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Patent Holder:

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Contact for license application:

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ITU-T Rec. (*)



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ITU-T H.VVC / ISO/IEC DIS 23090-3

(*)Number

(*)Title

**Information technology — Coded representation of immersive media —
Part 3: Versatile video coding**

Licensing declaration:

The Patent Holder believes that it holds granted and/or pending applications for Patents, the use of which would be required to implement the above document and hereby declares, in accordance with the Common Patent Policy for ITU-T/ITU-R/ISO/IEC, that (check one box only):

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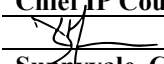
Patent: The word "Patent" means those claims contained in and identified by patents, utility models and other similar statutory rights based on inventions (including applications for any of these) solely to the extent that any such claims are essential to the implementation of the same above document. Essential patents are patents that would be required to implement a specific Recommendation | Deliverable.

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Patent Information (desired but not required for options 1 and 2; required in ITU, ISO and IEC for option 3 (NOTE))				
SEE ATTACHED PAGES				
No.	Status [granted/ pending]	Country	Granted Patent Number or Application Number (if pending)	Title
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

☐ Check here if additional patent information is provided on additional pages.

NOTE: For option 3, the additional minimum information that shall also be provided is listed in the option 3 box above.

Signature (include on final page only):	
Patent Holder	<u>Apple Inc.</u>
Name of authorized person	<u>Jeffrey L. Myers</u>
Title of authorized person	<u>Chief IP Counsel</u>
Signature	<u></u>
Place, Date	<u>Sunnyvale, CA – June 18, 2020</u>

FORM version: 2 November 2018

**Attachment to
PATENT STATEMENT AND LICENSING DECLARATION of APPLE INC.
ISO/IEC/ITU VVC**

Apple submits this Attachment to its Patent Statement and Licensing Declaration for ISO/IEC/ITU VVC (Versatile Video Coding) (hereinafter "VVC Specification") dated June 18, 2020.

Patent Information

Although it is not required to do so, to help promote transparency in the declaration process, Apple is providing the following detailed patent information.

No.	Status	Country	Patent, Application, or Publication Number	Title	Sections
1	Granted	US	7,769,084	Method for Implementing a Quantizer in a Multimedia Compression and Encoding System	3.14, 3.28, 3.30, 3.44, 3.134, 6.3.1, 6.3.3, 7.3.7, 7.4.8, 8.7.1, 8.7.3
2	Granted	CN	ZL201210009742.1	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 7.3.2, 7.4.2, 8.3.1, 8.5.1, 8.5.2
3	Granted	DE	1532746	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
4	Granted	DE	2326019	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 7.4.2, 8.1.1, 8.3.1, E.3.1
5	Granted	DE	2328283	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1

No.	Status	Country	Patent, Application, or Publication Number	Title	Sections
6	Granted	FR	1532746	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
7	Granted	FR	2326019	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 7.4.2, 8.1.1, 8.3.1, E.3.1
8	Granted	FR	2328283	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
9	Granted	GB	1532746	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
10	Granted	GB	2326019	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 7.4.2, 8.1.1, 8.3.1, E.3.1
11	Granted	GB	2328283	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
12	Granted	HK	1076207	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
13	Granted	HK	1169768	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 7.3.2, 7.4.2, 8.3.1, 8.5.1, 8.5.2

No.	Status	Country	Patent, Application, or Publication Number	Title	Sections
14	Granted	HK	1153057	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 7.3.2, 7.4.2, 8.3.1, 8.5.1, 8.5.2
15	Granted	HK	1156745	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 7.4.2, 8.1.1, 8.3.1, E.3.1
16	Granted	HK	1156747	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
17	Granted	IT	1532746	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
18	Granted	IT	2326019	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 7.4.2, 8.1.1, 8.3.1, E.3.1
19	Granted	IT	2328283	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
20	Granted	KR	10-0850810	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 8.3.1, 8.5.2
21	Granted	KR	10-0987911	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 7.4.2, 7.4.3, 8.3.1, 8.5.1, 8.5.2

