6172	38.7438	38.8832	38.5367	38.5721
Mean value of step size	11.3334	11.3334	11.3334	11.0666	11.7334	14.4000	10.9334	11.0666	11.0666	11.0666
Total SNR for Y [dB]	35.1948	36.6714	34.9254	35.2980	36.3803	35.0816	35.2576	36.8193	35.4190	35.2984
Cb	35.7192	36.0845	35.6001	35.8661	36.3145	35.6656	35.9168	36.3631	36.0135	35.9471
Cr	36.8219	37.2245	36.6529	37.0138	37.7027	36.7754	37.0392	37.6219	37.1738	37.1024
Number of bits	174600	450224	160432	177048	850352	164144	173552	440792	191160	173872

Frame Number	31	32	33	34	35	36	37	38	39	40
Odd SNR for Y [dB]	38.2712	35.3022	34.9811	38.2965	34.4678	34.8445	37.3298	35.1715	34.9243	38.3215
Cb	41.2112	38.9974	38.4767	41.1170	38.0808	38.6916	42.5385	39.2283	38.7663	41.2047
Cr	40.9407	39.2121	38.9318	40.9567	38.8200	39.3284	42.4889	39.5631	39.2676	41.2610
Mean value of step size	6.4000	12.1334	13.4666	6.4000	15.4666	13.6000	5.8666	12.4000	13.3334	6.5334
Even SNR for Y [dB]	35.5446	35.5132	35.5626	35.4412	35.4748	35.5255	35.5665	34.8236	35.5099	35.5038
Cb	38.2887	38.2450	38.3620	38.2371	38.0368	38.3495	38.4790	37.1943	38.3454	38.3914
Cr	38.5672	38.5540	38.7129	38.6623	38.4710	38.8370	39.2157	37.8904	38.8850	38.9201
Mean value of step size	11.0666	10.9334	11.0666	11.2000	11.2000	11.2000	11.3334	13.8666	10.9334	10.8000
Total SNR for Y [dB]	36.7950	35.5040	35.3597	36.7359	35.0397	35.2693	36.4569	35.0917	35.3048	36.7856
Cb	36.2920	35.9536	35.8748	36.2747	35.8002	35.9131	36.3201	35.6199	35.8060	36.1093
Cr	37.5332	37.1648	37.1540	37.5971	37.0312	37.2872	38.0199	37.0536	37.2802	37.7324
Number of bits	443248	189416	174184	446784	164776	171648	851104	159704	171960	449056

Frame Number	41	42	43	44	45	46	47	48	49	50
Odd SNR for Y [dB]	35.4050	35.0706	38.5647	35.3243	35.0688	38.1512	34.1270	34.8295	37.0437	35.2192
Cb	39.3019	38.6771	41.3485	39.3108	38.6813	41.0482	37.9006	38.8140	41.6914	39.0594
Cr	39.7499	39.2674	41.1102	39.5735	39.1545	41.0057	38.4113	39.1904	41.8550	39.5028
Mean value of step size	11.7334	12.8000	6.2666	11.7334	12.8000	6.4000	16.9334	13.6000	5.7334	12.0000
Even SNR for Y [dB]	35.5478	35.4848	35.4766	35.4670	35.4831	35.3701	35.3696	35.6496	35.6146	34.6558
Cb	38.2308	38.2228	38.2701	38.1083	38.1554	37.9639	37.7543	38.3397	38.5350	37.0769
Cr	38.7467	38.5467	38.6347	38.4699	38.6871	38.4880	38.3001	38.8074	39.0492	37.8591
Mean value of step size	10.6666	11.0666	11.0666	10.9334	10.9334	11.2000	11.0666	10.5334	11.0666	14.2666
Total SNR for Y [dB]	35.5734	35.3703	36.8494	35.4927	35.3686	36.6393	34.8016	35.3178	36.3682	35.0260
Cb	35.7804	35.6962	36.0606	35.7244	35.6034	35.9193	35.3972	35.7371	36.2090	35.6115
Cr	37.3598	37.1419	37.5545	37.1739	37.1208	37.4203	36.7488	37.1256	37.7493	36.9265
Number of bits	190760	173896	441880	189024	178640	443112	150760	170568	863648	161712

Frame Number		51	52	53	54	55	56	57	58	59	60
Odd SNR for Y	[dB]	34.9773	38.2803	35.1972	34.7788	37.9966	35.0242	34.6452	38.4402	34.5958	34.7232
Cb		38.7422	40.9689	38.8749	38.1354	40.7938	38.6406	38.3589	41.0849	38.2838	38.5238
Cr		39.1508	40.7777	39.1564	38.6184	40.6718	38.8212	38.7223	41.0017	38.5520	39.0254
Mean value of step size		13.3334	6.5334	12.1334	14.0000	6.6666	12.8000	14.0000	6.5334	14.9334	14.6666
Even SNR for Y	[dB]	35.5282	35.5854	35.4235	35.4479	35.4649	35.1193	35.2176	35.3659	35.3736	35.5729
Cb		38.2739	38.3543	37.9310	37.9182	37.8715	37.4318	37.6016	37.7691	37.7229	38.3820
Cr		38.6981	38.7087	38.3255	38.4006	38.3719	38.0274	38.1661	38.2069	38.2766	38.8431
Mean value of step size		10.8000	10.6666	11.3334	11.4666	11.7334	12.4000	12.2666	11.7334	12.0000	11.3334
Total SNR for Y	[dB]	35.3416	36.8247	35.4065	35.1981	36.6464	35.1691	35.0196	36.7341	35.0649	35.2249
Cb		35.8545	38.1702	35.7887	35.7117	36.0999	35.7434	35.7390	36.1907	35.7902	35.9755
Cr		37.1287	37.4697	36.9895	36.8823	37.3651	36.8721	36.8984	37.4526	36.9682	37.3225
Number of bits		173544	447856	192624	180448	451480	184320	171576	448744	168880	161152

Frame Number		61	62	63	64	65	66	67	68	69	70
Odd SNR for Y	[dB]	37.9015	35.0445	34.6210	38.2783	35.0150	34.2562	38.0674	35.1493	34.5547	38.0861
Cb		42.8538	38.9938	38.3448	41.1138	38.4304	37.4247	41.1082	38.5632	37.2294	40.7676
Cr		42.7612	39.1509	38.7931	41.0043	39.0027	38.3421	41.1943	39.1773	38.0444	40.8426
Mean value of step size		5.6000	13.4666	15.0666	6.5334	12.9334	16.1334	6.9334	12.5334	15.7334	7.2000
Even SNR for Y	[dB]	35.8663	35.0953	35.5480	35.3823	35.3686	35.5731	35.7525	35.7825	36.0874	35.9929
Cb		38.9204	37.4693	38.4828	38.3056	37.8199	38.1639	38.5872	38.2307	38.8189	38.6790
Cr		39.2535	38.0581	39.0057	38.8846	38.6060	38.8571	39.1972	38.9199	39.2906	39.2119
Mean value of step size		10.8000	14.0000	11.7334	12.4000	12.6666	12.2666	11.7334	11.3334	10.6666	10.8000
Total SNR for Y	[dB]	36.8634	35.1674	35.1574	36.6909	35.2858	34.9626	36.8551	35.5520	35.3514	37.0122
Cb		36.5973	35.8656	36.0324	36.4634	36.0662	35.9523	36.7097	36.2618	36.0695	36.8119
Cr		38.2778	37.1907	37.4166	38.0248	37.5064	37.3907	38.3412	37.7739	37.5431	38.4241
Number of bits		843520	169824	179248	459896	197304	173464	436312	196168	175512	432952

Frame Number		71	72	73	74	75	76	77	78	79	80
Odd SNR for Y	[dB]	33.3865	34.3153	40.3991	35.5841	35.1864	38.6695	35.4443	35.5120	38.7514	36.0833
Cb		35.8484	36.8141	42.6395	38.9553	37.9347	41.4779	38.2839	38.3637	41.5884	39.0390
Cr		36.8334	37.6547	43.1846	39.3812	38.6466	41.4863	38.3867	38.6558	41.7169	39.0916
Mean value of step size		21.2000	17.0666	4.8000	11.6000	13.4666	6.4000	13.6000	13.2000	6.0000	11.4666
Even SNR for Y	[dB]	35.8174	35.9271	36.2895	36.3779	36.2817	36.5577	36.4904	36.6942	36.7521	36.6956
Cb		38.3443	38.7313	39.6859	39.3798	39.5186	39.8918	39.5583	40.1448	40.1817	39.9375
Cr		38.9793	39.3826	40.1763	39.7016	40.0101	40.0701	39.7965	40.3003	40.2328	39.9551
Mean value of step size		11.0666	10.6666	9.7334	9.4666	9.6000	9.2000	9.3334	8.8000	8.8000	8.8000
Total SNR for Y	[dB]	34.5317	35.1445	37.9729	36.0605	35.7972	37.5841	36.0335	36.1606	37.7353	36.4763
Cb		35.7158	36.1594	37.5754	37.1030	37.0493	37.8999	37.2067	37.6339	38.1689	37.7966
Cr		37.0813	37.6525	39.6359	38.5746	38.5453	39.4126	38.3354	38.7372	39.6782	38.8690
Number of bits		149952	157680	826104	194824	168328	428224	208992	172976	416408	208552

Frame Number		81	82	83	84	85	86	87	88	89	90
Odd SNR for Y	[dB]	35.5445	38.5190	35.4744	35.4045	41.1976	35.7012	35.4215	38.6844	35.8270	35.2400
Cb		38.2741	41.5562	37.6195	37.8675	44.3586	37.7811	37.6056	42.2199	38.0975	37.2279
Cr		38.4900	41.7225	37.8210	38.1969	43.9094	38.0957	37.8952	41.7602	38.3771	37.5633
Mean value of step size		13.0666	6.1334	14.6666	14.2666	4.2666	14.2666	14.8000	6.0000	13.2000	15.3334
Even SNR for Y	[dB]	36.6998	36.7149	36.6013	36.7956	36.7525	36.6619	36.7893	36.7727	36.5750	36.6162
Cb		40.2816	40.1611	39.7566	40.6107	40.3917	39.9762	40.3151	40.2941	39.7833	40.0398
Cr		40.2937	40.3129	39.7556	40.6493	40.4998	40.0913	40.3545	40.3839	39.8657	40.0391
Mean value of step size		8.8000	8.9334	9.2000	8.8000	8.9334	8.9334	8.8000	8.8000	9.0666	9.0666
Total SNR for Y	[dB]	36.1814	37.6215	36.0990	36.1422	38.5272	36.2526	36.1494	37.7140	36.2825	35.9715
Cb		37.5730	38.4260	37.2738	37.6534	38.9580	37.4042	37.6176	38.6148	37.6010	37.3270
Cr		38.6923	39.7963	38.2818	38.7195	40.3539	38.4682	38.5729	40.0368	38.7346	38.3061
Number of bits		178976	428976	214216	173640	768520	222128	171808	412016	210944	181240

Frame Number		91	92	93	94	95	96	97	98	99	100
Odd SNR for Y	[dB]	38.4622	35.1042	34.6287	38.0979	33.4899	33.3423	39.1074	34.3612	33.3856	37.1212
Cb		41.9845	36.8665	36.3810	41.5000	34.4439	34.7963	42.5046	37.3719	35.5728	39.1193
Cr		41.6960	37.4271	36.8000	41.2323	35.2306	35.1906	42.9313	37.4892	36.0183	39.2936
Mean value of step size		6.1334	15.6000	17.2000	6.6666	22.8000	22.2666	6.1334	14.1334	18.8000	8.6666
Even SNR for Y	[dB]	36.5278	36.2402	36.2837	36.0877	35.5966	35.5950	35.5953	35.2108	35.3113	35.1846
Cb		39.8633	39.2372	39.2871	39.2025	38.4511	38.6117	38.9972	38.1791	38.0666	38.1360
Cr		40.0087	39.3659	39.5346	39.4616	38.6712	38.8529	39.0947	38.3184	38.3701	38.2883
Mean value of step size		9.2000	9.7334	9.7334	9.8666	10.8000	10.6666	10.4000	11.0666	11.2000	11.2000
Total SNR for Y	[dB]	37.4857	35.7328	35.4754	37.0751	34.5144	34.4218	37.1032	34.8628	34.3402	36.1434
Cb		38.6461	37.0363	36.8988	38.3065	35.4582	35.6167	38.0915	36.9126	36.2763	37.4781
Cr		39.9525	38.0687	37.7888	39.4246	36.5038	36.5181	39.5910	37.6531	36.9949	38.3868
Number of bits		428576	228056	175848	416648	270152	162224	746168	226488	176560	399224

Frame Number	101	102	103	104	105	106	107	108	109	110
Odd SNR for Y [dB]	33.8092	32.7927	36.9403	33.3751	32.4084	36.3365	32.4527	32.0967	38.4773	33.1952
Cb	36.7517	34.9236	38.8177	36.3159	34.4138	38.0362	34.7389	33.9020	40.6529	35.9422
Cr	36.8197	35.3202	38.7700	36.2326	34.5494	38.0252	34.8807	34.2142	40.9968	36.1109
Mean value of step size	15.2000	19.8666	8.2666	15.6000	21.2000	9.2000	20.0000	22.8000	6.6666	16.4000
Even SNR for Y [dB]	34.5455	34.8040	34.7133	34.3568	34.4696	34.4986	33.9878	34.5505	34.5471	34.0212
Cb	37.2795	37.3703	37.6433	36.9923	36.8831	37.1245	36.4475	37.1169	37.2813	36.1938
Cr	37.3601	37.6097	37.7952	36.8771	37.1162	37.2529	36.5088	37.4286	37.4790	36.3977
Mean value of step size	12.0000	11.8666	11.7334	12.2666	12.4000	12.2666	13.2000	12.2666	12.1334	13.2000
Total SNR for Y [dB]	34.2594	33.7805	35.7832	33.9359	33.4155	35.4187	33.2503	33.2502	36.1796	33.6862
Cb	36.2848	35.5278	37.0390	35.8657	34.9910	36.4240	35.0141	34.8576	37.2601	35.4275
Cr	36.9214	36.3064	37.8367	36.3359	35.6356	37.1731	35.4866	35.5056	38.1075	36.0483
Number of bits	228040	178680	410072	239000	179072	399216	248768	174192	751512	239016

Frame Number	111	112	113	114	115	116	117	118	119	120
Odd SNR for Y [dB]	32.0999	35.9868	33.0999	32.2437	35.9953	33.1876	32.1359	35.7360	32.6366	31.8368
Cb	33.7575	37.6045	35.4804	33.4510	37.2908	35.5816	33.3619	37.0091	34.7591	33.4038
Cr	34.1483	37.6024	35.5443	33.8579	37.5298	35.6951	33.7117	37.1134	34.9337	33.8558
Mean value of step size	22.8000	9.8666	17.2000	23.4666	10.0000	17.7334	24.4000	10.5334	19.0666	24.4000
Even SNR for Y [dB]	34.3520	34.3400	34.1750	34.4493	34.4967	34.2837	34.5577	34.2539	33.8893	34.0814
Cb	36.3777	36.9326	36.2842	36.4022	36.8419	36.3496	36.6061	36.6485	35.9765	36.1986
Cr	36.5743	37.0262	36.4021	36.6146	36.9844	36.4272	36.8140	36.7119	36.0692	36.4380
Mean value of step size	12.9334	12.6666	12.8000	12.8000	12.6666	12.8000	12.4000	12.9334	13.4666	13.6000
Total SNR for Y [dB]	33.1792	35.1834	33.7019	33.3056	35.2793	33.7988	33.2777	35.0296	33.3155	32.9132
Cb	34.4725	36.1171	35.1095	34.2352	35.9651	35.2493	34.3403	35.9345	34.7229	34.1593
Cr	35.2010	36.9193	35.7428	35.0357	36.8556	35.8679	35.0039	36.6475	35.3443	34.9557
Number of bits	180936	388024	243224	183392	390024	240408	185232	386000	249888	178808

