

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION
 ORGANISATION INTERNATIONALE DE NORMALISATION
 ISO-IEC JTC1/SC2/WG11
 CODING OF MOVING PICTURES AND ASSOCIATED AUDIO

ISO-IEC JTC1/SC2/WG1
 MPEG91/ 213
 November 1991

Source : Yasuhiro Yamada, Kenji Sugiyama (JVC)
 Title : Detail description of JVC proposal, "S-MPEG" method
 Purpose : Proposal

1. PREFACE

The JVC coding method, "S-MPEG" has been developed to be applied to a wide variety of packaged media, broadcasting, communication and the like. For this reason, not only reproduced picture quality after decoding but also its operating features, coding delay, countermeasure against coding error and compatibility with the MPEG1, are well considered.

The overall architecture for inter-picture processing is unique to balance the operating features and the picture quality. However, since many of the employed signal processings are already proven ones and the intra-picture processing is an improved one from the MPEG1 system of its details, it would not take much time to utilize this method.

There are provided intra-pictures quite frequently (i.e. at every 3 to 5 fields), as a result, the performances of random access and switching between broadcasting channels are excellent. A concept of progressive decoding is applied, and when interrupted, the reproduced picture regains its quality within a period of 0.3 to 0.5 sec.

Since the intra-pictures are same as that of MPEG1, the data stream can be decoded by an MPEG1 decoder by simply adding a "B" frame portion of 0.4 Mbps or so.

In order to increase the coding efficiency, the motion estimation and the motion compensation are improved, as well as a part of the intra-picture processing. Further, the quality of intra-pictures in the normal reproduction is considerably enhanced due to the inter-picture adaptive addition.

2. OUTLINE OF THE ARCHITECTURE

2-1. Picture Format

The picture format which is subject to the coding is the CCIR Rec. 601 (4: 2: 2) as it is where no sub-sampling is applied. accordingly in the simulation, the following format is used corresponding to 525 / 60:

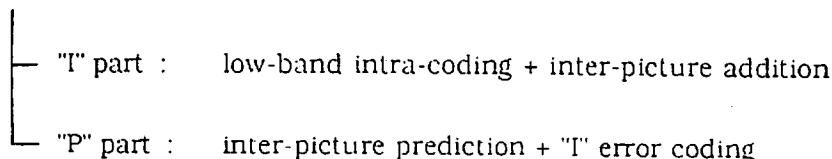
| | | | | | | |
|------------------|---|-----|---|-----|--------|----------------------------|
| Y | : | 704 | x | 240 | pixels | 60 pictures / sec |
| Cb,Cr | : | 352 | x | 240 | pixels | 60 pictures / sec |
| Slice | : | 704 | x | 16 | pixels | (44 x 2MB) |
| macro block (MB) | : | 16 | x | 8 | pixels | (Y x 2B, Cr x 1B, Cb x 1B) |
| DCT block(B) | : | 8 | x | 8 | pixels | (applied to Y, Cr, Cb) |

2-2. Inter-Picture Processing

In this coding method, pictures are processed completely in the unit of field. The inter-picture processing is quite unique with no such precedents. Each field has 2 types of picture of unified "I" and "P" in contrast to "I", "P" and "B" (3 types) in the MPEG1.

As described in the following, it includes an intra-picture and there are provided the core "C" field predicted unidirectionally and the "B" field predicted bidirectionally. In the simulation, the "C" field is provided every 3 ($M=3$) fields in case of 9 Mbps, and every 5 ($M=5$) fields in case of 4 Mbps.

"C" field (unidirectional processing)

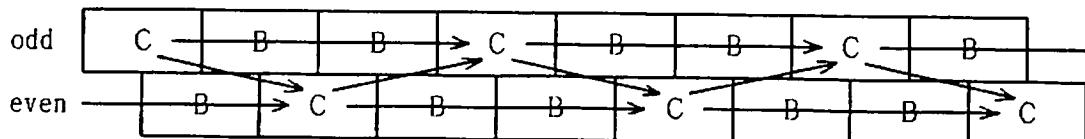


"B" field (bidirectional processing) inter-picture prediction coding

As shown above, the "C" field consists of the predicting part "P" and the "I" part in which the only low frequency component is independently coded within the picture. Further, as the inter-picture processing, the adaptive addition is applied to the reproduced picture. The part "P" is the coded remainder of the subtraction where the high frequency component of the inter-picture prediction signal and the reproduced "I" are deducted from the original picture. The inter-picture processing is performed with the unified "I" and "P" up to the motion compensation. And the preceding 2 "C" fields are motion-compensated and adaptively used in 4 modes.

The "B" field is bidirectional processing basically similar to the "B" field of MPEG1. Basically consecutive 3 fields are used for prediction but in case of $M = 5$, there used only 2 consecutive fields in order to minimize the field memory and coding delay. The prediction modes are 7 in total.

1st step (C)



2nd step (B)

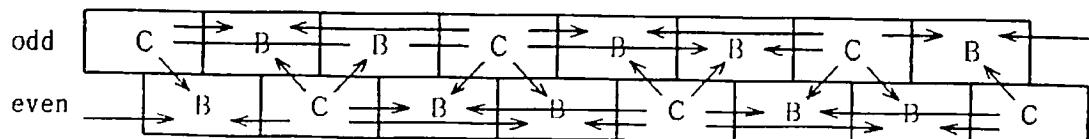


Fig. 1 Inter-Picture Architecture

2-3. Intra-picture Processing

There are 3 intra-picture processings which are "I", "P" and "B" similar to the ones of the MPEG1. For the compatibility purpose, the "I" is exactly the same as the one of the MPEG1. The "P" and "B" processings are basically similar to the ones of the MPEG1, and the 8 x 8 DCT, the quantization matrix, the zigzag scan and the run-length coding are employed.

In the quantization matrix, it is considered that the low frequency component of the "P" is a remainder of the "I". 2 different zigzag scans are employed corresponding to the Y and C of which the pixel aspect ratios are different from each other.

The sub-format for the intra-picture processing of "I" is same as the one of the MPEG1 as follows:

Sub Format for Intra Part

Y : 352 x 240 pixels

Cb,Cr : 176 x 120 pixels

2-4. Syntax

The syntax is basically similar to the one of the MPEG1, but the biggest exception is its motion vector data which are not assembled within the macro block but are assembled for each field (direction) within a picture layer in consideration of cell loss in ATM and code error. The reason for this is that, in this coding method, a plurality of fields are used without fail, thus when one of the motion vectors is lost the loss is compensated from the other field. Further, the motion vector data are subject to decimation.

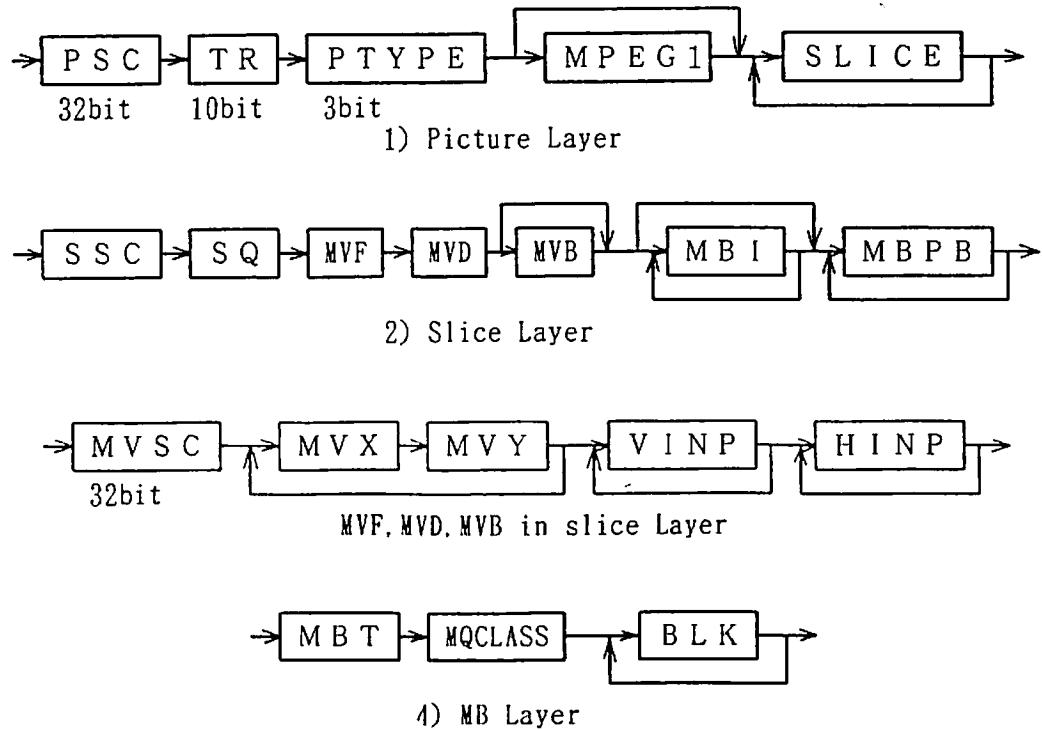


Fig. 2 Layer structure

Another point which should be noted is the way of handling MQANT. The MQ information are classified to each MB under the slice layer, and the difference components are variable run length coded of the every macro-block.

The sequence layer and the GOP layer are expected to have additional terms in the future but are kept same as the MPEG1's for the time being. The content of the other layers are partly simplified.

2-5. Encoder/Decoder Configuration

Fig. 3 shows a schematic diagram of the encoder according to this coding method, processing operations of which are quite different between the "C" field and the "B" field, and the signal stream can be changed by the switches as shown.

In the "C" field, encoding and decoding of the part "I" are performed first, the part "I" is a low frequency component, and the input signal is coded by subsampling after being filtered, which the locally decoded signal is oversampled (interpolation) to restore its original number of pixels.

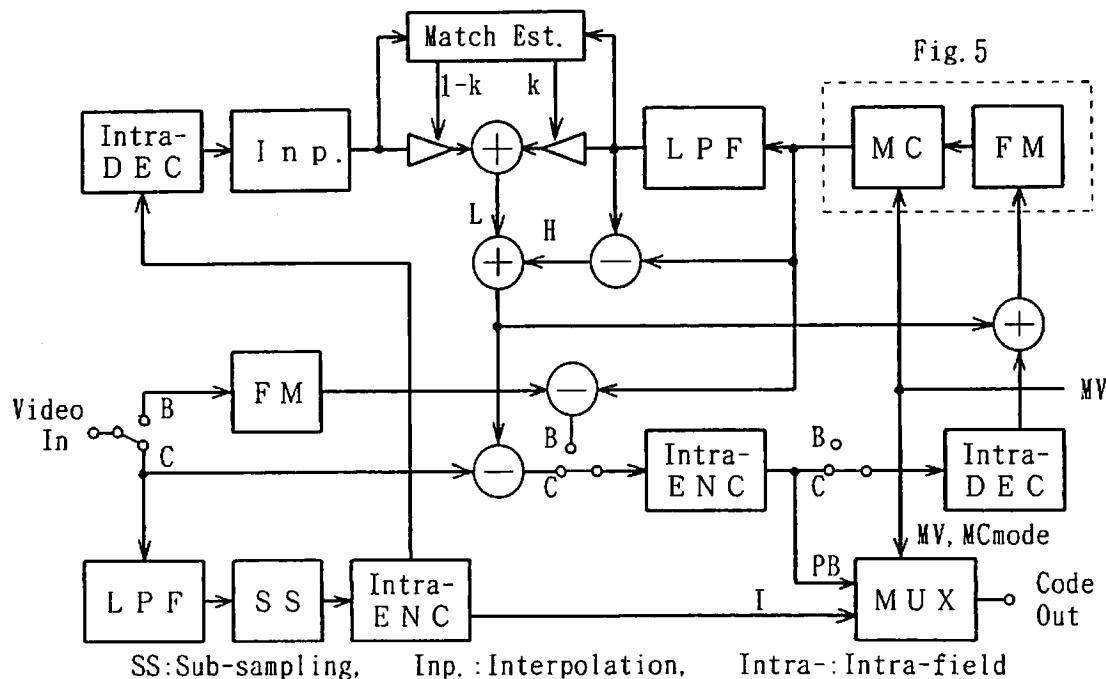


Fig3. Encoder Block Diagram

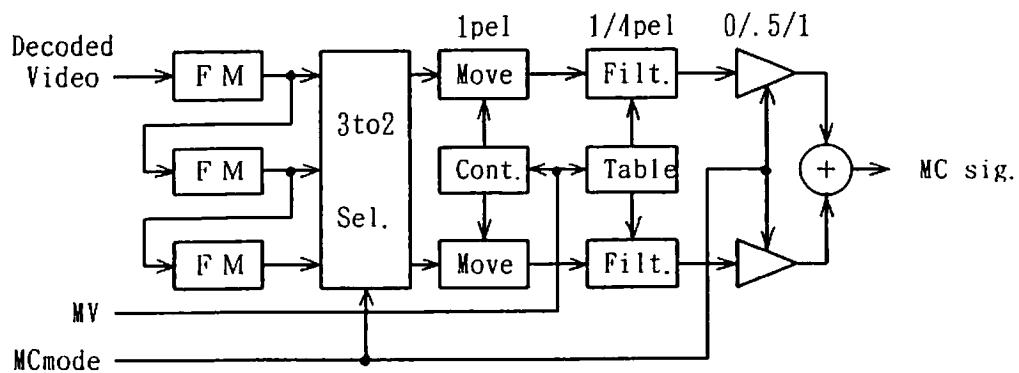


Fig. 4 Motion Compensator Block Diagram

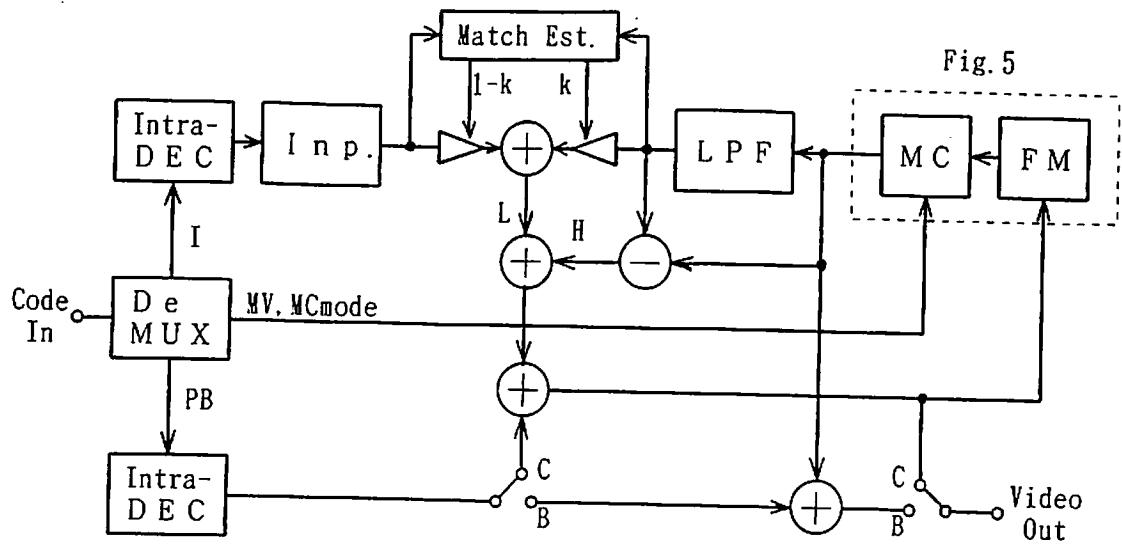


Fig. 5 Decoder Block Diagram

On the other hand, the inter-picture signal which is subject to the motion compensation according to the schematic diagram of Fig.4, becomes a signal corresponding to the part "I" by being filtered in the same manner for the subsampling. These signals are inspected for matching part by part of picture, then added more with preceding signals ($k \approx 0.8$) for the well matched picture parts, and added more with current signals ($k \approx 0$) for the poorly matching picture parts. Thus formed "I" part of the reproduced picture and the high frequency predicting signal are subtracted from the input signal, and an intra-picture encoding and decoding process of the "P" part is performed. The reproduced picture is composed of this decoded remainder signal being added to the result of the previous subtraction, and is stored subsequently to a field memory.

The "B" field is predicted from the "C" field, 3 of which are actually used for the prediction. The prediction error is coded within a picture like "P" signal processing. Since the "B" field is non-recursive prediction, the prediction process may be performed from the original picture not from the locally decoded signal.

Fig.5 shows a schematic diagram of the decoder according to this coding method, in the decoder, the "C" field processing is exactly the same as the one in the local decoding part of the encoder. The reproduced picture of the "B" field is obtained from the "C" field.

3. DETAIL OF PROCESSING

3-1. Intra-Picture Processing

The processing is basically same as MPEG1 and part of the table is changed.

1) (I)DCT

Same as MPEG1.

2) Matrix

| |
|--------------------------------|
| 8, 16, 19, 22, 26, 27, 29, 34 |
| 16, 16, 22, 24, 27, 29, 34, 37 |
| 19, 22, 26, 27, 29, 34, 34, 38 |
| 22, 22, 26, 27, 29, 34, 37, 40 |
| 22, 26, 27, 29, 32, 35, 40, 48 |
| 26, 27, 29, 32, 35, 40, 48, 58 |
| 26, 27, 29, 34, 38, 46, 56, 69 |

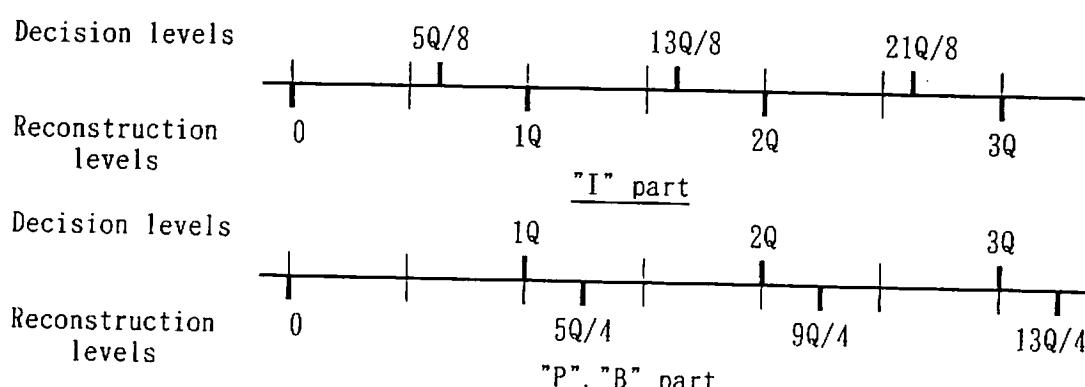
| |
|--------------------------------|
| 14, 16, 18, 20, 22, 24, 26, 28 |
| 15, 17, 19, 21, 23, 25, 27, 29 |
| 17, 19, 21, 23, 25, 27, 29, 31 |
| 18, 20, 22, 24, 26, 28, 30, 32 |
| 20, 22, 24, 26, 28, 30, 32, 34 |
| 21, 23, 25, 27, 29, 31, 33, 35 |
| 23, 25, 27, 29, 31, 33, 35, 37 |

Quantize Matrix for "I"

Quantize Matrix for "P", "B"

3) (De)Quantization

The processing is shown in Fig.6.



$$Q = QMATRIX \times QSCALE \times MQUANT / 256$$

| | |
|-----------------|-------------|
| MQUANT = 12 ... | MQCLASS = 4 |
| = 10 ... | = 3 |
| = 8 ... | = 2 |
| = 7 ... | = 1 |
| = 6 ... | = 0 |

$$QSCALE = 1...31$$

Fig.6 Quantization

4) Zigzag Scanning

0, 1, 5, 6, 14, 15, 27, 28
 2, 4, 7, 13, 16, 26, 29, 42
 3, 8, 12, 17, 25, 30, 41, 43
 9, 11, 18, 24, 31, 40, 44, 53
 10, 19, 23, 32, 39, 45, 52, 54
 20, 22, 23, 38, 46, 51, 55, 60
 21, 34, 37, 47, 50, 56, 59, 61
 35, 36, 48, 49, 57, 58, 62, 63

Scanning for "I", and Crominance in "P","B"

0, 2, 6, 12, 20, 28, 36, 44
 1, 5, 11, 19, 27, 35, 43, 51
 3, 7, 13, 21, 29, 37, 45, 52
 4, 10, 18, 26, 34, 42, 50, 57
 8, 14, 22, 30, 38, 46, 53, 58
 9, 17, 25, 33, 41, 49, 56, 61
 15, 23, 31, 39, 47, 54, 59, 62
 16, 24, 32, 40, 48, 55, 60, 63

Scanning for Y in "P","B"

5) VLC

Same as MPEG1

3-2. Inter-picture Process

1) "C" field

There are 4 types of prediction modes, which are "For", "Diff", "Ave" of the "For" and "Diff", and "Fade" using slant prediction. This process is performed both in "I" part and "P" part. Intra exists only in "P" part and information of prediction mode is sent even though the mode is Intra.

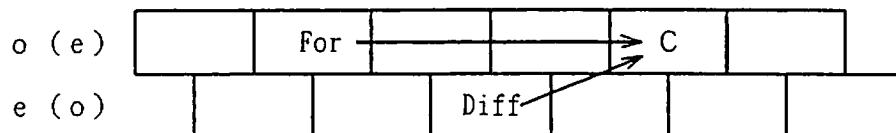


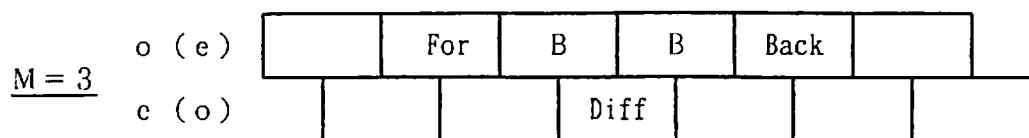
Fig. 7 "C" Inter-picture Process

Macro Block Type and VLC Table

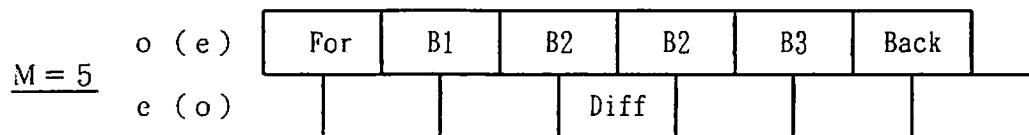
| VLC | For | Diff | Fade | Code | Intra | | |
|-------------|-----|------|------|------|-------|------|-----------------|
| 10 | 1 | 1 | 0 | 0 | 0 | Ave | not coded |
| 01 | 1 | 1 | 0 | 1 | 0 | Ave | coded |
| 110 | 1 | 0 | 0 | 0 | 0 | For | not coded |
| 111 | 1 | 0 | 0 | 1 | 0 | For | coded |
| 0001 | 0 | 1 | 0 | 0 | 0 | Diff | not coded |
| 001 | 0 | 1 | 0 | 1 | 0 | Diff | coded |
| 0000 0010 | 1 | 1 | 1 | 0 | 0 | Fade | not coded |
| 0000 0011 | 1 | 1 | 1 | 1 | 0 | Fade | coded |
| 0000 110 | 1 | 1 | 0 | 0 | 1 | Ave | Intra not coded |
| 0000 111 | 1 | 1 | 0 | 1 | 1 | Ave | Intra coded |
| 0000 100 | 1 | 0 | 0 | 0 | 1 | For | Intra not coded |
| 0000 101 | 1 | 0 | 0 | 1 | 1 | For | Intra coded |
| 0000 0110 | 0 | 1 | 0 | 0 | 1 | Diff | Intra not coded |
| 0000 0111 | 0 | 1 | 0 | 1 | 1 | Diff | Intra coded |
| 0000 0001 0 | 1 | 1 | 1 | 0 | 1 | Fade | Intra not coded |
| 0000 0001 1 | 1 | 1 | 1 | 1 | 1 | Fade | Intra coded |

2) "B" field

"B" field is predicted by 3 "C" fields, "For", "Diff", "Back" and there are 7 types of prediction modes including Intra mode.



B : Predicted by "For", "Diff", "Back"



B1 : Predicted by "For", "Diff"

B2 : Predicted by "For", "Diff", "Back"

B3 : Predicted by "Diff", "Back"

Fig. 8 "B" Inter-picture Process

Macro Block Type and VLC Table

| VLC | For | Diff | Back | Code | Intra | | |
|---------|-----|------|------|------|-------|-------|-----------|
| 10 | 1 | 0 | 1 | 0 | 0 | F+B | not coded |
| 11 | 1 | 0 | 1 | 1 | 0 | F+B | coded |
| 0100 | 1 | 1 | 0 | 0 | 0 | F+D | not coded |
| 0101 | 1 | 1 | 0 | 1 | 0 | F+D | coded |
| 0110 | 0 | 1 | 1 | 0 | 0 | D+B | not coded |
| 0111 | 0 | 1 | 1 | 1 | 0 | D+B | coded |
| 0010 | 1 | 0 | 0 | 0 | 0 | F | not coded |
| 00010 | 1 | 0 | 0 | 1 | 0 | F | coded |
| 0011 | 0 | 0 | 1 | 0 | 0 | B | not coded |
| 00011 | 0 | 0 | 1 | 1 | 0 | B | coded |
| 00001 | 0 | 1 | 0 | 0 | 0 | D | not coded |
| 000001 | 0 | 1 | 0 | 1 | 0 | D | coded |
| 0000001 | 0 | 0 | 0 | 1 | 1 | Intra | |

3-3. Adaptive Inter-picture Addition

The inter-picture addition is one of the features of this coding method. In this process, each picture is coded discretely, and the quantization error is minimized by the motion-compensated adaptive addition utilizing the correlation between pictures in the decoding process. Each picture can be used independently, and the quality of the picture in the normal reproduction is enhanced by the addition. Since the control of the addition is performed not in the unit of blocks but of pixels, this addition is very effective against mosquito noise.

1) Matching Estimation

The process is shown in Fig. 9.