No.	Status	Country	Patent, Application, or Publication Number	Title	Sections
22	Granted	KR	10-1192559	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 6.3.1, 7.3.2, 7.3.5, 7.4.2, 7.4.3, 7.4.6, 8.3
23	Granted	KR	10-1210015	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 6.3.1, 7.3.5, 7.4.6, 8.3.1
24	Granted	KR	10-1194952	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 7.4.2, 8.3, 8.5.1, 8.5.2, 8.5.2
25	Granted	US	7,292,636	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 8.3.1, 8.5.2
26	Granted	US	8,817,883	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
27	Granted	US	8,737,484	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 6.3.1, 7.3.2, 7.3.5, 7.4.2, 7.4.6
28	Granted	US	8,737,468	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 6.3.1, 7.3.2, 7.3.5, 7.4.2, 7.4.6, 8.3.1
29	Granted	US	8,837,580	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 7.3.2, 7.3.5, 7.4.2, 7.4.6

No.	Status	Country	Patent, Application, or Publication Number	Title	Sections
30	Granted	US	8,711,924	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 7.3.2, 8.3, 8.5.2
31	Granted	US	8,094,724	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 6.3.1, 7.3.2, 7.3.5, 7.4.6, 8.3.1, 8.5.1, 8.5.2
32	Granted	US	8,090,026	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 6.3.1, 7.3.2, 7.3.5, 7.4.6, 8.3.1, 8.5.1, 8.5.2
33	Granted	US	7,551,674	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.39, 8.3.1, 8.5.1, 8.5.2, A.1, C.1
34	Granted	US	8,743,951	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.4.2, 7.3.2, 8.3.1
35	Granted	US	8,737,462	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
36	Granted	US	7,339,991	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.30, 8.3.1, 8.5.2
37	Granted	US	8,942,287	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 8.5.1, 8.5.2

No.	Status	Country	Patent, Application, or Publication Number	Title	Sections
38	Granted	US	8,934,546	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 8.3.1, 8.5.1, 8.5.2
39	Granted	US	8,934,551	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 8.3.1, 8.5.1, 8.5.2
40	Granted	US	8,094,729	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 7.3.2, 7.3.5, 7.4.6, 8.3.1, 8.5.1, 8.5.2
41	Granted	US	8,090,023	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.3.1, 8.5.1, 8.5.2
42	Granted	AU	2017265177	Adaptive Color Space Transform Coding	8.7.4.6
43	Filed	AU	2019253875	Adaptive Color Space Transform Coding	8.7.4.6
44	Granted	CN	ZL201480030487.6	Adaptive Color Space Transform Coding	8.7.4.6
45	Filed	CN	201910878499.9	Adaptive Color Space Transform Coding	8.7.4.6
46	Filed	CN	201910878487.6	Adaptive Color Space Transform Coding	8.7.4.6
47	Granted	JP	6553220	Adaptive Color Space Transform Coding	8.7.4.6
48	Filed	JP	2019-124720	Adaptive Color Space Transform Coding	8.7.4.6
49	Granted	KR	10-1952293	Adaptive Color Space Transform Coding	8.7.4.6
50	Granted	KR	10-2103815	Adaptive Color Space Transform Coding	8.7.4.6
51	Granted	TW	I634782	Adaptive Color Space Transform Coding	8.7.4.6
52	Filed	TW	107126378	Adaptive Color Space Transform Coding	8.7.4.6
53	Granted	US	10,602,143	Adaptive Color Space Transform Coding	8.7.4.6
54	Granted	AU	2014281169	Sample Adaptive Offset Precision Control	7.4.9.3; 7.3.8.3