Frame Number	121	122	123	124	125	126	127	128	129	130
Odd SNR for Y [dB]	38.3861	32.5238	31.6016	35.2685	32.5058	31.5704	35.2438	32.5204	31.6557	35.3090
Cb	40.0662	35.4691	33.5733	36.7730	35.3774	33.3735	36.6443	35.4723	33.6659	36.6137
Cr	40.2065	35.3890	33.9112	36.8218	35.2833	33.7242	36.7373	35.3602	33.8382	36.6652
Mean value of step size	6.8000	17.8666	23.7334	10.9334	17.6000	23.4666	10.9334	17.2000	23.0666	10.9334
Even SNR for Y [dB]	33.8824	33.4848	33.5578	33.5902	33.2524	33.4555	33.4197	33.3215	33.4412	33.3227
Cb	36.6420	35.8852	35.8202	36.0897	35.4803	35.5909	35.9376	35.6366	35.6146	35.9211
Cr	36.7248	35.9640	35.8790	36.0947	35.6488	35.7201	35.9680	35.6099	35.8066	35.8633
Mean value of step size	13.3334	13.8666	14.2666	14.0000	14.4000	14.2666	14.0000	14.2666	14.4000	14.6666
Total SNR for Y [dB]	35.6725	33.0754	32.5681	34.4464	32.9607	32.5091	34.3343	33.0001	32.5549	34.3009
Cb	36.5245	34.8917	34.0998	35.4970	34.7286	33.9558	35.3833	34.7694	34.0633	35.3255
Cr	37.4918	35.4591	34.7834	36.1440	35.2782	34.6249	36.0641	35.2708	34.6860	35.9635
Number of bits	743664	246864	175952	389864	240464	180944	388848	235272	180680	392456

Frame Number	131	132	133	134	135	136	137	138	139	140
Odd SNR for Y [dB]	31.8070	31.3475	38.2746	32.4643	31.3414	35.0103	32.3581	31.2899	34.9674	32.2686
Cb	34.6961	33.3379	40.3050	35.6705	33.7275	36.7508	35.4046	33.5406	36.5224	35.4229
Cr	34.5328	33.5338	40.4517	35.6523	33.8627	36.7193	35.3420	33.7540	36.4170	35.2794
Mean value of step size	21.2000	25.2000	6.6666	17.2000	23.3334	11.3334	17.3334	23.2000	11.2000	17.6000
Even SNR for Y [dB]	33.1141	33.6495	33.4680	33.2443	33.3231	32.9953	32.8433	33.1120	32.8805	33.0490
Cb	35.5125	35.9781	36.2537	35.5957	35.6644	35.7524	35.2853	35.3541	35.6076	35.4178
Cr	35.5209	36.1651	36.3379	35.5789	35.7693	35.6997	35.2827	35.4481	35.4754	35.4005
Mean value of step size	15.0666	14.1334	13.8666	14.5334	14.8000	14.9334	15.3334	15.0666	15.2000	15.0666
Total SNR for Y [dB]	32.5092	32.4454	35.3353	32.9344	32.3178	33.9845	32.6916	32.2037	33.8974	32.7389
Cb	34.3850	33.9863	36.3113	34.8375	34.0733	35.2394	34.5100	33.8173	35.1326	34.5873
Cr	34.8389	34.6300	37.2047	35.3998	34.6846	35.9028	35.0924	34.4972	35.7115	35.1741
Number of bits	263672	175336	740024	234304	181648	390768	236672	178352	393496	239256

Frame Number	141	142	143	144	145	146	147	148	149	150	151
Odd SNR for Y [dB]	31.5209	35.1285	32.3988	31.4200	38.4432	32.3076	31.4566	35.1925	32.0037	30.4358	36.8242
Cb	33.6577	36.4834	35.5316	33.8153	40.3966	35.5569	33.6340	36.8742	35.1811	32.4302	37.9818
Cr	33.7476	36.4642	35.5589	34.0712	40.4409	35.7255	33.7414	36.9001	35.0635	32.7006	38.0573
Mean value of step size	23.4666	11.2000	16.9334	23.3334	6.5334	17.3334	24.0000	11.0666	18.5334	28.1334	8.6666
Even SNR for Y [dB]	33.3764	33.0227	32.8897	33.3748	33.0509	32.9779	33.4125	33.1986	32.6813	32.2358	
Cb	35.5719	35.6886	35.1777	35.8190	36.0192	35.5149	35.6900	35.7763	35.0170	34.2536	
Cr	35.5824	35.6855	35.3071	35.9921	36.1483	35.5490	35.8033	35.8179	35.1785	34.4619	
Mean value of step size	14.6666	14.9334	15.6000	14.5334	15.3334	15.2000	14.5334	14.5334	15.6000	18.2666	
Total SNR for Y [dB]	32.4479	34.0468	32.7350	32.3859	35.0566	32.7274	32.4229	34.1797	32.4269	31.3408	
Cb	33.9551	35.1343	34.5394	34.0381	36.0392	34.6245	33.9309	35.2209	34.3307	32.9269	
Cr	34.5565	35.9012	35.2605	34.8785	37.1998	35.4218	34.6476	36.0472	34.9583	33.5702	
Number of bits	177560	396320	234312	179424	755808	239632	176968	395168	262448	214000	278072

Table Tennis 4Mbps

Frame Number	1	2	3	4	5	6	7	8	9	10
Odd SNR for Y [dB]	30.8424	30.1326	29.1747	31.0370	29.7306	28.4891	28.8256	28.0433	27.4141	28.5182
Cb	40.3650	40.0536	40.0272	40.0744	39.9105	39.6299	39.5158	39.4030	39.3748	39.2491
Cr	40.0616	39.4267	39.1804	39.4145	39.0464	38.7202	38.4990	38.0542	37.9783	38.0886
Mean value of step size	14.5334	17.7334	22.0000	14.4000	18.1334	20.4000	19.4666	22.5334	26.2666	20.4000
Even SNR for Y [dB]	24.8084	24.7103	25.1121	25.0798	24.5411	24.2364	24.5271	24.4863	24.2737	24.1821
Cb	39.5623	39.4046	39.5759	39.5721	39.3751	39.4184	39.2286	39.1084	39.2701	39.2865
Cr	38.5915	38.3925	38.5762	38.5644	38.3558	38.0252	37.6641	37.4060	37.7386	38.1175
Mean value of step size	36.8000	40.0000	35.4666	35.4666	39.3334	40.0000	36.8000	36.9334	40.2663	42.1334
Total SNR for Y [dB]	26.9556	26.7282	26.7883	27.2118	26.5061	25.9647	26.2683	26.0130	25.6677	25.9331
Cb	37.8492	37.7328	37.8133	37.8913	37.7948	37.7094	37.5395	37.4582	37.5908	37.6008
Cr	38.7905	38.5774	38.6307	38.7169	38.5460	38.2560	37.9289	37.6675	37.8329	38.0322
Number of bits	436336	73152	65152	232712	81192	72608	194464	86504	81816	209648

Frame Number	11	12	13	14	15	16	17	18	19	20
Odd SNR for Y [dB]	27.4425	27.6512	30.0979	28.3673	27.8731	28.5410	28.4094	28.3006	29.0504	28.1420
Cb	39.8997	40.1083	40.2120	39.8079	39.7897	39.8017	39.7282	39.7879	39.6927	39.5744
Cr	38.7973	39.0110	39.9362	38.8880	38.7826	38.8691	38.6495	38.5239	38.5554	38.3239
Mean value of step size	26.4000	28.6666	16.0000	25.3334	27.4666	20.6666	21.6000	23.2000	19.4666	23.2000
Even SNR for Y [dB]	24.1545	24.3753	23.8286	23.9312	24.0183	23.9048	24.2848	24.2774	24.3222	24.4510
Cb	39.3956	39.4448	39.3417	39.3744	39.4543	39.5609	39.5203	39.4745	39.3649	39.2345
Cr	38.0411	38.6026	38.7424	38.0988	38.1260	38.2268	37.9946	38.1828	38.0593	37.8256
Mean value of step size	40.6666	39.7334	44.6666	44.6666	43.2000	42.8000	38.9334	39.6000	39.0666	38.1334
Total SNR for Y [dB]	25.5959	25.8135	26.0215	25.7086	25.6334	25.7345	25.9778	25.9419	26.1757	26.0186
Cb	37.7853	37.7673	37.7691	37.7139	37.7644	37.8076	37.7445	37.7020	37.6370	37.5921
Cr	38.3163	38.6266	38.9861	38.3518	38.2814	38.3741	38.1925	38.2597	38.1927	37.9936
Number of bits	103208	73408	371096	89648	63072	184400	75616	82056	188984	88000

Frame Number	21	22	23	24	25	26	27	28	29	30
Odd SNR for Y [dB]	28.0699	29.1737	27.3637	25.9546	30.7607	27.5483	27.3331	28.9772	29.2315	28.7674
Cb	39.4447	39.2032	39.8642	39.9662	40.3303	39.8606	39.6320	39.7618	39.8454	39.6567
Cr	38.1204	38.1130	38.7183	38.7840	40.0409	39.1733	38.8849	39.0510	39.1037	39.0315
Mean value of step size	24.6666	18.8000	28.4000	36.4000	14.9334	28.2666	31.6000	20.9334	23.3334	25.6000
Even SNR for Y [dB]	24.5397	24.3650	24.2204	24.6357	25.7179	26.7214	27.6753	28.6565	28.6816	28.8948
Cb	39.1319	39.2930	39.4223	39.8769	39.6949	39.4991	39.5899	39.6056	39.5065	39.6546
Cr	37.5880	37.6604	37.7807	38.4555	39.0251	38.7497	38.7720	39.1420	38.9306	38.7778
Mean value of step size	38.0000	39.7334	41.4666	41.7334	40.4000	36.1334	31.0666	26.4000	25.2000	24.8000
Total SNR for Y [dB]	26.0585	26.2387	25.6152	25.3452	27.6500	27.2189	27.6060	28.9254	29.0574	28.9416
Cb	37.5209	37.4234	37.5478	37.7668	37.9006	37.8775	37.9605	38.0959	38.1167	38.1350
Cr	37.7761	37.7325	37.9618	38.3891	39.1934	38.8775	38.7993	38.9990	38.9624	38.8436
Number of bits	72328	202488	120536	84440	347624	97336	55488	161320	102760	65208

Frame Number	31	32	33	34	35	36	37	38	39	40
Odd SNR for Y [dB]	30.3298	29.8847	29.8117	31.9440	30.5029	31.3454	35.7474	32.0252	32.2266	34.5381
Cb	39.9234	40.1628	40.0876	40.3024	41.5949	41.4185	42.6054	42.0216	41.3330	41.4397
Cr	39.0695	39.4206	39.2059	39.3039	40.8904	40.0840	42.3516	40.9822	40.1766	40.8730
Mean value of step size	17.0666	22.4000	23.0666	13.8666	32.8000	33.2000	8.9334	29.4666	22.1334	10.5334
Even SNR for Y [dB]	29.6353	30.1803	30.5547	31.3198	31.2479	32.3654	32.9384	32.5282	33.2306	33.5103
Cb	39.8221	39.9274	40.0413	40.7223	41.1589	41.6699	41.6167	41.2204	41.3239	40.9487
Cr	39.1795	39.1846	39.2470	39.6868	39.9859	40.9804	41.2397	40.4623	40.4567	40.3042
Mean value of step size	22.9334	21.7334	20.8000	19.4666	19.8666	18.1334	16.6666	16.9334	15.6000	14.8000
Total SNR for Y [dB]	30.0783	30.1378	30.2753	31.7183	30.9637	31.9231	34.2173	32.3670	32.7973	34.0915
Cb	38.3233	38.4522	38.5649	38.8917	39.2710	39.5013	39.8069	39.5288	39.4861	39.4526
Cr	39.0426	39.2155	39.2356	39.4373	40.0239	40.3593	41.0330	40.1972	40.1202	40.1545
Number of bits	168920	101928	64632	178640	124560	45524	357672	115504	51992	178664

Frame Number	41	42	43	44	45	46	47	48	49	50
Odd SNR for Y [dB]	33.7497	33.4229	35.0686	34.1403	33.8521	35.5665	33.3826	33.5387	37.6847	34.9655
Cb	41.2564	41.0022	41.2084	40.9316	40.5901	40.9909	41.0536	40.5141	43.1970	41.1731
Cr	40.4496	40.1134	40.6671	39.8457	39.4465	40.5576	38.0366	38.2404	43.0341	40.1893
Mean value of step size	14.4000	15.4666	9.8666	14.2666	15.8666	9.3334	33.2000	27.3334	7.2666	14.0000
Even SNR for Y [dB]	33.6821	33.9353	34.2078	34.1492	34.4161	34.5598	34.3906	34.9737	35.2169	34.7750
Cb	40.9102	41.0564	40.9563	40.7325	40.7441	41.0412	41.0181	41.5929	41.6117	40.7080
Cr	40.1392	40.2137	40.1832	39.9706	40.0873	39.9942	39.7701	40.7018	40.8229	39.9304
Mean value of step size	14.2666	13.8666	13.3334	13.6000	13.3334	14.0000	14.5334	13.6000	13.9334	13.4666
Total SNR for Y [dB]	33.8133	33.7691	34.7145	34.2423	34.2226	35.1316	33.9550	34.2948	36.3754	34.9668
Cb	39.3534	39.3028	39.2375	39.0420	39.0475	39.1012	39.2022	39.1241	39.6791	38.9564
Cr	39.9977	39.9150	40.0094	39.5801	39.4951	39.8004	38.6163	39.0578	40.5884	39.3217
Number of bits	90136	67184	188792	90064	71304	195784	115296	49552	381568	81872

Frame Number		51	52	53	54	55	56	57	58	59	60
Odd SNR for Y	[dB]	34.2266	35.1259	34.5654	34.2056	35.6531	34.7374	34.5372	36.0146	34.9184	34.7297
Cb		40.3643	40.2200	40.2765	39.9103	40.2025	40.1266	39.8684	40.1447	40.7633	40.6084
Cr		39.1197	40.0618	39.0600	38.7276	40.0045	39.2859	39.2092	40.1930	39.8112	40.1323
Mean value of step size		16.1334	10.6666	15.2000	15.7334	9.4666	14.1334	14.8000	8.8000	13.7334	14.1334
Even SNR for Y	[dB]	34.6788	34.8032	34.4703	34.7583	34.9044	34.6187	34.9185	35.0557	34.9056	35.3326
Cb		40.4872	40.2695	39.8949	40.0825	40.0358	39.8399	40.0649	40.2713	40.4193	41.0865
Cr		39.6860	39.5149	38.9298	39.2158	39.4814	39.1311	39.3935	39.7604	39.7604	40.7450
Mean value of step size		13.6000	13.3334	13.7334	13.3334	12.8000	13.3334	12.6666	12.2666	12.6666	12.2666
Total SNR for Y	[dB]	34.5445	35.0592	34.6152	34.5708	35.3602	34.7752	34.8213	35.6063	35.0096	35.1183
Cb		38.5417	38.4464	38.2551	38.2051	38.2271	38.1987	38.1411	38.2397	38.4016	38.5112
Cr		38.7442	38.9694	38.3173	38.3340	38.7366	38.3600	38.3854	38.7221	38.5829	39.1062
Number of bits		69064	187800	89160	65400	198232	81104	66496	204696	84032	66008