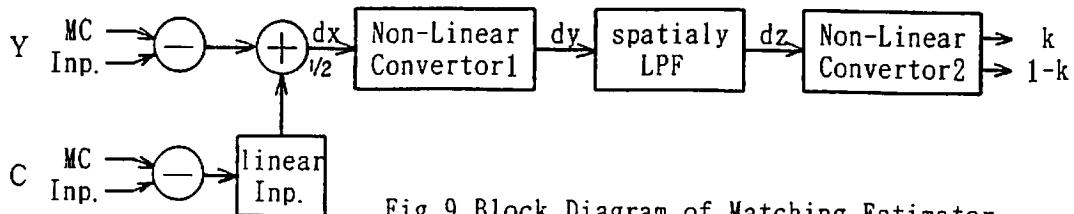


Fig. 9 Block Diagram of Matching Estimator

*Non-Linear conversion 1

$$\begin{aligned}
 dy &= 0 && \dots && dx < 4 \\
 &= 5(dx-4)/QSCALE && \dots && 4 < dx < QSCALE + 4 \\
 &= 15 && \dots QSCALE + 4 < dx
 \end{aligned}$$

QSCALE = QSCALE of Intra part

*Spatially LPF

$$\begin{aligned}
 \text{Horizontally Coefficients} &= 1, 0, 2, 0, 2, 0, 2, 0, 1 & (x1/8) \\
 \text{Vertically Coefficients} &= 1, 2, 2, 2, 2, 1 & (x1/8)
 \end{aligned}$$

*Non-Linear conversion 2 (k : Additional Factor)

$$\begin{aligned}
 k &= 0.25 && \dots && dx < 4 \\
 &= 0.25+0.75(dx-4)/QSCALE && \dots && 4 < dx < QSCALE + 4 \\
 &= 1.0 && \dots QSCALE + 4 < dx
 \end{aligned}$$

2) Variable Adder

Interpolated signal(X) and MC-filtered signal(Y) are added by k.

$$\text{Result} = (1-k) \times X + k \times Y$$

3) Interpolator

$$Y: \text{Horizontally} \quad 352 \times 240 \rightarrow 702 \times 240$$

$$C: \text{Horizontally + Vertically} \quad 176 \times 120 \rightarrow 352 \times 240$$

$$\text{Filter Coefficients for H. and V.} = -1/8, 5/8, 5/8, -1/8$$

4) LPF

Horizontally Variable Filter (7 taps) + Vertically Variable Filter (7 taps)

The Coefficients are as below:

| | | | | | | | | | |
|--------------|-----|-----|-----|-----|-----|-----|-----|---------|-----|
| Wide | (1) | 0. | 0. | 32. | 0. | 0. | 0 | (x1/32) | V |
| | (2) | 0. | 0. | 4. | 24. | 4. | 0. | (x1/32) | V |
| | (3) | 0. | -2. | 8. | 20. | 8. | -2. | (x1/32) | V |
| | (4) | -2. | 0. | 10. | 16. | 10. | 0. | (x1/32) | V H |
| | (5) | -1. | 2. | 9. | 12. | 9. | 2. | (x1/32) | V H |
| | (6) | 0. | 3. | 8. | 10. | 8. | 3. | (x1/32) | V H |
| | (7) | 1. | 4. | 7. | 8. | 7. | 4. | (x1/32) | V H |
| Narrow | (8) | 2. | 5. | 6. | 6. | 5. | 2 | (x1/32) | V H |

3-4. Quantization Error Compensation

The technology described above is effective as far as the quantization error varies between pictures, but not so to the still pictures having no variations between them as the quantization error remains unchanged. However, if the quantization error which is added in the decoding is deducted from the original picture, the quantization error of the reproduced picture is minimized by the addition. This is the quantization error compensation, and is expected useful to CGs of which pictures are normally noise free and have moderate variations.

3-5. Motion Compensation

High precision motion compensation is performed with an accuracy of 1/4 pixel. In the Y signal process, in order to prevent a degradation of resolution, a 4-tap filter is used for a minute movement caused within 1 pixel.

This filter is elaborated to precisely restore even the aliasing distortion component included in each field. A prediction frame is composed from 2 prediction fields, then scanning distortion component is supposed to be recreated and the resolution of the reproduced pictures will be further improved.

In order for the "P" component recovering quickly upon a random access operation, its signal is filtered slightly when the motion is zero so that the prediction coefficient in the high frequency range does not become 1.0.

1) Pixel Moving

Y: 20 x 12 pixels are moved for 4 tap sub-pixel filter

C: 18 x 10 pixels are moved for 2 tap sub-pixel filter

2) Sub-pixel Filter

a) 4 tap framenized filter : The coefficients of filter are depend on the both fields in MC. Then, the table of coefficients is 2 dimensional as below;

| MV1 (deci.) | MV2(deci.) | Coef.1(x 1 / 16) | Coef.2(x 1 / 16) |
|-------------|------------|------------------|------------------|
| 0 | 0 | 1, 14, 1, 0 | 1, 14, 1, 0 |
| 0 | 0.25 | -3, 22, -3, 0 | 0, 18, -2, 0 |
| 0 | 0.5 | -3, 22, -3, 0 | 0, 8, 8, 0 |
| 0 | 0.75 | -3, 22, -3, 0 | 0, -2, 18, 0 |
| 0.25 | 0 | 0, 18, -2, 0 | -3, 22, -3, 0 |
| 0.25 | 0.25 | -2, 15, 4, -1 | -2, 15, 4, -1 |
| 0.25 | 0.5 | -3, 19, 0, 0 | 0, 8, 8, 0 |
| 0.25 | 0.75 | 1, 20, -4, -1 | -1, -4, 20, 1 |
| 0.5 | 0 | 0, 8, 8, 0 | -3, 22, -3, 0 |
| 0.5 | 0.25 | 0, 8, 8, 0 | -3, 19, 0, 0 |
| 0.5 | 0.5 | -2, 10, 10, -2 | 2, 10, 10, -2 |
| 0.5 | 0.75 | 0, 8, 8, 0 | 0, 0, 19, -3 |
| 0.75 | 0 | 0, -2, 18, 0 | -3, 22, -3, 0 |
| 0.75 | 0.25 | -1, -4, 20, 1 | 1, 20, -4, -1 |
| 0.75 | 0.5 | 0, 0, 19, -3 | 0, 8, 8, 0 |
| 0.75 | 0.75 | -1, -4, 15, -2 | -1, 4, 15, -2 |

b) 4 tap normal filter

| MV | Coef.(x 1 / 16) |
|------|-----------------|
| 0 | 1. 14. 1. 0 |
| 0.25 | -2. 15. 4. -1 |
| 0.5 | -2. 10. 10. -2 |
| 0.75 | -1. 4. 15. -2 |

c) 2 tap normal filter

| MV | Coef.(x 1 / 4) |
|------|----------------|
| 0 | 4. 0 |
| 0.25 | 3. 1 |
| 0.5 | 2. 2 |
| 0.75 | 1. 3 |

Y (Vertical P.Mode = Ave, F+B, F+D, D+B) ---> a)

Y others ---> b)

C ---> c)

3-6. Motion Estimation

1) 2 stage Estimation

ME Range(V,H) is not depend on the field distance.

1st stage

Condition: 1/2 subsampled, 16 x 8 pixels, 1 pixel accuracy

Range(V,H) : +/-15 pixels (+/-30 in original picture)

2nd stage

Condition: 16 x 8 pixels, 1/4 pixel accuracy

Range(V,H) : +/-2pixels around the result of 1st stage

2) MV Interpolation

In order to make a block of the motion compensation finer, the motion detection amount and the resulted information are reduced rationally as shown in Fig. 6. The motion detection and the transmission of the resulted information are performed in the 1/4 block (S), and the vector information thereof are transmitted in the similar manner to that of the MPEG1.

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 0 | | 0 | | 0 |
| | H | V | H | V | H | V |
| 0 | H | S | H | S | H | S |
| | H | V | H | V | H | V |
| 0 | H | S | H | S | H | S |
| | H | V | H | V | H | V |
| 0 | H | S | H | S | H | S |

| |
|---|
| U |
| V |
| D |

$$V = \begin{bmatrix} U & \dots (VINP:0) \\ V & \dots (VINP:1) \\ (U+D)/2 & \dots (|U-D| < 2) \end{bmatrix}$$

| | | |
|---|---|---|
| L | H | R |
|---|---|---|

$$H = \begin{bmatrix} L & \dots (HINP:0) \\ R & \dots (HINP:1) \\ (L+R)/2 & \dots (|L-R| < 2) \end{bmatrix}$$

S : Sent V : Vertically Interpolated H : Horizontally Interpolated

Fig. 10 Motion Vector Transmission

The remaining blocks are interpolated with either of the 2 vectors or with the median of the 2, and its mode only is transmitted. This process is performed first in the vertical (V) direction then horizontal (H). Preferably the above processes are performed together in each unit of slice and the syntax described in paragraph 2-4 is reasonable for the process.

3) MV VLC

| | |
|---------------------------------------|----------------|
| Code = VLC (s) | -16 < MV < +16 |
| = ESC (5 bit) + VLC(r) + (5...10 bit) | others |

| VLC (s) | MV dif | VLC (r) | SIZE | MV dif | |
|--------------|--------|---------|-------|--------------|------------|
| 1 | 0 | 1 | 5 | -31...-16 | 16...31 |
| 01b | 1 | 01 | 6 | -63...-32 | 32...63 |
| 001b | 2 | 001 | 7 | -127...-64 | 64...127 |
| 00011b | 3 | 000 1 | 8 | -255...-128 | 128...255 |
| 0000 11b | 4 | 0000 1 | 9 | -511...-256 | 256...511 |
| 0000 101b | 5 | 0000 01 | 10 | -1023...-512 | 512...1023 |
| 0000 100b | 6 | | | | |
| 0000 0111 b | 7 | | | | |
| 0000 0110 b | 8 | | | | |
| 0000 0101 1b | 9 | | | | |
| 0000 0101 0b | 10 | | | | |
| 0000 0100 1b | 11 | | | | |
| 0000 0100 0b | 12 | | | | |
| 0000 0011 1b | 13 | | | | |
| 0000 0011 0b | 14 | b = 0 | | MV = + | |
| 0000 0010 1b | 15 | b = 1 | | MV = - | |
| 0001 0 | ESC | | | | |

3-7. Mquant

In this coding method, considering visual picture quality within a field, the quantization steps are adaptively varied at every macro-block. As the parameters which determine the visual picture quality, the activity level(ACT) in the macro-block, and a normalized value of the difference (STD) between the activity level of 8 macro-blocks which surround the contemplated macro-block and the activity level of the contemplated one, are used and the quantization steps are determined based on the 2 dimensional determination norms.

There provided 5 quantization classes i.e. the quantization steps for MBS derived from the data rate control section, are weighted in 5 different magnitudes according to the classes to determine quantization steps actually used for every macro-block. For the part "P" and the field "B", the same 5 class determination as for the part "I" is performed before the motion compensation(MC), further, the architecture is designed to perform a class determination in 3 levels on the picture subjected to the MC.

MQ information are classified to each macro-block under the slice layer and the difference components are variable run length coded of every macro-block. In order to improve the efficiency for coding difference components and to avoid a sudden picture quality variation, the class determination is controlled to change gradually.

3-8.Rate Control

Inter-picture architecture of this coding method has only 2 field types (i.e. "C" field having a layered structure of combined "I" and "P" parts and "B" field residing there between). Lack of such field as "I" field of the conventional MPEG 1, which intermittently generates a large amount of data, makes the present method possible to have very stable coding performance. General diagram of the overall control is shown in Fig.

For the layered structure of "I", "P" and "B", 4 control parameters shown below are provided:

- QL: Quantization steps in the part "I"
- FL: Lowpass filter in the part "I"
- QH: Quantization steps in the parts "P" and "B"
- FH: Lowpass filter in the parts "P" and "B"

The quantization steps in the "C" field are so controlled that it takes same levels in the parts "I" and "P" basically, and when the balance of assigning an amount of code between the parts "I", "P" and "B" needs to be changed, the control is performed by changing the degree of band-limiting of each filter provided in the respective band.

Those parameters are determined according to the feedback and feedforward information. As the feedback information, the past control parameters, the actual code amount, the transition of buffer occupancy factor are used. As the feedforward information, calculation is performed on the picture which is going to be coded where the activity value correlated highly to the code amount, is used. Past control errors reflected in the feedforward section and optimization is performed on the picture which is going to be coded where the activity value correlated highly to the code amount, is used. Past control errors reflected in the feedforward section and optimization is performed by learning picture characteristics.

In the "C" field, even when a picture is inputted which is beyond the controllability in the "I" part, correction to keep the balance of data amount, is performed in the "P" part, thus, the control is stable and the picture is less affected.

Buffer capacities used in this simulation are 256 kbits in the part "I" for both 4 Mbps and 9Mbps, and 768 kbits in the parts "P" and "B".

4. APPLICATIONS AND PERFORMANCES

JVC coding method, "S-MPEG" can be applied to various image systems or equipment of different requirements by changing parameters of the encoder, but no change is required for the decoder. The change of the parameters include the value M (3 or 5) of the "C" field interval, the field number F (2 or 3) for predicting the "B" field and the response (coefficient) of the LPF for "I" part. The M and F are fixed for each coder but the response of the LPF, which also serves as a rate controller, is variable.

For communication systems where a delay is desired to be short, the values of M and F are made small. When the "search" feature is insignificant, the LPF is made narrow-band. Those parameter changes subject picture quality in normal and special reproductions and picture quality when code error occurs, but no operating features are lost. For example, when the data coded for communication are recorded on a VTR, a special reproduction of which is still possible.

Table 1 show practical applications; when the LPF is narrow-band, M = 3 having smaller delay is advantageous because it does not make much difference of the coding efficiency between 3 and 5 of M.

Table 1 Applications

| Applications | | Typ. Rate*1 | T. Mode | M | F | L P F |
|--------------|----------|-------------|---------|---|-----|--------|
| D S M | V T R *2 | 1 0 Mbps | Const. | 3 | 3 | Wide |
| | Disk *3 | 6 Mbps | Const. | 5 | 3 | Wide |
| Broadcast | S N G | 1 0 Mbps | A/C | 3 | 2/3 | Narrow |
| | Distri. | 4~10Mbps | A/C | 3 | 2/3 | Narrow |
| | D B S | 4 Mbps | ATM | 3 | 3 | Narrow |
| I S D N | One way | 4~10Mbps | ATM | 3 | 3 | Narrow |
| | Two way | 5~10Mbps | ATM | 3 | 2 | Narrow |

*1:Rec. 601. *2:simulated in 9Mbps. *3:simulated in 4Mbps

4.1. ENC/DEC Timing and Delay

The key of the coding delay is the value of "M" and the number of fields used for "B" prediction, which are smaller the better, and is related to the characteristics of the transmission path. The basic coding and decoding sequence when M = 3 is shown in Fig. 11 In this figure, after the C6 field is coded, the first "B" field (i.e. the field B2) which requires the coded C6, is processed. Transmission and decoding are performed in the same timing, but picture representations are arranged into the original order. Overall delays including this case are shown in Table 2(a).

When the transmission rate is fixed, the variation component of the data amount per picture becomes a delay. In this case, delays are shown in Table 2(b).

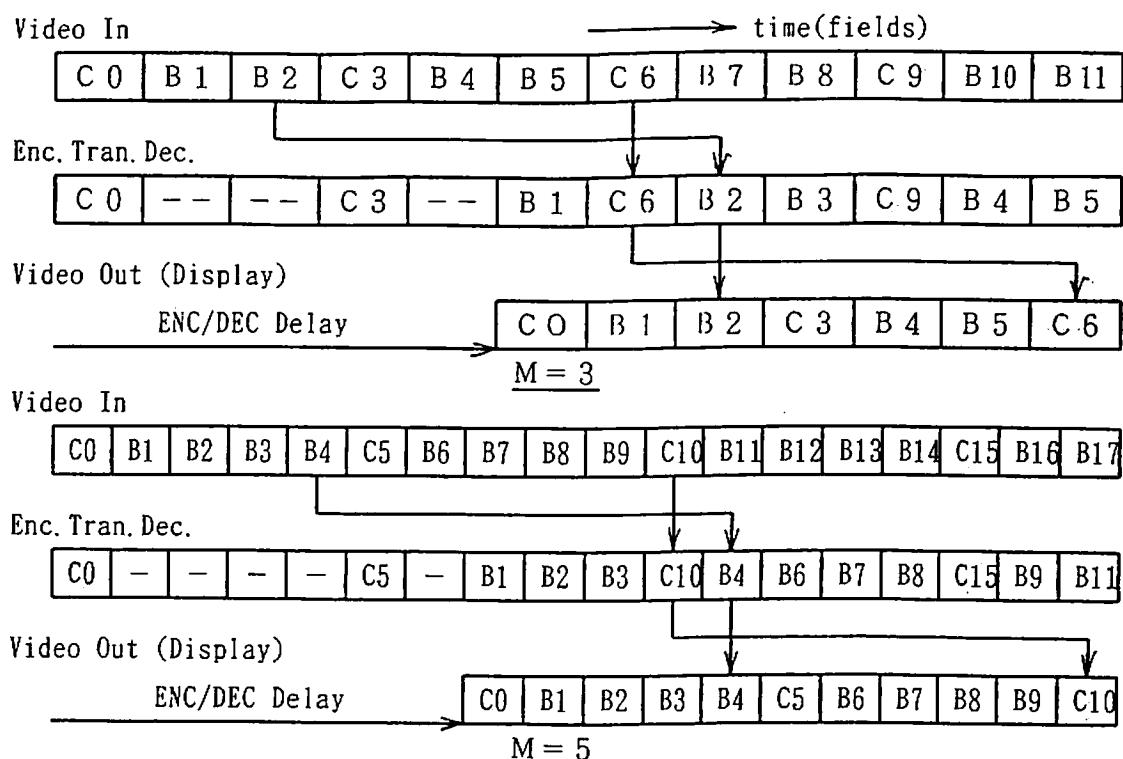


Fig. 11 Process Timing

4-2. Random Access and Channel Change

Random access in packaged media seems similar to the channel change in the broadcast reception, but the situation is different between them. The problem in the former is a required time for reproducing the arbitrary selected picture while in the latter, the time required for appearing a picture when the data stream is switched at an arbitrary timing. Further, in the former the rate is fixed, and in the latter the transmission delay is small since a multi-channel ATM transmission is assumed to be adopted. Such characteristics in this coding method are shown in Table 2(c), (d) including the case of the extended MPEG1 for comparison purpose.

In case of random access, the average data amount will be the values shown in Table 2(c), yet the obtained picture will not be a complete one. However, in case of moving picture reproduction, it is quite probable that such moving picture reproduction continues after a random access, leading to a representation of full quality pictures according to this method. Thus the degradation in the start up pictures will not be a problem.

In case of channel change, when the reproduction resumes at an arbitrary point of data stream, it is shown in Table 2(d), where picture degradation is same in the case of random access.

For quicker picture reproduction, it can be achieved by repeated presentation of "C" field which is decoded precedingly. Demonstration of this is planned for the KURIHAMA meeting.

Accordingly, the random access and channel change performances of this method are considered to be very rational and superior to previous methods.

Table 2 Time Performance in fields(time)

| Coding Method | M | a) ENC/DEC Delay | b) Const. Rate Delay | c) Random Access | d) Channel Change |
|---------------|------|------------------|----------------------|------------------|-------------------|
| S-MPEG | 3 | 5 (86ms) | 7 (120ms) | 6(100ms)*2 | 8(130ms)*2 |
| S-MPEG | 5 | 7 (120ms) | 10(170ms) | 9(150ms)*2 | 12(200ms)*2 |
| MPEG-EXT | 3 *1 | 6 (103ms) | 15(250ms) | 24(400ms) | 30(500ms) |

*1:3frames, N=12frames. *2:Not Complete Picture

4-3. Special Reproduction (High Speed Search & Reverse Reproduction)

Special reproduction is easily utilized as the part "I" is provided frequently. The special reproduction is performed by repeated reproduction of the part "I" of "C" field. In this method, the data amount of the "I" part is controlled to be about twice the field average so the same picture is displayed only twice, which means the movement is smooth. Spatial resolution and the quantization noise are degraded from normal reproduction though, the levels of the MPEG1 is still guaranteed and are considered to be good enough for picture search.

As to the reverse reproduction, it can not be done with SM of the MPEG1 unless a large amount of additional memories is provided. However, the reverse reproduction would be mandatory for such as determining an editing point. In this coding method which uses the "I" part and "B" field, less resolution but smooth pictures are presented. As explained before, reversely reproduced pictures are not for enjoyment but used mostly for editing. Therefore deterioration of frame by frame operation is not allowable but spatial degradation can be acceptable. Picture in this mode will be demonstrated at the KURIHAMA meeting.

4-4. Compatibility with the MPEG1

"I" part of the "C" field is made identical to and other parts are similar to the MPEG1 as well, therefore a forward compatibility can easily be utilized. On the other hand, a backward compatibility can be utilized by adding the data of "B" frame of the MPEG1. Decoding in the MPEG1 decoder is performed in the form of $N = M$ without "P" picture.

The reason for making the common parts limited to intra-picture processing only, is that the room for improvements is small regarding the intra-pictures but is larger than that of the MPEG1 regarding the inter-picture processing.

In this coding method, the amount of data needed for the backward compatibility is only 0.3 to 0.5 Mbps or the like. On the other hand, when the backward compatibility is unnecessary, the loss would be more than 5 % which corresponds to the room for improvements in case of the intra-pictures.

4-5. Countermeasure against Packet Loss and Code Error

As explained in the paragraph for the syntax, the prediction is performed from a plurality of pictures. And the part "I" undergoes an inter-frame addition, thus when a

certain picture is unable to be decoded because of a code error, there exist, without fail, other pictures to compensate it. In addition, the prediction coefficient of the "C" field for recursive prediction is practically not 1.0 and thus the picture with error is not displayed for a long period.

Accordingly, this coding method is extremely tough against code errors, and considerable increase of the errors will not cause a breakup of pictures. Demonstration for this is now under consideration.

5. IMPLEMENTATION

The estimation of implementability is described at appendix 1.

5-1. Adder and Multiplier

Since this method is based on the MPEG1, the data processing amount can be estimated from the MPEG1. In the simulation, a total number of signals of Y and C, which is subject to coding, is 5.33 times that of the MPEG1 (2 : 1 : 0, field decimated).

In the decoder, the amount of multiplications is 330M operations/s, and the amount of additions is 1G operations/s in 8 bit.

5-2. Field Memory

Cost for signal processing LSIs goes down rapidly as its production volume increases, but memories are slow in the cost reduction. For this reason, the initial equipment cost of this method will be dependent more on such LSIs, however, as the production volume increases, the cost of the memory devices will be a more significant factor.

The memory capacity needed for this method is shown in Table 3 as a units of field in comparison with the case of the MPEG1 extended. As shown in the table, the memory needed for the decoder in this method is 3 fields which is smaller than the case of the MPEG1 extended.

For the encoder, required memory capacity differs dependent on conditions whether the delay need to be limited or not, which is larger than that of the decoder but the encoder cost is a relatively insignificant factor in many applications.

Although the picture quality may slightly be degraded, it is possible to simplify the encoder configuration by making the "B" prediction from 2 fields without changing the decoder design. In particular, a memory for display is unnecessary because of the complete field processing.

Table 3 Memory Performance in fields(Capacity)

| Coding Method | M | Decoder | Encoder (Low Delay) | Encoder (Low Memory) |
|---------------|------|------------|---------------------|----------------------|
| S-MPEG | 3 | 3 (8Mbit) | 6 (16Mbit) | 5 (13Mbit) |
| S-MPEG | 5 | 3 (8Mbit) | 10 (26Mbit) | 6 (16Mbit) |
| MPEG-EXT | 3 *1 | 4 (11Mbit) | 8 (21Mbit) | 6 (16Mbit) |

5-3. Table Memory

Required table memory for the intra-picture processing is approximately equivalent to that of the MPEG1.

5-4. Buffer Memory

Since the data amount of the "C" field is limited, a capacity of the data buffer memory can be relatively small. In this regard, about 512 kbits would be good enough under the limited conditions of $M = 3$ over 6 Mbps and maximum 10 Mbps.

6. SIMULATION

The condition of coding simulation was as below :

$$N = M = 3 \dots 9 \text{ Mbps}$$

$$N = M = 5 \dots 4 \text{ Mbps}$$

LPF (see 3-3. 4) was pre-setted as below.

| Sequoens | C, Y(H) | Y(V) |
|-------------------|---------|------|
| Mobile & Calender | (4) | (4) |
| Flower Garden | (-4) | (2) |
| others | (1) | (1) |

Quantization Error Compensation (3-4.) was quitted.

Rate Control : Feedforward Control (GOP)

The results of simulation are shown at appendix 2.

7. CONCLUSION

If one coding method is employed commonly by various applications, such method will be proliferated explosively and it would be a great evolution in the world of image processing and a dream of development engineers engaged in the coding technology.

Our method, "S-MPEG" developed this time still leaves a room to be refined or improved, but we sincerely hope that this can be one of the solutions.

Appendix 1.

Estimation of Implementability

1. PREFACE

This document is for estimation of implementability. Since the S-MPEG coding method is based on the MPEG1, the processing amount can be estimated from the MPEG1.

2. Basic amount of processing

In the simulation, the total number of samples of Y and C (4:2:2) which is subject to coding, is 5.33times that of the MPEG1(2:1:0, field decimated)

Accordingly, the amount of samples to be basically processed is $20.3 M$ samples/sec (5.33 times that of MPEG1) for the inter-picture processing, and for the intra-picture processing, it is $22.8M$ samples/sec (6 times) in case of $M=3$, and $21.7M$ samples/sec (5.7 times) for $M=5$, respectively, because of the redundancy of "I"part. Hereinafter, it's estimated in case of $M=3$. In each module, the amount of additions and multiplications are normalized in 8bits.

3. Decoder

3-1. Demultiplexer and VLC decoder

3-2. Intra-picture Decoder

In this section, the basic sample speed is 22.8Msample/sec. All processings are similar to MPEG1.

1) Zig-zag scanning

| | | |
|----------------------------|-----------------------|--|
| * Processing | : 2 kinds of scanning | |
| * Size and width of Memory | | |
| SRAM(int) | : 9bit | $\times 8 \times 8 = 576\text{bit}$ |
| ROM (int) | : 6bit | $\times 8 \times 8 \times 2 = 768\text{bit}$ |
| * Memory Bandwidth | | |
| w/r speed | : 9bit | $\times 2(\text{w/r}) \times \text{sample speed} = 410\text{Mbps}$ |
| ROM speed | : 6bit | $\times \text{sample speed} = 137\text{Mbps}$ |

2) De-quantization

| | | |
|----------------------------|-----------------------|---|
| * Processing | : 2 kinds of matrix | |
| * Size and width of Memory | | |
| ROM (int) | : 8bit | $\times 8 \times 8 \times 2 = 1\text{kbit}$ |
| * Memory Bandwidth | | |
| speed | : 8bit | $\times \text{sample speed} = 182\text{Mbps}$ |
| * Additions | : 12bit | $\times 1 \times \text{sample speed} = 34.2\text{Mops}$ |
| * Multiplications | : 6bit \times 9bit | $\times 1 \times \text{sample speed} = 19.2\text{Mops}$ |
| | : 8bit \times 12bit | $\times 1 \times \text{sample speed} = 34.2\text{Mops}$ |

3) IDCT

| | | |
|----------------------------|--------------------------------|---|
| * Processing | : 2 dimensional fast algorithm | |
| * Size and width of Memory | | |
| SRAM(int) | : 16bit | $\times 8 \times 8 = 1\text{kbit}$ |
| ROM (int) | : 16bit | $\times 8 \times 8 \times 2 = 2\text{kbit}$ |
| * Memory Bandwidth | | |
| SRAM w/r speed | : 16bit | $\times 2(\text{w/r}) \times \text{sample speed} = 7294\text{Mbps}$ |
| ROM speed | : 16bit | $\times 2 \times \text{sample speed} = 729\text{Mbps}$ |
| * Additions | : 16bit | $\times 8 \times \text{sample speed} = 365\text{Mops}$ |
| * Multiplications | : 9bit \times 16bit | $\times 3 \times \text{sample speed} = 154\text{Mops}$ |

3-3. Adaptive inter-picture addition

In this section, the signals are processed convolutionally, then, a block to normal scanning converter is needed. However, the decoded signals and the motion compensated pictures are stored in external DRAM. Line delay devices are not needed, because external DRAM is used instead.

