Cty	Patent	Description	Cl. #	Sections
AT	185,663	Mismatch control	1	7.4.4.5, 7.4.5
AT	182243	Motion compensation prediction	8	3.137, 3.144, 3.146, 3.164, 3.165, 6.3.5, 6.3.6, 7.1, 7.3, 7.6.3, Fig. 7-2, 7-3, Tables 6-24, 9-1, 9-5, B.6, B.7
AT	289467	Shape coding	1	3.121, 6, 6.1.3.1, 6.1.3.7.1, Figs. 6-1, 6-2, 6-3, Tables 9-1, 9-5
AT	260,748*	VLC events including run & level	1, 10	0.5.4, 7, 7.1, 7.4.1.2, 7.4.2, 7.4.3.4, Tables B-16, B-17, B-23, Fig. 7-2
AT	160252	VLC events including run, level & end	1	3.230, 7, 7.3, 7.4.1.2, Figs. 7-2, 7-3, Tables B.17, 9-1, 9-5
BE	638,218	Mismatch control	1	7.4.4.5, 7.4.5
BE	0467040	Motion compensation prediction	8	3.137, 3.144, 3.146, 3.164, 3.165, 6.3.5, 6.3.6, 7.1, 7.3, 7.6.3, Fig. 7-2, 7-3, Tables 6-24, 9-1, 9-5, B.6, B.7
BE	940,995	Shape coding	1	3.121, 6, 6.1.3.1, 6.1.3.7.1, Figs. 6-1, 6-2, 6-3, Tables 9-1, 9-5
BE	630,547	VLC events including run, level & end	1	3.230, 7, 7.3, 7.4.1.2, Figs. 7-2, 7-3, Tables B.17, 9-1, 9-5
CH/LI	1,002,429	Time base	1	1, 6.25, 6.35
CH/LI	638,218	Mismatch control	1	7.4.4.5, 7.4.5
CH/LI	0467040	Motion compensation prediction	8	3.137, 3.144, 3.146, 3.164, 3.165, 6.3.5, 6.3.6, 7.1, 7.3, 7.6.3, Fig. 7-2, 7-3, Tables 6-24, 9-1, 9-5, B.6, B.7
CH/LI	940,995	Shape coding	1	3.121, 6, 6.1.3.1, 6.1.3.7.1, Figs. 6-1, 6-2, 6-3, Tables 9-1, 9-5
CH/LI	630,547	VLC events including run, level & end	1	3.230, 7, 7.3, 7.4.1.2, Figs. 7-2, 7-3, Tables B.17, 9-1, 9-5
CY	940,995	Shape coding	1	3.121, 6, 6.1.3.1, 6.1.3.7.1, Figs. 6-1, 6-2, 6-3, Tables 9-1, 9-5
DE	69634423.8	Binary shape decoding	1	3.12, 3.13, 6.2.5, 6.2.5.2, 6.2.5.3, 6.2.6, 6.2.6.1, 6.3.5, 6.3.3, 6.3.6.1, 7.5, 7.5.2.5, 7.5.2.5.3, Fig. 7-2, Table 6-16, 9-1, 9-5, B.31
DE	69127224	Broken_link	4	6.1.3.4, 6.1.3.5, 6.1.3.7, 6.2.4, 6.3.4
DE	69024235	B-VOP coding	1	Intro., 3.116, 3.133, 6.1.3.2, 6.1.3.3, 6.1.3.4,
DE	69030819	B-VOP decoding	1	Intro., 3.133, 6.1.3.4, 6.1.3.7, 7.1, 7.3, 7.4, Fig. 7-2
DE	69031045	B-VOP decoding	1	Intro., 6.1.3.4, 6.1.3.7, 6.2.5, 6.3.5, 7.1, 7.4, 7.4.1, 7.4.2, 7.4.4, 7.4.5, Figs. 7-2, 7-3, Table 6-20

Cty	Patent	Description	Cl. #	Sections
DE	69031107	B-VOPs	6	3.185, 6.1.3.4, 6.1.3.5, 6.1.3.7, 6.1.3.8, 7.3, 7.6, 7.6.7
DE	69624276	Data partitioning	4	6.3.7, 7.1, 7.4.1, 7.4.1.2, 7.4.1.3, Fig. 7-2, Table B-23
DE	69709189	DC/AC coefficient prediction	7	7.4, 7.4.2, 7.4.3.1, 7.4.3.2
DE	69709835	DC/AC coefficient prediction	1	7.4, 7.4.2, 7.4.3.1, 7.4.3.2