Frame Number		61	62	63	64	65	66	67	68	69	70
Odd SNR for Y	[dB]	37.7672	34.9026	34.9157	36.1344	34.5804	34.5860	35.9911	32.1678	31.9833	31.7682
Cb		42.5424	40.8365	40.8717	40.9820	40.4036	40.2379	40.5952	38.5743	38.6448	38.6266
Cr		42.6234	40.4516	40.2344	40.8220	39.7395	39.5950	40.2897	38.1825	38.2268	38.2174
Mean value of step size		7.3334	13.7334	13.3334	8.5334	13.7334	13.4666	8.6666	16.9334	16.8000	19.7334
Even SNR for Y	[dB]	35.3652	34.9728	35.1432	34.9221	34.6726	34.6707	33.7053	30.8124	30.9300	31.8768
Cb		41.0886	40.5422	40.6821	40.3621	40.0229	40.0507	39.1321	37.8073	37.9191	38.4631
Cr		40.8039	39.9712	40.1727	39.9318	39.3181	39.5763	38.3211	37.4388	37.4501	37.9794
Mean value of step size		11.7334	12.6666	12.1334	12.4000	12.8000	12.6666	16.0000	25.3334	25.0666	18.5334
Total SNR for Y	[dB]	36.4998	35.0352	35.1256	35.5837	34.7239	34.7257	34.7972	31.5350	31.5224	31.9198
Cb		38.9740	38.4675	38.4846	38.2631	37.9680	37.9309	37.7016	36.2381	36.3081	36.4377
Cr		39.7205	38.9932	38.9326	38.8264	38.3291	38.2026	37.8480	35.9260	35.9622	36.1162
Number of bits		385784	68424	68296	217208	69042	67840	232864	100568	46944	200840

Frame Number		71	72	73	74	75	76	77	78	79	80
Odd SNR for Y	[dB]	34.2352	34.2768	34.9206	33.9275	33.8591	35.7459	34.4670	34.8236	35.9925	35.1013
Cb		40.8686	40.9790	41.0935	41.1062	40.6447	40.8636	41.2266	40.8678	41.0416	41.5848
Cr		40.5095	40.5549	40.9538	39.9598	40.0426	40.8366	40.9712	40.7088	40.9780	41.4214
Mean value of step size		12.4000	12.4000	9.7334	27.4666	17.4666	7.6000	16.5334	10.8000	7.3334	13.0666
Even SNR for Y	[dB]	32.4732	32.8879	31.5648	31.6021	32.3140	32.7983	32.9994	33.4010	33.6268	33.7571
Cb		38.8241	38.9346	38.3825	38.4371	38.8556	39.0152	39.0616	39.2247	39.4265	39.4777
Cr		38.3789	38.6460	38.1952	37.9810	38.5136	38.7396	38.7094	38.9889	39.1238	39.2072
Mean value of step size		15.7334	14.4000	25.3334	24.0000	17.7334	14.8000	14.1334	13.0666	12.4000	12.0000
Total SNR for Y	[dB]	33.3630	33.6246	33.0239	32.7086	33.1158	34.1243	33.7691	34.1519	34.7481	34.4750
Cb		37.0032	37.0388	36.9044	36.9189	36.9712	37.0269	37.0783	37.0496	37.1006	37.1746
Cr		36.6973	36.7567	36.6710	36.4129	36.5769	36.7220	36.7109	36.7728	36.8409	36.8992
Number of bits		65352	67640	420640	93440	38448	194728	80000	60768	199528	77960

Frame Number		81	82	83	84	85	86	87	88	89	90
Odd SNR for Y	[dB]	35.3543	36.6527	35.4142	35.4667	34.9919	34.2595	34.4806	36.0573	35.3296	35.4858
Cb		41.3873	41.4927	41.7972	41.9431	41.1868	41.3863	41.1370	41.2602	41.4414	41.4719
Cr		41.2045	41.4475	41.6566	41.7609	41.0270	40.8959	40.9836	41.2398	41.4618	41.3948
Mean value of step size		9.8666	6.9334	10.4000	10.1334	9.6000	21.3334	12.4000	7.3334	9.8666	9.8666
Even SNR for Y	[dB]	33.9360	34.0860	34.1679	34.1401	31.8127	31.8113	32.5477	33.0994	33.4465	33.7383
Cb		39.6614	39.7667	39.8652	39.9295	38.4949	38.5887	38.9895	39.1494	39.3610	39.5602
Cr		39.4141	39.5534	39.4863	39.6188	38.2852	38.2376	38.6899	38.9142	39.1452	39.2774
Mean value of step size		11.6000	11.4666	11.3334	11.3334	24.1334	22.6666	16.8000	14.2666	13.0666	12.2666
Total SNR for Y	[dB]	34.6851	35.2800	34.8441	34.8506	33.2153	32.9627	33.5051	34.4289	34.3844	34.6223
Cb		37.2147	37.2565	37.3202	37.3591	36.9001	36.9679	37.0371	37.0718	37.1624	37.2226
Cr		36.9289	37.0037	37.0229	37.0718	36.6161	36.5902	36.7268	36.7934	36.8869	36.9258
Number of bits		66392	209904	67176	67736	438872	79240	46376	197592	63776	69704

Frame Number		91	92	93	94	95	96	97	98	99	100
Odd SNR for Y	[dB]	36.6589	35.5111	35.6619	36.7156	35.6451	35.7853	34.8824	30.4577	30.4200	30.5027
Cb		41.5943	41.7346	41.7142	41.8410	42.0163	42.0078	41.0378	38.2964	38.3882	38.4010
Cr		41.7356	41.6230	41.6139	41.7294	41.7770	41.7932	40.9607	37.1257	37.1591	37.3659
Mean value of step size		7.2000	11.0666	9.7334	7.0666	10.2666	9.8666	9.8666	21.8666	22.2666	21.6000
Even SNR for Y	[dB]	33.8786	34.0670	34.1605	34.2866	34.3457	34.4415	31.4172	28.9421	29.0235	29.6594
Cb		39.7071	39.7562	39.8215	40.0154	40.0235	40.1330	38.1616	37.3961	37.6914	37.9041
Cr		39.5391	39.6017	39.7007	39.8396	39.8224	39.8520	37.9348	36.6862	36.8693	37.1663
Mean value of step size		11.6000	11.3334	11.3334	10.9334	10.9334	10.8000	24.4000	35.4666	31.3334	26.0000
Total SNR for Y	[dB]	35.1475	34.8269	34.9443	35.4310	35.0446	35.1592	32.9106	29.7441	29.7762	30.1699
Cb		37.2649	37.2974	37.3074	37.3546	37.3938	37.3954	36.7702	36.3563	36.4636	36.5393
Cr		37.0340	37.0230	37.0546	37.1192	37.1578	37.1660	36.5354	35.9308	35.9688	36.1139
Number of bits		215656	76480	69072	207336	60112	71000	444824	98752	45160	225520

Frame Number	101	102	103	104	105	106	107	108	109	110
Odd SNR for Y [dB]	32.5296	32.3626	32.9156	33.6339	33.3704	34.0088	34.5998	34.5086	34.1224	34.3363
Cb	39.1559	39.1971	39.2101	39.9414	39.9068	39.9644	41.2413	41.3445	41.0499	40.9501
Cr	38.2619	38.3162	38.4833	39.0485	39.0581	39.2693	40.5421	40.5462	40.5300	40.3165
Mean value of step size	13.4666	14.0000	12.5334	11.6000	11.8666	10.1334	10.9334	11.2000	10.5334	10.6666
Even SNR for Y [dB]	30.1058	30.4227	30.7736	30.9464	31.0931	31.5109	31.6404	31.7594	30.6877	30.6957
Cb	37.9978	38.0708	38.1838	38.3029	38.3663	38.7377	38.8674	38.9273	38.3237	38.6162
Cr	37.3482	37.4096	37.5265	37.4892	37.5533	37.8406	37.8688	38.1390	38.3479	38.2687
Mean value of step size	23.7334	22.1334	20.9334	19.7334	19.3334	18.2666	17.6000	17.3334	28.6666	26.2666
Total SNR for Y [dB]	31.2486	31.3828	31.8114	32.1831	32.1818	32.6803	32.9703	33.0176	32.1716	32.2427
Cb	36.7442	36.7582	36.7963	36.9885	36.9882	37.1179	37.4122	37.4426	37.2775	37.3177
Cr	36.4435	36.4142	36.4486	36.5549	36.5960	36.7100	36.9750	37.0790	37.1946	37.1306
Number of bits	76320	67472	186968	77352	69152	199368	71048	69892	425264	56128

Frame Number	111	112	113	114	115	116	117	118	119	120
Odd SNR for Y [dB]	34.1977	34.8366	34.5270	34.4620	35.2994	34.8197	34.6713	35.7474	34.8209	34.7313
Cb	40.9126	40.8867	41.0058	40.8844	40.8979	41.0168	40.9910	41.0838	41.4394	41.2812
Cr	40.2560	40.4395	40.4421	40.4009	40.4576	40.4664	40.3540	40.6375	40.7343	40.6703
Mean value of step size	10.8000	9.0666	13.0666	10.4000	8.2666	10.4000	10.5334	7.6000	11.8666	11.3334
Even SNR for Y [dB]	31.2680	31.5803	31.7606	31.8425	32.0702	32.2869	32.3447	32.6213	32.5580	32.4127
Cb	38.9308	39.0705	39.2025	39.2217	39.2815	39.3359	39.4492	39.5116	39.4980	39.6240
Cr	38.3150	38.4034	38.5367	38.5769	38.5491	38.6136	38.7750	38.8631	38.7654	38.9789
Mean value of step size	20.1334	18.5334	17.6000	17.0666	16.2666	16.2666	15.3334	14.6666	14.9334	15.4666
Total SNR for Y [dB]	32.5879	33.0078	33.0247	33.0553	33.4889	33.4688	33.4517	34.0066	33.6413	33.5166
Cb	37.3925	37.4216	37.4828	37.4689	37.4887	37.5361	37.5790	37.6038	37.6669	37.6532
Cr	37.1382	37.2135	37.2385	37.2548	37.3014	37.3338	37.3967	37.4922	37.4728	37.5298
Number of bits	64232	203752	77816	65712	203784	69072	67776	217240	64344	70392

Frame Number	121	122	123	124	125	126	127	128	129	130
Odd SNR for Y [dB]	34.1487	33.4479	33.9356	35.0523	32.6214	34.0918	35.2962	32.5528	33.2627	35.4653
Cb	41.0448	40.8057	40.7415	40.5934	40.3909	40.9308	41.0240	40.9696	40.8209	40.6232
Cr	40.5986	40.0254	40.0877	40.2294	39.5949	40.2233	40.4957	40.1066	40.0667	39.9967
Mean value of step size	10.4000	13.7334	12.2666	9.0666	18.8000	14.2666	8.6666	20.1334	17.2000	9.0666
Even SNR for Y [dB]	30.7645	30.5695	30.6605	30.3265	30.1178	30.4784	30.9748	30.9456	30.8549	30.9476
Cb	38.3319	38.6526	38.6100	38.3704	38.1724	38.6888	38.6634	38.3926	38.2894	38.5313
Cr	38.3271	38.1517	38.2993	38.1038	37.8110	38.3410	38.1989	37.8994	37.9051	38.0225
Mean value of step size	28.4000	23.9334	24.2666	27.4666	25.2000	26.1334	22.4000	23.3334	25.2000	25.2000
Total SNR for Y [dB]	32.2326	31.8720	32.0940	32.1736	31.2892	32.0172	32.7164	31.7729	31.9916	32.7413
Cb	37.2713	37.3145	37.3091	37.1945	37.0817	37.3521	37.3563	37.2525	37.1530	37.1835
Cr	37.3366	37.2004	37.2621	37.2183	36.9752	37.2480	37.2270	37.0475	37.0330	37.0608
Number of bits	468968	57112	65648	222280	90624	51272	197960	99768	63880	202528

Frame Number	131	132	133	134	135	136	137	138	139	140
Odd SNR for Y [dB]	34.5608	33.8466	34.4523	33.6287	33.2824	35.4427	33.4076	33.8386	35.6627	34.8170
Cb	41.6142	41.0766	41.0660	41.0396	40.9881	40.9270	40.6062	40.7243	40.8450	40.9545
Cr	40.7273	40.3228	40.5827	40.2154	39.9175	40.2616	39.8789	40.1775	40.4901	40.6391
Mean value of step size	13.0666	14.2666	10.5334	15.4666	15.6000	8.9334	16.6666	14.1334	8.4000	11.4666
Even SNR for Y [dB]	30.8620	31.0270	30.6627	30.5583	30.7752	30.8547	30.8482	31.1188	31.4054	31.5401
Cb	38.6304	38.7094	38.5370	38.8462	38.8119	38.4179	38.0317	38.5227	38.5615	38.6694
Cr	38.0595	38.3698	38.6113	38.4396	38.6491	38.3096	37.9022	38.2566	38.2691	38.0885
Mean value of step size	24.8000	23.8666	30.5334	27.6000	25.7334	24.8000	25.2000	23.2000	21.4666	21.0666
Total SNR for Y [dB]	32.4266	32.3095	32.2542	31.9252	31.9480	32.6667	32.0397	32.3667	33.1296	32.9742
Cb	37.3954	37.3369	37.3218	37.4036	37.3606	37.1813	36.9563	37.1255	37.1516	37.1819
Cr	37.2579	37.3051	37.4635	37.3527	37.3598	37.3271	37.1217	37.3063	37.3782	37.3362
Number of bits	78064	67928	405752	65128	75056	196024	80952	58424	205824	78000

Frame Number	141	142	143	144	145	146	147	148	149	150	151
Odd SNR for Y [dB]	33.7232	35.3601	33.3779	33.1069	34.0535	33.2085	32.4196	34.8372	32.4779	31.7094	36.6580
Cb	40.5869	40.4266	41.0902	40.9933	40.5919	40.6829	40.3916	40.4149	40.7532	39.9940	41.6789
Cr	40.0747	39.8723	40.3021	40.3897	40.1778	39.8950	39.4572	40.0062	39.5316	38.9010	41.3644
Mean value of step size	15.4666	9.0666	16.8000	17.2000	11.0666	16.4000	19.6000	10.0000	20.1334	22.9334	7.8666
Even SNR for Y [dB]	31.0253	30.7875	30.4863	30.2412	29.9305	29.4269	29.7989	29.9267	29.8787	29.7144	
Cb	38.4547	38.2680	38.0732	38.0137	38.3363	38.3601	38.3126	38.2348	37.9751	37.6729	
Cr	38.0644	37.9126	37.7589	37.8896	38.3017	38.1195	38.1553	38.0553	37.4841	37.1432	
Mean value of step size	23.7334	22.1334	25.7334	26.6666	32.5334	31.7334	30.0000	29.0666	28.8000	29.0666	
Total SNR for Y [dB]	32.2656	32.5955	31.7933	31.5394	31.6176	31.0206	31.0168	31.8196	31.0873	30.7062	
Cb	37.0460	36.9472	36.9820	36.9519	37.0178	37.0192	36.9444	36.9294	36.8795	36.6138	
Cr	37.2043	37.0877	37.1487	37.1869	37.3054	37.1950	37.0996	37.2009	36.9172	36.6018	
Number of bits	84024	202976	88456	69312	404128	77152	72976	194456	85648	78016	163848