The basic pixel speed is 3.38Mpixels/sec. But, the peak value in C field is 10.1Mpps. Then, peak operation speed is 3 times that described below:

1) Matching estimator

* Processing : temporary subtract, spatially subtract, absoluting,
spatially LPF, non-linear conversion

* Size and width of Memory

SRAM(int) : 4bit $4\text{Lines} \times 704 = 11\text{kbit}$

* Memory Bandwidth

Write speed : 4bit $\times \text{pixel speed} = 13.5\text{Mbps}$

Read Speed : 4bit $\times 4\text{Lines} \times \text{pixel speed} = 54.1\text{Mbps}$

* Additions : 8bit $\times 10 \times 2(\text{YC}) \times \text{pixel speed} = 67.5\text{Mops}$

: 4bit $\times 8 \times \text{pixel speed} = 13.5\text{Mops}$

* Multiplications : 4bit $\times 4bit \times 2 \times \text{pixel speed} = 1.7\text{Mops}$

2) Variable Adder

* Processing : multiply k and(1-k), add

* Additions : 9bit $\times 1 \times 2 \times \text{pixel speed} = 7.6\text{Mops}$

* Multiplications : 8bit $\times 4bit \times 2 \times \text{pixel speed} = 6.8\text{Mops}$

3) Interpolator

* Processing : H/V Cascaded 5tap symmetrical filter

* Additions : 8bit $\times 4 \times 2 \times 2 \times \text{pixel speed} = 54.1\text{Mops}$

4) LPF

* Processing : H/V Cascaded 7tap symmetrical variable filter

* Size and width of Memory

ROM(int) : 6bit $\times 4\text{Coef} \times 16\text{Type} = 384\text{bit}$

* Memory Bandwidth

Speed : 6bit $\times 4\text{Coef} \times 2 \times 2 \times \text{pixel speed}/44 = 7.4\text{kbps}$

* Additions : 9bit $\times 6 \times 2 \times 2 \times \text{pixel speed} = 91.2\text{Mops}$

* Multiplications : 8bit $\times 6\text{bit} \times 4 \times 2 \times 2 \times \text{pixel speed} = 45.6\text{Mops}$

3-4. Motion Compensation

In this section, the signals are processed by Macro-block block. Basic macro-block speed is 79200Mbps/sec. D:Direction.

1) Pixel moving

* Processing : Memory address control

* Size and width of Memory

SRAM(int) : 8bit $\times 20 \times 12 = 1.9\text{kbit}$

* Memory Bandwidth

| | | |
|---------------------|---|-----------------|
| Write speed : 8bit | $\times 2(\text{YC}) \times 20 \times 12 \times 2\text{D} \times \text{MB}$ | speed = 608Mbps |
| Y Read Speed : 8bit | $\times 4\text{taps} \times 16 \times 12 \times 2\text{D} \times \text{MB}$ | speed = 973Mbps |
| C Read Speed : 8bit | $\times 2\text{taps} \times 16 \times 10 \times 2\text{D} \times \text{MB}$ | speed = 405Mbps |
| * Additions : 10bit | $\times 4 \times \text{MB}$ | speed = 0.4Mops |

2) Sub-pixel filter

* Processing : H/V Cascaded 4tap variable filter for Y
 : H/V Cascaded 2tap variable filter for C

* Size and width of Memory

| | | |
|--|---|------------------|
| SRAM(int) : 8bit | $\times 16 \times 12$ | = 1.5kbit |
| ROM (int) : 6bit | $\times 4\text{Coef} \times 16\text{Type}$ | = 384bit |
| Y write speed : 8bit | $16 \times 12 \times 2\text{D} \times \text{MB}$ | speed = 243Mbps |
| C write speed : 8bit | $16 \times 10 \times 2\text{D} \times \text{MB}$ | speed = 202Mbps |
| Y read speed : 8bit | $\times 4\text{taps} \times 16 \times 12 \times 2\text{D} \times \text{MB}$ | speed = 973Mbps |
| C read speed : 8bit | $\times 2\text{taps} \times 16 \times 10 \times 2\text{D} \times \text{MB}$ | speed = 405Mbps |
| ROM speed : 6bit | $\times 4\text{Coef} \times 2(\text{HV}) \times 2\text{D} \times \text{MB}$ | speed = 7.6Mbps |
| * Additions : 9bit | $\times 6 \times \text{MB}$ | speed = 68.4Mops |
| * Multiplications : 8bit \times 6bit | $\times 8 \times \text{MB}$ | speed = 60.9Mops |
| : 8bit \times 2bit | $\times 4 \times \text{MB}$ | speed = 10.2Mops |

3) MV data Memory

* Processing : Interpolation and store of MV data

* Size and width of Memory

| | | |
|-------------------|---------------------------------------|-----------|
| SRAM(int) : 16bit | $\times 88\text{MB} \times 3\text{D}$ | = 4.1kbit |
|-------------------|---------------------------------------|-----------|

* Memory Bandwidth

| | | |
|---------------------|-----------------------------|-----------------|
| Write speed : 16bit | $\times 3 \times \text{MB}$ | speed = 3.8Mbps |
|---------------------|-----------------------------|-----------------|

| | | |
|--------------------|-----------------------------|-----------------|
| Read speed : 16bit | $\times 2 \times \text{MB}$ | speed = 2.5Mbps |
|--------------------|-----------------------------|-----------------|

| | | |
|--------------------|-----------------------------|-----------------|
| * Additions : 8bit | $\times 2 \times \text{MB}$ | speed = 0.2Mops |
|--------------------|-----------------------------|-----------------|

3-5. Video output and Misc.

In this section, Basic sample speed is 20.3Msample/sec.

* Processing : Memory addressing control and buffering

* Size and width of Memory

| | | |
|------------------|--------------------------|---------|
| SRAM(int) : 8bit | $64 \times 2(\text{YC})$ | = 1kbit |
|------------------|--------------------------|---------|

* Memory Bandwidth

| | | |
|------------------|--|-----------|
| R/W speed : 8bit | $\times 2(\text{YC}) \times \text{sample speed}$ | = 162Mbps |
|------------------|--|-----------|

| | | |
|--------------------|---|-------------|
| * Additions : 9bit | $\times 4 \times 2(\text{YC}) \times \text{sample speed}$ | = 182.7Mops |
|--------------------|---|-------------|

3-6. External Memory(DRAM)

(----)=peak value in case of C field MB:Macro block, P:picture

1) Temporary Picture

Capacity : 16bit $\times 704 \times 16 \times 2.5\text{Part} = 440\text{kbit}$

Write speed : 16bit $\times 704 \times 240 \times 2.5\text{Part} \times 20\text{P} = 135\text{Mbps (405M)}$

Read speed : 16bit $\times 704 \times 240 \times 2.5\text{Part} \times 20\text{P} = 135\text{Mbps (405M)}$

2) Decoded Picture

Capacity : 16bit $\times 704 \times 240 \times 2\text{D} = 7.7\text{Mbit}$

Write speed : 16bit $\times 704 \times 240 \times 60\text{P} = 162\text{M}$

Read speed : 16bit $\times 20 \times 12 \times 1320\text{MB} \times 3\text{D} \times 60\text{P} = 912\text{Mbps}$

3) Input Buffer

Capacity : $= 512\text{kbit}$

Write speed : $= 10\text{Mbps}$

Read speed : $= 10\text{Mbps (30Mbps)}$

3-7. Total of Decoder

1) Implementability for LSI

Table1 Decoder Implementability (M=3)

| Section | Module | Multi.*1 (Mops) | add *2 (Mops) | SRAM (kbit) | ROM (kbit) | r/wspeed (Mbps) |
|----------------------|------------|--------------------|------------------|----------------|---------------|--------------------|
| VLC-Dec. | | 0 | 67.5 | 1.0 | 0 | 10 |
| Intra- Decoder | Zig-zag | 0 | 0 | 0.57 | 0.75 | 547 |
| | Dequant | 53.4 | 34.9 | 0 | 1.0 | 182 |
| | IDCT | 153.9 | 364.8 | 1.0 | 2.0 | 1459 |
| Adaptive addition | Match Est. | 1.7 | 81.0 | 11.0 | 0 | 68 |
| | Vari. add | 6.8 | 7.6 | 0 | 0 | 0 |
| | Interpol. | 0 | 54.1 | 0 | 0 | 0 |
| | LPF | 40.6 | 91.2 | 0 | 0.38 | 7 |
| Motion comp. | Pixel-move | 0 | 51.0 | 1.9 | 0 | 1986 |
| | Filter | 71.1 | 68.4 | 1.5 | 0.38 | 1831 |
| | MV memory | 0 | 0.2 | 4.1 | 0 | 6 |
| Video out | | 0 | 182.7 | 1.0 | 0 | 162 |
| Total | | 327.5 | 1003.4 | 19.07 | 4.51 | 6258 |

*1: normalized 8bit×8bit *2: normalized 8bit+8bit

2) External Memory (DRAM)

Capacity : 8.5Mbit

write Speed : 307Mbps(Ave.) 577Mbps(Peak)

Read Speed : 1057Mbps(Ave.) 1327Mbps(Peak)

4. Encoder

We think the complexity of the encoder is very dependent on motion estimation and number of field memories. Then, it is not so important to estimate the amount of processing without ME.

4-1. Multiplexer and VLC Encoder

VLC encoder is similar to MPEG1.

4-2. Intra-picture Encoder/Decoder

In this section, complexity of intra-encoder is same as intra-decoder. But, encoder has local decoder in case of C field. Then, the amount of intra encoder and decoder is approximately 2 times that of the decoder.

4-3. Adaptive inter-picture addition

This section is completely the same as in case of decoder because same pictures are needed in encoder.

4-4. Motion Compensation

In this section, the amount of processing is approximately 1.5 times of the decoder because the prediction mode estimation is needed in case of encoder.

4-5. Motion Estimator

The amount of process in motion estimation is very depend on its architecture. For example, we use a 2 stage economical one. But in case of S-MPEG, the motion vectors are decimated in transmission. Then, the amount of processing is approximately 1/4 of usual case.

4-6. External Memory(DRAM)

In case of encoder, the amount of external memory is changed by the coding factor M and F. The number of field memories is discussed in the main document. In case of 4:2:2 picture, 2.7Mbit DRAM is needed for each fields.

5. Conclusion

In this estimation, we observe the fact that the half of processings are IDCT. About the internal memories, the line memories in matching estimator are most influential.

The amount of processing in S-MPEG decoder is 15% to 20% increased over MPEG-extension.

A p p e n d i x 2.

S i m u l a t i o n R e s u l t s

num : Field number
ALL : Amount of data in each field
TOTAL : Amount of data in each part
PIC : data of intra-picture processing
MV : data of Motion Vector included INPV and INPH
ETC : data of inter-picture processing without MV

>> CUMULATIVE BIT COUNT ONCE EVERY 0.4 SECOND

Flower Garden (4Mbps) Mobile & Calendar (4Mbps) Table Tennis (4Mbps)

| num | GOF_TOTAL | num | GOF_TOTAL | num | GOF_TOTAL |
|-------|-----------|-------|-----------|-------|-----------|
| 0 | 1616248 | 0 | 1694584 | 0 | 1652616 |
| 1 | 1557744 | 1 | 1525016 | 1 | 1663040 |
| 2 | 1563368 | 2 | 1539328 | 2 | 1641272 |
| 3 | 1581440 | 3 | 1612288 | 3 | 1541608 |
| 4 | 1386032 | 4 | 1376920 | 4 | 1416840 |
| 5 | 1578784 | 5 | 1597296 | 5 | 1616464 |
| 6 | 1607536 | 6 | 1676576 | 6 | 1652936 |
| 7 | 1621000 | 7 | 1590392 | 7 | 1558424 |
| 8 | 1654488 | 8 | 1630176 | 8 | 1804328 |
| 9 | 1408408 | 9 | 1529552 | 9 | 1544352 |
| 10 | 1611720 | 10 | 1653224 | 10 | 1609144 |
| 11 | 1560464 | 11 | 1548632 | 11 | 1573360 |
| 12 | 736128 | 12 | 746288 | 12 | 705600 |
| TOTAL | 19483360 | TOTAL | 19720272 | TOTAL | 19979984 |

Flower Garden (9Mbps) Mobile & Calendar (9Mbps) Popple (9Mbps) Table Tennis (9Mbps)

| num | GOF_TOTAL | num | GOF_TOTAL | num | GOF_TOTAL | num | GOF_TOTAL |
|-------|-----------|-------|-----------|-------|-----------|-------|-----------|
| 0 | 3583912 | 0 | 3710208 | 0 | 3724088 | 0 | 3591744 |
| 1 | 3632240 | 1 | 3433752 | 1 | 3494560 | 1 | 3545160 |
| 2 | 3469152 | 2 | 3557336 | 2 | 3537600 | 2 | 3606808 |
| 3 | 3454024 | 3 | 3528784 | 3 | 3563768 | 3 | 3571912 |
| 4 | 3543416 | 4 | 3638560 | 4 | 3593576 | 4 | 3646464 |
| 5 | 3651552 | 5 | 3693992 | 5 | 3627704 | 5 | 3488760 |
| 6 | 3589560 | 6 | 3452264 | 6 | 3535656 | 6 | 3558136 |
| 7 | 3507744 | 7 | 3460864 | 7 | 3511728 | 7 | 3385008 |
| 8 | 3713072 | 8 | 3597040 | 8 | 3605536 | 8 | 3732576 |
| 9 | 3456640 | 9 | 3581072 | 9 | 3621064 | 9 | 3551672 |
| 10 | 3617816 | 10 | 3542192 | 10 | 3648672 | 10 | 3540048 |
| 11 | 3470216 | 11 | 3467936 | 11 | 3613936 | 11 | 3500712 |
| 12 | 1870408 | 12 | 1969328 | 12 | 1753688 | 12 | 1891224 |
| TOTAL | 44559752 | TOTAL | 44633328 | TOTAL | 44831576 | TOTAL | 44610224 |

>> CODED BIT STREAM FILE IN A FORMAT "ls -l" OUTPUT

```
gls426|aya >> ls -l
total 29112
-rw-r--r-- 1 aya      2435420 Oct 16 18:48 FG_4M.bitstream
-rw-r--r-- 1 aya      5569969 Oct 16 21:10 FG_9M.bitstream
-rw-r--r-- 1 aya      2465034 Oct 16 18:52 MC_4M.bitstream
-rw-r--r-- 1 aya      5579166 Oct 16 21:17 MC_9M.bitstream
-rw-r--r-- 1 aya      5603947 Oct 16 21:22 PP_9M.bitstream
-rw-r--r-- 1 aya      2497498 Oct 16 18:59 TT_4M.bitstream
-rw-r--r-- 1 aya      5576278 Oct 16 21:30 TT_9M.bitstream
```

>> NUMBER OF HITS AND SHK FOR EACH FIELD
>> CODING SEQUENCE ... Flower Garden
>> TANGET ... 4.0000 Mips

| AMG-0 | | | | | | | | | | | | AMG-1 | | | | | | | | | | | | AMG-2 | | | | | | | | | | | | AMG-3 | | | | | | | | | | | |
|-------|-------|---------------|-------|-------|--------|------------|-------|-------|-------|---------------|-------|-------|-------|------------|--------|-------|-------|---------------|--------|-------|-------|------------|-------|-------|-------|---------------|-------|--------|-------|------------|-------|--------|--------|---------------|-------|-------|-------|------------|-------|-------|-------|--|--|--|--|--|--|
| num | ALL | { P, B PART } | | | | { I PART } | | | | { P, B PART } | | | | { I PART } | | | | { P, B PART } | | | | { I PART } | | | | { P, B PART } | | | | { I PART } | | | | { P, B PART } | | | | { I PART } | | | | | | | | | |
| | | TOTAL | PIC_Y | PIC_C | TOTAL | PIC_Y | PIC_C | MV | ETC | SH(y) | SH(c) | TOTAL | PIC_Y | PIC_C | MV | ETC | SH(y) | SH(c) | TOTAL | PIC_Y | PIC_C | MV | ETC | SH(y) | SH(c) | TOTAL | PIC_Y | PIC_C | MV | ETC | SH(y) | SH(c) | TOTAL | PIC_Y | PIC_C | MV | ETC | SH(y) | SH(c) | | | | | | | | |
| 0 | 23160 | 117840 | 72051 | 22670 | 120320 | 98248 | 15702 | 1384 | 28105 | 29.07 | 32.39 | 33.51 | 59 | 30464 | 30464 | 7929 | 1206 | 0 | 0 | 0 | 0 | 11219 | 10500 | 26.02 | 31.44 | 32.54 | 60 | 220048 | 97828 | 58025 | 12542 | 122216 | 99318 | 16842 | 11037 | 22484 | 28.38 | 32.08 | 32.83 | | | | | | | | |
| 1 | 24128 | 24128 | 4362 | 1189 | 0 | 0 | 0 | 7412 | 9765 | 26.52 | 31.67 | 33.20 | 61 | 28192 | 18192 | 6880 | 1141 | 0 | 0 | 0 | 0 | 11084 | 9287 | 26.47 | 31.54 | 32.60 | 62 | 19180 | 19180 | 16400 | 4424 | 886 | 0 | 0 | 0 | 0 | 10403 | 8249 | 26.96 | 31.52 | 32.65 | | | | | | |
| 2 | 25250 | 23520 | 6411 | 1363 | 0 | 0 | 0 | 6596 | 9150 | 26.95 | 31.84 | 33.09 | 63 | 20544 | 20544 | 4515 | 1211 | 0 | 0 | 0 | 0 | 5973 | 8815 | 26.95 | 31.39 | 32.47 | 64 | 25212 | 25212 | 4776 | 668 | 0 | 0 | 0 | 0 | 10941 | 8927 | 26.37 | 31.63 | 32.63 | | | | | | | |
| 3 | 22556 | 27656 | 5759 | 1397 | 0 | 0 | 0 | 6643 | 8817 | 27.30 | 31.83 | 33.05 | 65 | 220000 | 97592 | 57854 | 12307 | 122408 | 100138 | 16039 | 11216 | 22346 | 28.27 | 31.99 | 32.82 | 66 | 30560 | 30560 | 30560 | 7028 | 735 | 0 | 0 | 0 | 0 | 11176 | 10821 | 25.31 | 31.42 | 32.66 | | | | | | | |
| 4 | 20316 | 20136 | 5798 | 854 | 0 | 0 | 0 | 11876 | 9608 | 26.41 | 31.62 | 33.10 | 67 | 24704 | 24704 | 7073 | 999 | 0 | 0 | 0 | 0 | 6281 | 10247 | 25.72 | 30.40 | 32.52 | 68 | 20864 | 20864 | 4866 | 813 | 0 | 0 | 0 | 0 | 6292 | 8893 | 26.59 | 31.63 | 32.69 | | | | | | | |
| 5 | 23258 | 97088 | 62287 | 12221 | 120160 | 104552 | 17355 | 5676 | 23154 | 29.06 | 32.49 | 33.54 | 69 | 21152 | 21152 | 8513 | 1199 | 0 | 0 | 0 | 0 | 10362 | 10378 | 25.36 | 31.37 | 32.66 | 70 | 214448 | 92504 | 51321 | 13006 | 122144 | 99626 | 16157 | 11675 | 22663 | 28.68 | 32.10 | 32.88 | | | | | | | | |
| 6 | 31192 | 31192 | 7519 | 1052 | 0 | 0 | 0 | 12510 | 10043 | 26.22 | 30.80 | 32.22 | 71 | 28230 | 28230 | 6420 | 1329 | 0 | 0 | 0 | 0 | 11132 | 9439 | 26.27 | 31.44 | 32.52 | 72 | 18664 | 18664 | 4856 | 850 | 0 | 0 | 0 | 0 | 5730 | 8026 | 27.31 | 31.56 | 32.47 | | | | | | | |
| 7 | 23075 | 23075 | 6006 | 1385 | 0 | 0 | 0 | 6667 | 8814 | 27.37 | 31.93 | 32.24 | 73 | 19088 | 19088 | 4782 | 1137 | 0 | 0 | 0 | 0 | 5959 | 8730 | 27.05 | 31.29 | 32.48 | 74 | 24832 | 24832 | 4872 | 674 | 0 | 0 | 0 | 0 | 10533 | 8920 | 26.45 | 31.62 | 32.60 | | | | | | | |
| 8 | 23440 | 23440 | 5887 | 1484 | 0 | 0 | 0 | 8890 | 9179 | 26.85 | 31.67 | 33.15 | 75 | 23240 | 106586 | 4765 | 12875 | 125712 | 102550 | 16859 | 10110 | 22547 | 28.46 | 32.03 | 32.84 | 76 | 28236 | 28236 | 6708 | 758 | 0 | 0 | 0 | 0 | 10527 | 10243 | 25.45 | 31.50 | 32.52 | | | | | | | | |
| 9 | 30216 | 30216 | 6068 | 1350 | 0 | 0 | 0 | 12468 | 12168 | 26.48 | 31.87 | 32.09 | 77 | 19304 | 19304 | 4186 | 1019 | 0 | 0 | 0 | 0 | 5890 | 8119 | 27.11 | 31.36 | 32.46 | 78 | 20496 | 20496 | 4206 | 6523 | 1113 | 0 | 0 | 0 | 0 | 6285 | 10175 | 25.66 | 31.19 | 32.39 | | | | | | |
| 10 | 21376 | 91456 | 52635 | 1034 | 12020 | 98189 | 16046 | 12035 | 22170 | 28.14 | 32.24 | 31.35 | 79 | 20064 | 18664 | 4856 | 850 | 0 | 0 | 0 | 0 | 11197 | 10176 | 25.60 | 31.29 | 32.53 | 80 | 214816 | 92000 | 5257 | 11976 | 122004 | 100408 | 16149 | 10444 | 22082 | 28.55 | 32.05 | 32.87 | | | | | | | | |
| 11 | 30636 | 30636 | 7463 | 1374 | 0 | 0 | 0 | 12041 | 9018 | 26.19 | 31.38 | 32.84 | 81 | 29184 | 29184 | 4918 | 1276 | 0 | 0 | 0 | 0 | 10608 | 10019 | 25.45 | 31.26 | 32.45 | 82 | 24782 | 24782 | 4832 | 674 | 0 | 0 | 0 | 0 | 10533 | 8920 | 26.45 | 31.62 | 32.60 | | | | | | | |
| 12 | 24484 | 24484 | 7255 | 1016 | 0 | 0 | 0 | 6179 | 9780 | 26.39 | 31.56 | 32.94 | 83 | 20240 | 106586 | 4765 | 12875 | 125712 | 102550 | 16859 | 10110 | 22547 | 28.46 | 32.03 | 32.84 | 84 | 21210 | 21210 | 6299 | 1231 | 0 | 0 | 0 | 0 | 10527 | 10243 | 25.45 | 31.50 | 32.52 | | | | | | | | |
| 13 | 22304 | 22304 | 5908 | 1424 | 0 | 0 | 0 | 6054 | 9198 | 26.85 | 31.36 | 32.67 | 85 | 21210 | 21210 | 6299 | 1231 | 0 | 0 | 0 | 0 | 10527 | 10243 | 25.45 | 31.50 | 32.52 | 86 | 23086 | 23086 | 4866 | 850 | 0 | 0 | 0 | 0 | 10533 | 8920 | 26.45 | 31.62 | 32.60 | | | | | | | |
| 14 | 29568 | 29568 | 7780 | 625 | 0 | 0 | 0 | 12153 | 10181 | 26.01 | 31.52 | 32.88 | 87 | 23094 | 23094 | 4905 | 1019 | 0 | 0 | 0 | 0 | 10333 | 10481 | 25.60 | 31.37 | 32.42 | 88 | 20496 | 20496 | 42056 | 6523 | 1113 | 0 | 0 | 0 | 0 | 11033 | 10481 | 25.60 | 31.37 | 32.42 | | | | | | |
| 15 | 21872 | 91304 | 56469 | 11342 | 12454 | 101837 | 16058 | 12054 | 22134 | 28.05 | 32.04 | 32.99 | 89 | 21184 | 21184 | 6113 | 1019 | 0 | 0 | 0 | 0 | 11132 | 10182 | 24.74 | 31.36 | 32.41 | 90 | 21872 | 21872 | 6205 | 1219 | 0 | 0 | 0 | 0 | 11032 | 10182 | 24.74 | 31.36 | 32.41 | | | | | | | |
| 16 | 20848 | 20848 | 6603 | 1043 | 0 | 0 | 0 | 12154 | 10129 | 26.10 | 31.29 | 32.65 | 91 | 21184 | 21184 | 4856 | 805 | 0 | 0 | 0 | 0 | 11132 | 10129 | 24.74 | 31.36 | 32.41 | 92 | 21220 | 21220 | 6205 | 1219 | 0 | 0 | 0 | 0 | 11032 | 10129 | 24.74 | 31.36 | 32.41 | | | | | | | |
| 17 | 22768 | 22768 | 6106 | 1395 | 0 | 0 | 0 | 6503 | 8764 | 27.10 | 31.45 | 32.61 | 93 | 21220 | 21220 | 6205 | 1219 | 0 | 0 | 0 | 0 | 11132 | 10129 | 24.74 | 31.36 | 32.41 | 94 | 21220 | 21220 | 6205 | 1219 | 0 | 0 | 0 | 0 | 11032 | 10129 | 24.74 | 31.36 | 32.41 | | | | | | | |
| 18 | 22456 | 22456 | 5422 | 1560 | 0 | 0 | 0 | 6519 | 8955 | 27.20 | 31.32 | 32.67 | 95 | 21220 | 21220 | 6205 | 1219 | 0 | 0 | 0 | 0 | 11132 | 10129 | 24.74 | 31.36 | 32.41 | 96 | 21220 | 21220 | 6205 | 1219 | 0 | 0 | 0 | 0 | 11032 | 10129 | 24.74 | 31.36 | 32.41 | | | | | | | |
| 19 | 20284 | 20284 | 6595 | 1036 | 0 | 0 | 0 | 11542 | 9553 | 26.45 | 31.46 | 32.63 | 97 | 21220 | 21220 | 6205 | 1219 | 0 | 0 | 0 | 0 | 11132 | 10129 | 24.74 | 31.36 | 32.41 | 98 | 21220 | 21220 | 6205 | 1219 | 0 | 0 | 0 | 0 | 11032 | 10129 | 24.74 | 31.36 | 32.41 | | | | | | | |
| 20 | 20989 | 20989 | 4836 | 1074 | 0 | 0 | 0 | 11524 | 9553 | 25.59 | 31.25 | 32.69 | 99 | 21220 | 21220 | 6205 | 1219 | 0 | 0 | 0 | 0 | 11132 | 10129 | 24.74 | 31.36 | 32.41 | 100 | 20864 | 20864 | 4765 | 850 | 0 | 0 | 0 | 0 | 11032 | 10129 | 24.74 | 31.36 | 32.41 | | | | | | | |
| 21 | 31164 | 31164 | 7790 | 903 | 0 | 0 | 0 | 11714 | 10585 | 24.49 | 31.31 | 32.59 | 101 | 21172 | 21172 | 6205 | 1219 | 0 | 0 | 0 | 0 | 11132 | 10129 | 24.74 | 31.36 | 32.41 | 102 | 20686 | 20686 | 4765 | 850 | 0 | 0 | 0 | 0 | 11032 | 10129 | 24.74 | 31.36 | 32.41 | | | | | | | |
| 22 | 19272 | 19272 | 4154 | 1725 | 0 | 0 | 0 | 5629 | 8754 | 26.64 | 31.13 | 32.97 | 103 | 21220 | 21220 | 6205 | 1219 | 0 | 0 | 0 | 0 | 11132 | 10129 | 24.74 | 31.36 | 32.41 | 104 | 20484 | 20484 | 4408 | 806 | 0 | 0 | 0 | 0 | 11032 | 10129 | 24.74 | 31.36 | 32.41 | | | | | | | |
| 23 | 25288 | 25288 | 7322 | 1467 | 0 | 0 | 0 | 5070 | 8801 | 25.35 | 30.36 | 32.12 | 105 | 21220 | 21220 | 6205 | 1219 | 0 | 0 | 0 | 0 | 11132 | 10129 | 24.74 | 31.36 | 32.41 | 106 | 21220 | 21220 | 6205 | 1219 | 0 | 0 | 0 | 0 | 11032 | 10129 | 24.74 | 31.36 | 32.41 | | | | | | | |
| 24 | 30352 | 30352 | 8291 | 1538 | 0 | 0 | 0 | 10538 | 9979 | 25.80 | 31.42 | 32.43 | 107 | 21220 | 21220 | 6205 | 1219 | 0 | 0 | 0 | 0 | 11132 | 10129 | 24.74 | 31.36 | 32.41 | 108 | 21220 | 21220 | 6205 | 1219 | 0 | 0 | 0 | 0 | 11032 | 10129 | 24.74 | 31.36 | 32.41 | | | | | | | |
| 25 | 21197 | 21197 | 4936 | 1049 | 0 | 0 | 0 | 5370 | 9173 | 25.67 | 30.92 | 32.01 | 109 | 21220 | 21220 | 6205 | 1219 | 0 | 0 | 0 | 0 | 11132 | 10129 | 24.74 | 31.36 | 32.41 | 110 | 21220 | 21220 | 6205 | 1219 | 0 | 0 | 0 | 0 | 11032 | 10129 | 24.74 | 31.36 | 32.41 | | | | | | | |
| 26 | 30244 | 30244 | 8225 | 1283 | 0 | 0 | 0 | 9683 | 10898 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| num | ALL | (P,B PART) | | (I PART) | | MV | ETC | SN(y) | SN(b) | SN(r) | 4NSC-4 | |
|-----|--------|--------------|-------|------------|--------|--------|--------|-------|-------|-------|--------|-------|
| | | TOTAL | PIC_Y | PIC_C | TOTAL | PIC_Y | PIC_C | | | | | |
| 248 | 17808 | 17808 | 3178 | 1318 | 0 | 0 | 0 | 4112 | 8600 | 26.44 | 30.48 | 31.63 |
| 249 | 31240 | 31240 | 10115 | 1050 | 0 | 0 | 0 | 8510 | 11495 | 24.69 | 30.58 | 31.76 |
| 250 | 22440 | 102392 | 64505 | 12941 | 121108 | 99317 | 15930 | 9898 | 21809 | 27.61 | 31.13 | 31.85 |
| 251 | 32184 | 32184 | 10198 | 2019 | 0 | 0 | 0 | 8752 | 11225 | 24.27 | 30.37 | 31.57 |
| 252 | 15552 | 15552 | 2691 | 800 | 0 | 0 | 0 | 4112 | 7919 | 26.65 | 30.51 | 31.58 |
| 253 | 26072 | 26072 | 8247 | 1515 | 0 | 0 | 0 | 4003 | 11507 | 24.45 | 30.19 | 31.37 |
| 254 | 26184 | 26184 | 6527 | 785 | 0 | 0 | 0 | 8221 | 10551 | 25.23 | 30.43 | 31.58 |
| 255 | 230864 | 111888 | 72525 | L5114 | 118976 | 97668 | 15095 | 8758 | 21704 | 27.68 | 31.04 | 31.82 |
| 256 | 26520 | 26520 | 6207 | 942 | 0 | 0 | 0 | 8663 | 10704 | 24.99 | 30.49 | 31.63 |
| 257 | 22920 | 22920 | 6229 | 851 | 0 | 0 | 0 | 5129 | 10711 | 25.54 | 30.51 | 31.58 |
| 258 | 17808 | 17808 | 3388 | 1178 | 0 | 0 | 0 | 4110 | 8474 | 26.59 | 30.36 | 31.45 |
| 259 | 28400 | 28400 | 8144 | 887 | 0 | 0 | 0 | 8213 | 11156 | 24.97 | 30.40 | 31.53 |
| 260 | 232384 | 103832 | 67065 | 12904 | 128552 | 105864 | 16541 | 8819 | 21132 | 27.70 | 31.15 | 31.81 |
| 261 | 26288 | 26288 | 5462 | 1194 | 0 | 0 | 0 | 7966 | 10658 | 25.01 | 30.24 | 31.35 |
| 262 | 16123 | 16123 | 3112 | 849 | 0 | 0 | 0 | 4116 | 8265 | 26.64 | 30.52 | 31.64 |
| 263 | 17576 | 17576 | 3373 | 1426 | 0 | 0 | 0 | 4059 | 8718 | 26.27 | 30.10 | 31.42 |
| 264 | 24952 | 24952 | 6727 | 268 | 0 | 0 | 0 | 7431 | 10511 | 25.53 | 30.43 | 31.47 |
| 265 | 239088 | 110520 | 22960 | 14322 | 110568 | 97210 | 13215 | 8204 | 21119 | 27.66 | 31.05 | 31.13 |
| 266 | 25840 | 25840 | 6533 | 783 | 0 | 0 | 0 | 7612 | 10682 | 25.28 | 30.63 | 31.70 |
| 267 | 17124 | 17124 | 3935 | 818 | 0 | 0 | 0 | 4150 | 8523 | 26.14 | 30.46 | 31.54 |
| 268 | 17965 | 17965 | 3800 | 1082 | 0 | 0 | 0 | 4260 | 8426 | 26.78 | 30.54 | 31.61 |
| 269 | 27840 | 27840 | 8451 | 1448 | 0 | 0 | 0 | 7317 | 10424 | 25.13 | 30.32 | 31.52 |
| 270 | 237808 | 111792 | 71659 | 17405 | 126016 | 103756 | 161083 | 7500 | 21366 | 28.53 | 31.34 | 32.06 |
| 271 | 23320 | 23320 | 5092 | 1021 | 0 | 0 | 0 | 7359 | 9848 | 25.68 | 30.40 | 31.49 |
| 272 | 15808 | 15808 | 2948 | 738 | 0 | 0 | 0 | 4164 | 7958 | 27.15 | 30.88 | 31.76 |
| 273 | 17000 | 17000 | 3024 | 1349 | 0 | 0 | 0 | 4306 | 8321 | 26.93 | 30.31 | 31.57 |
| 274 | 21112 | 21112 | 4052 | 716 | 0 | 0 | 0 | 1291 | 9051 | 26.13 | 30.84 | 31.70 |
| 275 | 227944 | 111112 | 73010 | 15123 | 116832 | 95761 | 14910 | 7675 | 21463 | 27.83 | 31.13 | 31.86 |
| 276 | 23352 | 23352 | 5414 | 893 | 0 | 0 | 0 | 7072 | 9973 | 25.57 | 30.59 | 31.62 |
| 277 | 15528 | 15528 | 3090 | 809 | 0 | 0 | 0 | 4035 | 7994 | 26.61 | 30.52 | 31.60 |
| 278 | 16944 | 16944 | 3957 | 1616 | 0 | 0 | 0 | 4268 | 9103 | 26.76 | 30.40 | 31.58 |
| 279 | 27048 | 27048 | 7953 | 1904 | 0 | 0 | 0 | 7163 | 10008 | 25.27 | 30.12 | 31.36 |
| 280 | 239384 | 111272 | 72035 | 16872 | 128112 | 105324 | 161604 | 7450 | 21099 | 28.56 | 31.67 | 32.06 |
| 281 | 24512 | 24512 | 6213 | 1341 | 0 | 0 | 0 | 7204 | 9754 | 26.04 | 30.35 | 31.54 |
| 282 | 17016 | 17016 | 3749 | 987 | 0 | 0 | 0 | 4163 | 8111 | 27.19 | 30.81 | 31.76 |
| 283 | 18528 | 18528 | 4047 | 1581 | 0 | 0 | 0 | 4309 | 8591 | 27.01 | 30.21 | 31.42 |
| 284 | 23304 | 23304 | 5739 | 816 | 0 | 0 | 0 | 7226 | 9523 | 26.26 | 30.94 | 31.78 |
| 285 | 225688 | 108432 | 71352 | 14723 | 117256 | 95995 | 15122 | 7354 | 21141 | 28.01 | 31.16 | 31.97 |
| 286 | 23040 | 23040 | 4943 | 1074 | 0 | 0 | 0 | 7223 | 9760 | 25.66 | 30.71 | 31.74 |
| 287 | 17616 | 17616 | 3816 | 1158 | 0 | 0 | 0 | 4589 | 8103 | 26.70 | 30.30 | 31.54 |
| 288 | 18032 | 18032 | 3814 | 1759 | 0 | 0 | 0 | 4384 | 9013 | 27.16 | 30.57 | 31.62 |
| 289 | 23224 | 23224 | 5184 | 1893 | 0 | 0 | 0 | 7633 | 9314 | 26.24 | 30.35 | 31.48 |
| 290 | 258008 | 131282 | 87437 | 20703 | 126170 | 103919 | 16651 | 8088 | 21110 | 28.70 | 31.68 | 32.02 |
| 291 | 30528 | 30528 | 9899 | 1550 | 0 | 0 | 0 | 7509 | 11542 | 25.17 | 30.36 | 31.34 |
| 292 | 21136 | 21136 | 5161 | 1837 | 0 | 0 | 0 | 4132 | 10200 | 26.17 | 30.79 | 31.73 |
| 293 | 18312 | 18312 | 3807 | 1201 | 0 | 0 | 0 | 3956 | 9348 | 26.87 | 30.53 | 31.51 |
| 294 | 31152 | 31152 | 10702 | 1102 | 0 | 0 | 0 | 7023 | 12325 | 24.41 | 30.44 | 31.37 |
| 295 | 241848 | 131832 | 77385 | 20192 | 122016 | 100121 | 15757 | 7420 | 20955 | 28.63 | 31.58 | 31.66 |
| 296 | 31176 | 31176 | 11298 | 1022 | 0 | 0 | 0 | 7253 | 12203 | 24.03 | 30.38 | 31.35 |
| 297 | 14152 | 14152 | 2221 | 457 | 0 | 0 | 0 | 2998 | 8076 | 22.13 | 30.68 | 31.51 |
| 298 | 31104 | 31104 | 12590 | 1309 | 0 | 0 | 0 | 4521 | 12518 | 23.74 | 30.24 | 31.33 |
| 299 | 15056 | 15056 | 404 | 2965 | 0 | 0 | 0 | 3477 | 9010 | 28.38 | 30.40 | 30.91 |