DE	69709912	DC/AC coefficient prediction	1	7.4, 7.4.2, 7.4.3.1, 7.4.3.2, Figs. 7.4(a)-(c)
DE	69709914	DC/AC coefficient prediction	1	7.4, 7.4.1, 7.4.2, 7.4.3, 7.4.3.1, 7.4.3.3, 7.4.4, Figs. 7-3, 7-5
DE	69805036.3	Frame display cycle	1	1, 3.106, 3.221, 6.3.3
DE	69810971	Frame display cycle	1	6.3.3, 6.3.5, 7
DE	69812190	Frame display cycle	1	6.2.3, 6.3.3
DE	69813311	Frame display cycle	1	3.14, 3.106, 3.221, 6.1, 6.1.3, 6.2.3, 6.2.5, 6.3.3, 6.3.5
DE	69815722	Frame display cycle	1	3.221, 6.1, 6.1.3.2, 6.1.3.4, 6.1.3.6, 6.3.3, 6.3.4, 6.3.5, Table 6-23
DE	59802096	Interpolation filtering	2	Intro., 7.6, 7.6.2.1, 7.6.2.2, 7.6.2.2.1, Figs. 7-18, V2-17, V2-18
DE	3855114*	Macroblock	1	3.146, 6.3.6, 6.3.6.2, 6.3.7, Annexes B.1, B.1.1, B.1.2, B.6, B.7
DE	69421135	Mismatch control	1	7.4.4.5, 7.4.5
DE	69131438.1	Motion compensation prediction	8	3.137, 3.144, 3.146, 3.164, 3.165, 6.3.5, 6.3.6, 7.1, 7.3, 7.6.3, Fig. 7-2, 7-3, Tables 6-24, 9-1, 9-5, B.6, B.7
DE	69229153	Motion vector range	1	Intro., 3.114 to 3.116, 6.3, 6.3.5, 6.3.6, 6.3.6.2, 7.6.3, Table B-12
DE	69721847.3	MPEG-4/H.263	1	6.2.3, 6.3.2, 6.3.3, 6.3.5, Tables 6-28, 6-29
DE	69738379.2	MPEG-4/H.263	1	5.1.3, 5.2, 5.3, 6.2.3, 6.2.5, 6.2.5.2, 6.3.3, 6.3.5, 6.3.5.2, Tables 6-28, 6-29, 9-1, 9-2, 9-4, 9-5, 9-6, 9-8
DE	69632705.8	Partial VOP temporal scalability	8	Intro., 3.14, 3.124, 3.137, 3.149, 3.221, 6.1.3, 6.2.3, 6.2.5, 6.3.3, 6.3.5, 7.5, 7.9, 7.9.1, 7.9.1.1,Table 9-5, Fig. 7-52
DE	69816342	Prediction decoding	1	Intro., 3.173, 3.175, 5.2.4, 6.1.3.9, 6.1, 6.2.1, 6.2.2, 6.2.5, 6.3.5, 7, 7.1, 7.2, 7.6.7, , Fig. 7-38

[†]Shows *illustrative* essential claims for each patent; other claims may also be essential

Cty	Patent	Description	Cl. #	Sections
DE	69817460	Prediction sample rounding	1	3.6, 3.94, 3.127, 3.143. 3.185, 6.2.3, 6.2.6, 6.2.6.2, 6.3.3, 6.3.5, 6.3.6.2, 7, 7.1, 7.6, 7.6.2, 7.6.2.1, 7.6.2.2, Figs. 7-1, 7-2, 7-18
DE	3769306*	P-VOP decoding	1	Intro., 3.95, 6, 7, 7.1, 7.3, Fig. 7-2, Table B-1
DE	69829783.0	Quantization matrix	1	1, 3.230, 6.2.3, 6.3.2, 6.3.3, 7, 7.4, 7.4.2, 7.4.4.1, 7.4.4.1.1, 7.4.4.1.2, Fig. 7-3, 7-4, 7-7, Tables 9-4, 9-8
DE	69910805	Random reproduction	2	6.2.3, 6.2.4, 6.3.3
DE	69833443	Random_accessible_vol	1	1, 6.1.2, 6.1.3, 6.2.3, 6.3.3, 7.2, 9.1, 9.2,
DE	69636150.7	Reversible VLC	1	3.214, 6.2.3, 6.3.3, 7.4.1.2, 7.4.1.3, Tables B.16, B.17, B.23, B.24, B.25
DE	59808075	SA-DCT	16	3.12, 3.13, 3.137, 6.3.3, 7, 7.4.5
DE	69027820	Saturation control	4	7, 7.1, 7.4.4, 7.4.4.1, 7.4.4.1.2, 7.4.4.2, 7.4.4.4, 7.4.5, Figs. 7-1, 7-2, 7-3, 7-7, Tables B-13, B-14