Table Tennis 9Mbps

Frame Number	1	2	3	4	5	6	7	8	9	10
Odd SNR for Y [dB]	35.8461	32.7125	31.5282	34.8499	33.0326	31.6744	33.3758	31.1502	30.2084	33.4878
Cb	42.7375	41.9707	41.8837	41.9790	41.4478	40.8039	40.7385	40.5652	40.3508	40.0139
Cr	42.7368	41.8349	41.4014	42.1083	41.3143	40.7534	40.8161	40.1055	39.9123	40.2837
Mean value of step size	6.6666	12.6666	15.2000	8.8000	11.8666	13.4666	11.3334	14.8000	17.7334	11.4666
Even SNR for Y [dB]	27.0138	27.3890	28.6001	28.4129	27.7891	27.7093	28.6650	28.6910	27.9023	27.3254
Cb	39.7394	39.5432	39.6071	39.5848	39.4112	39.4287	39.2941	39.1498	39.2154	39.2573
Cr	39.2499	38.9451	39.1632	39.1455	38.8423	38.6410	38.5609	38.4669	38.3877	38.6100
Mean value of step size	25.7334	23.2000	18.6666	20.0000	21.7334	21.2000	18.2666	18.6666	21.3334	23.4666
Total SNR for Y [dB]	29.5931	29.3865	29.9283	30.6387	29.7686	29.3611	30.5155	29.8556	29.0115	29.4999
Cb	38.3568	38.1690	38.2251	38.3033	38.1632	38.0083	37.8628	37.7654	37.8441	37.8217
Cr	39.8001	39.4946	39.5556	39.7455	39.4676	39.1806	39.0451	38.7819	38.7367	38.9883
Number of bits	811176	172352	173048	493640	196768	167592	418872	214808	194376	442808

Frame Number	11	12	13	14	15	16	17	18	19	20
Odd SNR for Y [dB]	29.3248	30.0118	35.4291	30.7919	29.9913	32.9822	31.5276	31.0709	33.2593	31.1582
Cb	40.7171	41.3149	42.5467	41.4488	41.0089	40.9922	41.2149	40.8908	40.8531	40.8630
Cr	40.3799	40.9805	42.6354	40.8366	40.4296	40.6918	40.4637	40.1056	40.3646	40.1334
Mean value of step size	20.4000	19.6000	6.9334	17.6000	19.4666	11.7334	14.4000	15.4666	11.4666	15.3337
Even SNR for Y [dB]	27.8245	28.5274	26.6114	26.9708	27.2168	27.3123	28.2725	28.1136	28.1002	28.5082
Cb	39.1798	39.3782	39.7371	39.6431	39.7383	39.8054	39.7556	39.7277	39.6962	39.4923
Cr	38.7433	39.1130	39.5603	39.1476	39.0275	39.0920	38.9586	38.9714	38.8977	38.8137
Mean value of step size	20.9334	20.2666	27.2000	25.0666	23.7334	22.6666	19.3334	21.2000	20.6666	19.8666
Total SNR for Y [dB]	28.6182	29.3151	29.1900	28.5800	28.4932	29.3871	29.7094	29.4524	30.0604	29.7411
Cb	37.9178	38.0303	38.3111	38.1286	38.1150	38.1462	38.1185	38.0093	37.9880	37.9604
Cr	39.1059	39.4787	40.1004	39.4355	39.2004	39.3291	39.1723	39.1345	39.1523	39.0366
Number of bits	224904	184712	778664	208440	162512	398088	196144	201616	403688	219296

Frame Number	21	22	23	24	25	26	27	28	29	30
Odd SNR for Y [dB]	30.8023	33.7706	29.5657	27.9529	36.0459	29.2351	29.1758	32.4408	31.2756	30.8429
Cb	40.4689	40.2506	40.9451	40.8076	42.8389	41.1747	40.6279	40.9074	41.0441	40.6353
Cr	39.8418	40.1045	40.2642	40.0123	42.9397	40.7792	40.3018	40.8135	40.7927	40.4986
Mean value of step size	16.6666	10.6666	19.8666	26.0000	6.4000	21.0666	22.1334	11.8666	16.4000	17.4666
Even SNR for Y [dB]	28.7776	28.3213	27.8510	27.7407	28.3219	29.4844	30.8358	31.8422	31.7344	32.2634
Cb	39.4701	39.3836	39.3760	40.2301	40.6913	40.3164	40.5701	40.6412	40.5033	40.5466
Cr	38.7824	38.7694	38.5458	39.1550	40.3833	40.1348	40.3892	40.7210	40.3410	40.3256
Mean value of step size	19.4666	20.8000	22.6666	23.7334	22.6666	19.3334	16.1334	14.1334	14.1334	13.4666
Total SNR for Y [dB]	29.7800	30.3474	28.7323	27.9526	30.7593	29.4665	30.0351	32.2288	31.5965	31.5929
Cb	37.8581	37.7007	37.7737	38.0382	38.6279	38.3592	38.4861	38.6982	38.6613	38.6350
Cr	38.8897	38.8477	38.7400	39.1016	40.5607	39.9225	40.0190	40.3013	40.0872	40.0111
Number of bits	180416	421200	237448	200320	767088	225784	151624	375240	222016	163432

Frame Number	31	32	33	34	35	36	37	38	39	40
Odd SNR for Y [dB]	34.1783	31.0603	31.7929	35.9945	32.7637	33.6361	37.8099	33.9775	34.4964	37.8710
Cb	41.0517	41.1489	41.0548	41.5322	42.3026	42.2909	44.1479	42.8529	42.2776	42.4585
Cr	40.8951	40.8849	40.6109	41.2978	41.8856	41.6208	43.6313	42.2533	41.6718	42.4747
Mean value of step size	9.6000	18.6666	16.0000	7.7334	14.8000	12.9334	5.6000	13.2000	11.6000	6.2666
Even SNR for Y [dB]	32.8429	33.1921	33.7938	34.3599	34.2371	35.0601	35.3974	35.3089	35.9871	36.0745
Cb	40.6916	40.9503	41.1499	41.5765	41.7703	42.4741	42.5412	42.2027	42.5603	42.2719
Cr	40.6895	40.7728	41.0027	41.2176	41.2623	42.2380	42.5240	41.9186	42.2190	42.0190
Mean value of step size	12.6666	12.2666	11.6000	10.4000	10.8000	9.7334	9.3334	9.2000	8.6666	8.5334
Total SNR for Y [dB]	33.5571	32.0943	32.7767	35.1983	33.5358	34.3876	36.5358	34.6900	35.2757	36.9781
Cb	38.8579	38.9588	39.1087	39.4342	39.6220	39.9119	40.2981	40.0284	40.0556	40.0648
Cr	40.2779	40.2840	40.4007	40.7276	40.7898	41.1236	41.7238	41.1489	41.1237	41.2255
Number of bits	398104	225304	161112	411672	223440	158280	770408	210504	169968	422968

Frame Number	41	42	43	44	45	46	47	48	49	50
Odd SNR for Y [dB]	35.4733	35.3485	38.5253	35.7230	35.5186	38.7190	35.0863	35.4737	40.2522	35.7103
Cb	42.0508	42.1278	42.7235	42.0362	41.8012	42.8423	42.1065	41.8607	44.4748	42.0954
Cr	41.7650	41.6652	42.7836	41.3993	41.2289	42.7908	40.3886	41.0705	44.9079	41.0155
Mean value of step size	10.0000	10.2666	5.7334	10.0000	10.4000	5.6000	16.2666	11.7334	4.5334	12.9334
Even SNR for Y [dB]	36.3077	36.5783	36.6863	36.6147	36.8688	36.9684	36.7324	37.1805	37.2131	36.7150
Cb	42.4328	42.6277	42.4495	42.2977	42.3556	42.5822	42.5271	43.0284	42.8634	42.3630
Cr	42.1240	42.2814	42.1297	41.9719	42.1810	42.2322	42.2451	42.9890	42.8899	42.0299
Mean value of step size	8.2666	7.8666	7.7334	8.0000	7.6000	7.8666	8.0000	7.4666	7.3334	8.1334
Total SNR for Y [dB]	35.9681	36.0176	37.6067	36.2436	36.2391	37.8537	35.9294	36.3414	38.5697	36.2813
Cb	40.0146	40.0188	39.9895	39.7668	39.8014	39.9198	39.8856	39.8021	40.2208	39.4967
Cr	41.1623	41.1562	41.2927	40.8095	40.8238	41.1985	40.3956	40.9107	41.6411	40.1400
Number of bits	188792	171280	443632	186872	168552	450416	239552	151304	770408	204800

Frame Number	51	52	53	54	55	56	57	58	59	60
Odd SNR for Y [dB]	35.8237	38.7081	34.5973	35.4383	39.1062	36.1507	36.2532	38.5011	34.4552	35.5168
Cb	41.4825	42.5075	40.9029	41.0453	42.5278	41.3616	41.5784	42.3441	41.2213	41.2799
Cr	40.9712	42.9031	39.4217	40.1856	42.8266	40.9074	41.0324	42.3211	39.8369	40.9386
Mean value of step size	10.4000	5.6000	19.2000	11.8666	5.3334	9.7334	9.4666	5.7334	19.2000	11.3334
Even SNR for Y [dB]	37.1128	37.1109	36.6725	37.2204	37.3631	36.7715	37.2621	37.0394	36.7449	37.1012
Cb	42.2927	42.1970	41.6576	42.1485	42.0540	41.6546	42.0568	42.0825	41.9171	42.5751
Cr	42.2315	42.0544	41.2877	41.8930	41.8331	41.2005	41.7429	41.6947	41.5623	42.5233
Mean value of step size	7.4666	7.6000	8.1334	7.3334	7.6000	7.8666	7.2000	7.4666	7.8666	7.3334
Total SNR for Y [dB]	36.5182	37.9341	35.6097	36.3362	38.2453	36.5476	36.8261	37.8066	35.5485	36.3347
Cb	39.2704	39.4426	38.8406	38.9954	39.2308	38.9877	39.0328	39.1513	38.8207	38.9996
Cr	40.1149	40.4971	39.1222	39.6158	40.1255	39.4945	39.5530	39.7511	39.0129	39.7848
Number of bits	165152	440528	185296	147248	484768	157728	171688	473032	176176	147768

Frame Number	61	62	63	64	65	66	67	68	69	70
Odd SNR for Y [dB]	40.3014	36.2614	36.2423	38.7266	35.9731	36.1290	38.8307	34.5572	34.6106	35.2842
Cb	44.9728	42.0812	42.0640	42.5061	41.6389	41.6168	42.5962	40.8764	40.8045	41.1324
Cr	44.2458	41.7267	41.5967	42.6226	41.2117	41.2390	42.5470	40.7733	40.8252	41.1622
Mean value of step size	4.4000	8.9334	8.9334	5.6000	9.3334	8.9334	5.4666	10.4000	10.0000	9.3334
Even SNR for Y [dB]	37.2296	36.9664	37.1262	36.9884	36.8294	36.8410	35.8032	33.4613	34.6199	35.6560
Cb	42.6167	42.0995	42.1939	42.0202	41.7796	41.7646	40.7706	39.2398	40.5229	41.0096
Cr	42.3263	41.8533	42.0315	41.9145	41.5493	41.6432	40.4100	39.1056	40.2859	41.0389
Mean value of step size	7.0666	7.3334	7.0666	7.3334	7.4666	7.3334	9.2000	14.4000	9.6000	8.0000
Total SNR for Y [dB]	38.5970	36.6972	36.7594	37.8687	36.4778	36.5680	37.1559	34.0724	34.7129	35.5637
Cb	39.6465	39.0909	39.0885	38.9292	38.6435	38.6141	38.4977	37.0590	37.3449	37.4859
Cr	40.4099	39.8447	39.7742	39.7482	39.3447	39.1647	38.9302	36.9132	37.1979	37.4006
Number of bits	847152	175424	170696	460192	167824	173008	482224	196000	146008	441872

Frame Number	71	72	73	74	75	76	77	78	79	80
Odd SNR for Y [dB]	35.6315	36.1344	39.9117	35.9191	36.6026	39.3206	36.1974	36.9385	39.0273	36.0372
Cb	43.3151	43.1721	44.1086	43.0398	42.7740	43.3003	43.4104	43.1708	43.5710	44.1771
Cr	42.0054	43.1391	44.4675	42.7226	43.1645	43.9952	43.3946	43.3740	43.9172	43.9712
Mean value of step size	14.6666	8.8000	4.2666	11.3334	7.8666	4.8000	9.6000	7.7334	5.3337	15.3334
Even SNR for Y [dB]	36.0193	36.2190	34.0932	35.0964	35.9767	36.1382	36.2178	36.2250	36.5088	36.4529
Cb	41.3254	41.5240	39.6043	40.5926	40.9907	41.0711	41.1314	41.3360	41.3472	41.3873
Cr	41.3065	41.5257	39.5711	40.7295	41.1983	41.2288	41.2784	41.5024	41.5576	41.4992
Mean value of step size	7.4666	7.6000	13.4666	9.3334	7.8666	7.6000	7.4666	7.6000	7.3334	7.3334
Total SNR for Y [dB]	35.9187	36.2741	36.1909	35.5859	36.3760	37.5418	36.3052	36.6647	37.6856	36.3376
Cb	37.8796	37.8947	37.5998	37.7169	37.7653	37.8225	37.8356	37.8198	37.8416	37.8919
Cr	37.5643	37.7134	37.4288	37.4848	37.5898	37.6440	37.5789	37.6370	37.6711	37.6564
Number of bits	214640	158832	818584	156656	171152	453648	188184	170616	446952	208120

Frame Number	81	82	83	84	85	86	87	88	89	90
Odd SNR for Y [dB]	36.6467	38.8535	35.6723	36.7753	39.8894	36.7455	36.9581	39.8902	35.9525	36.6409
Cb	43.5843	43.8654	44.5010	44.3669	43.8948	43.3489	43.2340	43.5864	43.6193	43.3376
Cr	43.7995	43.8919	43.8937	44.4150	44.3148	43.6744	43.6934	44.2579	43.2945	43.6458
Mean value of step size	8.0000	5.3334	16.8000	8.1334	4.1334	7.8666	7.6000	4.6666	16.9334	8.4000
Even SNR for Y [dB]	36.5225	36.4867	36.5767	36.4992	33.8354	35.0596	35.8654	36.1816	36.3946	36.4525
Cb	41.5171	41.5696	41.6315	41.6655	39.7271	40.5768	40.9187	41.1114	41.2861	41.4488
Cr	41.6144	41.6667	41.5877	41.6841	39.4080	40.5391	41.0668	41.2455	41.4213	41.4935
Mean value of step size	7.6000	7.3334	7.2000	7.2000	14.5334	9.6000	7.7334	7.6000	7.2000	7.6000
Total SNR for Y [dB]	36.6817	37.6084	36.1986	36.7326	35.9808	35.9188	36.4751	37.7491	36.2655	36.6433
Cb	37.8824	37.9142	37.9984	37.9928	37.5689	37.7173	37.7814	37.8274	37.8787	37.8839
Cr	37.6705	37.6954	37.7035	37.7635	37.2976	37.5057	37.6151	37.6568	37.5877	37.6506
Number of bits	156160	441296	162320	154560	885152	153160	164928	461664	201120	147248