>> NUMBER OF BITS AND SNR FOR EACH FIELD

>> CODING SEQUENCE ... Mobile & Calendar

>> TARGET ... 4.0000 Msps

4NSC-0

| num | ALL | (P,B PART) | | (I PART) | | MV | ETC | SN(y) | SN(b) | SN(r) | 4NSC-0 | |
|-----|--------|--------------|--------|------------|--------|--------|-------|-------|-------|-------|--------|-------|
| | | TOTAL | PIC_Y | PIC_C | TOTAL | PIC_Y | PIC_C | | | | | |
| 0 | 310840 | 19149 | 127592 | 30302 | 127141 | 93141 | 27705 | 1384 | 28316 | 26.18 | 31.71 | 32.21 |
| 1 | 28920 | 28920 | 10169 | 1209 | 0 | 0 | 0 | 5388 | 12055 | 23.44 | 31.31 | 31.89 |
| 2 | 23528 | 23528 | 6297 | 2208 | 0 | 0 | 0 | 4634 | 10397 | 21.63 | 30.90 | 31.42 |
| 3 | 22752 | 22752 | 6236 | 1180 | 0 | 0 | 0 | 4307 | 10429 | 24.70 | 31.05 | 31.60 |
| 4 | 25814 | 25814 | 7466 | 958 | 0 | 0 | 0 | 7693 | 10717 | 23.97 | 31.40 | 31.79 |
| 5 | 234392 | 114095 | 78865 | 15813 | 120804 | 87991 | 25287 | 3430 | 23742 | 26.68 | 31.34 | 32.40 |
| 6 | 26920 | 26920 | 3430 | 1477 | 0 | 0 | 0 | 7942 | 11071 | 21.97 | 31.27 | 31.65 |
| 7 | 23464 | 23464 | 6289 | 2098 | 0 | 0 | 0 | 4165 | 10612 | 24.97 | 30.87 | 31.31 |
| 8 | 22216 | 22216 | 6120 | 1571 | 0 | 0 | 0 | 4528 | 9991 | 24.97 | 31.06 | 31.50 |
| 9 | 28556 | 28556 | 8755 | 1440 | 0 | 0 | 0 | 7528 | 10813 | 23.13 | 31.36 | 31.69 |
| 10 | 217636 | 97232 | 65057 | 13083 | 120461 | 87927 | 26295 | 6506 | 22177 | 26.01 | 31.36 | 31.69 |
| 11 | 26512 | 26512 | 8517 | 1562 | 0 | 0 | 0 | 7667 | 10766 | 24.18 | 31.31 | 31.65 |
| 12 | 22656 | 22656 | 6176 | 1907 | 0 | 0 | 0 | 4214 | 10309 | 23.13 | 31.31 | 31.79 |
| 13 | 27272 | 27272 | 83728 | 4366 | 0 | 0 | 0 | 7223 | 10643 | 24.88 | 31.29 | 31.73 |
| 14 | 27728 | 27728 | 4366 | 1460 | 0 | 0 | 0 | 7223 | 10643 | 24.88 | 31.29 | 31.73 |
| 15 | 23416 | 23416 | 10248 | 6693 | 13908 | 52493 | 27412 | 6211 | 22424 | 26.95 | 31.92 | 32.43 |
| 16 | 21112 | 21112 | 8103 | 1168 | 0 | 0 | 0 | 4251 | 8665 | 21.51 | 31.60 | 31.89 |
| 17 | 24162 | 24162 | 7546 | 2010 | 0 | 0 | 0 | 6729 | 8968 | 25.35 | 31.45 | 31.75 |
| 18 | 23400 | 23400 | 6066 | 1636 | 0 | 0 | 0 | 4263 | 10813 | 25.14 | 30.74 | 31.15 |
| 19 | 23560 | 23560 | 6425 | 1029 | 0 | 0 | 0 | 6558 | 10709 | 24.33 | 30.92 | 31.29 |
| 20 | 22556 | 22556 | 6764 | 1245 | 0 | 0 | 0 | 4262 | 10214 | 25.11 | 30.64 | 30.80 |
| 21 | 21722 | 21722 | 8877 | 1770 | 0 | 0 | 0 | 4295 | 11500 | 26.16 | 31.76 | 32.19 |
| 22 | 27572 | 27572 | 5511 | 1078 | 0 | 0 | 0 | 6866 | 9327 | 25.22 | 31.02 | 31.32 |
| 23 | 223136 | 99672 | 62590 | 15911 | 123464 | 90103 | 27250 | 5529 | 21753 | 27.20 | 31.80 | 32.27 |
| 24 | 21804 | 21804 | 5389 | 1095 | 0 | 0 | 0 | 4251 | 8665 | 21.95 | 31.60 | 30.87 |
| 25 | 20400 | 20400 | 105160 | 68735 | 14790 | 124610 | 90901 | 6079 | 22336 | 23.06 | 31.45 | 32.26 |
| 26 | 19186 | 19186 | 4327 | 745 | 0 | 0 | 0 | 6558 | 8086 | 20.64 | 31.68 | 31.80 |
| 27 | 23064 | 23064 | 6139 | 2444 | 0 | 0 | 0 | 4264 | 9086 | 20.84 | 31.61 | 31.84 |
| 28 | 20122 | 20122 | 6850 | 907 | 0 | 0 | 0 | 4253 | 8139 | 21.68 | 31.32 | 31.29 |
| 29 | 22392 | 22392 | 5111 | 1078 | 0 | 0 | 0 | | | | | |

| num | all | { P. B PART } | | | { I PART } | | | { I PART } | | | { I PART } | | | { I PART } | | | { I PART } | | | | | | | | |
|-----|--------|---------------|-------|--------|------------|-------|-------|------------|-------|-------|------------|-------|-------|------------|--------|--------|------------|--------|-------|-------|-------|-------|-------|-------|-------|
| | | Total | PIC_Y | PIC_C | Total | PIC_Y | PIC_C | MV | ETC | SK(y) | SK(b) | SK(r) | MV | ETC | SK(y) | SK(b) | SK(r) | MV | ETC | SK(y) | SK(b) | SK(r) | | | |
| 122 | 22304 | 22304 | 2061 | 1541 | 0 | 0 | 0 | 4241 | 9455 | 25.64 | 30.96 | 31.08 | 183 | 227712 | 103752 | 59773 | 22702 | 123960 | 87982 | 29766 | 5301 | 22178 | 28.07 | 31.59 | 31.95 |
| 123 | 18992 | 18992 | 5614 | 227 | 0 | 0 | 0 | 4245 | 8384 | 25.67 | 31.57 | 31.88 | 186 | 28146 | 28161 | 8561 | 2632 | 0 | 0 | 6528 | 10595 | 26.03 | 30.37 | 30.55 | |
| 124 | 23292 | 23292 | 6525 | 1096 | 0 | 0 | 0 | 6648 | 9631 | 25.23 | 31.27 | 31.44 | 187 | 25152 | 25152 | 10426 | 1360 | 0 | 0 | 4515 | 8551 | 26.03 | 31.31 | 31.55 | |
| 125 | 230784 | 107208 | 67023 | 18160 | 123576 | 88777 | 28520 | 5859 | 22345 | 27.41 | 31.75 | 32.02 | 188 | 24000 | 24000 | 9362 | 1377 | 0 | 0 | 4523 | 8738 | 26.47 | 31.50 | 31.74 | |
| 126 | 24242 | 24242 | 6881 | 1195 | 0 | 0 | 0 | 6657 | 9965 | 25.42 | 31.10 | 31.34 | 189 | 23944 | 23944 | 7387 | 12554 | 0 | 0 | 6197 | 8504 | 26.06 | 31.62 | 31.86 | |
| 127 | 230946 | 230946 | 6599 | 1947 | 0 | 0 | 0 | 4196 | 10254 | 25.59 | 30.68 | 30.84 | 190 | 224534 | 102950 | 58228 | 23029 | 123576 | 87653 | 29702 | 5590 | 22344 | 28.13 | 31.59 | 31.97 |
| 128 | 17536 | 17536 | 4172 | 568 | 0 | 0 | 0 | 4092 | 810 | 26.13 | 31.63 | 31.91 | 191 | 26454 | 26454 | 36456 | 7236 | 2395 | 0 | 0 | 6487 | 10338 | 26.44 | 30.49 | 30.58 |
| 129 | 24616 | 24616 | 7049 | 1074 | 0 | 0 | 0 | 6592 | 9801 | 25.05 | 31.22 | 31.34 | 192 | 25120 | 25128 | 10399 | 1344 | 0 | 0 | 4466 | 9119 | 26.03 | 31.40 | 31.73 | |
| 130 | 23658 | 109888 | 68960 | 19068 | 124480 | 89258 | 29281 | 5850 | 22031 | 27.46 | 31.73 | 32.11 | 193 | 21496 | 21496 | 7635 | 1187 | 0 | 0 | 4376 | 8298 | 26.87 | 31.55 | 31.70 | |
| 131 | 26360 | 26360 | 7132 | 1475 | 0 | 0 | 0 | 6432 | 9827 | 25.88 | 30.96 | 31.10 | 194 | 24056 | 24056 | 7676 | 1049 | 0 | 0 | 6526 | 8805 | 26.34 | 31.72 | 31.94 | |
| 132 | 19735 | 19735 | 5707 | 893 | 0 | 0 | 0 | 4114 | 902 | 25.67 | 31.17 | 31.28 | 195 | 225248 | 101832 | 58853 | 21385 | 123416 | 87487 | 29706 | 5577 | 22140 | 28.17 | 31.71 | 32.01 |
| 133 | 19022 | 19022 | 5360 | 502 | 0 | 0 | 0 | 4200 | 8970 | 25.38 | 31.55 | 31.80 | 196 | 25880 | 25880 | 8893 | 1511 | 0 | 0 | 6539 | 8937 | 26.47 | 31.32 | 31.90 | |
| 134 | 24856 | 24856 | 6731 | 1313 | 0 | 0 | 0 | 6553 | 8459 | 25.11 | 31.13 | 31.34 | 197 | 25200 | 25200 | 10856 | 1405 | 0 | 0 | 4160 | 8779 | 26.34 | 31.59 | 31.80 | |
| 135 | 229592 | 109188 | 68183 | 19005 | 120104 | 85981 | 27948 | 5816 | 22398 | 27.48 | 31.76 | 32.11 | 198 | 24578 | 24578 | 10171 | 1456 | 0 | 0 | 4172 | 8772 | 26.82 | 31.74 | 31.95 | |
| 136 | 26268 | 26268 | 7118 | 1424 | 0 | 0 | 0 | 7018 | 10685 | 24.94 | 30.95 | 31.06 | 199 | 25976 | 25976 | 9308 | 1312 | 0 | 0 | 6308 | 9048 | 26.50 | 31.83 | 32.05 | |
| 137 | 21072 | 21072 | 4032 | 1214 | 0 | 0 | 0 | 4287 | 9539 | 25.55 | 31.19 | 31.28 | 200 | 221608 | 101704 | 50127 | 20286 | 119904 | 84309 | 29323 | 5265 | 22268 | 28.17 | 31.91 | 32.24 |
| 138 | 19312 | 19312 | 6088 | 630 | 0 | 0 | 0 | 4266 | 8106 | 25.88 | 31.65 | 31.78 | 201 | 25352 | 25352 | 8637 | 1264 | 0 | 0 | 6494 | 8957 | 26.59 | 31.43 | 31.64 | |
| 139 | 25624 | 25624 | 7219 | 1311 | 0 | 0 | 0 | 6583 | 10081 | 25.05 | 31.23 | 31.41 | 202 | 24840 | 24840 | 10338 | 1332 | 0 | 0 | 4214 | 8956 | 26.12 | 31.69 | 31.91 | |
| 140 | 239416 | 115769 | 73991 | 19787 | 123454 | 88356 | 28574 | 5678 | 22620 | 27.37 | 31.76 | 32.02 | 203 | 225206 | 225206 | 8242 | 1214 | 0 | 0 | 4295 | 8305 | 27.24 | 31.84 | 32.07 | |
| 141 | 29284 | 29284 | 8972 | 2201 | 0 | 0 | 0 | 7230 | 10885 | 25.07 | 30.95 | 31.22 | 204 | 25581 | 25581 | 8745 | 1387 | 0 | 0 | 6338 | 9114 | 26.46 | 31.83 | 32.07 | |
| 142 | 22984 | 22984 | 1643 | 1733 | 0 | 0 | 0 | 4290 | 9678 | 25.64 | 31.17 | 31.29 | 205 | 220976 | 10832 | 61526 | 22853 | 120714 | 85774 | 28816 | 5578 | 22429 | 28.48 | 32.09 | 32.39 |
| 143 | 22864 | 22864 | 8439 | 1006 | 0 | 0 | 0 | 4107 | 9012 | 25.76 | 31.61 | 31.87 | 206 | 23744 | 23744 | 10182 | 1477 | 0 | 0 | 6390 | 9295 | 26.22 | 31.52 | 31.64 | |
| 144 | 31176 | 31176 | 10741 | 2160 | 0 | 0 | 0 | 3110 | 10615 | 25.00 | 31.16 | 31.28 | 207 | 24568 | 24568 | 10137 | 1425 | 0 | 0 | 4130 | 8576 | 26.64 | 31.88 | 32.13 | |
| 145 | 230480 | 110440 | 70345 | 17661 | 123640 | 84471 | 29048 | 6160 | 22587 | 27.52 | 31.80 | 32.17 | 208 | 27616 | 27616 | 12293 | 1742 | 0 | 0 | 4347 | 9236 | 26.75 | 31.93 | 32.14 | |
| 146 | 30976 | 30976 | 10576 | 10581 | 220 | 0 | 0 | 7242 | 10504 | 24.99 | 30.16 | 31.23 | 209 | 22746 | 22746 | 10025 | 2051 | 0 | 0 | 6221 | 9057 | 26.12 | 31.85 | 32.07 | |
| 147 | 25624 | 25624 | 9284 | 1039 | 0 | 0 | 0 | 4271 | 10126 | 25.58 | 31.15 | 31.31 | 210 | 230672 | 103716 | 6167 | 2150 | 126936 | 85157 | 31214 | 5122 | 22232 | 28.55 | 32.18 | 32.54 |
| 148 | 24165 | 24165 | 9167 | 1412 | 0 | 0 | 0 | 4233 | 9256 | 25.61 | 31.56 | 31.75 | 211 | 25856 | 25856 | 8730 | 1529 | 0 | 0 | 6524 | 8913 | 26.81 | 31.71 | 31.80 | |
| 149 | 30376 | 30376 | 10448 | 2220 | 0 | 0 | 0 | 7032 | 10576 | 25.09 | 31.11 | 31.25 | 212 | 29792 | 29792 | 13833 | 2081 | 0 | 0 | 4408 | 9470 | 26.17 | 31.86 | 32.04 | |
| 150 | 255704 | 130302 | 88029 | 18236 | 122672 | 87455 | 28987 | 5960 | 21317 | 27.33 | 31.84 | 32.12 | 213 | 26848 | 26848 | 11708 | 1653 | 0 | 0 | 4470 | 9012 | 26.91 | 32.12 | 32.35 | |
| 151 | 18120 | 18120 | 9839 | 2347 | 0 | 0 | 0 | 6897 | 10854 | 24.84 | 30.77 | 31.07 | 214 | 26152 | 26152 | 8935 | 1561 | 0 | 0 | 6550 | 8738 | 27.19 | 31.85 | 32.11 | |
| 152 | 26552 | 26552 | 10217 | 1816 | 0 | 0 | 0 | 4461 | 10013 | 25.16 | 31.30 | 31.35 | 215 | 237952 | 114888 | 67652 | 25411 | 123064 | 86379 | 30214 | 5504 | 22582 | 28.47 | 32.30 | 32.61 |
| 153 | 22736 | 22736 | 9782 | 1052 | 0 | 0 | 0 | 4002 | 8560 | 25.55 | 31.64 | 31.79 | 216 | 2912 | 2912 | 8732 | 1235 | 0 | 0 | 6609 | 10495 | 26.98 | 31.34 | 31.64 | |
| 154 | 25240 | 25240 | 8493 | 1470 | 0 | 0 | 0 | 4517 | 8700 | 25.70 | 31.54 | 31.70 | 217 | 20864 | 20864 | 12807 | 1761 | 0 | 0 | 4157 | 9219 | 26.56 | 31.86 | 32.10 | |
| 155 | 251248 | 122776 | 84826 | 18248 | 12402 | 88384 | 29456 | 6123 | 22562 | 27.38 | 31.82 | 32.14 | 218 | 27328 | 27328 | 12141 | 1722 | 0 | 0 | 4342 | 8873 | 26.58 | 32.05 | 32.37 | |
| 156 | 29016 | 29016 | 7062 | 2701 | 0 | 0 | 0 | 6551 | 10602 | 25.91 | 30.72 | 30.84 | 219 | 27632 | 27632 | 9192 | 2038 | 0 | 0 | 6484 | 8518 | 27.34 | 31.96 | 32.17 | |
| 157 | 22584 | 22584 | 5643 | 1059 | 0 | 0 | 0 | 6246 | 8456 | 26.32 | 31.65 | 31.91 | 220 | 24146 | 24146 | 75103 | 10788 | 122218 | 46100 | 29915 | 5531 | 23001 | 26.88 | 32.13 | 32.54 |
| 158 | 22944 | 22944 | 5585 | 1543 | 0 | 0 | 0 | 6191 | 9321 | 26.33 | 30.39 | 31.07 | 221 | 30728 | 30728 | 10291 | 3391 | 0 | 0 | 6356 | 10687 | 26.77 | 30.85 | 30.88 | |
| 159 | 239184 | 116312 | 75448 | 19467 | 122872 | 87552 | 29045 | 5614 | 21988 | 27.61 | 31.86 | 32.27 | 222 | 29720 | 29720 | 14351 | 1637 | 0 | 0 | 4297 | 9435 | 26.43 | 31.77 | 32.04 | |
| 160 | 24316 | 24316 | 6243 | 2436 | 0 | 0 | 0 | 4017 | 8244 | 26.16 | 31.76 | 32.00 | 223 | 27920 | 27920 | 12266 | 1783 | 0 | 0 | 4414 | 9097 | 27.02 | 32.04 | 32.30 | |
| 161 | 20520 | 20520 | 5287 | 925 | 0 | 0 | 0 | 6011 | 8267 | 26.53 | 31.54 | 31.84 | 224 | 29320 | 29320 | 9480 | 1844 | 0 | 0 | 6424 | 9512 | 27.26 | 31.36 | 31.48 | |
| 162 | 192928 | 192928 | 6253 | 20341 | 121264 | 85702 | 31427 | 5278 | 21984 | 28.81 | 32.07 | 32.46 | 225 | 246752 | 246752 | 70856 | 22456 | 0 | 0 | 4229 | 9968 | 26.63 | 31.27 | 31.31 | |
| 163 | 23856 | 23856 | 1914 | 0 | 0 | 0 | 6187 | 10099 | 26.48 | 30.55 | 30.72 | 226 | 25904 | 25904 | 75904 | 1666 | 0 | 0 | 4229 | 8532 | 27.65 | 31.12 | 32.38 | | |
| 164 | 21456 | 21456 | 7688 | 945 | 0 | 0 | 0 | 4105 | 8718 | 26.19 | 31.41 | 31.56 | 227 | 246160 | 246160 | 123771 | 25887 | 0 | 0 | 4399 | 11253 | 26.91 | 30.86 | 30.75 | |
| 165 | 18008 | 18008 | 4204 | 595 | 0 | 0 | 0 | 6294 | 7711 | 27.39 | 31.69 | 32.04 | 228 | 21018 | 21018 | 7465 | 1509 | 0 | 0 | 6636 | 8438 | 27.61 | 32.08 | 32.33 | |
| 166 | 224152 | 99728 | 32114 | 124424 | 46141 | 32132 | 6011 | 22377 | 28.72 | 31.67 | 32.10 | 229 | 30120 | 30120 | 11030 | 3551 | 0 | 0 | 4281 | 11252 | 27.04 | 31.05 | 31.14 | | |
| 167 | 18760 | | | | | | | | | | | | | | | | | | | | | | | | |