No.	Status	Country	Patent, Application, or Publication Number	Title	Sections
55	Granted	AU	2018204551	Sample Adaptive Offset Precision Control	7.4.9.3; 7.3.8.3
56	Filed	EP	14730286.3	Sample Adaptive Offset Precision Control	7.4.9.3; 7.3.8.3
57	Granted	KR	10-1752401	Sample Adaptive Offset Precision Control	7.4.9.3; 7.3.8.3
58	Filed	KR	10-2020-7002686	Sample Adaptive Offset Precision Control	7.4.9.3; 7.3.8.3
59	Granted	TW	I558173	Sample Adaptive Offset Precision Control	7.4.9.3; 7.3.8.3
60	Granted	TW	I645713	Sample Adaptive Offset Precision Control	7.4.9.3; 7.3.8.3
61	Filed	US	14/289,082	Adaptive Syntax Grouping and Compression in Video Data Using a Default Value and an Exception Value	7.3.8.4
62	Filed	US	16/529,620	Region-Based Processing of Predicted Pixels	
63	Granted	US	10,349,064	Adaptive Chroma Downsampling and Color Space Conversion Techniques	
64	Granted	US	9,819,939	Method for Implementing a Quantizer in a Multimedia Compression and Encoding System	3.14, 3.28, 3.30, 3.44, 3.134, 6.3.1, 6.3.3, 7.3.7, 7.4.8, 8.7.1, 8.7.3
65	Granted	US	10,104,375	Method for Implementing a Quantizer in a Multimedia Compression and Encoding System	3.14, 3.28, 3.30, 3.44, 3.134, 6.3.1, 6.3.3, 7.3.7, 7.4.8, 8.7.1, 8.7.3
66	Granted	AT	1532746	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2

No.	Status	Country	Patent, Application, or Publication Number	Title	Sections
67	Granted	AT	2326019	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 7.4.2, 8.1.1, 8.3.1, E.3.1
68	Granted	AT	2328283	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
69	Granted	AT	2343829	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
70	Granted	AT	2276180	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
71	Granted	AU	2003256494	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 8.3.1, 8.5.1, 8.5.2
72	Granted	AU	2008201106	Method and Bitstream for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.4.2, 8.3.1
73	Granted	AU	2011202000	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 8.3.1, 8.5.1, 8.5.2
74	Granted	AU	2013204651	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 8.3.1, 8.5.1, 8.5.2

No.	Status	Country	Patent, Application, or Publication Number	Title	Sections
75	Granted	AU	2013204690	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.4.2, 8.3.1
76	Granted	AU	2013204743	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2.10, 7.3.5.1, 7.3.7.1, 7.3.7.5, 7.4.2.2, 7.4.2.4.1, 7.4.3.7, 7.4.6.1, 8.3.1, 8.3.2, 8.5.2.12
77	Granted	AU	2016202077	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 8.3.1, 8.5.1, 8.5.2
78	Granted	BE	1532746	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
79	Granted	BE	2326019	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 7.4.2, 8.1.1, 8.3.1, E.3.1
80	Granted	BE	2328283	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
81	Granted	BE	2343829	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
82	Granted	BE	2276180	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1

No.	Status	Country	Patent, Application, or Publication Number	Title	Sections
83	Granted	BR	PI0312659-5	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 8.3.1, 8.5.1, 8.5.2
84	Granted	BR	PI0318777-2	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 8.3.1, 8.5.1, 8.5.2
85	Granted	CA	2491741	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 8.3.1, 8.5.1, 8.5.2
86	Granted	CA	2629246	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.4.2, 8.3.1
87	Granted	CA	2820164	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 8.3.1, 8.5.1, 8.5.2
88	Granted	CA	2931419	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 8.3.1, 8.5.1, 8.5.2
89	Granted	CH	1532746	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
90	Granted	CH	2326019	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 7.4.2, 8.1.1, 8.3.1, E.3.1

No.	Status	Country	Patent, Application, or Publication Number	Title	Sections
91	Granted	CH	2328283	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
92	Granted	CH	2343829	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
93	Granted	CH	2276180	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
94	Granted	CN	ZL201210009457.X	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2.10, 7.3.5.1, 7.3.7.1, 7.3.7.5, 7.4.2.2, 7.4.2.4.1, 7.4.3.7, 7.4.6.1, 8.3.1, 8.3.2, 8.5.2.12
95	Granted	CZ	1532746	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
96	Granted	CZ	2326019	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 7.4.2, 8.1.1, 8.3.1, E.3.1
97	Granted	CZ	2328283	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
98	Granted	CZ	2343829	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2