DE	69923725	Shape coding	1	3.121, 6, 6.1.3.1, 6.1.3.7.1, Figs. 6-1, 6-2, 6-3, Tables 9-1, 9-5
DE	59802376	Shape coding of B-VOPs	1	Intro., 1, 3.12, 6.1.3.5, 6.3.5.3, 7, 7.5.2.1.2, 7.5, Table 6-30
DE	59801516	Shape-adaptive transforms (SA-DCT, inverse SA-DCT)	1	3.12, 3.123, 3.124, 3.137, 3.157, 6.3.3, 7.3, 7.4, 7.4.5, 9.1, 9.2, Annex A.3, A.4, Table 9-2, Fig. 7-3
DE	3767919*	Skipped Blocks	1	Intro., 6.1.3, 6.1.3.1, 6.1.3.8, 6.1.3.9, 6.2.6, 6.3.6, 7.6.3, Tables B-1, B-2, B-8 to B-11
DE	69620932	Subframe timing	1	3.106, 3.137, 3.221, 6.2.5, 6.2.5.2, 6.3.5
DE	69615948.1	Temporal scalability	7	1, 6.3.3, 7.5, 7.5.1, 7.5.1.2, 7.9, 7.9.1, Fig. 7-52, Tables 6-22, 9-1
DE	69733007.9	Temporal scalability	3	Intro., 3.174, 3.202, 6.2.3, 6.3.3, 7.9.1, 7.9.1.1, 7.9.1.2, 7.9.1.3, 7.9.1.3.2, 7.9.1.3.3, 7.9.1.3.4, 7.9.1.3.5, Fig. 23
DE	59804203	Time base	1	1, 6.25, 6.35
DE	69704481	Time base	1	3.221, 6.2.5, 6.2.5.2, 6.3.5, 7.7.2.2
DE	69735028	Upsampling	1	6.3.5, 7, 7.3, 7.4, 7.4.6, Figs. 7-1, 7-3, 7-8, Table 9-2
DE	69738264.8	Upsampling	4	6.3.5, 7.1, 7.4, 7.4.6, 7.4.6.2, 9.2, Figs. 7-2, 7-3, 7-8, 7-10
DE	69720198	Upsampling	1	7.5, 7.5.2.5.3, 9.1, Tables 9-1, 9-5, Figs. 7-16, 7-17

Cty	Patent	Description	Cl. #	Sections
DE	3874703	Variable transmission rate	11	7.9.1.1, Fig. 7-53
DE	3855203	VLC escape coding	5	Intro., 7.4, 7.4.1, 7.4.1.2, 7.4.1.3, Tables B-16 to B-18, B-23 to B-25
DE	69619002	VLC escape coding	1	6.2.5, 6.2.5.2, 6.2.5.3, 6.3.3, 6.3.6, 7.1, 7.2, 7.3, Fig. 7-2, Tables B-8 to B-11
DE	3750206*	VLC events including run & level	1, 10	0.5.4, 7, 7.1, 7.4.1.2, 7.4.2, 7.4.3.4, Tables B-16, B.17, B-23, Fig. 7-2
DE	69315203	VLC events including run, level & end	1	3.230, 7, 7.3, 7.4.1.2, Figs. 7-2, 7-3, Tables B.17, 9-1, 9-5
DE	69434369	VLC table selection	5	6.3, 6.3.5, 6.3.6, 7, 7.4.1.4, 7.4.4, Tables 6-25, 6-32, B-1, B-6, B-7, B-13 to B-15, B-20, Fig. 7-103
DE	69715815	VLC/Escape code decoding	1	3.5, 7.4, 7.4.1, 7.4.1.2, 7.4.1.3, Table B.16, B.17, B.19, B.20, B.23
DE	69720558	VLC/Escape code decoding	1	3.5, 7.4, 7.4.1, 7.4.1.2, 7.4.1.3, Table B.16, B.17, B.21 to B.23
DE	69724841	VLC/Escape code decoding	1	7.4, 7.4.1, 7.4.1.1, 7.4.1.2, 7.4.1.3, Fig. 7-3, Tables B.16, B.17, B.19, B.20, B.23
DE	69735679.5	VLC/Escape code decoding	1	7, 7.4.1, 7.4.1.1, 7.4.1.2, 7.4.1.3, 7.4.2, Table B.16, B.17, B.18, B.23, B.24, B.25