>> NUMBER OF HITS AND SHM FOR EACH FIELD
 >> COUNTING SEQUENCE ... Table Tennis
 >> TARGET ... 4.0000 Mbps

| num | ALL | (P, B PART) | | | (I PART) | | | 4MTI-0 | | | num | ALL | (P, B PART) | | | (I PART) | | | 4MTI-1 | | | | | | | |
|-----|--------|---------------|--------|--------|------------|--------|-------|--------|-------|-------|-------|-------|---------------|--------|--------|------------|-------|--------|--------|-------|-------|-------|-------|-------|-------|-------|
| | | TOTAL | PIC_Y | PIC_C | TOTAL | PIC_Y | PIC_C | MY | ETC | SH(y) | | | TOTAL | PIC_Y | PIC_C | MY | ETC | SH(y) | SH(b) | SH(r) | | | | | | |
| 0 | 234864 | 138912 | 108645 | 4985 | 95952 | 83981 | 6416 | 1384 | 27373 | 25.94 | 37.88 | 38.68 | 59 | 30592 | 30592 | 7910 | 590 | 0 | 0 | 12326 | 8856 | 28.01 | 38.94 | 39.69 | | |
| 1 | 21056 | 21099 | 5225 | 875 | 0 | 0 | 0 | 0 | 1366 | 7610 | 25.18 | 37.19 | 38.33 | 60 | 213695 | 99664 | 64327 | 3243 | 114032 | 89976 | 9661 | 11913 | 21470 | 30.16 | 39.39 | 40.27 |
| 2 | 10584 | 10584 | 4078 | 756 | 0 | 0 | 0 | 0 | 6380 | 1370 | 25.52 | 31.15 | 38.21 | 61 | 20210 | 30210 | 7560 | 572 | 0 | 0 | 12690 | 9018 | 28.37 | 39.07 | 39.73 | |
| 3 | 20304 | 20304 | 5050 | 642 | 0 | 0 | 0 | 0 | 6860 | 752 | 25.64 | 37.85 | 38.41 | 62 | 27608 | 27608 | 9415 | 667 | 0 | 0 | 10896 | 9430 | 28.31 | 39.14 | 39.79 | |
| 4 | 21000 | 21000 | 4157 | 487 | 0 | 0 | 0 | 0 | 6834 | 7512 | 25.14 | 37.20 | 38.40 | 63 | 26000 | 26000 | 8379 | 449 | 0 | 0 | 12086 | 9430 | 28.77 | 39.25 | 40.09 | |
| 5 | 251832 | 140832 | 114450 | 3193 | 111520 | 104455 | 7200 | 5176 | 22778 | 26.92 | 38.12 | 39.13 | 64 | 198080 | 84636 | 32197 | 3105 | 113384 | 82379 | 10632 | 12923 | 21543 | 30.71 | 39.61 | 40.48 | |
| 6 | 28222 | 21893 | 4091 | 489 | 0 | 0 | 0 | 0 | 9007 | 7635 | 25.52 | 38.03 | 38.63 | 65 | 25784 | 25784 | 8136 | 397 | 0 | 0 | 8193 | 9058 | 29.35 | 39.51 | 40.85 | |
| 7 | 21416 | 21416 | 6712 | 610 | 0 | 0 | 0 | 0 | 5696 | 8366 | 25.26 | 38.01 | 38.72 | 66 | 26584 | 26584 | 8568 | 554 | 0 | 0 | 8063 | 8993 | 29.25 | 39.41 | 39.95 | |
| 8 | 10576 | 18576 | 5375 | 228 | 0 | 0 | 0 | 0 | 9484 | 7525 | 26.28 | 38.05 | 38.69 | 67 | 27584 | 27584 | 8136 | 397 | 0 | 0 | 8193 | 9058 | 29.35 | 39.51 | 40.85 | |
| 9 | 22360 | 22360 | 4894 | 453 | 0 | 0 | 0 | 0 | 9484 | 7525 | 26.28 | 38.05 | 38.69 | 68 | 32560 | 32560 | 9155 | 485 | 0 | 0 | 13693 | 9227 | 29.13 | 39.38 | 40.00 | |
| 10 | 227992 | 120560 | 98651 | 1781 | 107432 | 95108 | 6951 | 5841 | 19737 | 24.26 | 38.21 | 39.18 | 69 | 31040 | 31040 | 7403 | 503 | 0 | 0 | 14362 | 8170 | 28.84 | 39.33 | 40.03 | | |
| 11 | 21112 | 21112 | 4082 | 487 | 0 | 0 | 0 | 0 | 9231 | 1307 | 26.92 | 37.95 | 38.54 | 70 | 27608 | 27608 | 9415 | 667 | 0 | 0 | 10816 | 22077 | 31.31 | 39.75 | 40.45 | |
| 12 | 17904 | 17904 | 3898 | 571 | 0 | 0 | 0 | 0 | 6102 | 7026 | 26.73 | 37.95 | 38.51 | 71 | 24960 | 24960 | 7471 | 563 | 0 | 0 | 8004 | 8922 | 30.21 | 39.62 | 40.34 | |
| 13 | 19504 | 19504 | 4040 | 752 | 0 | 0 | 0 | 0 | 6670 | 7528 | 26.48 | 37.84 | 38.45 | 72 | 30320 | 30320 | 6566 | 616 | 0 | 0 | 8234 | 8756 | 30.39 | 39.67 | 40.19 | |
| 14 | 23252 | 23252 | 4118 | 618 | 0 | 0 | 0 | 0 | 9981 | 7255 | 26.83 | 38.19 | 38.50 | 73 | 31312 | 31312 | 7559 | 337 | 0 | 0 | 14681 | 8755 | 29.65 | 39.49 | 40.03 | |
| 15 | 25264 | 140032 | 114502 | 2132 | 115232 | 102387 | 7473 | 8762 | 2008 | 26.06 | 38.05 | 39.16 | 74 | 26580 | 26580 | 9399 | 4042 | 107072 | 90163 | 11540 | 13271 | 22077 | 31.31 | 39.75 | 40.45 | |
| 16 | 23312 | 23312 | 5151 | 589 | 0 | 0 | 0 | 0 | 9425 | 7284 | 25.57 | 38.08 | 38.63 | 75 | 32120 | 32120 | 7075 | 666 | 0 | 0 | 14710 | 8889 | 30.03 | 39.57 | 40.11 | |
| 17 | 21832 | 21832 | 6559 | 653 | 0 | 0 | 0 | 0 | 8897 | 8723 | 25.86 | 37.93 | 38.61 | 76 | 25432 | 25432 | 7223 | 659 | 0 | 0 | 8004 | 8922 | 30.21 | 39.62 | 40.34 | |
| 18 | 20920 | 20920 | 6304 | 1300 | 0 | 0 | 0 | 0 | 5165 | 8150 | 26.50 | 38.09 | 38.53 | 77 | 31312 | 31312 | 6566 | 616 | 0 | 0 | 14558 | 8480 | 30.39 | 39.86 | 40.27 | |
| 19 | 23680 | 38580 | 16280 | 537 | 0 | 0 | 0 | 0 | 10397 | 11466 | 24.94 | 38.03 | 38.64 | 78 | 193336 | 18288 | 42164 | 4724 | 115084 | 96699 | 12941 | 14252 | 22458 | 32.16 | 39.15 | 40.40 |
| 20 | 23692 | 120458 | 2264 | 110280 | 97634 | 8261 | 20024 | 7285 | 26.75 | 38.19 | 38.31 | 79 | 16324 | 16324 | 11259 | 582 | 0 | 0 | 14558 | 9823 | 31.00 | 39.93 | 40.31 | | | |
| 21 | 23576 | 43576 | 13913 | 742 | 0 | 0 | 0 | 0 | 10753 | 12133 | 24.57 | 37.94 | 38.65 | 80 | 30216 | 30216 | 11113 | 925 | 0 | 0 | 8387 | 9791 | 31.29 | 39.45 | 40.36 | |
| 22 | 21576 | 21576 | 6487 | 1024 | 0 | 0 | 0 | 0 | 6071 | 1994 | 26.47 | 37.98 | 38.73 | 81 | 109152 | 77904 | 36564 | 7044 | 111248 | 91576 | 14309 | 14388 | 22181 | 33.69 | 39.49 | 41.05 |
| 23 | 23735 | 23735 | 6936 | 1107 | 0 | 0 | 0 | 0 | 7246 | 8447 | 25.47 | 37.85 | 38.61 | 82 | 30424 | 30424 | 8175 | 1036 | 0 | 0 | 14605 | 8808 | 32.29 | 39.88 | 40.03 | |
| 24 | 36924 | 36924 | 15481 | 542 | 0 | 0 | 0 | 0 | 9065 | 11089 | 25.22 | 37.93 | 38.82 | 83 | 31256 | 31256 | 992 | 2454 | 0 | 0 | 9439 | 9440 | 32.43 | 39.37 | 39.91 | |
| 25 | 227344 | 151144 | 9964 | 2304 | 112280 | 99602 | 7233 | 6467 | 20774 | 28.86 | 38.10 | 39.31 | 84 | 32126 | 32126 | 10661 | 3133 | 0 | 0 | 14937 | 9540 | 32.44 | 39.40 | 40.34 | | |
| 26 | 42326 | 42326 | 19910 | 466 | 0 | 0 | 0 | 0 | 9318 | 12612 | 25.00 | 37.96 | 38.72 | 85 | 16488 | 16488 | 7657 | 2098 | 0 | 0 | 16217 | 8916 | 32.70 | 39.98 | 40.36 | |
| 27 | 19152 | 19152 | 5627 | 623 | 0 | 0 | 0 | 0 | 5189 | 7213 | 26.62 | 37.94 | 38.74 | 86 | 105968 | 17472 | 22984 | 6955 | 114495 | 93442 | 15677 | 14804 | 22106 | 34.16 | 40.65 | 41.04 |
| 28 | 23056 | 23056 | 6963 | 850 | 0 | 0 | 0 | 0 | 6771 | 8192 | 26.37 | 38.00 | 38.59 | 87 | 34886 | 34886 | 10461 | 2480 | 0 | 0 | 16616 | 9299 | 32.70 | 39.56 | 39.80 | |
| 29 | 29512 | 29512 | 10217 | 381 | 0 | 0 | 0 | 0 | 9211 | 9555 | 25.56 | 37.92 | 38.64 | 88 | 35496 | 35496 | 12832 | 3533 | 0 | 0 | 10220 | 9911 | 32.63 | 39.95 | 39.65 | |
| 30 | 199516 | 98908 | 66736 | 2020 | 110896 | 98501 | 702 | 5210 | 20357 | 28.95 | 38.13 | 39.18 | 89 | 35512 | 35512 | 11571 | 3784 | 0 | 0 | 10326 | 8833 | 32.67 | 39.76 | 39.43 | | |
| 31 | 39646 | 39646 | 1784 | 5134 | 0 | 0 | 0 | 0 | 9222 | 12058 | 24.71 | 37.93 | 38.57 | 90 | 38800 | 38800 | 8742 | 1072 | 0 | 0 | 10803 | 9630 | 32.79 | 39.03 | 38.80 | |
| 32 | 17344 | 17344 | 3997 | 590 | 0 | 0 | 0 | 0 | 5413 | 7344 | 21.05 | 37.93 | 38.64 | 91 | 35324 | 35324 | 81074 | 8744 | 0 | 0 | 15682 | 8995 | 32.72 | 39.81 | 39.72 | |
| 33 | 25960 | 25960 | 9128 | 535 | 0 | 0 | 0 | 0 | 1088 | 9209 | 25.51 | 37.84 | 38.55 | 92 | 36624 | 36624 | 8912 | 2159 | 0 | 0 | 16217 | 8782 | 32.62 | 39.93 | 38.97 | |
| 34 | 24688 | 24688 | 6851 | 328 | 0 | 0 | 0 | 0 | 9881 | 8266 | 26.48 | 37.95 | 38.61 | 93 | 34568 | 34568 | 11523 | 3260 | 0 | 0 | 10173 | 9612 | 32.52 | 39.41 | 39.20 | |
| 35 | 20832 | 96720 | 13233 | 2165 | 99163 | 7121 | 617 | 20419 | 29.07 | 38.06 | 39.13 | 94 | 33008 | 33008 | 11234 | 2922 | 0 | 0 | 10138 | 9514 | 32.66 | 39.88 | 39.30 | | | |
| 36 | 2921 | 2921 | 10234 | 489 | 0 | 0 | 0 | 0 | 9262 | 8953 | 25.93 | 37.90 | 38.55 | 95 | 34255 | 34255 | 7969 | 1349 | 0 | 0 | 10001 | 8937 | 32.81 | 39.82 | 39.50 | |
| 37 | 19168 | 19168 | 4995 | 556 | 0 | 0 | 0 | 0 | 6171 | 1494 | 27.43 | 37.82 | 38.55 | 96 | 175608 | 62888 | 24911 | 2112 | 0 | 0 | 10762 | 90767 | 34.27 | 40.40 | 40.39 | |
| 38 | 25584 | 25584 | 9316 | 751 | 0 | 0 | 0 | 0 | 6918 | 8519 | 26.15 | 37.85 | 38.36 | 97 | 10888 | 10888 | 2119 | 0 | 0 | 0 | 16795 | 9162 | 32.85 | 39.32 | 35.21 | |
| 39 | 25841 | 25841 | 6836 | 407 | 0 | 0 | 0 | 0 | 10495 | 8109 | 26.85 | 37.89 | 38.56 | 98 | 35088 | 35088 | 12702 | 2783 | 0 | 0 | 10903 | 9103 | 32.63 | 39.38 | 39.20 | |
| 40 | 22934 | 117256 | 92439 | 2523 | 112328 | 99478 | 17471 | 732 | 20543 | 28.87 | 38.07 | 39.01 | 99 | 34480 | 34480 | 11722 | 3045 | 0 | 0 | 10083 | 9630 | 32.79 | 39.03 | 38.80 | | |
| 41 | 21088 | 21088 | 1837 | 440 | 0 | 0 | 0 | 0 | 10551 | 8160 | 26.54 | 37.89 | 38.50 | 100 | 34584 | 34584 | 11075 | 4914 | 0 | 0 | 15684 | 9241 | 32.62 | 39.33 | 39.58 | |
| 42 | 20728 | 20728 | 5864 | 663 | 0 | 0 | 0 | 0 | 6373 | 7862 | 26.46 | 37.76 | 38.20 | 101 | 27026 | 27026 | 10045 | 5001 | 0 | 0 | 15990 | 9462 | 32.75 | 39.76 | 38.80 | |
| 43 | 26161 | 26161 | 10256 | 763 | 0 | 0 | 0 | 0 | 6219 | 7924 | 27.43 | 37.84 | 38.55 | 102 | 35088 | 35088 | 12702 | 2783 | 0 | 0 | 10905 | 9005 | 32.54 | 39.86 | 38.82 | |
| 44 | 35584 | 35584 | 16526 | 758 | 0 | 0 | 0 | 0 | 1274 | 9826 | 25.39 | 37.71 | 38.27 | 103 | 35034 | 35 | | | | | | | | | | |

| num | all | P. N PART | | I PART | | mv | etc | SK(y) | | SK(b) | | SK(r) | |
|-----|--------|-----------|--------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|
| | | Total | PIC_Y | PIC_C | Total | PIC_Y | PIC_C | SK(y) | SK(b) | SK(r) | SK(y) | SK(b) | SK(r) |
| 240 | 34424 | 24124 | 19550 | 1492 | 0 | 0 | 0 | 4014 | 5158 | 30.58 | 38.66 | 38.70 | |
| 241 | 28128 | 28128 | 11640 | 1392 | 0 | 0 | 0 | 6205 | 6891 | 31.21 | 38.24 | 38.34 | |
| 250 | 196672 | 63672 | 58918 | 9536 | 110800 | 96444 | 8589 | 5016 | 20167 | 33.01 | 39.19 | 39.25 | |
| 251 | 27640 | 27640 | 11732 | 914 | 0 | 0 | 0 | 6220 | 3714 | 31.25 | 38.84 | 38.74 | |
| 252 | 28136 | 28136 | 12164 | 1224 | 0 | 0 | 0 | 4353 | 4622 | 31.14 | 34.71 | 38.73 | |
| 253 | 34704 | 34704 | 12724 | 1672 | 0 | 0 | 0 | 3901 | 9407 | 30.82 | 30.14 | 38.23 | |
| 254 | 29456 | 29456 | 12713 | 513 | 0 | 0 | 0 | 6608 | 9162 | 31.27 | 38.71 | 38.64 | |
| 255 | 204544 | 92520 | 59578 | 13701 | 112016 | 97647 | 8518 | 5212 | 15982 | 33.25 | 39.03 | 39.00 | |
| 256 | 21612 | 21612 | 11530 | 1213 | 0 | 0 | 0 | 6192 | 8937 | 31.63 | 38.49 | 38.67 | |
| 257 | 32364 | 32368 | 18031 | 840 | 0 | 0 | 0 | 4035 | 9462 | 30.95 | 38.74 | 38.78 | |
| 258 | 20264 | 20264 | 12671 | 2634 | 0 | 0 | 0 | 3819 | 9081 | 31.51 | 38.12 | 38.25 | |
| 259 | 28152 | 28152 | 11234 | 1147 | 0 | 0 | 0 | 4487 | 9289 | 31.42 | 38.61 | 38.57 | |
| 260 | 198304 | 93703 | 63417 | 11659 | 105200 | 91162 | 8213 | 5050 | 19403 | 33.20 | 39.21 | 39.19 | |
| 261 | 26384 | 26384 | 9122 | 961 | 0 | 0 | 0 | 6594 | 9001 | 31.73 | 38.58 | 38.58 | |
| 262 | 29080 | 29080 | 13990 | 1335 | 0 | 0 | 0 | 4312 | 9413 | 31.27 | 38.77 | 38.68 | |
| 263 | 29148 | 29148 | 12250 | 2105 | 0 | 0 | 0 | 4210 | 9225 | 31.41 | 38.88 | 37.93 | |
| 264 | 25888 | 25888 | 9748 | 109 | 0 | 0 | 0 | 6622 | 8809 | 31.68 | 38.86 | 38.94 | |
| 265 | 207165 | 91000 | 61471 | 10430 | 116168 | 100440 | 9483 | 5061 | 19883 | 33.30 | 39.24 | 39.42 | |
| 266 | 25048 | 25048 | 8805 | 541 | 0 | 0 | 0 | 6619 | 6943 | 31.66 | 38.88 | 38.99 | |
| 267 | 31328 | 31328 | 13782 | 3667 | 0 | 0 | 0 | 4475 | 9404 | 31.02 | 37.91 | 37.95 | |
| 268 | 32200 | 32200 | 14311 | 4076 | 0 | 0 | 0 | 4212 | 9541 | 31.59 | 37.82 | 37.73 | |
| 269 | 28824 | 28824 | 10234 | 2596 | 0 | 0 | 0 | 6663 | 9127 | 31.37 | 38.00 | 38.22 | |
| 270 | 200376 | 93320 | 61420 | 12897 | 107056 | 92566 | 8315 | 5251 | 19727 | 33.31 | 39.19 | 39.22 | |
| 271 | 24640 | 24640 | 6353 | 623 | 0 | 0 | 0 | 6365 | 6599 | 31.45 | 38.45 | 38.76 | |
| 272 | 24280 | 24280 | 9741 | 1409 | 0 | 0 | 0 | 4249 | 8761 | 31.23 | 38.15 | 38.15 | |
| 273 | 19552 | 19552 | 6657 | 461 | 0 | 0 | 0 | 4314 | 8114 | 31.18 | 38.89 | 39.00 | |
| 274 | 23218 | 23218 | 7682 | 540 | 0 | 0 | 0 | 6492 | 8574 | 31.24 | 38.66 | 38.78 | |
| 275 | 21434 | 21434 | 119636 | 84444 | 11472 | 114648 | 100062 | 8866 | 4605 | 8269 | 31.43 | 37.54 | 38.28 |
| 276 | 22784 | 22784 | 6619 | 1391 | 0 | 0 | 0 | 4147 | 8542 | 31.41 | 38.81 | 38.98 | |
| 277 | 23176 | 23176 | 5985 | 497 | 0 | 0 | 0 | 4084 | 8182 | 31.62 | 38.53 | 38.81 | |
| 278 | 18720 | 18720 | 6106 | 348 | 0 | 0 | 0 | 6206 | 8138 | 31.62 | 38.38 | 38.60 | |
| 279 | 22095 | 22095 | 6402 | 1048 | 0 | 0 | 0 | 6124 | 19594 | 32.68 | 38.97 | 39.21 | |
| 280 | 227115 | 170248 | 85064 | 108654 | 92751 | 82750 | 10124 | 6280 | 1297 | 31.32 | 38.58 | 38.74 | |
| 281 | 21208 | 21208 | 6123 | 468 | 0 | 0 | 0 | 3938 | 6641 | 30.89 | 38.13 | 38.52 | |
| 282 | 24448 | 24448 | 10825 | 978 | 0 | 0 | 0 | 4055 | 9220 | 30.85 | 37.61 | 37.97 | |
| 283 | 27854 | 27854 | 11116 | 1663 | 0 | 0 | 0 | 5552 | 6736 | 31.02 | 38.50 | 38.69 | |
| 284 | 23376 | 23376 | 2075 | 467 | 0 | 0 | 0 | 10022 | 18659 | 32.39 | 38.80 | 38.94 | |
| 285 | 236176 | 236176 | 12090 | 86575 | 11404 | 115212 | 101308 | 8098 | 6547 | 6960 | 30.81 | 38.19 | 38.66 |
| 286 | 25072 | 25072 | 8816 | 679 | 0 | 0 | 0 | 4239 | 8629 | 30.84 | 37.56 | 37.82 | |
| 287 | 213952 | 213952 | 8498 | 2586 | 0 | 0 | 0 | 4114 | 8554 | 31.26 | 37.45 | 38.02 | |
| 288 | 24944 | 24944 | 8720 | 3556 | 0 | 0 | 0 | 5983 | 8664 | 31.13 | 38.13 | 38.45 | |
| 289 | 24752 | 24752 | 8337 | 768 | 0 | 0 | 0 | 1078 | 20505 | 32.62 | 38.91 | 39.10 | |
| 290 | 203472 | 99088 | 61579 | 9199 | 104384 | 90650 | 7861 | 11729 | 31.12 | 34.24 | 34.92 | 38.12 | |
| 291 | 24224 | 24224 | 7767 | 784 | 0 | 0 | 0 | 4615 | 8913 | 30.93 | 37.64 | 37.95 | |
| 292 | 20800 | 20800 | 11714 | 2743 | 0 | 0 | 0 | 4516 | 9231 | 31.18 | 37.85 | 37.95 | |
| 293 | 207120 | 207120 | 13930 | 3553 | 0 | 0 | 0 | 7565 | 1838 | 30.81 | 38.06 | 38.37 | |
| 294 | 20088 | 20088 | 10364 | 1241 | 0 | 0 | 0 | 7565 | 18974 | 32.11 | 38.93 | 39.13 | |
| 295 | 202800 | 202800 | 84572 | 55849 | 9168 | 117928 | 103295 | 8514 | 7851 | 9240 | 30.14 | 38.32 | 38.60 |
| 296 | 29716 | 29716 | 11671 | 974 | 0 | 0 | 0 | 4079 | 9002 | 30.11 | 38.02 | 38.38 | |
| 297 | 25650 | 25650 | 11250 | 2129 | 0 | 0 | 0 | 4708 | 10897 | 28.10 | 37.74 | 37.88 | |
| 298 | 70416 | 70416 | 51907 | 2904 | 0 | 0 | 0 | 3929 | 7484 | 32.05 | 37.95 | 38.01 | |
| 299 | 13848 | 13848 | 574 | 1861 | 0 | 0 | 0 | 100 | 100 | 30.01 | 32.51 | 33.87 | |