No.	Status	Country	Patent, Application, or Publication Number	Title	Sections
99	Granted	CZ	2276180	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
100	Granted	DE	2343829	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
101	Granted	DE	2276180	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
102	Granted	DK	1532746	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
103	Granted	DK	2326019	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 7.4.2, 8.1.1, 8.3.1, E.3.1
104	Granted	DK	2328283	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
105	Granted	DK	2343829	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
106	Granted	DK	2276180	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1

No.	Status	Country	Patent, Application, or Publication Number	Title	Sections
107	Granted	EE	1532746	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
108	Granted	EE	2326019	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 7.4.2, 8.1.1, 8.3.1, E.3.1
109	Granted	EE	2328283	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
110	Granted	EE	2343829	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
111	Granted	EE	2276180	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
112	Granted	ES	1532746	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
113	Granted	ES	2326019	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 7.4.2, 8.1.1, 8.3.1, E.3.1
114	Granted	ES	2328283	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1

No.	Status	Country	Patent, Application, or Publication Number	Title	Sections
115	Granted	ES	2343829	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
116	Granted	ES	2276180	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
117	Granted	FI	1532746	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
118	Granted	FI	2326019	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 7.4.2, 8.1.1, 8.3.1, E.3.1
119	Granted	FI	2328283	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
120	Granted	FI	2343829	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
121	Granted	FI	2276180	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
122	Granted	FR	2343829	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2

No.	Status	Country	Patent, Application, or Publication Number	Title	Sections
123	Granted	FR	2276180	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
124	Granted	GB	2343829	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
125	Granted	GB	2276180	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
126	Granted	GR	2326019	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 7.4.2, 8.1.1, 8.3.1, E.3.1
127	Granted	GR	2328283	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
128	Granted	GR	2343829	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
129	Granted	GR	3079566	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
130	Granted	HK	1159875	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2

No.	Status	Country	Patent, Application, or Publication Number	Title	Sections
131	Granted	HU	1532746	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
132	Granted	HU	2326019	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 7.4.2, 8.1.1, 8.3.1, E.3.1
133	Granted	HU	2328283	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
134	Granted	HU	2343829	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
135	Granted	HU	2276180	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
136	Granted	IE	1532746	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
137	Granted	IE	2326019	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 7.4.2, 8.1.1, 8.3.1, E.3.1
138	Granted	IE	2328283	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1

No.	Status	Country	Patent, Application, or Publication Number	Title	Sections
139	Granted	IE	2343829	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
140	Granted	IE	2276180	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
141	Granted	IT	2343829	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
142	Granted	IT	2276180	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
143	Granted	JP	4620586	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2.10, 7.3.5.1, 7.3.7.1, 7.3.7.5, 7.4.2.2, 7.4.2.4.1, 7.4.3.7, 7.4.6.1, 8.3.1, 8.3.2, 8.5.2.12
144	Granted	JP	4676450	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2.10, 7.3.5.1, 7.3.7.1, 7.3.7.5, 7.4.2.2, 7.4.2.4.1, 7.4.3.7, 7.4.6.1, 8.3.1, 8.3.2, 8.5.2.12
145	Granted	KR	10-1005135	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.4.2, 8.3.1
146	Granted	NL	1532746	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2

No.	Status	Country	Patent, Application, or Publication Number	Title	Sections
147	Granted	NL	2326019	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 7.4.2, 8.1.1, 8.3.1, E.3.1
148	Granted	NL	2328283	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
149	Granted	NL	2343829	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
150	Granted	NL	2276180	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
151	Granted	NO	338810	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 7.3.2, 7.3.5, 7.4.2, 7.4.6
152	Granted	NO	341570	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.4.2, 8.3.1
153	Granted	NO	342829	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.4.2, 8.3.1
154	Granted	PT	1532746	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2