DE	69735680.9	VLC/Escape code decoding	1	7, 7.4.1, 7.4.1.1, 7.4.1.2, 7.4.1.3, 7.4.2, Table B.16, B.17, B.18, B.19, B.20, B.23, B.24, B.25
DE	69109346	VOP coding types	1	1, 3.96, 3.116, 3.161, 3.6, 6.1.3.5, 6.2.5, 6.3.5, Table 6-24
DE	69738035.1	VOP time base	1	6.2, 6.2.3, 6.2.4, 6.3.4, 6.3.5, Tables 6-23, 9-1, 9-5
DE	69822751	VOP time code	8	6.2.5, 6.2.5.2, 6.2.5.3, 6.3.5, 9.1, 9.2, Table 9-1
DK	638,218	Mismatch control	1	7.4.4.5, 7.4.5
DK	0467040	Motion compensation prediction	8	3.137, 3.144, 3.146, 3.164, 3.165, 6.3.5, 6.3.6, 7.1, 7.3, 7.6.3, Fig. 7-2, 7-3, Tables 6-24, 9-1, 9-5, B.6, B.7
DK	940,995	Shape coding	1	3.121, 6, 6.1.3.1, 6.1.3.7.1, Figs. 6-1, 6-2, 6-3, Tables 9-1, 9-5
DK	1,002,429	Time base	1	1, 6.25, 6.35
DK	630,547	VLC events including run, level & end	1	3.230, 7, 7.3, 7.4.1.2, Figs. 7-2, 7-3, Tables B.17, 9-1, 9-5
DK	443,676	VOP coding types	1	1, 3.96, 3.116, 3.161, 3.6, 6.1.3.5, 6.2.5, 6.3.5, Table 6-24

[†]Shows *illustrative* essential claims for each patent; other claims may also be essential

Cty	Patent	Description	Cl. #	Sections
ES	2170744	DC/AC coefficient prediction	1	7.4, 7.4.2, 7.4.3.1, 7.4.3.2, Figs. 7.4(a)-(c)
ES	2170745	DC/AC coefficient prediction	1	7.4, 7.4.1, 7.4.2, 7.4.3, 7.4.3.1, 7.4.3.3, 7.4.4, Figs. 7-3, 7-5
ES	2,170,954	DC/AC coefficient prediction	1	7.4, 7.4.2, 7.4.3.1, 7.4.3.2
ES	2171377	DC/AC coefficient prediction	7	7.4, 7.4.2, 7.4.3.1, 7.4.3.2
ES	914,008	Frame display cycle	1	1, 3.106, 3.221, 6.3.3
ES	2187487	Frame display cycle	1	6.3.3, 6.3.5, 7
ES	2,188,572	Frame display cycle	1	6.2.3, 6.3.3
ES	2195966	Frame display cycle	1	3.14, 3.106, 3.221, 6.1, 6.1.3, 6.2.3, 6.2.5, 6.3.3, 6.3.5
ES	2200998	Frame display cycle	1	3.221, 6.1, 6.1.3.2, 6.1.3.4, 6.1.3.6, 6.3.3, 6.3.4, 6.3.5, Table 6-23
ES	2,137,358	Mismatch control	1	7.4.4.5, 7.4.5
ES	0467040	Motion compensation prediction	8	3.137, 3.144, 3.146, 3.164, 3.165, 6.3.5, 6.3.6, 7.1, 7.3, 7.6.3, Fig. 7-2, 7-3, Tables 6-24, 9-1, 9-5, B.6, B.7
ES	2203383	Prediction decoding	1	Intro., 3.173, 3.175, 5.2.4, 6.1.3.9, 6.1, 6.2.1, 6.2.2, 6.2.5, 6.3.5, 7, 7.1, 7.2, 7.6.7, , Fig. 7-38
ES	2205323	Prediction sample rounding	1	3.6, 3.94, 3.127, 3.143. 3.185, 6.2.3, 6.2.6, 6.2.6.2, 6.3.3, 6.3.5, 6.3.6.2, 7, 7.1, 7.6, 7.6.2, 7.6.2.1, 7.6.2.2, Figs. 7-1, 7-2, 7-18
ES	1113672	Quantization matrix	1	1, 3.230, 6.2.3, 6.3.2, 6.3.3, 7, 7.4, 7.4.2, 7.4.4.1, 7.4.4.1.1, 7.4.4.1.2, Fig. 7-3, 7-4, 7-7, Tables 9-4, 9-8
ES	2204777	Random reproduction	2	6.2.3, 6.2.4, 6.3.3
ES	2,198,058	SA-DCT	16	3.12, 3.13, 3.137, 6.3.3, 7, 7.4.5