>> NUMBER OF HITS AND SKW FOR EACH FIELD
>> CODING SEQUENCE ... Flower Garden
>> TARGET ... 9.0000 Mbps

SWG-0

| num | all | P. N PART | | I PART | | mv | etc | SK(y) | | SK(b) | | SK(r) | |
|-----|--------|-----------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|
| | | Total | PIC_Y | PIC_C | Total | PIC_Y | PIC_C | SK(y) | SK(b) | SK(r) | SK(y) | SK(b) | SK(r) |
| 0 | 371056 | 216756 | 137262 | 56006 | 154520 | 126062 | 22115 | 1384 | 28147 | 33.97 | 35.55 | 35.77 | |
| 1 | 40336 | 40336 | 3853 | 3853 | 0 | 0 | 0 | 9461 | 11242 | 30.79 | 34.04 | 34.85 | |
| 2 | 42392 | 42392 | 17825 | 3864 | 0 | 0 | 0 | 5947 | 11034 | 30.19 | 33.66 | 31.68 | |
| 3 | 361600 | 161440 | 108895 | 31259 | 200152 | 162859 | 31055 | 4484 | 23016 | 32.86 | 35.21 | 35.42 | |
| 4 | 42661 | 42661 | 18224 | 3506 | 0 | 0 | 0 | 9615 | 11205 | 30.58 | 34.08 | 34.89 | |
| 5 | 42514 | 42514 | 18116 | 3692 | 0 | 0 | 0 | 9737 | 11005 | 30.70 | 33.88 | 34.79 | |
| 6 | 330240 | 147320 | 147320 | 14734 | 182854 | 140348 | 28233 | 9201 | 22178 | 33.13 | 35.43 | 35.70 | |
| 7 | 44381 | 44381 | 18775 | 4185 | 0 | 0 | 0 | 9695 | 11729 | 31.12 | 34.24 | 34.92 | |
| 8 | 44556 | 44556 | 19109 | 4462 | 0 | 0 | 0 | 9142 | 18285 | 31.17 | 34.42 | 35.09 | |
| 9 | 331712 | 158576 | 98729 | 3351 | 179176 | 145211 | 27749 | 8075 | 12528 | 32.94 | 35.29 | 35.29 | |
| 10 | 49428 | 49428 | 37946 | 5584 | 0 | 0 | 0 | 9072 | 12998 | 30.83 | 33.95 | 34.53 | |
| 11 | 531904 | 162945 | 108518 | 35124 | 182448 | 148122 | 28134 | 8907 | 12676 | 31.18 | 35.50 | 35.46 | |
| 12 | 53000 | 53000 | 26370 | 4255 | 0 | 0 | 0 | 8886 | 12767 | 31.43 | 34.35 | 34.35 | |
| 13 | 34418 | 150618 | 98611 | 35122 | 185224 | 150323 | 28605 | 9175 | 22536 | 32.77 | 35.45 | 35.45 | |
| 14 | 42432 | 42432 | 19139 | 5095 | 0 | 0 | 0 | 8953 | 12009 | 30.64 | 33.86 | 34.37 | |
| 15 | 251408 | 171501 | 110409 | 36123 | 162544 | 148217 | 28084 | 8547 | 12294 | 31.34 | 35.35 | 35.35 | |
| 16 | 65216 | 65216 | 37068 | 4610 | 0 | 0 | 0 | 9356 | 13960 | 31.26 | 34.35 | 34.35 | |
| 17 | 67272 | 67272 | 38694 | 4913 | 0 | 0 | 0 | 8992 | 12282 | 31.18 | 34.38 | 34.38 | |
| 18 | 32888 | 160261 | 99575 | 34807 | 176264 | 145500 | 26915 | 8897 | 22812 | 32.92 | 35.41 | 35.41 | |
| 19 | 70872 | 70872 | 7420 | 0 | 0 | 0 | 9101 | 14398 | 29.28 | 32.91 | 34.20 | 34.20 | |
| 20 | 56536 | 56536 | 28846 | 5777 | 0 | 0 | 0 | 9205 | 13271 | 30.51 | 33.76 | 34.35 | |
| 21 | 341072 | 150986 | 101769 | 32427 | 181976 | 147113 | 27979 | 8427 | 22575 | 32.95 | 35.14 | 35.21 | |
| 22 | 47456 | 47456 | 19476 | 7123 | 0 | 0 | 0 | 9058 | 11739 | 31.20 | 34.18 | 34.09 | |
| 23 | 48056 | 48056 | 21504 | 5843 | 0 | 0 | 0 | 8992 | 13192 | 31.24 | 34.09 | 34.22 | |
| 24 | 350488 | 171644 | 113237 | 32162 | 179424 | 145822 | 27393 | 8508 | 22280 | 32.62 | 35.07 | 35.03 | |
| 25 | 40181 | 40181 | 22692 | 4749 | 0 | 0 | 0 | 8449 | 22854 | 32.62 | 35.41 | 35.41 | |
| 26 | 60232 | 60232 | 31757 | 5810 | 0 | 0 | 0 | 8766 | 17494 | 32.71 | 35.37 | 35.37 | |
| 27 | 34376 | 162770 | 103509 | 34989 | 180400 | 146933 | 27187 | 7987 | 22501 | 32.50 | 35.41 | 35.41 | |
| 28 | 57448 | 57448 | 39302 | 4134 | | | | | | | | | |

| num | ALL | { P, B PART } | | | | { I PART } | | | | 9MFG-2 | | | | num | ALL | { P, B PART } | | | | { I PART } | | | | 9MFG-3 | | | |
|-----|--------|---------------|--------|--------|--------|------------|--------|-------|-------|--------|-------|-------|-------|--------|--------|---------------|--------|--------|--------|------------|----------|-------|-------|--------|-------|-------|-------|
| | | TOTAL | PIC_Y | PIC_C | TOTAL | PIC_Y | PIC_C | MV | ETC | SN(y) | SN(u) | SN(r) | TOTAL | PIC_Y | PIC_C | MV | ETC | SN(y) | SN(u) | SN(r) | TOTAL | PIC_Y | PIC_C | MV | ETC | SN(y) | SN(u) |
| 122 | 51864 | 51864 | 25448 | 4206 | 0 | 0 | 0 | 773 | 13132 | 29.35 | 33.37 | 33.90 | 105 | 37712 | 37712 | 15073 | 4253 | 0 | 0 | 0 | 7103 | 13283 | 29.91 | 33.17 | 33.35 | | |
| 123 | 346744 | 346744 | 103568 | 37318 | 182768 | 148706 | 21931 | 7311 | 21910 | 32.42 | 34.58 | 34.61 | 106 | 366112 | 190960 | 110563 | 41750 | 175152 | 142792 | 26214 | 5928 | 21033 | 32.31 | 33.30 | 34.32 | | |
| 124 | 64808 | 64808 | 34112 | 7159 | 0 | 0 | 0 | 8499 | 15038 | 29.31 | 33.11 | 33.67 | 107 | 44120 | 44120 | 20497 | 47266 | 0 | 0 | 0 | 5915 | 12442 | 29.57 | 33.09 | 33.35 | | |
| 125 | 75720 | 75720 | 46156 | 5497 | 0 | 0 | 0 | 8462 | 15205 | 29.38 | 33.28 | 33.82 | 108 | 44144 | 44184 | 21061 | 3450 | 0 | 0 | 0 | 5933 | 12670 | 29.58 | 33.33 | 33.59 | | |
| 126 | 346656 | 346656 | 173972 | 112293 | 36395 | 1173584 | 141640 | 25779 | 8120 | 22429 | 32.39 | 34.60 | 34.56 | 109 | 348606 | 171208 | 110650 | 37081 | 177408 | 144499 | 26786 | 7016 | 21776 | 32.19 | 34.41 | 34.35 | |
| 127 | 52848 | 52848 | 26005 | 4783 | 0 | 0 | 0 | 7891 | 14169 | 29.07 | 33.19 | 33.66 | 110 | 44208 | 44208 | 19091 | 4953 | 0 | 0 | 0 | 7224 | 12640 | 29.94 | 33.18 | 32.41 | | |
| 128 | 48164 | 48164 | 22971 | 3585 | 0 | 0 | 0 | 7831 | 13781 | 29.23 | 33.42 | 33.84 | 111 | 39720 | 39720 | 15316 | 4946 | 0 | 0 | 0 | 1943 | 31515 | 29.92 | 33.02 | 33.29 | | |
| 129 | 377564 | 377564 | 194176 | 126946 | 43726 | 183392 | 149415 | 27645 | 7361 | 22725 | 32.18 | 34.96 | 34.78 | 112 | 371550 | 183348 | 121194 | 39891 | 188112 | 152966 | 28975 | 7343 | 21591 | 32.45 | 34.62 | 34.46 | |
| 130 | 38244 | 38244 | 112028 | 4120 | 0 | 0 | 0 | 8080 | 12118 | 30.26 | 33.06 | 33.55 | 113 | 54176 | 54176 | 29163 | 2742 | 0 | 0 | 0 | 7776 | 14193 | 28.42 | 33.19 | 33.56 | | |
| 131 | 40896 | 40896 | 17459 | 3163 | 0 | 0 | 0 | 7640 | 12634 | 30.25 | 33.33 | 33.72 | 114 | 5896 | 5896 | 31717 | 4616 | 0 | 0 | 0 | 8049 | 14546 | 28.17 | 30.80 | 33.59 | | |
| 132 | 258120 | 258120 | 120593 | 36585 | 175581 | 142318 | 25999 | 7616 | 22084 | 32.37 | 34.58 | 34.47 | 115 | 32392 | 154352 | 96033 | 35310 | 174040 | 141144 | 26683 | 7077 | 22145 | 32.34 | 34.54 | 34.49 | | |
| 133 | 39592 | 39592 | 14989 | 5444 | 0 | 0 | 0 | 7285 | 11864 | 30.79 | 33.33 | 33.55 | 116 | 60112 | 60112 | 31899 | 5716 | 0 | 0 | 0 | 8070 | 14967 | 28.01 | 33.61 | 33.36 | | |
| 134 | 37136 | 37136 | 14217 | 4039 | 0 | 0 | 0 | 7147 | 11593 | 30.55 | 33.42 | 33.76 | 117 | 15104 | 63104 | 36384 | 4722 | 0 | 0 | 0 | 8415 | 15113 | 28.14 | 33.92 | 33.42 | | |
| 135 | 353316 | 353316 | 169520 | 210360 | 36213 | 183816 | 149913 | 27700 | 7103 | 22047 | 32.32 | 34.57 | 34.40 | 118 | 349072 | 162752 | 104730 | 33783 | 186320 | 151139 | 28986 | 8302 | 22130 | 31.99 | 33.24 | 34.07 | |
| 136 | 49600 | 49600 | 24383 | 4904 | 0 | 0 | 0 | 7120 | 13193 | 30.03 | 32.48 | 33.82 | 119 | 62856 | 62856 | 34612 | 5297 | 0 | 0 | 0 | 7639 | 15108 | 27.50 | 32.52 | 33.12 | | |
| 137 | 41736 | 41736 | 15888 | 5872 | 0 | 0 | 0 | 7622 | 12354 | 30.31 | 33.39 | 33.73 | 120 | 209 | 209 | 3129 | 4215 | 0 | 0 | 0 | 7840 | 14456 | 28.54 | 32.14 | 33.31 | | |
| 138 | 348552 | 118124 | 105995 | 38544 | 175728 | 144115 | 26221 | 7141 | 22212 | 32.66 | 34.85 | 34.69 | 121 | 344816 | 165593 | 102424 | 32943 | 179120 | 145152 | 27800 | 7387 | 22270 | 31.85 | 34.17 | 34.02 | | |
| 139 | 37568 | 37568 | 25954 | 6164 | 0 | 0 | 0 | 7413 | 14397 | 29.73 | 33.28 | 33.75 | 122 | 60956 | 31366 | 35316 | 3858 | 0 | 0 | 0 | 8097 | 14975 | 27.52 | 32.51 | 33.14 | | |
| 140 | 62416 | 62416 | 35313 | 4773 | 0 | 0 | 0 | 7620 | 14656 | 29.80 | 33.66 | 33.87 | 123 | 58432 | 58432 | 31394 | 5325 | 0 | 0 | 0 | 8014 | 14911 | 28.29 | 32.81 | 33.25 | | |
| 141 | 362264 | 176072 | 112840 | 41189 | 186192 | 152275 | 27726 | 7001 | 22025 | 32.66 | 34.72 | 34.60 | 124 | 341360 | 158072 | 102522 | 31819 | 183288 | 148469 | 28565 | 7776 | 22208 | 31.83 | 34.14 | 34.04 | | |
| 142 | 43376 | 43376 | 16867 | 6236 | 0 | 0 | 0 | 7088 | 12375 | 31.02 | 33.23 | 33.61 | 125 | 66536 | 66536 | 28836 | 5558 | 0 | 0 | 0 | 7489 | 14653 | 27.43 | 31.93 | 32.59 | | |
| 143 | 41584 | 41584 | 17219 | 4491 | 0 | 0 | 0 | 7305 | 13269 | 30.31 | 33.34 | 33.69 | 126 | 61768 | 61768 | 35308 | 4149 | 0 | 0 | 0 | 7459 | 14652 | 28.10 | 32.49 | 33.03 | | |
| 144 | 382815 | 203232 | 175332 | 40884 | 175884 | 146805 | 26698 | 7519 | 22374 | 32.63 | 34.71 | 35.44 | 127 | 323120 | 149680 | 109031 | 25593 | 173720 | 141147 | 26031 | 7095 | 22246 | 30.70 | 33.22 | 33.30 | | |
| 145 | 44016 | 44016 | 18897 | 5403 | 0 | 0 | 0 | 7015 | 12071 | 30.27 | 33.27 | 33.67 | 128 | 20440 | 20440 | 42449 | 5143 | 0 | 0 | 0 | 7703 | 15145 | 27.12 | 32.18 | 32.67 | | |
| 146 | 39616 | 39616 | 15952 | 4179 | 0 | 0 | 0 | 7260 | 12119 | 30.27 | 33.50 | 33.73 | 129 | 57192 | 57192 | 30293 | 3931 | 0 | 0 | 0 | 7682 | 14590 | 28.30 | 32.39 | 32.80 | | |
| 147 | 355454 | 177528 | 115741 | 3919 | 177928 | 145007 | 26718 | 6581 | 22270 | 32.36 | 34.81 | 34.66 | 130 | 379704 | 175568 | 115765 | 36653 | 182316 | 148554 | 27864 | 6916 | 22131 | 31.55 | 33.77 | 33.71 | | |
| 148 | 65704 | 65704 | 38036 | 5397 | 0 | 0 | 0 | 7558 | 14643 | 29.29 | 33.26 | 33.84 | 131 | 63072 | 63072 | 36590 | 4842 | 0 | 0 | 0 | 7461 | 14797 | 26.74 | 31.01 | 32.61 | | |
| 149 | 64928 | 64928 | 36603 | 5240 | 0 | 0 | 0 | 8081 | 15084 | 29.28 | 33.25 | 33.89 | 132 | 67080 | 67080 | 40468 | 5700 | 0 | 0 | 0 | 7611 | 15201 | 27.37 | 32.25 | 32.84 | | |
| 150 | 351272 | 173240 | 112434 | 37833 | 178024 | 145219 | 26639 | 6576 | 21211 | 32.39 | 34.75 | 34.70 | 133 | 239216 | 151204 | 94956 | 33934 | 170808 | 145083 | 26821 | 6041 | 22135 | 31.46 | 33.72 | 33.59 | | |
| 151 | 36324 | 36324 | 12115 | 5055 | 0 | 0 | 0 | 7287 | 11567 | 30.33 | 32.12 | 33.58 | 134 | 57488 | 57488 | 30397 | 4810 | 0 | 0 | 0 | 7963 | 14368 | 27.18 | 31.93 | 32.41 | | |
| 152 | 43560 | 43560 | 19403 | 3921 | 0 | 0 | 0 | 7242 | 12898 | 29.60 | 33.30 | 33.81 | 135 | 21548 | 21548 | 55480 | 2992 | 0 | 0 | 0 | 7449 | 14625 | 28.19 | 32.36 | 32.95 | | |
| 153 | 386112 | 202126 | 132474 | 41408 | 184896 | 147876 | 27541 | 7712 | 21545 | 32.39 | 34.62 | 34.46 | 136 | 241232 | 157474 | 106136 | 30178 | 181485 | 141861 | 27506 | 7067 | 22484 | 31.35 | 33.50 | 33.41 | | |
| 154 | 49600 | 49600 | 24889 | 3896 | 0 | 0 | 0 | 7303 | 10904 | 30.35 | 33.65 | 33.86 | 137 | 52192 | 52192 | 26253 | 4425 | 0 | 0 | 0 | 7388 | 14126 | 27.33 | 31.79 | 32.49 | | |
| 155 | 36552 | 36552 | 13071 | 4051 | 0 | 0 | 0 | 7955 | 11435 | 30.47 | 33.42 | 33.81 | 138 | 47616 | 47616 | 23549 | 2597 | 0 | 0 | 0 | 7287 | 13803 | 28.59 | 32.37 | 32.92 | | |
| 156 | 346776 | 172608 | 112069 | 37289 | 173768 | 141635 | 25988 | 7409 | 21986 | 32.44 | 34.62 | 34.56 | 139 | 23876 | 14224 | 95676 | 25102 | 184552 | 182520 | 6533 | 21724 | 30.74 | 33.18 | 33.25 | | | |
| 157 | 40584 | 40584 | 16037 | 5234 | 0 | 0 | 0 | 7171 | 12052 | 30.07 | 33.03 | 33.41 | 140 | 51000 | 51000 | 25087 | 4510 | 0 | 0 | 0 | 7548 | 13855 | 27.94 | 32.10 | 32.78 | | |
| 158 | 42216 | 42216 | 19463 | 4172 | 0 | 0 | 0 | 7215 | 12306 | 29.80 | 33.49 | 33.77 | 141 | 56032 | 56032 | 30276 | 4810 | 0 | 0 | 0 | 7582 | 14751 | 27.86 | 32.08 | 32.79 | | |
| 159 | 356232 | 170796 | 112056 | 35911 | 183392 | 149515 | 27954 | 7322 | 21907 | 32.24 | 34.50 | 34.41 | 142 | 336628 | 156468 | 101276 | 30485 | 181608 | 182322 | 6746 | 21746 | 7075 | 21981 | 31.14 | 33.56 | 33.45 | |
| 160 | 35920 | 170708 | 112094 | 30033 | 183822 | 149522 | 28152 | 7509 | 21744 | 32.40 | 34.62 | 34.43 | 143 | 237 | 237 | 158216 | 150193 | 116161 | 183424 | 150274 | 5978 | 21707 | 31.07 | 33.48 | 33.42 | | |
| 161 | 351624 | 351624 | 18222 | 4822 | 0 | 0 | 0 | 7085 | 10837 | 30.65 | 33.30 | 33.58 | 144 | 239 | 239 | 35220 | 13962 | 3858 | 0 | 0 | 0 | 6514 | 11185 | 30.00 | 32.47 | 32.93 | |
| 162 | 35504 | 35504 | 13616 | 4822 | 0 | 0 | 0 | 7600 | 10874 | 30.55 | 33.35 | 33.72 | 145 | 58072 | 58072 | 24689 | 4091 | 0 | 0 | 0 | 7058 | 14194 | 27.74 | 32.04 | 32.63 | | |
| 163 | 354296 | 178116 | 114496 | 40354 | 176480 | 143434 | 26895 | 7038 | 22079 | 32.42 | 34.63 | 34.47 | 146 | 241240 | 160640 | 105728 | 32164 | 180604 | 147185 | 26721 | 6284</td | | | | | | |

>> NUMBER OF BITS AND SNR FOR EACH FIELD
 >> CODING SEQUENCE ... Mobile & Calendar
 >> TARGET ... 9.0000 Hops