Frame Number	91	92	93	94	95	96	97	98	99	100
Odd SNR for Y [dB]	39.2416	36.0508	36.7405	40.0706	35.8710	37.0191	39.6915	33.3240	33.2913	34.3297
Cb	43.7758	43.7322	43.4490	43.8196	44.3688	44.1695	44.0344	40.2791	40.3451	40.6391
Cr	44.2285	43.3118	43.8168	44.4250	43.4592	44.3303	44.2909	39.4488	39.6944	40.1714
Mean value of step size	5.0666	16.6666	8.4000	4.4000	16.6666	8.0000	4.1334	13.0666	12.4000	10.4000
Even SNR for Y [dB]	36.6361	36.5756	36.6369	36.6135	36.7086	36.7997	33.3211	32.3900	33.4216	34.3154
Cb	41.5166	41.5873	41.6530	41.7692	41.8488	41.9032	39.3951	39.0066	39.9265	40.3689
Cr	41.7211	41.8141	41.7681	41.9010	41.9442	41.9333	39.2142	38.2403	39.2267	39.7562
Mean value of step size	7.0666	7.0666	7.2000	7.0666	7.0666	6.9334	15.3334	19.2000	11.3334	9.7334
Total SNR for Y [dB]	37.8439	36.4029	36.7860	38.1044	36.3672	37.0057	35.5277	32.9296	33.4536	34.4202
Cb	37.9260	37.9313	37.9160	37.9529	38.0324	38.0012	37.4904	37.3383	37.5703	37.7465
Cr	37.7392	37.6595	37.7170	37.8037	37.7588	37.8623	37.2850	37.1266	37.4249	37.6396
Number of bits	459504	199000	150096	454104	159152	156768	890984	197800	145560	466576

Frame Number		101	102	103	104	105	106	107	108	109	110
Odd SNR for Y	[dB]	35.4225	35.2820	37.1480	36.3436	36.0743	38.0451	35.6803	36.5726	39.2028	36.7663
Cb		41.4011	41.2877	41.5932	41.9076	41.9897	42.1415	43.5143	43.5479	43.6802	42.9578
Cr		40.9350	40.8513	41.4318	41.6271	41.6517	42.0851	42.8109	43.4671	43.8813	43.1000
Mean value of step size		8.6666	8.8000	6.5334	7.8666	8.0000	5.8666	16.0000	8.2666	4.5334	7.6000
Even SNR for Y	[dB]	34.6563	34.8623	35.0714	34.9788	35.0714	35.3653	35.3701	35.3836	33.3245	34.6460
Cb		40.5153	40.5461	40.6759	40.7060	40.7448	40.8141	40.8385	40.8711	39.5332	40.6990
Cr		39.9404	40.0633	40.2571	40.1568	40.2962	40.5041	40.5449	40.6669	39.3092	40.1155
Mean value of step size		9.2000	8.9334	8.6666	8.8000	8.6666	8.4000	8.2666	8.2666	15.7334	9.8666
Total SNR for Y	[dB]	35.1202	35.1647	36.0844	35.7054	35.6416	36.5993	35.6200	36.0351	35.4344	35.6756
Cb		37.9101	37.8876	37.9593	38.0111	38.0235	38.0725	38.2692	38.2760	37.9795	38.1734
Cr		37.8781	37.8102	37.9082	37.8733	37.9470	38.0240	38.1053	38.2585	37.9429	38.0790
Number of bits		178304	171720	448888	181504	171920	452880	163656	158760	863504	167652

Frame Number		111	112	113	114	115	116	117	118	119	120
Odd SNR for Y	[dB]	36.5886	38.5498	36.9186	36.7055	38.6747	36.6338	36.7243	39.5970	36.1955	36.8288
Cb		42.7933	42.8658	43.1462	42.9673	43.1485	43.3072	43.0014	43.1753	43.6383	43.5796
Cr		42.8222	43.2248	43.2653	43.0386	43.3538	43.3546	43.0438	43.6205	43.4316	43.4802
Mean value of step size		7.7334	5.6000	7.4666	7.6000	5.4666	9.3334	7.7334	4.8000	10.9334	7.8666
Even SNR for Y	[dB]	35.2059	35.3686	35.4555	35.5526	35.5730	35.5973	35.7621	35.7869	35.8041	35.6318
Cb		40.8425	40.9777	41.0258	41.0569	41.1297	41.0554	41.1340	41.2141	41.1498	41.3413
Cr		40.5297	40.7362	40.7457	40.8289	40.9006	40.9242	41.2124	41.3079	41.1954	41.4338
Mean value of step size		8.5334	8.4000	8.2666	8.1334	8.1334	8.1334	7.8666	7.8666	7.8666	8.1334
Total SNR for Y	[dB]	35.9401	36.7718	36.2233	36.1885	36.9503	36.1823	36.3142	37.3845	36.0930	36.2868
Cb		38.1697	38.2226	38.2667	38.2467	38.2939	38.3116	38.2976	38.3347	38.3856	38.4024
Cr		38.1719	38.2961	38.2938	38.2830	38.3962	38.4404	38.4815	38.5981	38.5617	38.6290
Number of bits		171776	450720	182488	174944	446296	190984	173176	444384	137840	174224

Frame Number		121	122	123	124	125	126	127	128	129	130
Odd SNR for Y	[dB]	39.8812	35.2655	36.3081	38.6915	34.8318	36.3742	38.8208	35.0575	35.8295	39.2588
Cb		44.0414	42.9213	42.7735	42.7682	42.0263	42.8193	42.9433	42.4881	42.4963	42.5033
Cr		44.2001	42.7161	42.7717	43.1778	41.7372	42.7733	43.3547	42.1200	42.4314	42.7191
Mean value of step size		4.1334	10.9334	8.2666	5.6000	12.4000	8.4000	5.3334	12.0000	9.8666	5.2000
Even SNR for Y	[dB]	33.3492	34.4194	34.5019	34.1261	34.1758	34.4910	34.7869	34.6467	34.5805	34.6649
Cb		39.4427	40.3788	40.3718	40.1153	39.7902	40.3261	40.4074	40.2588	39.9897	40.3247
Cr		39.3675	39.8637	40.0960	39.7176	39.3130	39.9936	40.0047	39.7667	39.7269	39.8218
Mean value of step size		15.7334	10.4000	10.1334	11.8666	11.3334	10.9334	10.0000	10.5334	11.0666	11.0666
Total SNR for Y	[dB]	35.5856	34.9195	35.4094	35.9322	34.5890	35.4289	36.4491	34.9448	35.2578	36.4784
Cb		38.0139	38.1330	38.1364	38.0600	37.8498	38.1103	38.1468	38.0181	37.9229	38.0022
Cr		38.1998	38.2276	38.2780	38.2089	37.8396	38.1686	38.2282	37.9742	37.9952	38.0659
Number of bits		887168	178600	166256	448664	199224	159480	442128	172160	165608	472624

Frame Number		131	132	133	134	135	136	137	138	139	140
Odd SNR for Y	[dB]	34.4520	35.6759	38.7193	36.1744	35.5903	38.9774	35.4707	36.0916	39.0746	36.1325
Cb		43.4453	42.7437	43.3939	42.6191	42.6067	42.6343	41.7033	42.5085	42.8843	42.6727
Cr		42.4324	42.5777	43.4776	42.5806	42.2010	42.8790	41.4458	42.3732	42.9594	42.9441
Mean value of step size		17.8666	10.1334	4.8000	8.6666	10.2666	5.3334	11.2000	9.0666	5.2000	10.0000
Even SNR for Y	[dB]	34.7897	35.1780	33.9625	34.9157	34.6622	35.0526	34.8605	35.3427	35.5905	35.5545
Cb		40.5070	40.7090	40.0082	40.9727	40.8047	40.4720	39.9333	40.4924	40.7083	40.7476
Cr		39.9970	40.4979	39.6830	40.2828	40.2641	40.0306	39.5454	40.1138	40.3836	40.4442
Mean value of step size		10.2666	9.4666	14.9334	10.0000	11.2000	10.1334	10.8000	9.7334	8.8000	8.8000
Total SNR for Y	[dB]	34.7152	35.5174	35.8174	35.5972	35.1991	36.6835	35.2525	35.7986	37.0897	35.9315
Cb		38.1506	38.1144	38.0285	38.1670	38.0973	37.9768	37.6646	37.9161	37.9954	37.9488
Cr		38.1048	38.2901	38.2069	38.2578	38.2311	38.2699	37.9103	38.2150	38.3928	38.3961
Number of bits		168824	151504	869608	142976	175760	464552	173448	169824	464632	188360

Frame Number		141	142	143	144	145	146	147	148	149	150	151
Odd SNR for Y	[dB]	35.8829	38.6360	32.6277	34.3812	39.7084	35.5086	34.9486	38.6562	33.8766	34.0446	41.9627
Cb		42.1704	42.3809	43.0092	42.9265	43.8238	42.8079	42.0549	42.5854	42.4631	41.0800	44.4371
Cr		42.3023	42.4967	42.4632	42.7032	43.9577	42.5600	41.7721	42.9009	41.5657	40.5591	44.7736
Mean value of step size		10.2666	5.9334	21.7334	13.6000	4.2666	10.6666	12.2666	5.6000	15.3334	14.9334	4.4000
Even SNR for Y	[dB]	34.8505	34.7254	34.4202	34.3782	33.5736	33.8450	34.2931	34.3917	34.2455	34.3502	
Cb		40.3994	40.3856	40.0603	39.8719	39.8584	40.1592	40.1272	40.0757	39.7654	39.5046	
Cr		40.1662	39.9048	39.5685	39.6064	39.6581	39.6979	39.8059	39.8731	39.2702	39.0365	
Mean value of step size		10.6666	10.8000	11.3334	11.7334	15.8666	12.6666	12.0000	11.6000	11.7334	11.8666	
Total SNR for Y	[dB]	35.4337	36.3522	33.5297	34.4773	35.7350	34.6952	34.7061	36.1179	34.1547	34.2923	
Cb		37.7971	37.8083	37.7857	37.7356	37.8442	37.7874	37.6639	37.7246	37.6180	37.3211	
Cr		38.2154	38.1506	38.0621	38.0880	38.2716	38.1206	38.0138	38.2120	37.8475	37.5476	
Number of bits		178304	447472	178168	144936	878856	173408	174168	439472	218696	178736	313216

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Frame Number	1	2	3	4	5	6	7	8	9	10
Odd SNR for Y [dB]	29.4357	27.9945	27.2483	29.3345	27.9519	27.0719	28.1679	27.5809	26.8520	27.9532
Cb	33.2552	33.1725	32.7938	32.6311	32.5661	32.0715	31.7042	32.0126	31.5469	31.2993
Cr	33.4109	33.2662	32.8615	32.6975	32.5271	32.0648	31.6512	32.0308	31.4631	31.2617
Mean value of step size	20.6666	28.4000	32.2666	19.4666	28.2666	31.8666	22.8000	29.7334	32.5334	23.2000
Even SNR for Y [dB]	26.4712	25.5116	25.1316	24.9251	24.8535	24.5901	24.6562	24.5746	24.6241	24.8775
Cb	31.9950	31.8131	31.6150	31.5943	31.3496	31.0532	30.9504	30.8326	30.7008	30.8650
Cr	32.0777	31.8097	31.5178	31.3759	31.1824	30.9463	30.8747	30.5800	30.5493	30.7336
Mean value of step size	32.5334	39.8666	41.0666	41.8666	42.9334	43.8666	43.6000	43.7334	43.2000	43.0666
Total SNR for Y [dB]	27.8102	26.6816	26.1646	26.6965	26.2352	25.7578	26.1702	25.9248	25.6980	26.2522
Cb	31.1360	31.0370	30.8797	30.8086	30.7269	30.4819	30.3287	30.3754	30.1840	30.1594
Cr	31.5171	31.4152	31.1863	31.0714	30.9664	30.7206	30.5671	30.5601	30.3782	30.3929
Number of bits	439528	85792	76888	230688	89584	74888	192216	92584	73984	190000

Frame Number	11	12	13	14	15	16	17	18	19	20
Odd SNR for Y [dB]	28.6931	27.9444	28.3956	28.8600	28.0665	29.0149	29.3348	28.6630	29.6872	29.4815
Cb	33.2926	33.0270	32.4130	33.0701	32.6367	32.7104	33.0748	32.8552	32.5304	32.9573
Cr	33.2139	33.0271	32.5236	33.1073	32.6135	32.7531	33.1026	32.8897	32.4844	32.9025
Mean value of step size	25.4666	29.0666	23.6000	24.5334	28.4000	19.2000	22.9334	24.8000	18.1334	21.3334
Even SNR for Y [dB]	24.9662	24.9635	24.9591	24.8918	25.0870	25.1113	25.0764	25.1923	25.2410	25.1280
Cb	30.9556	30.9991	31.1575	31.1392	31.1235	31.0323	30.8488	30.6954	30.5892	30.3280
Cr	30.8573	30.9298	31.2254	31.2068	31.1374	31.0668	30.7067	30.5159	30.3693	30.1367
Mean value of step size	42.0000	42.0000	43.8666	43.6000	41.8666	40.1334	40.0000	39.4666	39.2000	39.6000
Total SNR for Y [dB]	26.5451	26.3061	26.4499	26.5411	26.4296	26.7429	26.8072	26.6939	27.0228	26.8845
Cb	30.7035	30.6645	30.5671	30.7269	30.6265	30.6140	30.6234	30.5171	30.3755	30.3699
Cr	31.0102	31.0121	30.9563	31.1152	30.9479	30.9378	30.8649	30.7508	30.5722	30.5828
Number of bits	96320	71384	367600	93096	69632	178192	92320	69656	183352	93728

Frame Number	21	22	23	24	25	26	27	28	29	30
Odd SNR for Y [dB]	28.8409	29.8975	30.2532	29.7392	28.8386	30.6290	29.6265	30.5173	30.8727	30.2076
Cb	32.7446	32.3593	33.7351	33.7411	32.7376	33.4235	33.2401	32.6793	33.3787	33.3787
Cr	32.6816	32.3214	33.8162	33.8651	32.8766	33.5153	33.3434	32.7443	33.4805	33.4642
Mean value of step size	24.0000	17.8666	18.9334	22.2666	22.1334	17.6000	20.6666	16.2666	17.0666	19.2000
Even SNR for Y [dB]	25.1878	25.1993	25.1742	25.2062	25.1394	25.1111	25.0912	25.1685	25.3345	25.3385
Cb	30.2160	30.2789	30.2638	30.2845	31.4009	31.1190	30.7395	30.5260	30.4146	30.2762
Cr	30.0368	30.1011	30.1253	30.1226	31.3193	30.9966	30.6654	30.5287	30.4257	30.3160
Mean value of step size	38.9334	39.4666	39.2000	39.2000	42.4000	41.7334	39.6000	38.2666	37.8666	39.3334
Total SNR for Y [dB]	26.7451	27.0461	27.1138	27.0103	26.7104	27.1507	26.8958	27.1708	27.3785	27.2278
Cb	30.2925	30.2210	30.5197	30.5390	30.7315	30.8158	30.6218	30.3797	30.5014	30.4494
Cr	30.4894	30.4132	30.7807	30.7903	31.0258	31.0942	30.9041	30.6622	30.8140	30.7471
Number of bits	71104	191264	90512	70640	386104	81400	66304	189384	88720	67320