No.	Status	Country	Patent, Application, or Publication Number	Title	Sections
155	Granted	PT	2326019	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 7.4.2, 8.1.1, 8.3.1, E.3.1
156	Granted	PT	2328283	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
157	Granted	PT	2343829	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
158	Granted	PT	2276180	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
159	Granted	RO	1532746	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
160	Granted	RO	2326019	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 7.4.2, 8.1.1, 8.3.1, E.3.1
161	Granted	RO	2328283	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
162	Granted	RO	2343829	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2

No.	Status	Country	Patent, Application, or Publication Number	Title	Sections
163	Granted	RO	2276180	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
164	Granted	SE	1532746	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
165	Granted	SE	2326019	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 7.4.2, 8.1.1, 8.3.1, E.3.1
166	Granted	SE	2328283	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
167	Granted	SE	2343829	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
168	Granted	SE	2276180	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
169	Granted	SG	110332	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 8.3.1, 8.5.1, 8.5.2
170	Granted	SG	168406	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.4.2, 8.3.1

No.	Status	Country	Patent, Application, or Publication Number	Title	Sections
171	Granted	SG	179316	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 7.3.2, 7.3.5, 7.4.2, 7.4.6
172	Granted	SG	10201502256T	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 8.3.1, 8.5.1, 8.5.2
173	Granted	SG	10201607076U	Efficient Use of Storage in Encoding and Decoding Video Data Streams	3.14, 8.3.1, 8.5.1, 8.5.2
174	Granted	TR	1532746	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
175	Granted	TR	2326019	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 7.4.2, 8.1.1, 8.3.1, E.3.1
176	Granted	TR	2328283	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
177	Granted	TR	2343829	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
178	Granted	TR	2276180	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.81, 3.86, 7.3.2, 8.1.1, 8.3.1, E.3.1
179	Granted	US	7,088,776	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 7.3.2, 7.3.5, 7.4.2, 7.4.6

No.	Status	Country	Patent, Application, or Publication Number	Title	Sections
180	Granted	US	9,204,161	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 8.3.1, 8.5.1, 8.5.2
181	Granted	US	9,516,337	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.4.2, 8.3.1
182	Granted	US	9,838,707	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.4.2, 8.3.1
183	Granted	US	7,903,730	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 8.3.1, 8.5.1, 8.5.2
184	Granted	US	7,826,528	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.4.2, 8.3.1
185	Granted	US	7,668,240	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
186	Granted	US	8,737,483	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 7.3.2, 7.3.5, 7.4.2, 7.4.6
187	Granted	US	8,654,857	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 7.3.2, 7.3.5, 7.4.2, 7.4.6

No.	Status	Country	Patent, Application, or Publication Number	Title	Sections
188	Granted	US	10,154,277	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding	3.14, 3.86, 3.112, 7.3.2.10, 7.3.5.1, 7.3.7.1, 7.3.7.5, 7.4.2.2, 7.4.2.4.1, 7.4.3.7, 7.4.6.1, 8.3.1, 8.3.2, 8.5.2.12
189	Granted	US	7,548,584	Using Order Value for Computing Motion Vector	3.14, 8.3.1, 8.5.1, 8.5.2
190	Granted	US	6,728,315	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding with Reduced Requirements for Division Operations	3.14, 3.30, 8.3.1, 8.5.2
191	Granted	US	8,938,008	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding with Reduced Requirements for Division Operations	3.14, 8.5.1, 8.5.2
192	Granted	US	8,934,547	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding with Reduced Requirements for Division Operations	3.14, 8.3.1, 8.5.1, 8.5.2
193	Granted	US	8,953,693	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding with Reduced Requirements for Division Operations	3.14, 8.3.1, 8.5.1, 8.5.2