9HIC-0

| num | ALL | { P,B PART } | | { I PART } | | MV | ETC | SN(y) | SN(u) | SN(r) | { P,B PART } | | { I PART } | | MV | ETC | SN(y) | SN(u) | SN(r) | { P,B PART } | | { I PART } | | MV | ETC | SN(y) | SN(u) | SN(r) |
|-----|--------|--------------|--------|------------|--------|--------|--------|-------|-------|-------|--------------|-------|------------|--------|--------|--------|--------|--------|--------|--------------|-------|------------|-------|-----------|-------|-------|-------|-------|
| | | TOTAL | PIC_Y | PIC_C | TOTAL | PIC_Y | PIC_C | TOTAL | PIC_Y | PIC_C | TOTAL | PIC_Y | PIC_C | TOTAL | PIC_Y | PIC_C | | | | | | TOTAL | PIC_Y | PIC_C | | | | |
| 0 | 438088 | 269104 | 197458 | 40228 | 160984 | 123978 | 38735 | 1384 | 28305 | 28,73 | 33,23 | 33,83 | 59 | 44520 | 48520 | 22406 | 8369 | 0 | 0 | 0 | 5569 | 12176 | 29,90 | 32,94 | 33,44 | | | |
| 1 | 603316 | 603136 | 33752 | 6789 | 0 | 0 | 0 | 6065 | 15109 | 25,74 | 32,11 | 32,79 | 60 | 33550 | 15574 | 92032 | 41846 | 182816 | 132071 | 44513 | 4585 | 23473 | 31,15 | 34,12 | 34,73 | | | |
| 2 | 62576 | 62576 | 35120 | 6025 | 0 | 0 | 0 | 6330 | 14501 | 26,21 | 32,42 | 33,01 | 62 | 49232 | 49232 | 26184 | 3625 | 0 | 0 | 0 | 5475 | 11946 | 26,17 | 33,23 | 33,80 | | | |
| 3 | 347800 | 158096 | 114717 | 22317 | 189304 | 193447 | 43995 | 3011 | 24158 | 28,68 | 33,25 | 33,84 | 63 | 365384 | 204168 | 119125 | 62724 | 182216 | 131972 | 44032 | 4692 | 23839 | 31,58 | 34,21 | 34,81 | | | |
| 4 | 58326 | 58326 | 31820 | 5399 | 0 | 0 | 0 | 6960 | 14149 | 26,21 | 32,65 | 33,14 | 66 | 380184 | 199400 | 114207 | 62931 | 180784 | 130500 | 44011 | 4484 | 24011 | 31,67 | 34,14 | 34,76 | | | |
| 5 | 60664 | 60564 | 32484 | 5613 | 0 | 0 | 0 | 6803 | 14400 | 26,58 | 32,49 | 33,04 | 67 | 33520 | 33290 | 16054 | 2261 | 0 | 0 | 0 | 5674 | 9981 | 29,71 | 33,95 | 34,44 | | | |
| 6 | 351872 | 159000 | 115684 | 23926 | 182072 | 134452 | 42172 | 5659 | 23643 | 29,35 | 33,42 | 34,07 | 68 | 41760 | 41760 | 20856 | 3815 | 0 | 0 | 0 | 5672 | 11417 | 29,04 | 33,17 | 33,66 | | | |
| 7 | 58104 | 58104 | 31632 | 5209 | 0 | 0 | 0 | 6581 | 14392 | 26,32 | 32,49 | 33,10 | 69 | 387604 | 217104 | 128979 | 65214 | 170504 | 123518 | 40752 | 4599 | 24036 | 31,68 | 34,23 | 34,82 | | | |
| 8 | 60992 | 60992 | 32065 | 7742 | 0 | 0 | 0 | 6765 | 14120 | 26,82 | 33,31 | 32,80 | 70 | 39860 | 28800 | 21610 | 2339 | 0 | 0 | 0 | 5772 | 10759 | 29,33 | 33,65 | 34,11 | | | |
| 9 | 338248 | 155622 | 107318 | 25801 | 182000 | 134258 | 42665 | 5205 | 23738 | 29,31 | 33,41 | 34,07 | 71 | 41888 | 41848 | 20147 | 4556 | 0 | 0 | 0 | 5675 | 13510 | 29,15 | 33,12 | 33,62 | | | |
| 10 | 55822 | 55822 | 30048 | 4991 | 0 | 0 | 0 | 6805 | 14028 | 26,49 | 32,57 | 33,17 | 72 | 357400 | 165904 | 148771 | 53284 | 187416 | 135701 | 45520 | 4527 | 23931 | 31,28 | 33,52 | 34,17 | | | |
| 11 | 60624 | 60624 | 32233 | 6074 | 0 | 0 | 0 | 6805 | 14632 | 26,80 | 32,38 | 32,90 | 73 | 38352 | 38352 | 19893 | 2193 | 0 | 0 | 0 | 5821 | 10505 | 29,38 | 33,61 | 34,12 | | | |
| 12 | 339600 | 160508 | 110104 | 27773 | 178592 | 131154 | 41634 | 5554 | 23167 | 29,38 | 33,36 | 34,03 | 74 | 45280 | 45280 | 23768 | 4060 | 0 | 0 | 0 | 5496 | 11956 | 28,85 | 32,67 | 33,12 | | | |
| 13 | 60000 | 60000 | 31046 | 5143 | 0 | 0 | 0 | 6737 | 14074 | 26,32 | 32,57 | 33,12 | 75 | 36242 | 181014 | 104573 | 64533 | 161368 | 131162 | 44019 | 4591 | 23481 | 31,15 | 33,54 | 34,25 | | | |
| 14 | 61584 | 61584 | 35299 | 5461 | 0 | 0 | 0 | 6894 | 14130 | 26,60 | 32,45 | 32,94 | 76 | 41688 | 41688 | 23445 | 2214 | 0 | 0 | 0 | 5735 | 10294 | 28,89 | 32,32 | 33,75 | | | |
| 15 | 332048 | 150400 | 102973 | 24940 | 180148 | 133151 | 42261 | 5350 | 23737 | 29,30 | 33,36 | 34,00 | 77 | 42104 | 42104 | 22606 | 2866 | 0 | 0 | 0 | 5728 | 10904 | 28,54 | 32,94 | 33,47 | | | |
| 16 | 55066 | 55066 | 30393 | 4162 | 0 | 0 | 0 | 6841 | 14248 | 27,06 | 32,83 | 33,17 | 78 | 35226 | 174552 | 99895 | 52765 | 178184 | 128928 | 42995 | 4541 | 23556 | 30,88 | 33,33 | 33,96 | | | |
| 17 | 55822 | 55822 | 30048 | 4991 | 0 | 0 | 0 | 6841 | 14248 | 27,06 | 32,83 | 33,17 | 79 | 38866 | 38866 | 18262 | 2182 | 0 | 0 | 0 | 5709 | 3803 | 28,91 | 33,21 | 33,78 | | | |
| 18 | 342296 | 165832 | 112878 | 28446 | 178464 | 130082 | 41395 | 5460 | 23239 | 29,41 | 33,32 | 33,94 | 80 | 44540 | 44540 | 23935 | 3751 | 0 | 0 | 0 | 5785 | 11163 | 29,01 | 32,92 | 33,33 | | | |
| 19 | 47295 | 47295 | 26365 | 2442 | 0 | 0 | 0 | 6561 | 12128 | 27,15 | 33,16 | 33,65 | 81 | 352464 | 17517 | 102025 | 51389 | 177288 | 128210 | 42640 | 4554 | 23546 | 30,89 | 33,26 | 33,92 | | | |
| 20 | 46528 | 46528 | 26354 | 2323 | 0 | 0 | 0 | 6301 | 11950 | 27,33 | 33,11 | 33,57 | 82 | 40520 | 40520 | 21707 | 2835 | 0 | 0 | 0 | 5872 | 18105 | 28,88 | 32,32 | 33,79 | | | |
| 21 | 329792 | 151720 | 100817 | 26100 | 178064 | 130595 | 41111 | 5320 | 23415 | 29,46 | 33,52 | 34,14 | 83 | 43176 | 43176 | 21142 | 2412 | 0 | 0 | 0 | 5547 | 11935 | 28,51 | 32,35 | 32,87 | | | |
| 22 | 42820 | 42820 | 22956 | 2234 | 0 | 0 | 0 | 6243 | 11957 | 27,43 | 33,28 | 33,72 | 84 | 366208 | 165920 | 116085 | 47871 | 139288 | 129410 | 43630 | 4776 | 23636 | 30,78 | 33,50 | 34,07 | | | |
| 23 | 45120 | 45120 | 23449 | 3198 | 0 | 0 | 0 | 6201 | 12082 | 27,57 | 32,93 | 33,36 | 85 | 37112 | 37112 | 19696 | 2139 | 0 | 0 | 0 | 6000 | 9277 | 29,06 | 33,05 | 33,58 | | | |
| 24 | 332040 | 140432 | 95834 | 26019 | 179088 | 130392 | 41857 | 4993 | 2352 | 29,92 | 33,12 | 34,18 | 86 | 40128 | 40128 | 21104 | 3254 | 0 | 0 | 0 | 5411 | 10353 | 28,71 | 33,05 | 33,49 | | | |
| 25 | 44254 | 44254 | 24552 | 5550 | 0 | 0 | 0 | 5663 | 10521 | 27,43 | 33,32 | 34,11 | 87 | 367936 | 195563 | 105693 | 50078 | 185100 | 133467 | 45649 | 4576 | 23653 | 30,76 | 33,35 | 34,02 | | | |
| 26 | 45416 | 45416 | 26104 | 4158 | 0 | 0 | 0 | 5685 | 11135 | 27,42 | 33,26 | 33,83 | 88 | 36240 | 36240 | 18356 | 2296 | 0 | 0 | 0 | 5811 | 9777 | 29,09 | 33,36 | 33,87 | | | |
| 27 | 311810 | 131712 | 87709 | 22026 | 180136 | 131192 | 42612 | 4967 | 23142 | 29,97 | 33,30 | 34,30 | 89 | 35952 | 35952 | 19345 | 2646 | 0 | 0 | 0 | 5640 | 10581 | 28,85 | 32,71 | 33,27 | | | |
| 28 | 43536 | 43536 | 23961 | 2189 | 0 | 0 | 0 | 6237 | 11159 | 27,70 | 33,44 | 34,14 | 90 | 36252 | 18264 | 111321 | 46923 | 180084 | 132190 | 41712 | 4521 | 23589 | 30,78 | 33,55 | 34,22 | | | |
| 29 | 39320 | 39320 | 19663 | 2403 | 0 | 0 | 0 | 6174 | 10574 | 28,51 | 33,32 | 33,89 | 91 | 35848 | 35848 | 17951 | 2305 | 0 | 0 | 0 | 5840 | 9652 | 29,01 | 32,23 | 33,79 | | | |
| 30 | 339192 | 159456 | 108571 | 28195 | 180336 | 131799 | 42415 | 5012 | 23400 | 35,30 | 44,04 | 35,77 | 92 | 41844 | 41844 | 21063 | 3915 | 0 | 0 | 0 | 5742 | 11364 | 28,77 | 32,71 | 33,20 | | | |
| 31 | 42368 | 42368 | 24268 | 2067 | 0 | 0 | 0 | 5766 | 10261 | 28,02 | 33,52 | 34,14 | 93 | 40240 | 40240 | 20539 | 3175 | 0 | 0 | 0 | 5687 | 10839 | 28,45 | 32,70 | 33,45 | | | |
| 32 | 338080 | 155840 | 106209 | 27460 | 182240 | 130378 | 42516 | 5214 | 23558 | 30,27 | 33,83 | 34,53 | 94 | 359384 | 174504 | 102778 | 49557 | 184880 | 132851 | 45752 | 4719 | 23687 | 30,72 | 33,40 | 33,98 | | | |
| 33 | 428282 | 428282 | 24520 | 2190 | 0 | 0 | 0 | 5692 | 10700 | 28,47 | 33,84 | 34,38 | 95 | 40576 | 40576 | 20945 | 2915 | 0 | 0 | 0 | 5675 | 9374 | 28,83 | 33,18 | 33,69 | | | |
| 34 | 45144 | 45144 | 25152 | 4099 | 0 | 0 | 0 | 5619 | 11393 | 29,34 | 33,69 | 34,11 | 96 | 35712 | 35712 | 160317 | 45156 | 145156 | 0 | 0 | 0 | 5894 | 10284 | 28,66 | 33,03 | 33,45 | | |
| 35 | 45144 | 45144 | 25152 | 4099 | 0 | 0 | 0 | 5619 | 11393 | 29,34 | 33,69 | 34,11 | 97 | 351152 | 175176 | 105314 | 40551 | 175752 | 125316 | 44262 | 5078 | 23940 | 30,52 | 33,54 | 34,03 | | | |
| 36 | 572612 | 187324 | 201204 | 317340 | 129432 | 40084 | 155344 | 34300 | 29,95 | 33,91 | 34,39 | 98 | 41480 | 41480 | 20840 | 187608 | 132461 | 44737 | 5103 | 10570 | 28,78 | 33,35 | 33,82 | | | | | |
| 37 | 327612 | 187324 | 201204 | 317340 | 129432 | 40084 | 155344 | 34300 | 29,95 | 33,91 | 34,39 | 99 | 41480 | 41480 | 20840 | 187608 | 132461 | 44737 | 5103 | 10570 | 28,78 | 33,35 | 33,82 | | | | | |
| 38 | 42592 | 42592 | 25157 | 1915 | 0 | 0 | 0 | 5695 | 11710 | 28,30 | 32,96 | 33,36 | 100 | 381020 | 381020 | 195344 | 21932 | 0 | 0 | 0 | 5698 | 10915 | 28,56 | 33,40 | 34,16 | | | |
| 39 | 42592 | 42592 | 25157 | 1915 | 0 | 0 | 0 | 5695 | 11710 | 28,30 | 32,96 | 33,36 | 101 | 332872 | 332872 | 160934 | 20416 | 0 | 0 | 0 | 5665 | 10712 | 28,56 | 33,40 | 34,16 | | | |
| 40 | 42406 | 42406 | 24684 | 2232 | 0 | 0 | 0 | 5636 | 12013 | 27,59 | 32,44 | 33,32 | 102 | 398624 | 210720 | 173525 | 49791 | 178448 | 128346 | 40863 | 4708 | 10077 | 29,69 | 33,39</td | | | | |

| num | ALL | (I PART) | | | (I PART) | | | BASIC-4 | | | | |
|-----|--------|------------|---------|--------|------------|---------|-------|---------|-------|-------|-------|-------|
| | | TOTAL | PIC_X,Y | PIC_C | TOTAL | PIC_X,Y | PIC_C | MY | ETC | SN(y) | SN(b) | SN(r) |
| 248 | 46648 | 48668 | 24845 | 7461 | 0 | 0 | 0 | 5821 | 10551 | 29.55 | 33.24 | 33.68 |
| 249 | 327016 | 147904 | 88937 | 35727 | 179312 | 125441 | 47269 | 4917 | 23522 | 31.37 | 34.04 | 34.59 |
| 250 | 46616 | 46616 | 21723 | 8285 | 0 | 0 | 0 | 5791 | 10813 | 29.60 | 33.19 | 33.68 |
| 251 | 47972 | 47972 | 26271 | 7092 | 0 | 0 | 0 | 5717 | 10712 | 29.62 | 33.20 | 33.61 |
| 252 | 335008 | 155120 | 93418 | 39325 | 179880 | 125961 | 47696 | 5035 | 23570 | 31.29 | 33.96 | 34.44 |
| 253 | 56952 | 56952 | 25612 | 12055 | 0 | 0 | 0 | 5561 | 13724 | 29.27 | 32.47 | 32.86 |
| 254 | 64376 | 64376 | 25403 | 18495 | 0 | 0 | 0 | 5835 | 14643 | 29.25 | 31.92 | 32.26 |
| 255 | 337656 | 159984 | 95056 | 42637 | 177572 | 124406 | 47073 | 5048 | 23436 | 31.40 | 33.79 | 34.40 |
| 256 | 61360 | 61360 | 23045 | 17046 | 0 | 0 | 0 | 5978 | 14493 | 29.34 | 32.01 | 32.34 |
| 257 | 65872 | 65872 | 25100 | 20603 | 0 | 0 | 0 | 5652 | 15057 | 29.69 | 31.74 | 32.23 |
| 258 | 247288 | 162752 | 91516 | 48780 | 184556 | 128279 | 50020 | 5275 | 23386 | 31.43 | 33.73 | 34.29 |
| 259 | 68296 | 68296 | 23720 | 21605 | 0 | 0 | 0 | 5908 | 15063 | 29.66 | 31.76 | 32.22 |
| 260 | 56392 | 56392 | 22793 | 13213 | 0 | 0 | 0 | 5524 | 14332 | 29.63 | 32.25 | 32.69 |
| 261 | 47472 | 167320 | 95143 | 40091 | 180152 | 125420 | 48484 | 5149 | 23585 | 31.51 | 33.81 | 34.42 |
| 262 | 55960 | 55960 | 20180 | 16088 | 0 | 0 | 0 | 5888 | 13809 | 29.76 | 32.23 | 32.76 |
| 263 | 47896 | 47896 | 21789 | 9084 | 0 | 0 | 0 | 5646 | 13377 | 29.68 | 32.53 | 33.01 |
| 264 | 330032 | 152352 | 90788 | 38954 | 177680 | 123845 | 47643 | 5215 | 23585 | 31.51 | 34.04 | 34.85 |
| 265 | 40232 | 40232 | 18257 | 5401 | 0 | 0 | 0 | 5967 | 10607 | 29.73 | 33.13 | 33.72 |
| 266 | 42016 | 42016 | 18460 | 5814 | 0 | 0 | 0 | 5920 | 11822 | 30.07 | 33.94 | 33.56 |
| 267 | 323128 | 14350 | 84996 | 37324 | 170564 | 124420 | 47932 | 5217 | 23799 | 31.54 | 34.02 | 34.66 |
| 268 | 41368 | 41368 | 19567 | 5040 | 0 | 0 | 0 | 6047 | 10714 | 29.31 | 33.35 | 33.85 |
| 269 | 40504 | 40504 | 18633 | 5422 | 0 | 0 | 0 | 5841 | 10605 | 30.35 | 33.48 | 34.14 |
| 270 | 319720 | 140104 | 18140 | 32334 | 179516 | 124478 | 48391 | 5018 | 23559 | 31.61 | 34.15 | 34.77 |
| 271 | 37888 | 37888 | 16529 | 4965 | 0 | 0 | 0 | 5859 | 10474 | 30.16 | 32.25 | 32.85 |
| 272 | 38832 | 38832 | 16075 | 5505 | 0 | 0 | 0 | 5879 | 10572 | 30.27 | 33.53 | 34.09 |
| 273 | 365904 | 180704 | 110226 | 47967 | 186120 | 128905 | 50553 | 4799 | 24054 | 32.02 | 34.48 | 35.15 |
| 274 | 40394 | 40394 | 19036 | 4969 | 0 | 0 | 0 | 5828 | 10471 | 30.07 | 32.40 | 33.82 |
| 275 | 60664 | 60664 | 21014 | 19917 | 0 | 0 | 0 | 5632 | 11041 | 30.48 | 32.58 | 32.19 |
| 276 | 357680 | 161890 | 113374 | 45620 | 175800 | 121793 | 47661 | 4669 | 24353 | 32.01 | 34.55 | 35.09 |
| 277 | 38768 | 38768 | 17970 | 4813 | 0 | 0 | 0 | 5748 | 10237 | 30.14 | 32.73 | 34.24 |
| 278 | 48400 | 48400 | 19708 | 11343 | 0 | 0 | 0 | 5589 | 11760 | 30.78 | 33.34 | 33.70 |
| 279 | 351848 | 171780 | 108522 | 40652 | 180064 | 124867 | 48959 | 4710 | 23938 | 31.86 | 34.48 | 35.11 |
| 280 | 40856 | 40856 | 18578 | 5923 | 0 | 0 | 0 | 5652 | 10703 | 30.81 | 33.81 | 34.30 |
| 281 | 38960 | 38960 | 17554 | 5123 | 0 | 0 | 0 | 5442 | 10741 | 30.57 | 33.77 | 34.30 |
| 282 | 201600 | 120542 | 61017 | 179360 | 124443 | 48138 | 4456 | 23864 | 31.92 | 34.11 | 34.74 | |
| 283 | 38856 | 38856 | 20064 | 5255 | 0 | 0 | 0 | 5385 | 9882 | 30.41 | 33.96 | 34.61 |
| 284 | 40568 | 40568 | 20657 | 4550 | 0 | 0 | 0 | 5611 | 9740 | 28.28 | 33.71 | 34.25 |
| 285 | 359884 | 180824 | 114629 | 43778 | 178160 | 123662 | 48270 | 4671 | 23974 | 31.77 | 34.36 | 34.99 |
| 286 | 40776 | 40776 | 22897 | 3010 | 0 | 0 | 0 | 5516 | 9353 | 30.40 | 33.86 | 34.37 |
| 287 | 43648 | 43648 | 24279 | 4095 | 0 | 0 | 0 | 5229 | 9945 | 30.44 | 33.88 | 34.41 |
| 288 | 362688 | 176569 | 110931 | 43430 | 185992 | 128897 | 50884 | 4464 | 24076 | 31.73 | 34.30 | 34.86 |
| 289 | 40150 | 40150 | 23019 | 2753 | 0 | 0 | 0 | 5159 | 9429 | 30.40 | 34.06 | 34.63 |
| 290 | 47552 | 47552 | 25297 | 5164 | 0 | 0 | 0 | 5481 | 10610 | 30.34 | 33.81 | 34.26 |
| 291 | 400528 | 221256 | 185514 | 60115 | 179272 | 124756 | 48334 | 4596 | 24212 | 32.27 | 34.65 | 35.26 |
| 292 | 43192 | 43192 | 24100 | 4742 | 0 | 0 | 0 | 5483 | 9367 | 30.54 | 34.12 | 34.66 |
| 293 | 51312 | 51312 | 23603 | 9666 | 0 | 0 | 0 | 5289 | 12754 | 30.68 | 33.00 | 33.46 |
| 294 | 405804 | 229264 | 138680 | 68121 | 176320 | 122399 | 47746 | 4590 | 24123 | 32.32 | 34.62 | 35.19 |
| 295 | 46136 | 46136 | 23586 | 4683 | 0 | 0 | 0 | 5326 | 10539 | 30.43 | 33.99 | 34.51 |
| 296 | 67992 | 67992 | 35151 | 12542 | 0 | 0 | 0 | 6184 | 14115 | 29.69 | 33.20 | 33.57 |
| 297 | 422512 | 214504 | 137323 | 81975 | 181008 | 125564 | 49298 | 4488 | 23864 | 32.27 | 34.30 | 34.93 |
| 298 | 51304 | 51304 | 33078 | 6805 | 0 | 0 | 0 | 6283 | 11138 | 29.69 | 33.79 | 34.19 |
| 299 | 21168 | 21168 | 4250 | 7004 | 0 | 0 | 0 | 2767 | 10147 | 30.76 | 31.32 | 32.71 |

| num | ALL | (I PART) | | | (I PART) | | | (I PART) | | | (I PART) | | |
|-----|-------|------------|---------|-------|------------|---------|-------|------------|-------|-------|------------|-------|--|
| | | TOTAL | PIC_X,Y | PIC_C | TOTAL | PIC_X,Y | PIC_C | MY | ETC | SN(y) | SN(b) | SN(r) | |
| 1 | 12620 | 12620 | 11911 | 51651 | 16120 | 11911 | 51651 | 5988 | 12620 | 32.00 | 34.00 | 34.00 | |
| 2 | 12620 | 12620 | 11911 | 51651 | 16120 | 11911 | 51651 | 5988 | 12620 | 32.00 | 34.00 | 34.00 | |
| 3 | 12620 | 12620 | 11911 | 51651 | 16120 | 11911 | 51651 | 5988 | 12620 | 32.00 | 34.00 | 34.00 | |
| 4 | 12620 | 12620 | 11911 | 51651 | 16120 | 11911 | 51651 | 5988 | 12620 | 32.00 | 34.00 | 34.00 | |
| 5 | 12620 | 12620 | 11911 | 51651 | 16120 | 11911 | 51651 | 5988 | 12620 | 32.00 | 34.00 | 34.00 | |
| 6 | 12620 | 12620 | 11911 | 51651 | 16120 | 11911 | 51651 | 5988 | 12620 | 32.00 | 34.00 | 34.00 | |
| 7 | 12620 | 12620 | 11911 | 51651 | 16120 | 11911 | 51651 | 5988 | 12620 | 32.00 | 34.00 | 34.00 | |
| 8 | 12620 | 12620 | 11911 | 51651 | 16120 | 11911 | 51651 | 5988 | 12620 | 32.00 | 34.00 | 34.00 | |
| 9 | 12620 | 12620 | 11911 | 51651 | 16120 | 11911 | 51651 | 5988 | 12620 | 32.00 | 34.00 | 34.00 | |
| 10 | 12620 | 12620 | 11911 | 51651 | 16120 | 11911 | 51651 | 5988 | 12620 | 32.00 | 34.00 | 34.00 | |
| 11 | 12620 | 12620 | 11911 | 51651 | 16120 | 11911 | 51651 | 5988 | 12620 | 32.00 | 34.00 | 34.00 | |
| 12 | 12620 | 12620 | 11911 | 51651 | 16120 | 11911 | 51651 | 5988 | 12620 | 32.00 | 34.00 | 34.00 | |
| 13 | 12620 | 12620 | 11911 | 51651 | 16120 | 11911 | 51651 | 5988 | 12620 | 32.00 | 34.00 | 34.00 | |
| 14 | 12620 | 12620 | 11911 | 51651 | 16120 | 11911 | 51651 | 5988 | 12620 | 32.00 | 34.00 | 34.00 | |
| 15 | 12620 | 12620 | 11911 | 51651 | 16120 | 11911 | 51651 | 5988 | 12620 | 32.00 | 34.00 | 34.00 | |
| 16 | 12620 | 12620 | 11911 | 51651 | 16120 | 11911 | 51651 | 5988 | 12620 | 32.00 | 34.00 | 34.00 | |
| 17 | 12620 | 12620 | 11911 | 51651 | 16120 | 11911 | 51651 | 5988 | 12620 | 32.00 | 34.00 | 34.00 | |
| 18 | 12620 | 12620 | 11911 | 51651 | 16120 | 11911 | 51651 | 5988 | 12620 | 32.00 | 34.00 | 34.00 | |
| 19 | 12620 | 12620 | 11911 | 51651 | 16120 | 11911 | 51651 | 5988 | 12620 | 32.00 | 34.00 | 34.00 | |
| 20 | 12620 | 12620 | 11911 | 51651 | 16120 | 11911 | 51651 | 5988 | 12620 | 32.00 | 34.00 | 34.00 | |
| 21 | 12620 | 12620 | 11911 | 51651 | 16120 | 11911 | 51651 | 5988 | 12620 | 32.00 | 34.00 | 34.00 | |
| 22 | 12620 | 12620 | 11911 | 51651 | 16120 | 11911 | 51651 | 5988 | 12620 | 32.00 | 34.00 | 34.00 | |
| 23 | 12620 | 12620 | 11911 | 51651 | 16120 | 11911 | 51651 | 5988 | 12620 | 32.00 | 34.00 | 34.00 | |
| 24 | 12620 | 12620 | 11911 | 51651 | 16120 | 11911 | 51651 | 5988 | 12620 | 32.00 | 34.00 | 34.00 | |
| 25 | 12620 | 12620 | 11911 | 51651 | 16120 | 11911 | 51651 | 5988 | 12620 | 32.00 | 34.00 | 34.00 | |
| 26 | 12620 | 12620 | 11911 | 51651 | 16120 | 11911 | 51651 | 5988 | 12620 | 32.00 | 34.00 | 34.00 | |
| 27 | 12620 | 12620 | 11911 | 51651 | 16120 | 11911 | 51651 | 5988 | 12620 | 32.00 | 34.00 | 34.00 | |
| 28 | 12620 | 12620 | 11911 | 51651 | 16120 | 11911 | 51651 | 5988</ | | | | | |

| num | ALL | (P, B, PARX) | | (I, MNT) | | 9MPC-4 | | num | ALL | (P, B, PARX) | | (I, MNT) | | 9MPC-4 | | | | | |
|-----|--------|----------------|--------|------------|--------|--------|-------|-------|-------|----------------|-------|------------|-------|--------|----|-----|-------|-------|-------|
| | | TOTAL | PIC, Y | TOTAL | PIC, C | MY | ETC | SN(y) | SN(b) | SN(s) | TOTAL | PIC, Y | TOTAL | PIC, C | MY | ETC | SN(y) | SN(b) | SN(s) |
| 248 | 107856 | 107856 | 42518 | 28071 | 0 | 0 | 0 | 19319 | 17282 | 29.97 | 33.83 | 34.11 | | | | | | | |
| 249 | 251456 | 84564 | 31656 | 19671 | 166896 | 109492 | 51155 | 15339 | 24137 | 32.73 | 35.36 | 36.08 | | | | | | | |
| 250 | 107816 | 107816 | 38505 | 31851 | 0 | 0 | 0 | 19399 | 17861 | 30.27 | 33.24 | 33.99 | | | | | | | |
| 251 | 105568 | 105568 | 38303 | 30094 | 0 | 0 | 0 | 19316 | 17855 | 30.35 | 33.52 | 34.06 | | | | | | | |
| 252 | 246504 | 82256 | 29645 | 19734 | 164248 | 189598 | 51940 | 15087 | 24132 | 32.95 | 33.80 | 36.26 | | | | | | | |
| 253 | 99936 | 99936 | 31764 | 26969 | 0 | 0 | 0 | 14971 | 17232 | 30.13 | 33.65 | 34.06 | | | | | | | |
| 254 | 104768 | 104768 | 28931 | 29153 | 0 | 0 | 0 | 18059 | 17619 | 30.06 | 33.66 | 34.08 | | | | | | | |
| 255 | 249608 | 81496 | 31742 | 21216 | 163112 | 106918 | 49746 | 15197 | 24521 | 32.80 | 35.68 | 36.17 | | | | | | | |
| 256 | 102984 | 102984 | 36009 | 29269 | 0 | 0 | 0 | 19353 | 17380 | 30.24 | 33.51 | 33.99 | | | | | | | |
| 257 | 101200 | 101200 | 53322 | 28871 | 0 | 0 | 0 | 18324 | 17683 | 30.15 | 33.45 | 33.86 | | | | | | | |
| 258 | 249560 | 82984 | 29603 | 20192 | 166576 | 108099 | 52073 | 15435 | 24758 | 32.50 | 35.84 | 36.31 | | | | | | | |
| 259 | 97180 | 97180 | 36389 | 25183 | 0 | 0 | 0 | 19352 | 16556 | 29.93 | 33.66 | 33.94 | | | | | | | |
| 260 | 104056 | 104056 | 33980 | 27576 | 0 | 0 | 0 | 19514 | 16518 | 29.84 | 33.56 | 33.94 | | | | | | | |
| 261 | 249112 | 81200 | 28820 | 21912 | 167912 | 110263 | 51345 | 15493 | 24079 | 32.76 | 35.58 | 35.91 | | | | | | | |
| 262 | 104680 | 104680 | 3725 | 29375 | 0 | 0 | 0 | 18500 | 17884 | 30.09 | 33.41 | 33.39 | | | | | | | |
| 263 | 102136 | 102136 | 36447 | 28249 | 0 | 0 | 0 | 19973 | 17467 | 30.28 | 33.50 | 34.04 | | | | | | | |
| 264 | 247080 | 89144 | 28921 | 20230 | 163936 | 106723 | 50853 | 15571 | 24828 | 32.99 | 35.76 | 36.25 | | | | | | | |
| 265 | 104500 | 104500 | 39062 | 26624 | 0 | 0 | 0 | 19490 | 17418 | 29.67 | 33.38 | 33.76 | | | | | | | |
| 266 | 100688 | 100688 | 38865 | 26134 | 0 | 0 | 0 | 18443 | 17245 | 29.71 | 33.59 | 33.95 | | | | | | | |
| 267 | 245944 | 85912 | 32076 | 20887 | 160032 | 104230 | 49423 | 15152 | 24176 | 32.70 | 35.70 | 36.03 | | | | | | | |
| 268 | 101416 | 101416 | 37526 | 21264 | 0 | 0 | 0 | 19247 | 17559 | 29.79 | 33.45 | 33.77 | | | | | | | |
| 269 | 101176 | 101176 | 35518 | 28131 | 0 | 0 | 0 | 19751 | 17676 | 30.16 | 33.57 | 33.96 | | | | | | | |
| 270 | 235984 | 83600 | 29231 | 20511 | 172384 | 112391 | 53639 | 15439 | 24837 | 32.76 | 35.83 | 36.10 | | | | | | | |
| 271 | 104080 | 104080 | 41170 | 26357 | 0 | 0 | 0 | 19350 | 17193 | 29.62 | 33.70 | 33.94 | | | | | | | |
| 272 | 102960 | 102960 | 40190 | 26241 | 0 | 0 | 0 | 19325 | 17204 | 29.57 | 33.51 | 33.75 | | | | | | | |
| 273 | 251512 | 90456 | 34602 | 22860 | 161056 | 105374 | 49303 | 15274 | 24688 | 32.34 | 35.56 | 35.78 | | | | | | | |
| 274 | 102432 | 102432 | 38734 | 27168 | 0 | 0 | 0 | 18566 | 17840 | 29.69 | 33.33 | 33.72 | | | | | | | |
| 275 | 102472 | 102472 | 39820 | 28195 | 0 | 0 | 0 | 19486 | 17727 | 29.84 | 33.45 | 33.61 | | | | | | | |
| 276 | 258272 | 88810 | 34141 | 27575 | 164942 | 111744 | 51229 | 15159 | 24624 | 32.60 | 35.79 | 36.20 | | | | | | | |
| 277 | 99560 | 99560 | 38090 | 25656 | 0 | 0 | 0 | 18824 | 16598 | 29.34 | 33.32 | 33.76 | | | | | | | |
| 278 | 97032 | 97032 | 36402 | 24452 | 0 | 0 | 0 | 19064 | 17114 | 29.39 | 33.30 | 33.69 | | | | | | | |
| 279 | 246712 | 85784 | 31466 | 21056 | 160928 | 101119 | 50398 | 15366 | 24307 | 32.62 | 35.65 | 36.13 | | | | | | | |
| 280 | 95576 | 95576 | 33828 | 26103 | 0 | 0 | 0 | 19312 | 17333 | 29.71 | 33.14 | 33.77 | | | | | | | |
| 281 | 97352 | 97352 | 33928 | 26289 | 0 | 0 | 0 | 19612 | 17573 | 29.93 | 33.23 | 33.78 | | | | | | | |
| 282 | 242432 | 77744 | 25109 | 18591 | 164688 | 106314 | 52031 | 15675 | 24412 | 32.60 | 35.40 | 35.79 | | | | | | | |
| 283 | 107440 | 107440 | 42023 | 26657 | 0 | 0 | 0 | 19172 | 17585 | 29.71 | 33.36 | 33.96 | | | | | | | |
| 284 | 103895 | 103895 | 41704 | 25759 | 0 | 0 | 0 | 19085 | 17357 | 29.62 | 33.55 | 33.94 | | | | | | | |
| 285 | 247712 | 78152 | 27050 | 17315 | 169586 | 110197 | 52941 | 15517 | 24692 | 32.41 | 35.31 | 35.78 | | | | | | | |
| 286 | 96160 | 96160 | 35171 | 24418 | 0 | 0 | 0 | 19322 | 17419 | 29.70 | 33.18 | 33.84 | | | | | | | |
| 287 | 97352 | 97352 | 33943 | 25266 | 0 | 0 | 0 | 19910 | 17090 | 29.72 | 33.21 | 33.57 | | | | | | | |
| 288 | 243344 | 83584 | 29124 | 21079 | 159760 | 102351 | 50929 | 15257 | 24604 | 32.72 | 35.63 | 35.97 | | | | | | | |
| 289 | 100584 | 100584 | 37844 | 26453 | 0 | 0 | 0 | 19090 | 17195 | 29.45 | 33.31 | 33.72 | | | | | | | |
| 290 | 103040 | 103040 | 39719 | 26410 | 0 | 0 | 0 | 19345 | 17367 | 29.45 | 33.29 | 33.71 | | | | | | | |
| 291 | 245688 | 71212 | 26785 | 17356 | 168416 | 110471 | 51553 | 15175 | 24344 | 32.50 | 35.43 | 35.87 | | | | | | | |
| 292 | 101728 | 101728 | 36920 | 27494 | 0 | 0 | 0 | 19793 | 17521 | 29.98 | 33.45 | 33.99 | | | | | | | |
| 293 | 101480 | 101480 | 36894 | 27063 | 0 | 0 | 0 | 19822 | 17897 | 30.05 | 33.45 | 33.92 | | | | | | | |
| 294 | 237514 | 74944 | 23708 | 16091 | 162600 | 104960 | 51248 | 15173 | 24064 | 32.54 | 35.24 | 35.72 | | | | | | | |
| 295 | 108112 | 108112 | 42107 | 29130 | 0 | 0 | 0 | 19273 | 17602 | 29.77 | 33.47 | 33.93 | | | | | | | |
| 296 | 109784 | 109784 | 44505 | 29079 | 0 | 0 | 0 | 19070 | 17130 | 29.54 | 33.49 | 34.02 | | | | | | | |
| 297 | 251128 | 87576 | 32841 | 20884 | 169552 | 112385 | 50801 | 15477 | 24740 | 32.41 | 35.48 | 36.00 | | | | | | | |
| 298 | 94688 | 94688 | 37133 | 21593 | 0 | 0 | 0 | 18283 | 17303 | 29.67 | 33.50 | 34.15 | | | | | | | |
| 299 | 50648 | 50648 | 1527 | 24814 | 0 | 0 | 0 | 7666 | 16641 | 32.47 | 32.82 | 33.34 | | | | | | | |