Frame Number	31	32	33	34	35	36	37	38	39	40
Odd SNR for Y [dB]	30.9809	29.7892	29.2914	31.4491	29.9587	29.4770	28.8657	29.3645	28.6343	30.0436
Cb	32.7705	33.6100	33.5833	33.3130	34.0614	33.6570	32.6796	32.8908	33.0586	32.6476
Cr	32.7947	33.5931	33.5575	33.2511	34.1461	33.6888	32.7865	32.9823	33.0438	32.7037
Mean value of step size	15.0666	21.2000	23.4666	13.8666	20.1334	23.2000	22.1334	21.7334	25.4666	16.9334
Even SNR for Y [dB]	25.2780	25.1336	25.1006	25.0459	24.9649	24.9477	24.8478	24.7556	24.8704	25.0241
Cb	30.2273	30.2213	30.1563	30.2409	30.2045	30.2010	30.9317	31.0028	30.8025	30.7436
Cr	30.2302	30.1617	30.1639	30.2302	30.1781	30.1562	30.9238	30.9717	30.7831	30.6248
Mean value of step size	37.3334	37.6000	37.8666	38.6666	39.2000	39.6000	42.9334	43.2000	41.8666	40.9334
Total SNR for Y [dB]	27.3577	26.9689	26.8129	27.2648	26.8838	26.7506	26.5115	26.5787	26.4604	26.9497
Cb	30.2699	30.4470	30.4196	30.4023	30.5543	30.4609	30.5229	30.6140	30.5779	30.4570
Cr	30.5262	30.6775	30.6732	30.6241	30.8160	30.7069	30.8296	30.9257	30.8754	30.7115
Number of bits	194088	95496	69488	196640	93536	68568	389888	88576	70072	189984

Frame Number	41	42	43	44	45	46	47	48	49	50
Odd SNR for Y [dB]	30.1777	29.4957	30.3120	30.0694	29.2971	30.3221	29.8539	29.3444	28.7640	29.8888
Cb	33.1215	33.0306	32.4413	32.9760	33.0252	32.4241	33.4989	33.5709	32.5170	33.1030
Cr	33.0775	33.0850	32.3874	32.9119	32.9832	32.3140	33.3904	33.4829	32.5686	33.1416
Mean value of step size	19.2000	22.4000	17.3334	19.2000	22.9334	16.8000	20.4000	23.3334	22.4000	20.1334
Even SNR for Y [dB]	25.1220	25.0609	24.9029	24.8882	24.9647	24.9028	24.8175	24.8085	24.8395	24.9186
Cb	30.5757	30.3617	30.2044	30.1587	29.9981	29.9333	30.0145	29.9750	31.0031	31.0002
Cr	30.3656	30.1852	30.0956	30.0318	29.8905	29.8548	29.8402	29.8275	30.7969	30.8436
Mean value of step size	40.0000	39.7334	40.0000	39.8666	39.7334	39.8666	40.4000	40.9334	44.1334	43.2000
Total SNR for Y [dB]	27.0559	26.8391	26.9186	26.8518	26.7157	26.9209	26.7467	26.6130	26.4765	26.8320
Cb	30.5201	30.3881	30.1699	30.2851	30.2267	30.0502	30.3196	30.3207	30.4748	30.6359
Cr	30.7096	30.6199	30.3778	30.4974	30.4519	30.2595	30.5268	30.5265	30.6945	30.8546
Number of bits	87928	72584	189128	87264	71648	196320	92696	69808	386080	80864

Frame Number	51	52	53	54	55	56	57	58	59	60
Odd SNR for Y [dB]	28.9122	30.0733	29.5244	28.8576	30.2485	29.0099	28.3551	29.4719	29.7420	28.7136
Cb	32.8943	32.4427	32.9605	32.9777	32.5266	32.8150	32.6330	32.2172	33.4471	33.3768
Cr	32.9940	32.4468	32.8496	32.8436	32.3792	32.6490	32.4644	32.0704	33.3349	33.1757
Mean value of step size	24.1334	17.3334	22.9334	26.2666	16.6666	24.4000	27.2000	18.6666	20.9334	25.3334
Even SNR for Y [dB]	25.2031	25.2685	25.2713	25.1965	24.9737	24.8660	24.7957	24.7513	24.6827	24.7356
Cb	30.8610	30.7273	30.4063	30.1973	30.1801	30.0841	29.9902	30.2047	30.2710	30.1698
Cr	30.7942	30.5803	30.2940	30.1332	30.1410	29.9810	29.9358	30.0817	30.0855	30.0409
Mean value of step size	40.0000	39.0666	38.5334	39.2000	40.0000	40.4000	40.9334	41.4666	41.6000	41.4666
Total SNR for Y [dB]	26.7771	27.1421	27.0006	26.7563	26.9594	26.5650	26.3244	26.6038	26.6175	26.3880
Cb	30.5293	30.3504	30.3669	30.3007	30.1714	30.1986	30.1085	30.0900	30.3894	30.3393
Cr	30.7890	30.5560	30.5593	30.5080	30.3724	30.3729	30.3053	30.2499	30.5522	30.4946
Number of bits	71104	187432	92776	73840	195968	93752	71168	193256	94288	69792

Frame Number	61	62	63	64	65	66	67	68	69	70
Odd SNR for Y [dB]	28.4749	29.2113	28.6634	29.0092	29.0412	28.4064	28.8227	28.6200	27.9019	28.7955
Cb	32.2925	32.5779	32.4599	31.9322	32.1595	32.0078	31.4941	32.0383	31.8426	31.4841
Cr	32.3214	32.6002	32.4209	31.9462	32.2858	31.9783	31.4997	31.9688	31.6158	31.3181
Mean value of step size	23.2000	21.6000	23.6000	19.7334	22.0000	24.0000	20.5334	24.0000	27.3334	20.4000
Even SNR for Y [dB]	24.7791	24.6343	24.7254	24.8842	24.7302	24.7278	24.8178	24.7162	24.6954	24.8075
Cb	30.6582	30.6821	30.6142	30.6452	30.4321	30.2761	30.3009	30.2407	30.1205	30.3460
Cr	30.5976	30.6413	30.6684	30.6974	30.5215	30.4177	30.4399	30.2874	30.1951	30.2847
Mean value of step size	44.2666	43.2000	42.0000	41.7334	41.7334	41.0666	41.2000	41.4666	41.8666	42.0000
Total SNR for Y [dB]	26.3489	26.4494	26.3663	26.5785	26.4751	26.2925	26.4781	26.3472	26.1124	26.4631
Cb	30.2687	30.3813	30.3127	30.1725	30.1586	30.0704	29.9340	30.0646	29.9717	29.9517
Cr	30.5008	30.6092	30.5757	30.4489	30.4949	30.3625	30.2152	30.3078	30.1736	30.0960
Number of bits	378920	77000	69848	195440	80608	70480	201368	85488	73896	203218

Frame Number	71	72	73	74	75	76	77	78	79	80
Odd SNR for Y [dB]	29.2008	28.5750	28.3875	28.4417	27.8459	28.6444	28.3243	27.4856	28.6919	28.7430
Cb	33.1532	33.0834	32.2308	32.4719	32.1900	31.7832	32.0339	31.7281	31.6004	32.3886
Cr	33.1201	32.8804	32.2482	32.4549	32.1029	31.7198	31.9220	31.4415	31.3405	32.2108
Mean value of step size	22.6666	26.2666	23.3334	25.2000	28.0000	20.8000	25.4666	29.7334	20.4000	24.4000
Even SNR for Y [dB]	24.7784	24.8370	24.7667	24.6632	24.6919	24.5916	24.4720	24.5855	24.8084	24.8541
Cb	30.4878	30.4865	30.7422	30.8292	30.6711	30.6427	30.5471	30.5193	30.5715	30.5728
Cr	30.3408	30.2767	30.5540	30.6691	30.5843	30.5814	30.4161	30.3194	30.3846	30.4313
Mean value of step size	41.8666	41.7334	44.1334	43.6000	42.5334	42.9334	42.9334	42.1334	41.3334	40.2666
Total SNR for Y [dB]	26.5530	26.4196	26.3141	26.2575	26.0917	26.2654	26.0877	25.9003	26.4341	26.4808
Cb	30.4284	30.4159	30.2958	30.4218	30.2867	30.1712	30.2073	30.1089	30.0925	30.3240
Cr	30.6014	30.5316	30.4666	30.5835	30.4627	30.3281	30.3231	30.1507	30.1311	30.4240
Number of bits	93304	72608	376544	80288	71712	200048	93904	70616	189064	95920

Frame Number	81	82	83	84	85	86	87	88	89	90
Odd SNR for Y [dB]	28.3275	29.4456	29.7750	28.7269	28.4187	29.1396	28.6337	29.7244	29.2673	28.6342
Cb	32.0187	31.9930	33.3395	33.4230	32.2188	32.4701	32.6136	32.3388	33.0510	32.8460
Cr	31.7645	31.7885	33.2076	33.2279	32.2196	32.4683	32.5371	32.3161	32.9101	32.6485
Mean value of step size	26.6666	18.1334	21.8666	26.0000	23.2000	23.0666	25.7334	17.3334	22.9334	25.7334
Even SNR for Y [dB]	24.9127	25.0271	24.9423	24.8994	24.8532	24.7407	24.9820	25.0450	25.0677	25.1107
Cb	30.5850	30.6706	30.6771	30.5913	30.4950	30.6911	30.6114	30.6790	30.6448	30.5869
Cr	30.4285	30.4655	30.5197	30.3457	30.3633	30.4941	30.4195	30.4019	30.3569	30.2915
Mean value of step size	39.7334	38.8000	39.2000	39.8666	43.2000	42.9334	40.9334	40.0000	39.3334	39.2000
Total SNR for Y [dB]	26.3969	26.8018	26.8224	26.5086	26.3838	26.5090	26.5388	26.8871	26.7824	26.6287
Cb	30.2383	30.2585	30.5909	30.5653	30.2120	30.3619	30.3752	30.3341	30.5103	30.4487
Cr	30.2903	30.2987	30.6959	30.6117	30.3155	30.4524	30.4657	30.3929	30.5381	30.4536
Number of bits	65872	181568	94352	71792	381544	87712	71424	183968	96880	72296

Frame Number	91	92	93	94	95	96	97	98	99	100
Odd SNR for Y [dB]	30.3076	29.1442	28.5175	29.9169	29.8506	29.1026	28.3274	29.4992	28.9907	29.4963
Cb	32.7937	32.8171	32.5788	32.4894	33.3439	33.3691	32.0768	32.7411	32.5493	32.4935
Cr	32.6625	32.6391	32.2647	32.2648	33.1271	33.1055	32.0474	32.6673	32.4559	32.4810
Mean value of step size	16.6666	23.0666	26.2666	17.7334	21.3334	24.6666	23.3334	21.6000	23.8666	17.8666
Even SNR for Y [dB]	25.1130	24.9502	24.9050	25.0347	25.0105	24.9484	24.8220	24.9598	25.2511	25.3949
Cb	30.5855	30.5103	30.4944	30.6148	30.6584	30.4683	30.6532	30.8228	30.7907	30.8046
Cr	30.3386	30.2837	30.2845	30.3214	30.3836	30.2687	30.3699	30.5087	30.5989	30.6647
Mean value of step size	39.2000	39.8666	40.5334	40.2666	40.0000	39.8666	43.2000	42.8000	38.9334	37.2000
Total SNR for Y [dB]	27.0804	26.6633	26.4500	26.9275	26.8924	26.6507	26.3342	26.7655	26.8346	27.0833
Cb	30.4194	30.3926	30.3168	30.3344	30.5595	30.4796	30.2329	30.4830	30.4311	30.4254
Cr	30.4565	30.4400	30.3512	30.3476	30.6019	30.5340	30.2809	30.5202	30.4995	30.5280
Number of bits	187648	95760	73648	189024	92920	69408	381208	84936	64600	182424

Frame Number	101	102	103	104	105	106	107	108	109	110
Odd SNR for Y [dB]	30.1356	29.4902	29.8540	30.4022	29.8173	30.0544	29.9636	29.4777	28.7214	29.4019
Cb	32.8679	32.6469	32.6055	32.9257	32.6666	32.6169	33.5282	33.5842	32.3005	32.9436
Cr	32.8011	32.5529	32.5212	32.8426	32.4747	32.4726	33.3615	33.3818	32.2949	32.8213
Mean value of step size	20.0000	21.4666	17.4666	18.8000	21.3334	17.0666	21.0666	23.4666	22.4000	21.4666
Even SNR for Y [dB]	25.5571	25.5402	25.5587	25.6443	25.6422	25.7302	25.6628	25.5719	25.3411	25.2326
Cb	30.7138	30.6638	30.6451	30.5678	30.5673	30.6736	30.6808	30.5841	30.4962	30.7285
Cr	30.5717	30.4912	30.5027	30.4376	30.3664	30.4554	30.4366	30.4179	30.2614	30.4250
Mean value of step size	36.0000	35.8666	35.3334	35.0666	35.4666	35.0666	35.6000	36.8000	40.9334	40.1334
Total SNR for Y [dB]	27.3734	27.1856	27.3006	27.5064	27.3510	27.4799	27.4055	27.2044	26.8145	26.9390
Cb	30.4830	30.4061	30.3709	30.4269	30.3787	30.4033	30.6262	30.5897	30.2130	30.4844
Cr	30.5884	30.4864	30.4587	30.5313	30.4142	30.4469	30.6756	30.6668	30.2672	30.5096
Number of bits	91216	67968	188592	90568	72184	193056	97960	70528	387728	84120

Frame Number	111	112	113	114	115	116	117	118	119	120
Odd SNR for Y [dB]	28.9939	30.3477	29.6802	28.8910	30.2441	30.0279	29.0318	30.6478	30.7540	30.7023
Cb	32.7440	32.6750	33.0876	32.5849	32.7285	33.0075	33.2315	33.0316	33.5196	33.5899
Cr	32.6109	32.6026	32.8428	32.3481	32.5371	32.8291	32.9571	32.8019	33.4041	33.4725
Mean value of step size	23.6000	16.8000	21.6000	24.6666	17.0666	21.0666	24.2666	15.6000	18.5334	20.2666
Even SNR for Y [dB]	25.2638	25.2634	25.2108	25.3963	25.5155	25.4200	25.5251	25.6567	25.7600	25.8186
Cb	30.7757	30.7917	30.6354	30.5448	30.4923	30.2788	30.1924	30.1212	30.0739	29.9407
Cr	30.4935	30.5459	30.3727	30.2572	30.2294	29.9957	29.8599	29.8100	29.8126	29.7905
Mean value of step size	38.6666	38.0000	38.5334	38.4000	38.0000	37.6000	37.4666	37.3334	36.4000	36.0000
Total SNR for Y [dB]	26.8444	27.2049	26.9983	26.9057	27.3705	27.2437	27.0384	27.5765	27.6799	27.7121
Cb	30.4330	30.4191	30.4829	30.3269	30.3307	30.3158	30.3175	30.2310	30.3243	30.2774
Cr	30.4689	30.4866	30.4849	30.3150	30.3399	30.3269	30.2669	30.1758	30.3292	30.3316
Number of bits	70296	190760	97728	68568	185880	93344	73496	186624	89408	67584