No.	Status	Country	Patent, Application, or Publication Number	Title	Sections
194	Granted	US	8,817,880	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding with Reduced Requirements for Division Operations	3.14, 8.3.1, 8.5.1, 8.5.2
195	Granted	US	8,837,603	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding with Reduced Requirements for Division Operations	3.14, 8.3.1, 8.5.1, 8.5.2
196	Granted	US	9,554,151	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding with Reduced Requirements For Division Operations	3.14, 8.3.1, 8.5.1, 8.5.2
197	Granted	US	8,077,779	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding with Reduced Requirements for Division Operations	3.14, 3.86, 7.3.2, 7.3.5, 7.4.6, 8.3.1, 8.5.1, 8.5.2
198	Granted	US	10,123,037	Method and Apparatus for Variable Accuracy Inter-Picture Timing Specification for Digital Video Encoding with Reduced Requirements for Division Operations	3.14, 8.3.1, 8.5.1, 8.5.2
199	Granted	BR	122017003527B1	Method and apparatus for variable accuracy inter-picture timing specification for digital video encoding	3.14, 3.86, 3.112, 6.3.1, 7.3.2.3, 7.3.5.1, 7.4.3.2, 7.4.3.3, 7.4.6.1, 8.1.1, 8.3.1, E.3.1

No.	Status	Country	Patent, Application, or Publication Number	Title	Sections
200	Granted	BR	122017003532B1	Method and apparatus for variable accuracy inter-picture timing specification for digital video encoding	3.14, 3.86, 3.112, 7.3.2.3, 7.3.5.1, 7.4.2.1, 7.4.3.2, 7.4.3.3, 7.4.6.1, 8.3.1, E.3.1
201	Granted	CN	1669234B	Method and apparatus for variable accuracy inter-picture timing specification for digital video encoding	3.14, 3.86, 3.112, 7.3.2.10, 7.3.7.1, 7.3.7.2, 7.4.2.2, 7.4.2.4.1, 7.4.3.2, 8.1.1, 8.5.2, 8.5.2.8, 8.5.2.12, E.3.1
202	Granted	CN	101262605B	Method and apparatus for variable accuracy inter-picture timing specification for digital video encoding	3.14, 3.86, 7.4.3.2, 8.1.1, 8.5.2.1, 8.5.2.8, 3.5.2.12, E.3.1
203	Granted	CN	102892005B	Method and apparatus for variable accuracy inter-picture timing specification for digital video encoding	3.14, 6.3.1, 7.3.2.3, 7.3.5.1, 7.4.3.2, 7.4.3.3, 7.4.6.1, 8.1.1, 8.3.1, E.3.1
204	Granted	CN	102892006B	Method and apparatus for variable accuracy inter-picture timing specification for digital video encoding	3.14, 3.86, 6.3.1, 7.3.2.3, 7.3.5.1, 7.4.3.2, 7.4.3.3, 7.4.6.1, 8.1.1, 8.3.1, E.3.1
205	Granted	CN	102420991B	Method and apparatus for variable accuracy inter-picture timing specification for digital video encoding	3.14, 3.112, 6.3.1, 7.3.2.3, 7.3.5.1, 7.4.3.2, 7.4.3.3, 7.4.6.1, 8.1.1, 8.3.1, E.3.1
206	Granted	CN	102420992B	Method and apparatus for variable accuracy inter-picture timing specification for digital video encoding	3.14, 3.112, 7.3.2.3, 7.4.2.4.2, 7.3.2.1, 8.3.1, E.3.1
207	Granted	CN	102420993B	Method and apparatus for variable accuracy inter-picture timing specification for digital video encoding	3.14, 3.86, 3.112, 6.3.1, 7.3.2.3, 7.3.2.10, 7.3.5.1, 7.4.2.4.1, 7.4.2.4.2, 7.4.3.2, 7.4.6.1, 8.1.1, E.3.1
208	Granted	DE	60334804D1	Method and apparatus for variable accuracy inter-picture timing specification for digital video encoding	3.14, 3.86, 3.112, 7.3.2, 7.3.5, 7.3.7, 7.4.2, 7.4.6, 8.5.1, 8.5.2
209	Granted	HK	1169535A1	Method and apparatus for variable accuracy inter-picture timing specification for digital video encoding	3.13, 3.86, 3.112, 6.3.1, 7.3.2.3, 7.3.5.1, 7.4.3.2, 7.4.3.3, 7.4.6.1, 8.1.1, 8.3.1, E.3.1