>> NUMBER OF BITS AND SNR FOR EACH FIELD
>> CODING SEQUENCE ... Table Tennis
>> TARGET ... 9.0000 Mbps

| num | ALL | P,B,PART | | | I,PART | | | 9MTT-0 | | | { P,B,PART } | | | { I,PAN1 } | | | 9MTT-1 | | | | | | | | |
|-----|--------|----------|--------|-------|--------|--------|-------|--------|-------|-------|--------------|-------|-------|------------|--------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|
| | | TOTAL | PIC_Y | PIC_C | TOTAL | PIC_Y | PIC_C | NV | ETC | SN(y) | SK(l) | SH(r) | TOTAL | PIC_Y | PIC_C | NV | ETC | SK(l) | SH(r) | | | | | | |
| 0 | 322728 | 204952 | 170075 | 11591 | 317176 | 104414 | 7899 | 1958 | 27365 | 28.52 | 38.36 | 39.58 | 59 | 70720 | 70720 | 44352 | 1456 | 0 | 0 | 11250 | 13657 | 30.39 | 39.63 | 40.70 | |
| 1 | 40488 | 40488 | 20516 | 2199 | 0 | 0 | 0 | 1126 | 10447 | 28.14 | 38.26 | 39.13 | 61 | 74984 | 74984 | 47458 | 1672 | - | 0 | 0 | 11430 | 14242 | 30.90 | 39.81 | 40.99 |
| 2 | 40248 | 40248 | 19329 | 1487 | 0 | 0 | 0 | 8313 | 11059 | 28.02 | 38.26 | 39.14 | 62 | 76256 | 76256 | 48326 | 1936 | 0 | 0 | 0 | 11512 | 14482 | 31.09 | 39.92 | 41.02 |
| 3 | 40240 | 204950 | 174601 | 6647 | 198744 | 178597 | 14746 | 5920 | 22911 | 29.16 | 38.57 | 39.94 | 63 | 288376 | 126512 | 93590 | 7104 | 11614 | 140254 | 15836 | 20269 | 21232 | 31.37 | 40.41 | 41.72 |
| 4 | 38856 | 38856 | 19511 | 1323 | 0 | 0 | 0 | 8274 | 10784 | 21.55 | 38.22 | 39.17 | 65 | 68584 | 68584 | 42054 | 1308 | 0 | 0 | 0 | 11382 | 13847 | 31.68 | 40.21 | 41.34 |
| 5 | 36101 | 36101 | 16134 | 1258 | 0 | 0 | 0 | 8963 | 9769 | 28.21 | 38.48 | 39.47 | 67 | 65224 | 65224 | 38224 | 1402 | 0 | 0 | 0 | 11932 | 13586 | 31.99 | 40.42 | 41.46 |
| 6 | 357056 | 172088 | 142071 | 7645 | 184958 | 166007 | 13598 | 6921 | 20813 | 31.64 | 38.96 | 40.29 | 68 | 325960 | 146204 | 112224 | 8065 | 179938 | 157371 | 17174 | 9604 | 21522 | 33.09 | 40.12 | 41.46 |
| 7 | 48320 | 48320 | 27251 | 832 | 0 | 0 | 0 | 7831 | 12403 | 28.24 | 38.26 | 39.13 | 69 | 3110932 | 131040 | 96749 | 10629 | 176592 | 151180 | 20423 | 11056 | 21795 | 34.36 | 40.86 | 42.04 |
| 8 | 39344 | 39344 | 19278 | 1032 | 0 | 0 | 0 | 7742 | 11292 | 28.03 | 38.65 | 39.43 | 70 | 77632 | 77632 | 40726 | 2463 | 0 | 0 | 0 | 11782 | 14661 | 32.61 | 40.55 | 41.59 |
| 9 | 357047 | 181272 | 152545 | 5211 | 175432 | 157402 | 12637 | 6160 | 20049 | 30.83 | 38.87 | 40.19 | 65 | 327432 | 146096 | 108641 | 10643 | 181536 | 156513 | 19640 | 10464 | 21731 | 34.13 | 40.72 | 41.96 |
| 10 | 32832 | 32832 | 14655 | 1284 | 0 | 0 | 0 | 8522 | 9371 | 28.12 | 38.50 | 39.24 | 73 | 16168 | 171952 | 44527 | 13455 | 194215 | 164378 | 24455 | 13310 | 21859 | 34.65 | 41.14 | 42.25 |
| 11 | 31816 | 31816 | 12626 | 1358 | 0 | 0 | 0 | 8127 | 10659 | 28.65 | 38.53 | 39.26 | 74 | 68546 | 68544 | 40305 | 2411 | 0 | 0 | 0 | 11859 | 14319 | 33.09 | 40.82 | 41.82 |
| 12 | 360222 | 185204 | 157272 | 5021 | 175044 | 157290 | 12399 | 7316 | 20339 | 30.92 | 38.76 | 39.94 | 75 | 30312 | 141316 | 101310 | 15308 | 161576 | 135461 | 19738 | 11541 | 21794 | 35.47 | 41.51 | 42.65 |
| 13 | 35816 | 35816 | 15679 | 1687 | 0 | 0 | 0 | 8298 | 1295 | 29.29 | 38.50 | 39.38 | 76 | 66600 | 38445 | 25156 | 0 | 0 | 0 | 11724 | 14113 | 33.44 | 40.96 | 41.94 | |
| 14 | 42112 | 42112 | 20907 | 1507 | 0 | 0 | 0 | 8731 | 10961 | 28.75 | 38.35 | 39.14 | 77 | 62832 | 62832 | 34821 | 2273 | 0 | 0 | 0 | 11807 | 13925 | 32.82 | 41.23 | 42.01 |
| 15 | 342664 | 170376 | 139602 | 8342 | 172288 | 151405 | 12515 | 6393 | 20641 | 31.33 | 38.84 | 40.16 | 78 | 29818 | 131896 | 90183 | 13599 | 166888 | 140382 | 21135 | 11664 | 21821 | 35.71 | 41.63 | 42.69 |
| 16 | 43168 | 43168 | 22156 | 1450 | 0 | 0 | 0 | 8668 | 10893 | 29.03 | 38.65 | 39.46 | 79 | 64784 | 64784 | 36386 | 2613 | 0 | 0 | 0 | 11746 | 14033 | 33.83 | 41.17 | 41.95 |
| 17 | 56072 | 32478 | 1216 | 0 | 0 | 0 | 8710 | 13636 | 28.38 | 38.44 | 39.19 | 80 | 60872 | 60872 | 32264 | 2680 | 0 | 0 | 0 | 12389 | 13539 | 34.10 | 41.22 | 42.10 | |
| 18 | 365395 | 194976 | 165289 | 8002 | 174960 | 156828 | 12770 | 5712 | 20355 | 31.63 | 39.00 | 40.29 | 81 | 289088 | 12520 | 80732 | 13655 | 166568 | 139038 | 22155 | 11596 | 21912 | 35.93 | 41.78 | 42.70 |
| 19 | 37664 | 37664 | 17252 | 1556 | 0 | 0 | 0 | 8727 | 9724 | 29.32 | 38.65 | 39.43 | 82 | 71520 | 71520 | 40220 | 4488 | 0 | 0 | 0 | 12223 | 14589 | 34.28 | 41.17 | 41.98 |
| 20 | 66664 | 66664 | 41456 | 1717 | 0 | 0 | 0 | 9125 | 14352 | 28.16 | 38.49 | 39.45 | 83 | 72312 | 72312 | 39735 | 13052 | 0 | 0 | 0 | 12451 | 14794 | 34.45 | 41.25 | 41.92 |
| 21 | 393261 | 232658 | 192421 | 8499 | 165695 | 152141 | 12194 | 7630 | 20469 | 31.49 | 38.95 | 40.26 | 84 | 287192 | 116540 | 74246 | 14644 | 170352 | 141212 | 23752 | 11520 | 21818 | 36.08 | 41.72 | 42.63 |
| 22 | 48760 | 48760 | 27045 | 1955 | 0 | 0 | 0 | 8221 | 13459 | 28.85 | 38.48 | 39.19 | 85 | 74608 | 74608 | 40118 | 6210 | 0 | 0 | 0 | 12825 | 14855 | 34.56 | 41.25 | 41.84 |
| 23 | 45176 | 45176 | 24366 | 1501 | 0 | 0 | 0 | 7941 | 15516 | 28.48 | 38.65 | 39.80 | 86 | 67232 | 67232 | 36463 | 5615 | 0 | 0 | 0 | 13374 | 14577 | 34.81 | 41.18 | 42.69 |
| 24 | 310152 | 161168 | 132595 | 6548 | 176984 | 159121 | 12505 | 6629 | 20754 | 31.81 | 38.86 | 40.27 | 87 | 319584 | 124904 | 90734 | 12284 | 116680 | 145766 | 25528 | 12359 | 2206 | 36.90 | 42.20 | 43.09 |
| 25 | 64352 | 64352 | 39811 | 1508 | 0 | 0 | 0 | 9781 | 13369 | 28.10 | 38.55 | 39.62 | 88 | 76780 | 76780 | 37565 | 7096 | 0 | 0 | 0 | 13581 | 14130 | 34.88 | 41.28 | 41.82 |
| 26 | 52408 | 31384 | 1708 | 0 | 0 | 0 | 8055 | 11761 | 29.07 | 38.68 | 39.70 | 89 | 79448 | 79448 | 27512 | 2313 | 0 | 0 | 0 | 14101 | 14662 | 35.04 | 41.43 | 41.96 | |
| 27 | 347384 | 174200 | 143786 | 7195 | 173184 | 155392 | 12429 | 7791 | 20788 | 31.74 | 38.46 | 40.31 | 90 | 314176 | 18416 | 66101 | 27875 | 175160 | 144516 | 25811 | 12525 | 2201 | 37.02 | 42.42 | 43.12 |
| 28 | 43904 | 43904 | 22972 | 1304 | 0 | 0 | 0 | 8561 | 11047 | 28.56 | 38.30 | 39.66 | 91 | 67512 | 67512 | 39302 | 2521 | 0 | 0 | 0 | 14612 | 14617 | 35.11 | 41.45 | 41.95 |
| 29 | 36240 | 36240 | 16512 | 1719 | 0 | 0 | 0 | 8438 | 10951 | 29.43 | 38.51 | 39.32 | 92 | 75184 | 75184 | 38010 | 7575 | 0 | 0 | 0 | 14354 | 14263 | 35.20 | 41.55 | 42.01 |
| 30 | 351840 | 179232 | 152279 | 6680 | 178608 | 160329 | 12096 | 5652 | 20030 | 31.75 | 38.99 | 40.34 | 93 | 90984 | 13722 | 85041 | 2221 | 12616 | 141803 | 25441 | 12820 | 22472 | 37.09 | 42.48 | 43.14 |
| 31 | 46592 | 46592 | 25268 | 1422 | 0 | 0 | 0 | 8104 | 11632 | 28.35 | 38.46 | 39.15 | 94 | 73280 | 73280 | 36028 | 8585 | 0 | 0 | 0 | 14631 | 14304 | 35.17 | 41.39 | 42.01 |
| 32 | 34456 | 34456 | 14972 | 1058 | 0 | 0 | 0 | 8663 | 9733 | 28.95 | 38.56 | 39.35 | 95 | 67288 | 71288 | 35297 | 7896 | 0 | 0 | 0 | 13666 | 14409 | 35.25 | 41.46 | 41.95 |
| 33 | 339336 | 163384 | 137309 | 7140 | 170522 | 153336 | 11038 | 7222 | 20631 | 31.79 | 38.85 | 40.18 | 96 | 305716 | 133408 | 80931 | 17292 | 140404 | 25608 | 22904 | 22432 | 37.15 | 42.31 | 43.14 | |
| 34 | 48664 | 48664 | 27153 | 1293 | 0 | 0 | 0 | 7575 | 12461 | 28.82 | 38.41 | 39.37 | 97 | 75382 | 75382 | 37863 | 8904 | 0 | 0 | 0 | 14486 | 14811 | 35.26 | 41.29 | 41.91 |
| 35 | 55192 | 55192 | 33882 | 1001 | 0 | 0 | 0 | 8518 | 12291 | 29.07 | 38.49 | 39.46 | 98 | 75336 | 75336 | 38282 | 8790 | 0 | 0 | 0 | 14301 | 14163 | 35.37 | 41.45 | 41.95 |
| 36 | 349768 | 175072 | 146655 | 5541 | 174698 | 157058 | 12265 | 6066 | 20273 | 31.92 | 38.66 | 39.96 | 99 | 303632 | 132288 | 78743 | 24172 | 171244 | 139724 | 26259 | 12417 | 22317 | 37.18 | 42.19 | 43.03 |
| 37 | 47270 | 47270 | 22038 | 1168 | 0 | 0 | 0 | 8768 | 10746 | 28.95 | 38.41 | 39.22 | 100 | 17446 | 17446 | 36169 | 8418 | 0 | 0 | 0 | 14030 | 14266 | 35.25 | 41.43 | 41.67 |
| 38 | 39128 | 39128 | 191453 | 1055 | 0 | 0 | 0 | 8638 | 10000 | 29.38 | 38.43 | 39.23 | 101 | 73480 | 73480 | 36435 | 8562 | 0 | 0 | 0 | 14152 | 14531 | 35.37 | 41.19 | 41.77 |
| 39 | 343516 | 172520 | 144879 | 5616 | 161970 | 151598 | 12137 | 8016 | 20350 | 31.97 | 38.48 | 39.81 | 102 | 316400 | 18136 | 80853 | 27050 | 178704 | 144447 | 28891 | 12920 | 22189 | 37.16 | 42.05 | 42.77 |
| 40 | 40368 | 40368 | 20867 | 862 | 0 | 0 | 0 | 8663 | 9785 | 28.76 | 38.15 | 39.19 | 103 | 7704 | 7704 | 10109 | 8014 | 0 | 0 | 0 | 14182 | 14294 | 35.36 | 41.03 | 41.48 |
| 41 | 46008 | 46008 | 14515 | 1115 | 0 | 0 | 0 | 9493 | 11040 | 29.02 | 38.46 | 39.17 | 104 | 70616 | 70616 | 41754 | 9883 | 0 | 0 | 0 | 13957 | 14022 | 35.33 | 41.03 | 41.48 |
| 42 | 355318 | 156760 | 126162 | 7565 | 170764 | 159251 | 12151 | 10195 | 20155 | 31.72 | 38.60 | 39.83 | 105 | 320016 | 14248 | 86519 | 25856 | 18276 | 147575 | 29795 | 12246 | 221 | | | |

| num | ALI. | P_H PART | | | I PART | | | SMTT-4 | | | | |
|-----|--------|----------|--------|-------|--------|--------|-------|--------|-------|-------|-------|-------|
| | | TOTAL | PIC_Y | PIC_C | TOTAL | PIC_Y | PIC_C | NW | ETC | SN(y) | SN(b) | SN(r) |
| 248 | T0760 | 70760 | 45411 | 6416 | 0 | 0 | 0 | 5635 | 11294 | 32.81 | 34.82 | 38.93 |
| 249 | S30274 | 157192 | 110303 | 25580 | 173032 | 152651 | 14558 | 4643 | 22492 | 35.48 | 40.14 | 40.62 |
| 250 | 47560 | 47560 | 29128 | 2207 | 0 | 0 | 0 | 5908 | 10317 | 32.74 | 39.43 | 39.86 |
| 251 | 41416 | 41416 | 23363 | 2521 | 0 | 0 | 0 | 5613 | 9919 | 33.48 | 39.18 | 39.54 |
| 252 | 341792 | 167304 | 115822 | 30352 | 174488 | 153154 | 15582 | 4593 | 22369 | 35.49 | 40.06 | 40.51 |
| 253 | 58032 | 58032 | 42540 | 4695 | 0 | 0 | 0 | 5166 | 11231 | 33.38 | 39.08 | 39.23 |
| 254 | 55864 | 55864 | 35658 | 3237 | 0 | 0 | 0 | 5105 | 11263 | 33.72 | 39.19 | 39.23 |
| 255 | 203584 | 117008 | 81442 | 15449 | 176576 | 152283 | 15433 | 4400 | 21575 | 35.01 | 40.10 | 40.57 |
| 256 | 59720 | 59720 | 38007 | 4706 | 0 | 0 | 0 | 5577 | 11430 | 33.63 | 39.32 | 39.63 |
| 257 | 62088 | 62088 | 40823 | 4445 | 0 | 0 | 0 | 5608 | 11214 | 33.46 | 39.61 | 40.05 |
| 258 | 327288 | 156488 | 108244 | 27504 | 170800 | 150149 | 14806 | 4261 | 22323 | 35.66 | 40.23 | 40.76 |
| 259 | 48896 | 48896 | 28858 | 3908 | 0 | 0 | 0 | 5540 | 10516 | 33.32 | 39.38 | 39.80 |
| 260 | 42440 | 42440 | 22447 | 3487 | 0 | 0 | 0 | 6069 | 10437 | 33.63 | 39.52 | 39.91 |
| 261 | 329248 | 151512 | 106807 | 23537 | 177336 | 156322 | 15581 | 4715 | 22286 | 35.66 | 40.46 | 41.09 |
| 262 | 58176 | 58176 | 35844 | 5375 | 0 | 0 | 0 | 5593 | 11368 | 33.55 | 39.58 | 39.87 |
| 263 | 57824 | 57824 | 31234 | 9261 | 0 | 0 | 0 | 5565 | 11364 | 33.68 | 39.41 | 39.81 |
| 264 | 284840 | 119008 | 81988 | 16508 | 166832 | 146056 | 14965 | 4601 | 21721 | 35.02 | 40.17 | 40.71 |
| 265 | 55008 | 55008 | 31228 | 6313 | 0 | 0 | 0 | 6111 | 11455 | 33.81 | 39.56 | 39.95 |
| 266 | 54776 | 54776 | 32203 | 3987 | 0 | 0 | 0 | 6299 | 11207 | 33.58 | 39.60 | 39.82 |
| 267 | 327736 | 147944 | 102310 | 24750 | 179792 | 157985 | 16004 | 4744 | 22142 | 35.73 | 40.46 | 41.80 |
| 268 | 63592 | 63592 | 33993 | 12160 | 0 | 0 | 0 | 6122 | 11117 | 33.59 | 39.13 | 39.24 |
| 269 | 53448 | 53448 | 31399 | 4710 | 0 | 0 | 0 | 6163 | 11176 | 33.98 | 39.66 | 39.94 |
| 270 | 328258 | 154920 | 106510 | 26221 | 171336 | 152422 | 15134 | 4696 | 22165 | 35.73 | 40.36 | 40.90 |
| 271 | 55896 | 55896 | 35789 | 2760 | 0 | 0 | 0 | 6079 | 11284 | 33.93 | 39.66 | 40.34 |
| 272 | 54920 | 54920 | 32925 | 5190 | 0 | 0 | 0 | 5914 | 11191 | 33.78 | 39.21 | 39.54 |
| 273 | 320240 | 148808 | 103266 | 24400 | 171632 | 151223 | 14594 | 4613 | 22144 | 35.79 | 40.53 | 41.16 |
| 274 | 40152 | 40152 | 28403 | 2431 | 0 | 0 | 0 | 5991 | 11321 | 33.97 | 39.80 | 40.24 |
| 275 | 47800 | 47800 | 25243 | 5172 | 0 | 0 | 0 | 5881 | 11302 | 34.18 | 39.55 | 40.09 |
| 276 | 329440 | 153200 | 104199 | 30348 | 174240 | 153227 | 15255 | 4396 | 22015 | 35.75 | 40.30 | 40.69 |
| 277 | 53560 | 53560 | 33550 | 2168 | 0 | 0 | 0 | 5808 | 12434 | 34.39 | 39.87 | 40.58 |
| 278 | 59336 | 59336 | 36832 | 4301 | 0 | 0 | 0 | 5795 | 12302 | 34.08 | 39.65 | 40.21 |
| 279 | 322456 | 145486 | 100710 | 24099 | 176960 | 156676 | 14467 | 4284 | 22212 | 35.78 | 40.44 | 40.99 |
| 280 | 47096 | 47096 | 28378 | 1935 | 0 | 0 | 0 | 5541 | 12245 | 34.24 | 39.96 | 40.56 |
| 281 | 45204 | 45204 | 25263 | 2372 | 0 | 0 | 0 | 5965 | 11144 | 34.06 | 39.78 | 40.13 |
| 282 | 339348 | 218856 | 154986 | 43221 | 174232 | 153861 | 14491 | 4177 | 22352 | 36.14 | 40.77 | 41.33 |
| 283 | 58504 | 58504 | 37880 | 3518 | 0 | 0 | 0 | 5819 | 11493 | 33.55 | 39.10 | 40.26 |
| 284 | 54416 | 54416 | 34278 | 3311 | 0 | 0 | 0 | 5581 | 12116 | 33.81 | 39.77 | 40.30 |
| 285 | 331792 | 159240 | 114983 | 23655 | 172552 | 152836 | 13860 | 4145 | 22301 | 35.60 | 40.43 | 40.96 |
| 286 | 55504 | 55504 | 31574 | 6198 | 0 | 0 | 0 | 5878 | 11554 | 33.90 | 39.34 | 39.82 |
| 287 | 54352 | 54352 | 29797 | 3029 | 0 | 0 | 0 | 6136 | 11390 | 33.81 | 39.46 | 39.80 |
| 288 | 335792 | 159264 | 115475 | 22879 | 176528 | 156476 | 15265 | 4507 | 22199 | 35.64 | 40.50 | 41.14 |
| 289 | 61596 | 61596 | 34475 | 9833 | 0 | 0 | 0 | 5888 | 11500 | 33.65 | 39.10 | 39.50 |
| 290 | 55488 | 55488 | 33104 | 5023 | 0 | 0 | 0 | 6123 | 11212 | 33.81 | 39.58 | 40.04 |
| 291 | 332108 | 158448 | 112048 | 25309 | 173720 | 153391 | 14474 | 4574 | 22372 | 35.61 | 40.37 | 40.92 |
| 292 | 77424 | 77424 | 47670 | 11802 | 0 | 0 | 0 | 6284 | 12460 | 33.59 | 39.38 | 39.81 |
| 293 | 66248 | 66248 | 40965 | 6055 | 0 | 0 | 0 | 6708 | 12517 | 34.22 | 39.76 | 40.22 |
| 294 | 329008 | 157008 | 110412 | 25840 | 172000 | 151560 | 14594 | 5011 | 22343 | 35.64 | 40.41 | 41.01 |
| 295 | 60576 | 60576 | 37140 | 5274 | 0 | 0 | 0 | 6533 | 11623 | 33.54 | 39.48 | 40.00 |
| 296 | 81336 | 81336 | 51815 | 11829 | 0 | 0 | 0 | 7115 | 11971 | 33.47 | 38.89 | 39.43 |
| 297 | 384856 | 210164 | 152268 | 38026 | 174672 | 154410 | 14419 | 5191 | 22542 | 36.44 | 40.88 | 41.60 |
| 298 | 70176 | 70176 | 45846 | 5161 | 0 | 0 | 0 | 6747 | 12422 | 33.28 | 39.24 | 39.89 |
| 299 | 58864 | 58864 | 6211 | 14627 | 0 | 0 | 0 | 5338 | 9688 | 34.40 | 38.93 | 39.03 |