Frame Number	121	122	123	124	125	126	127	128	129	130
Odd SNR for Y [dB]	28.8527	29.9274	29.4991	30.4495	30.0588	30.0893	31.0923	31.1230	30.3869	31.3036
Cb	32.2434	32.9931	32.7067	32.8816	33.1209	32.9427	33.2494	33.6711	33.5228	33.6512
Cr	32.2458	32.8528	32.5650	32.8580	33.0510	32.7957	33.2298	33.5647	33.4362	33.5305
Mean value of step size	22.5334	20.8000	22.9334	15.8666	21.4666	22.6666	15.0666	18.9334	22.0000	14.5334
Even SNR for Y [dB]	25.6299	25.5607	25.7314	25.8159	25.8817	26.0605	26.1610	26.2169	26.6242	27.0988
Cb	30.9018	30.7129	30.5489	30.4465	30.4862	30.6551	30.8237	30.8577	30.9374	31.0271
Cr	30.5880	30.3603	30.3039	30.2335	30.2445	30.4399	30.5939	30.6811	30.7980	30.9058
Mean value of step size	40.0000	39.7334	38.0000	37.2000	36.4000	35.6000	35.4666	34.5334	32.5334	30.4000
Total SNR for Y [dB]	27.0537	27.3212	27.3236	27.6467	27.5907	27.7284	28.0664	28.1158	28.2158	28.8172
Cb	30.3411	30.4814	30.3450	30.3323	30.3945	30.4125	30.5540	30.6466	30.6728	30.7440
Cr	30.3570	30.4563	30.3543	30.3967	30.4382	30.4463	30.6067	30.7082	30.7343	30.7952
Number of bits	384072	84432	67192	194408	93392	67608	191928	91040	63232	188120

Frame Number	131	132	133	134	135	136	137	138	139	140
Odd SNR for Y [dB]	31.8368	30.4244	29.4306	30.8400	30.4710	31.2455	31.2721	31.0239	31.8017	31.5529
Cb	34.3058	34.2433	32.3877	33.2432	33.0215	33.1854	33.6493	33.6288	33.7362	34.1173
Cr	34.2992	34.1154	32.4637	33.4004	33.1465	33.3143	33.8547	33.8148	33.8750	34.2519
Mean value of step size	16.8000	20.6666	21.4666	19.0666	19.7334	14.6666	18.5334	18.5334	13.2000	16.9334
Even SNR for Y [dB]	27.2608	27.0359	26.2808	26.2849	26.4794	26.5253	26.5721	26.5964	26.7116	26.8165
Cb	30.9952	30.8160	31.0164	30.9398	30.7491	30.5287	30.3269	30.4027	30.4071	30.4931
Cr	30.8735	30.7346	30.8899	30.8214	30.6321	30.4137	30.2202	30.2570	30.2847	30.3623
Mean value of step size	29.7334	30.8000	37.3334	37.7334	34.9334	33.7334	33.3334	33.6000	32.5334	31.2000
Total SNR for Y [dB]	29.0780	28.5141	27.6813	28.0955	28.1372	28.3788	28.4204	28.3742	28.6557	28.6744
Cb	30.8637	30.7793	30.4401	30.6224	30.4916	30.4342	30.4467	30.4841	30.5003	30.5975
Cr	30.9336	30.8360	30.5068	30.7143	30.5612	30.4997	30.5223	30.5381	30.5575	30.6460
Number of bits	84456	75872	395488	81640	66856	184008	88920	71416	191984	85112

Frame Number	141	142	143	144	145	146	147	148	149	150	151
Odd SNR for Y [dB]	30.9448	31.8233	31.2267	30.7868	28.9868	31.1501	30.3142	31.1261	30.0430	29.0755	33.1085
Cb	33.8016	33.8372	34.1476	34.1912	32.2629	33.1674	33.0869	32.5251	34.1040	33.1261	34.3168
Cr	33.9125	33.9306	34.2197	34.2454	32.3363	33.2413	33.1974	32.5293	33.8574	33.1037	34.3060
Mean value of step size	18.2666	13.2000	17.6000	19.8666	21.8866	16.8000	19.0866	14.8000	23.7334	26.0000	10.6666
Even SNR for Y [dB]	26.9967	26.7447	26.5811	26.3873	25.5375	25.5477	25.6604	25.6775	25.5075	25.5075	
Cb	30.6361	30.6184	30.2736	30.0180	30.7288	30.6868	30.4491	30.3223	30.1323	29.9822	
Cr	30.5774	30.5814	30.2838	29.9148	30.4692	30.4604	30.2266	30.0700	29.8593	29.6919	
Mean value of step size	29.6000	30.8000	31.6000	32.1334	39.4666	39.4666	37.3334	36.4000	36.8000	36.8000	
Total SNR for Y [dB]	28.6430	28.6860	28.4156	28.1575	27.0325	27.6058	27.4962	27.7025	27.3125	27.0396	
Cb	30.5985	30.5853	30.4790	30.3872	30.2297	30.4266	30.3409	30.1331	30.3905	30.1386	
Cr	30.6772	30.6690	30.5943	30.4291	30.2219	30.4617	30.3563	30.1121	30.3008	30.0856	
Number of bits	69696	199160	83976	72680	406256	81280	68312	192712	107768	74208	152056

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Frame Number	1	2	3	4	5	6	7	8	9	10
Odd SNR for Y [dB]	34.9345	30.8400	29.8015	32.0954	30.7717	29.7897	32.4611	30.6283	29.8219	32.5517
Cb	37.2895	36.2325	35.4792	35.5257	35.2458	34.5204	34.3787	34.7151	34.0985	34.1740
Cr	37.6399	36.3184	35.6149	35.6350	35.2171	34.5173	34.5169	34.7435	34.0852	34.2986
Mean value of step size	8.8000	18.5334	21.6000	12.9334	18.2666	20.8000	12.9334	19.2000	20.9334	12.5334
Even SNR for Y [dB]	28.9389	28.3915	28.3704	28.2491	28.1747	27.9837	28.1515	27.9687	28.0877	28.2846
Cb	33.8815	33.6738	33.5190	33.2255	32.9477	32.6018	32.5023	32.2784	32.2237	32.2948
Cr	34.2336	33.8417	33.6018	33.3941	32.9946	32.6931	32.6029	32.3718	32.3389	32.4172
Mean value of step size	21.8666	22.8000	22.6666	22.6666	23.0666	23.6000	22.9334	23.4666	22.9334	22.4000
Total SNR for Y [dB]	31.0745	29.5537	29.1373	29.8685	29.3904	28.9029	29.9006	29.2065	28.9787	30.0212
Cb	32.5320	32.2798	32.1238	32.0130	31.9006	31.6420	31.5476	31.5429	31.3791	31.4046
Cr	33.1222	32.7938	32.5781	32.4895	32.2833	32.0175	31.9664	31.9157	31.7501	31.8425
Number of bits	804104	194696	181376	496608	208736	179120	422272	206296	176336	422000

Frame Number	11	12	13	14	15	16	17	18	19	20
Odd SNR for Y [dB]	31.1879	30.8718	34.2728	31.7147	31.0546	33.9502	32.5391	32.1360	34.5028	32.6015
Cb	36.3756	35.9199	36.8610	37.0050	35.9488	36.4798	36.4060	36.0224	35.9264	36.0409
Cr	36.2935	35.8531	36.9888	36.9073	35.8932	36.4323	36.3753	36.1032	36.0588	35.9994
Mean value of step size	18.4000	19.2000	9.3334	16.9334	18.4000	10.0000	15.2000	15.3334	9.2000	14.2666
Even SNR for Y [dB]	28.5144	28.6502	28.3010	28.3921	28.9512	29.0823	29.1141	29.1847	29.2550	29.3004
Cb	32.3245	32.5255	33.3801	33.1492	32.9890	32.8004	32.5609	32.4494	32.4082	32.2585
Cr	32.4176	32.6594	33.5094	33.3234	33.1798	33.0552	32.8142	32.6627	32.5030	32.3795
Mean value of step size	21.7334	21.3334	24.1334	22.4000	20.8000	20.1334	19.8666	19.4666	19.4666	19.3334
Total SNR for Y [dB]	29.7564	29.7288	30.4377	29.8507	29.9838	30.9684	30.6014	30.5189	31.2283	30.7475
Cb	31.7861	31.7909	32.2197	32.1565	31.9549	31.9895	31.8826	31.7985	31.7448	31.7177
Cr	32.2346	32.2694	32.7464	32.6761	32.4524	32.4854	32.3693	32.2951	32.2091	32.1537
Number of bits	222184	172176	784928	204928	172224	406032	219992	166240	407336	220520

Frame Number	21	22	23	24	25	26	27	28	29	30
Odd SNR for Y [dB]	32.3389	34.7745	33.5985	33.0354	34.7247	34.2388	33.3363	35.7541	34.1026	33.5922
Cb	35.8366	35.6398	37.2215	36.8456	37.1889	37.4193	37.0371	36.5090	36.7906	36.7654
Cr	35.7579	35.7903	37.2500	36.9164	37.4444	37.3451	37.1519	36.6904	36.8576	36.8932
Mean value of step size	14.8000	9.4666	12.4000	13.8666	8.8000	11.6000	12.6666	8.1334	11.7334	12.0000
Even SNR for Y [dB]	29.2903	29.2728	29.2540	29.3743	28.3694	28.9128	29.1495	29.5021	29.7007	29.8539
Cb	32.2534	32.2404	32.1928	32.2783	33.3594	32.9184	32.6653	32.5850	32.5171	32.5252
Cr	32.3711	32.4012	32.3539	32.4618	33.5922	33.2885	33.0123	32.8953	32.6701	32.7004
Mean value of step size	19.3334	19.4666	19.4666	19.0666	23.8666	20.6666	19.4666	18.4000	17.8666	17.6000
Total SNR for Y [dB]	30.6560	31.3028	31.0050	30.9314	30.5796	30.9074	30.8586	31.6862	31.4639	31.4302
Cb	31.6975	31.6588	31.8691	31.8567	32.2669	32.1673	32.0262	31.8882	31.9081	31.9160
Cr	32.1339	32.1125	32.3299	32.3357	32.7928	32.7056	32.5836	32.4448	32.3981	32.4114
Number of bits	171112	422056	219752	172088	802608	194168	165680	420288	212936	171336

Frame Number	31	32	33	34	35	36	37	38	39	40
Odd SNR for Y [dB]	34.9792	31.9712	31.8607	35.2905	31.4368	31.8786	34.8013	32.1164	31.6448	35.3319
Cb	36.1022	36.8033	36.2152	36.9063	36.9103	36.8666	37.1144	36.9896	36.5813	36.6087
Cr	36.1521	36.7805	36.1809	36.8731	36.9842	36.8754	37.4095	37.0325	36.5971	36.7843
Mean value of step size	8.8000	15.4666	15.7334	8.8000	18.0000	16.0000	8.8000	15.2000	16.5334	8.4000
Even SNR for Y [dB]	29.7198	29.6028	29.3722	29.2090	29.1378	29.1468	28.1943	28.3337	28.7262	28.8778
Cb	32.4721	32.4182	32.3473	32.3112	32.2368	32.2337	32.8478	32.7825	32.5844	32.3651
Cr	32.6791	32.5211	32.4823	32.4389	32.3124	32.3745	33.1786	33.0426	32.8569	32.5938
Mean value of step size	17.8666	18.4000	18.8000	19.0666	19.3334	19.3334	24.2666	22.6666	21.0666	20.4000
Total SNR for Y [dB]	31.6953	30.7302	30.5445	31.3599	30.2428	30.4064	30.4512	29.9330	30.0516	31.1018
Cb	31.7748	31.8543	31.7596	31.8360	31.8211	31.8018	32.0612	32.0322	31.9173	31.8417
Cr	32.2487	32.2814	32.1912	32.2608	32.2386	32.2411	32.5872	32.5131	32:4073	32.3236
Number of bits	421392	225600	170384	422512	233456	165888	807064	195592	172144	415984

Frame Number	41	42	43	44	45	46	47	48	49	50
Odd SNR for Y [dB]	33.3090	32.8549	34.8404	33.3886	32.3193	34.8954	31.7183	32.1440	34.6988	33.2728
Cb	36.6900	36.4446	35.7970	36.2489	36.2652	35.6680	36.9626	36.8592	37.0622	37.0833
Cr	36.6315	36.5112	35.8892	36.0927	36.1210	35.7354	36.7882	36.8042	37.2944	37.0539
Mean value of step size	13.4666	14.1334	9.4666	12.4000	14.6666	9.2000	17.7334	15.8666	8.9334	13.2000
Even SNR for Y [dB]	29.1622	29.1296	29.0462	29.0954	29.1961	29.0323	28.8385	28.8621	28.2110	28.4450
Cb	32.1947	32.1300	31.9832	31.9529	31.9995	31.9339	31.7560	31.7792	33.0219	32.8448
Cr	32.3431	32.2925	32.1449	32.1469	32.1479	32.0460	31.8838	31.9250	33.1936	32.9862
Mean value of step size	19.7334	19.6000	19.8666	19.6000	19.3334	19.6000	20.2666	20.2666	24.2666	22.1334
Total SNR for Y [dB]	30.8602	30.7077	31.1401	30.8337	30.5866	31.1404	30.1498	30.3050	30.4464	30.3255
Cb	31.7949	31.7138	31.5473	31.6164	31.6310	31.5065	31.6133	31.6054	32.0525	32.0115
Cr	32.2180	32.1757	31.9795	32.0274	32.0294	31.9092	32.0010	32.0121	32.5343	32.4101
Number of bits	214856	172760	416600	212504	177184	424272	231360	166856	800480	190680

Frame Number	51	52	53	54	55	56	57	58	59	60
Odd SNR for Y [dB]	32.3913	34.9730	32.5203	32.0465	34.3364	31.9897	31.3808	34.1659	31.6225	31.4423
Cb	36.5471	36.2101	36.0827	36.0454	35.7281	35.8511	35.3798	35.3487	36.8299	36.4255
Cr	36.5665	36.3925	35.9851	36.0047	35.6229	35.8397	35.2465	35.4328	36.7388	36.2988
Mean value of step size	15.0666	9.0666	14.9334	16.4000	9.6000	16.0000	17.2000	10.0000	18.4000	16.9334
Even SNR for Y [dB]	29.0508	29.2257	29.3683	29.0807	28.8810	28.6606	28.5557	28.5645	28.4658	28.5621
Cb	32.7467	32.5122	32.3314	32.1651	32.0208	31.9185	31.8192	31.8964	31.8255	31.8489
Cr	33.0025	32.7792	32.5534	32.3300	32.2235	32.0395	32.0347	31.9682	31.8273	31.8747
Mean value of step size	20.1334	19.4666	19.0666	19.8666	20.5334	20.9334	21.2000	21.2000	21.2000	21.0666
Total SNR for Y [dB]	30.5121	31.3085	30.7667	30.4196	30.9044	30.1191	29.8495	30.6216	29.8703	29.8748
Cb	31.9063	31.7554	31.6903	31.6517	31.5280	31.5083	31.3860	31.3985	31.5637	31.5271
Cr	32.3447	32.2409	32.1203	32.0645	31.9222	31.8986	31.7795	31.7519	31.8859	31.8397
Number of bits	170664	410832	218864	175544	429776	218568	172080	425048	237360	166968