No.	Status	Country	Patent, Application, or Publication Number	Title	Sections
210	Granted	HK	1169536A1	Method and apparatus for variable accuracy inter-picture timing specification for digital video encoding	3.14, 3.112, 7.3.2.3, 7.4.2.1, 7.4.2.4.2, 7.4.3.2, 8.3.1, E.3.1
211	Granted	HK	1169537A1	Method and apparatus for variable accuracy inter-picture timing specification for digital video encoding	3.14, 3.86, 3.112, 6.3.1, 7.3.2.3, 7.3.5.1, 7.4.3.2, 7.4.3.3, 7.4.6.1, 8.1.1, E.3.1
212	Granted	HK	1181223A1	Method and apparatus for variable accuracy inter-picture timing specification for digital video encoding	3.14, 6.3.1, 7.3.2.3, 7.3.5.1, 7.4.3.2, 7.4.3.3, 7.4.6.1, 8.1.1, 8.3.1, E.3.1
213	Granted	HK	1181225A1	Method and apparatus for variable accuracy inter-picture timing specification for digital video encoding	3.14, 3.86, 6.3.1, 7.3.2.3, 7.3.5.1, 7.4.3.2, 7.4.3.3, 7.4.6.1, 8.1.1, 8.3.1, E.3.1
214	Granted	JP	5385233B2	Method and apparatus for variable accuracy inter-picture timing specification for digital video encoding	3.15, 3.86, 7.4.3.2, 7.3.2.3, 8.3.1, 8.5.2.1, 8.5.2.8, E.3.1
215	Granted	JP	5385251B2	Method and apparatus for variable accuracy inter-picture timing specification for digital video encoding	3.14, 3.86, 3.112, 7.3.2.3, 7.3.2.10, 7.3.7.1, 7.3.7.5, 7.4.2.1, 7.4.2.2, 7.4.2.4.1, 7.4.3.2, 8.3.1, 8.5.2.1, 8.5.2.8, 8.5.2.12, E.3.1
216	Granted	JP	5385414B2	Method and apparatus for variable accuracy inter-picture timing specification for digital video encoding	3.14, 3.86, 3.112, 7.3.2, 7.4.2, 8.3.1
217	Granted	US	8,630,339	Method and apparatus for variable accuracy inter-picture timing specification for digital video encoding	3.14, 3.86, 6.3.1, 7.3.2.3, 7.3.5.1, 7.4.6.1, 8.3.1
218	Granted	US	8,831,106	Method and apparatus for variable accuracy inter-picture timing specification for digital video encoding	3.14, 3.86, 3.112, 7.3.2.10, 7.3.7.1, 7.3.7.2, 7.4.2.2, 7.4.2.4.1, 7.4.3.2, 8.5.2.1, 8.5.2.8, 8.5.2.12, E.3.1
219	Granted	US	8,837,597	Method and apparatus for variable accuracy inter-picture timing specification for digital video encoding	3.14, 7.4.3.2, 8.5.2, 8.5.2.8, 8.5.2.12, E.3.1

No.	Status	Country	Patent, Application, or Publication Number	Title	Sections
220	Filed	AU	2020201584	Sample Adaptive Offset Precision Control	7.4.9.3; 7.3.8.3
221	Granted	AU	2017202576	Sample Adaptive Offset Precision Control	7.4.9.3; 7.3.8.3
222	Filed	AU	2020201212	Adaptive Color Space Transform Coding	8.7.4.6
223	Filed	AU	2020201214	Adaptive Color Space Transform Coding	8.7.4.6
224	Filed	CN	201910878490.8	Adaptive Color Space Transform Coding	8.7.4.6
225	Filed	CN	201910878470.0	Adaptive Color Space Transform Coding	8.7.4.6
226	Filed	KR	10-2020-7011144	Adaptive Color Space Transform Coding	8.7.4.6
227	Filed	KR	10-2020-7011145	Adaptive Color Space Transform Coding	8.7.4.6
228	Filed	US	16/822,969	Adaptive Color Space Transform Coding	8.7.4.6
229	Filed	US	16/823,064	Adaptive Color Space Transform Coding	8.7.4.6
230	Filed	US	16/807,879	Adaptive Color Space Transform Coding	8.7.4.6