Frame Number	61	62	63	64	65	66	67	68	69	70
Odd SNR for Y [dB]	34.2880	32.6786	31.8660	33.7575	32.4669	31.7117	33.6258	32.0017	31.1104	33.6618
Cb	36.6828	36.3999	35.8012	35.2562	35.3504	34.9626	34.6724	35.1164	34.6655	34.5724
Cr	36.9075	36.3801	35.8403	35.5232	35.6047	34.9696	34.8265	35.1868	34.6072	34.6138
Mean value of step size	9.3334	13.7334	15.2000	10.6666	13.7334	14.9334	11.0666	14.9334	17.0666	10.9334
Even SNR for Y [dB]	28.0553	28.2459	28.5510	28.7831	28.6132	28.7150	28.6294	28.4471	28.3733	28.4358
Cb	32.7020	32.6880	32.5068	32.3757	32.1414	32.0557	31.9193	31.8689	31.7433	31.7894
Cr	32.9444	32.9340	32.8134	32.6606	32.2771	32.1349	32.0231	32.0015	31.8200	31.8678
Mean value of step size	24.5334	22.2666	21.0666	20.5334	20.9334	20.5334	20.9334	21.6000	21.8666	21.7334
Total SNR for Y [dB]	30.2437	30.0264	30.0067	30.6967	30.2311	30.0662	30.5492	29.9767	29.6373	30.4107
Cb	31.8735	31.8607	31.6900	31.5446	31.4886	31.4012	31.2901	31.3577	31.2502	31.2436
Cr	32.3181	32.2665	32.1387	32.0153	31.9088	31.7428	31.6615	31.7367	31.5645	31.5548
Number of bits	787200	187136	167936	424568	197104	174784	438112	201552	177056	438088

Frame Number	71	72	73	74	75	76	77	78	79	80
Odd SNR for Y [dB]	31.9715	31.5490	34.2335	32.1004	31.0184	33.4231	31.7482	30.7481	33.3855	32.0407
Cb	36.5470	36.0465	36.7005	36.1812	35.4111	35.0512	35.2474	34.4528	34.5687	35.6832
Cr	36.6182	36.1039	36.8518	36.0922	35.3519	35.0973	34.9994	34.3810	34.6809	35.5660
Mean value of step size	15.8666	16.8000	9.3334	15.6000	17.8666	11.2000	16.1334	18.6666	10.9334	15.4666
Even SNR for Y [dB]	28.4159	28.4131	28.0350	28.1161	28.3673	28.3451	28.2625	28.4225	28.7457	28.7408
Cb	31.7526	31.7822	32.7950	32.8479	32.6330	32.4391	32.1293	32.1222	32.1640	32.1698
Cr	31.8987	31.9727	32.9359	32.9522	32.7438	32.5324	32.2031	32.2185	32.3167	32.3047
Mean value of step size	21.6000	21.7334	24.6666	22.8000	22.0000	22.0000	22.0000	21.4666	20.4000	20.6666
Total SNR for Y [dB]	29.9463	29.8115	30.2173	29.7740	29.6017	30.2858	29.7715	29.5394	30.5773	30.1897
Cb	31.5408	31.4970	31.9249	31.8964	31.7093	31.5698	31.4897	31.3404	31.3880	31.6027
Cr	31.9157	31.8781	32.3310	32.2491	32.0395	31.8676	31.7227	31.6101	31.6994	31.8840
Number of bits	229024	174264	786152	193256	172192	431992	214864	173384	419760	221784

Frame Number	81	82	83	84	85	86	87	88	89	90
Odd SNR for Y [dB]	31.5651	33.6471	32.4325	31.8170	34.3861	31.8855	31.8306	34.9303	31.7694	31.4894
Cb	34.7872	35.0621	36.7791	36.8145	36.7773	36.3384	36.1971	36.4712	37.0673	36.1102
Cr	34.6515	34.9681	36.6972	36.6389	36.9608	36.2276	36.1070	36.5558	36.7250	35.9160
Mean value of step size	16.5334	10.2666	15.8666	16.8000	9.0666	16.5334	16.5334	8.6666	16.4000	16.9334
Even SNR for Y [dB]	29.0258	29.0929	28.9401	28.7738	28.1718	28.2574	28.8081	28.9790	29.0719	29.0705
Cb	32.2818	32.2893	32.3200	32.3450	32.3958	32.5265	32.4759	32.3751	32.3406	32.2764
Cr	32.3915	32.4767	32.4938	32.5548	32.7151	32.7663	32.7710	32.6752	32.4899	32.4446
Mean value of step size	19.4666	19.3334	19.6000	20.4000	24.2666	22.6666	20.8000	20.1334	19.8666	19.7334
Total SNR for Y [dB]	30.2181	30.8999	30.4491	30.1405	30.3568	29.8110	30.1681	31.1056	30.3202	30.2199
Cb	31.4906	31.5399	31.8253	31.8311	31.8204	31.7994	31.7715	31.7724	31.8481	31.7081
Cr	31.7433	31.8133	32.1161	32.1219	32.1688	32.0969	32.1140	32.1541	32.1177	31.9920
Number of bits	164984	403520	219696	174264	806824	200152	173528	412600	227112	171896

Frame Number	91	92	93	94	95	96	97	98	99	100
Odd SNR for Y [dB]	34.5224	32.2202	31.2531	34.2312	31.9192	31.9556	34.0384	33.4735	33.1018	34.6423
Cb	36.3321	36.2190	35.4014	35.6098	36.9270	36.4347	36.5022	37.0794	36.3700	36.5275
Cr	36.1019	35.9583	35.1752	35.6917	36.5463	36.3785	36.7339	36.9682	36.2356	36.5951
Mean value of step size	9.4666	15.0666	17.2000	9.7334	19.3334	16.5334	9.4666	14.0000	14.1334	9.0666
Even SNR for Y [dB]	28.9274	28.7980	28.5867	28.5958	28.7416	28.8012	28.0754	28.7279	29.5265	29.8906
Cb	32.2086	32.1203	32.0509	32.0443	32.0807	32.1635	32.5693	32.9589	33.0499	33.0417
Cr	32.3805	32.2540	32.2948	32.2323	32.2617	32.3567	32.7066	33.0818	33.2170	33.1673
Mean value of step size	20.0000	20.6666	21.0666	20.9334	20.4000	20.1334	24.8000	21.2000	18.1334	17.2000
Total SNR for Y [dB]	30.9811	30.2857	29.8260	30.6606	30.1521	30.2046	30.2113	30.5864	31.0561	31.7442
Cb	31.6979	31.6539	31.4871	31.5037	31.7135	31.6794	31.8097	32.0353	31.9728	31.9967
Cr	31.9561	31.8886	31.7714	31.8090	31.9735	31.9807	32.1291	32.3104	32.2496	32.2809
Number of bits	412944	228536	175000	411528	240648	161496	787504	193568	158736	408848

Frame Number	101	102	103	104	105	106	107	108	109	110
Odd SNR for Y [dB]	33.6384	33.4306	34.5488	33.9544	33.6858	34.9598	31.9694	32.3748	34.8377	32.4781
Cb	36.6272	36.0419	35.9783	36.3706	35.8910	36.0070	36.8587	36.9938	37.0228	37.3047
Cr	36.5288	35.9711	35.8398	36.3146	35.8107	35.9880	36.7368	36.8160	37.2790	37.0766
Mean value of step size	14.2666	12.9334	9.4666	12.8000	13.0666	8.9334	18.5334	15.6000	8.6666	14.8000
Even SNR for Y [dB]	30.0675	30.0721	30.2379	30.3884	30.3128	30.2187	29.9278	29.5803	28.6108	28.8218
Cb	32.9685	32.8806	32.8699	32.8980	32.8881	32.9365	32.8448	32.7102	32.4448	32.7553
Cr	33.1342	33.0413	33.0299	33.0623	33.0411	33.1132	32.9953	32.9459	32.7808	32.9148
Mean value of step size	16.8000	16.6666	16.2666	16.0000	16.5334	16.6666	17.2000	18.2666	23.0666	20.6666
Total SNR for Y [dB]	31.5934	31.5321	31.9767	31.9128	31.7774	32.0697	30.9313	30.8587	30.7950	30.3814
Cb	31.9968	31.8657	31.8243	31.9159	31.8545	31.8966	32.0201	31.9766	31.8455	32.0060
Cr	32.2586	32.1497	32.0801	32.1905	32.1055	32.1520	32.2677	32.2451	32.1785	32.2502
Number of bits	210736	170280	425536	212552	171320	426958	239144	167024	806296	199264

Frame Number	111	112	113	114	115	116	117	118	119	120
Odd SNR for Y [dB]	32.2084	35.1622	32.6083	31.7759	34.8298	31.9506	31.6740	35.1619	33.9929	34.0598
Cb	36.3692	36.5855	36.5595	35.5098	36.2202	36.0819	36.0409	36.5414	37.3204	37.0385
Cr	36.2667	36.5996	36.2930	35.3360	36.1768	35.8800	35.8808	36.4844	37.1480	36.9526
Mean value of step size	15.2000	8.9334	15.2000	16.2666	9.2000	19.7334	16.9334	8.4000	12.9334	12.5334
Even SNR for Y [dB]	29.0876	29.2374	29.1765	29.5370	29.6025	29.4970	29.6442	29.8433	29.9837	30.0586
Cb	32.7492	32.6626	32.4019	32.3366	32.3000	32.1514	32.1338	32.1304	32.1502	32.2520
Cr	32.9476	32.8398	32.5855	32.5347	32.4248	32.2595	32.2498	32.3444	32.3643	32.4209
Mean value of step size	19.8666	19.0666	19.6000	19.3334	18.8000	18.9334	18.6666	18.1334	17.7334	17.4666
Total SNR for Y [dB]	30.4785	31.3569	30.6657	30.6179	31.5706	30.6566	30.6457	31.8323	31.6388	31.7115
Cb	31.8520	31.8458	31.7846	31.6065	31.6906	31.6199	31.6032	31.6484	31.7596	31.7539
Cr	32.1082	32.1140	31.9920	31.8177	31.8988	31.8171	31.7828	31.8772	31.9936	31.9714
Number of bits	171080	414896	224336	168712	413320	234384	164672	406656	212400	166720

Frame Number	121	122	123	124	125	126	127	128	129	130
Odd SNR for Y [dB]	34.7371	32.7083	32.8158	35.5150	32.5250	33.0868	35.7223	34.3230	33.8757	35.7438
Cb	36.9216	36.6135	36.2179	37.0472	36.3327	36.1367	36.9858	37.7598	37.1019	37.4583
Cr	37.1323	36.5941	36.1637	37.1113	36.3821	36.0442	37.0822	37.6933	37.1514	37.3780
Mean value of step size	8.8000	14.6666	14.6666	8.1334	15.4666	14.4000	8.1334	12.9334	12.6666	7.8666
Even SNR for Y [dB]	29.0253	29.2472	29.6569	29.8244	30.0028	30.2495	30.3974	30.7496	31.4628	32.0276
Cb	32.9597	32.6373	32.3293	32.2567	32.4311	32.7585	33.0794	33.2682	33.5270	33.9066
Cr	33.1741	32.7580	32.5316	32.5523	32.6051	32.8858	33.0992	33.3649	33.6471	34.0396
Mean value of step size	22.2666	20.1334	18.9334	18.5334	17.8666	17.3334	16.9334	16.0000	14.4000	13.3334
Total SNR for Y [dB]	31.1022	30.7452	31.0558	31.8952	31.1819	31.5380	32.3879	32.2763	32.6014	33.5974
Cb	31.9945	31.8488	31.6784	31.7550	31.7064	31.7845	32.0038	32.1504	32.1717	32.3393
Cr	32.2502	32.0556	31.9077	32.0420	31.9425	31.9794	32.1893	32.3272	32.3666	32.5108
Number of bits	807768	196896	164392	426976	223408	166416	418816	213656	161512	417168

Frame Number	131	132	133	134	135	136	137	138	139	140
Odd SNR for Y [dB]	34.6095	33.4579	35.4244	33.2726	33.3961	36.0624	33.0853	34.0944	36.9310	34.4367
Cb	38.5272	38.1756	37.2993	37.6469	37.0475	37.8363	37.3781	37.3555	37.9344	38.1940
Cr	38.4185	38.0830	37.5850	37.8579	37.2827	37.9648	37.5492	37.6686	38.1281	38.3509
Mean value of step size	11.6000	13.0666	8.2666	16.8000	13.2000	7.6000	16.4000	12.1334	6.8000	11.6000
Even SNR for Y [dB]	31.7772	31.3200	29.5295	29.8804	30.6079	30.9440	30.9622	30.8305	30.9719	31.4097
Cb	33.8089	33.5834	33.1992	33.2204	33.0327	32.7557	32.5874	32.4862	32.4742	32.8690
Cr	34.0235	33.7242	33.4563	33.4904	33.3381	33.1756	32.8646	32.6768	32.6687	32.9977
Mean value of step size	14.1334	15.3334	21.3334	18.9334	16.8000	15.8666	15.7334	16.1334	15.8666	14.4000
Total SNR for Y [dB]	33.0640	32.3563	31.6429	31.3510	31.8796	32.8868	31.9929	32.2604	33.0983	32.7622
Cb	32.4327	32.3261	32.1159	32.1572	32.0124	31.9980	31.8739	31.8398	31.8838	32.0398
Cr	32.6442	32.5126	32.3828	32.4215	32.2774	32.2977	32.1460	32.0895	32.1168	32.2401
Number of bits	208944	180912	819464	192912	157944	416696	216984	168288	426592	199560

Frame Number	141	142	143	144	145	146	147	148	149	150	151
Odd SNR for Y [dB]	34.2859	37.0213	33.8495	33.6906	35.0497	34.2529	34.2494	36.4021	32.8599	31.4371	38.1796
Cb	37.5555	37.8821	37.7004	37.2445	37.0773	37.2267	37.1373	36.7523	36.6559	35.4440	38.7726
Cr	37.6805	38.1055	37.7645	37.3226	37.3685	37.4275	37.3938	36.9501	36.6011	35.5751	38.8404
Mean value of step size	11.4666	6.6666	15.0666	12.8000	8.5334	14.5334	11.6000	7.4666	14.5334	17.4666	6.0000
Even SNR for Y [dB]	32.0076	31.2772	31.0942	30.8738	28.7771	29.2934	29.7791	29.9531	29.8415	29.8087	
Cb	33.5172	33.3651	33.0611	32.7289	32.7000	32.6433	32.4293	32.3136	32.1228	32.0069	
Cr	33.6378	33.5644	33.1542	32.9134	32.9128	32.8812	32.7741	32.5742	32.3458	32.2207	
Mean value of step size	13.2000	14.9334	15.3334	15.7334	22.8000	20.1334	18.2666	17.6000	18.0000	17.8666	
Total SNR for Y [dB]	33.0967	33.3593	32.3545	32.1553	30.9685	31.1990	31.5604	32.1743	31.1922	30.6512	
Cb	32.1804	32.1681	32.0510	31.9020	31.8638	31.8457	31.7781	31.6669	31.5907	31.3769	
Cr	32.3650	32.3793	32.2151	32.0860	32.0627	32.0913	32.0411	31.8819	31.7778	31.5870	
Number of bits	177512	433488	214760	174512	824544	193808	161304	422288	211864	182912	340480