ES	2236979	Shape coding	1	3.121, 6, 6.1.3.1, 6.1.3.7.1, Figs. 6-1, 6-2, 6-3, Tables 9-1, 9-5
ES	2164412	Shape-adaptive transforms (SA-DCT, inverse SA-DCT)	1	3.12, 3.123, 3.124, 3.137, 3.157, 6.3.3, 7.3, 7.4, 7.4.5, 9.1, 9.2, Annex A.3, A.4, Table 9-2, Fig. 7-3
ES	880,286	Temporal scalability	3	Intro., 3.174, 3.202, 6.2.3, 6.3.3, 7.9.1, 7.9.1.1, 7.9.1.2, 7.9.1.3, 7.9.1.3.2, 7.9.1.3.3, 7.9.1.3.4, 7.9.1.3.5, Fig. 23
ES	1,002,429	Time base	1	1, 6.25, 6.35

[†]Shows *illustrative* essential claims for each patent; other claims may also be essential

Cty	Patent	Description	Cl. #	Sections
ES	2,158,570	Time base	1	3.221, 6.2.5, 6.2.5.2, 6.3.5, 7.7.2.2
ES	2111152	VLC events including run, level & end	1	3.230, 7, 7.3, 7.4.1.2, Figs. 7-2, 7-3, Tables B.17, 9-1, 9-5
ES	1343330	VOP time base	1	6.2, 6.2.3, 6.2.4, 6.3.4, 6.3.5, Tables 6-23, 9-1, 9-5
FI	884,912	Prediction sample rounding	1	3.6, 3.94, 3.127, 3.143. 3.185, 6.2.3, 6.2.6, 6.2.6.2, 6.3.3, 6.3.5, 6.3.6.2, 7, 7.1, 7.6, 7.6.2, 7.6.2.1, 7.6.2.2, Figs. 7-1, 7-2, 7-18
FI	1026899	Random_accessible_vol	1	1, 6.1.2, 6.1.3, 6.2.3, 6.3.3, 7.2, 9.1, 9.2,
FI	98,421	Saturation control	4	7, 7.1, 7.4.4, 7.4.4.1, 7.4.4.1.2, 7.4.4.2, 7.4.4.4, 7.4.5, Figs. 7-1, 7-2, 7-3, 7-7, Tables B-13, B-14
FI	940,995	Shape coding	1	3.121, 6, 6.1.3.1, 6.1.3.7.1, Figs. 6-1, 6-2, 6-3, Tables 9-1, 9-5
FI	1,025,706	Shape coding of B-VOPs	1	Intro., 1, 3.12, 6.1.3.5, 6.3.5.3, 7, 7.5.2.1.2, 7.5, Table 6-30
FI	1,002,429	Time base	1	1, 6.25, 6.35
FR	961,498	Binary shape decoding	1	3.12, 3.13, 6.2.5, 6.2.5.2, 6.2.5.3, 6.2.6, 6.2.6.1, 6.3.5, 6.3.3, 6.3.6.1, 7.5, 7.5.2.5, 7.5.2.5.3, Fig. 7-2, Table 6-16, 9-1, 9-5, B.31
FR	456,433	Broken_link	4	6.1.3.4, 6.1.3.5, 6.1.3.7, 6.2.4, 6.3.4
FR	379,217	B-VOP coding	1	Intro., 3.116, 3.133, 6.1.3.2, 6.1.3.3, 6.1.3.4,
FR	572,046	B-VOP decoding	1	Intro., 3.133, 6.1.3.4, 6.1.3.7, 7.1, 7.3, 7.4, Fig. 7-2
FR	584,840	B-VOP decoding	1	Intro., 6.1.3.4, 6.1.3.7, 6.2.5, 6.3.5, 7.1, 7.4, 7.4.1, 7.4.2, 7.4.4, 7.4.5, Figs. 7-2, 7-3, Table 6-20
FR	424,026	B-VOPs	6	3.185, 6.1.3.4, 6.1.3.5, 6.1.3.7, 6.1.3.8, 7.3, 7.6, 7.6.7
FR	732,855	Data partitioning	4	6.3.7, 7.1, 7.4.1, 7.4.1.2, 7.4.1.3, Fig. 7-2, Table B-23
FR	843,484	DC/AC coefficient prediction	1	7.4, 7.4.2, 7.4.3.1, 7.4.3.2
FR	1,096,801	DC/AC coefficient prediction	1	7.4, 7.4.2, 7.4.3.1, 7.4.3.2, Figs. 7.4(a)-(c)
FR	1,096,802	DC/AC coefficient prediction	7	7.4, 7.4.2, 7.4.3.1, 7.4.3.2
FR	1098528	DC/AC coefficient prediction	1	7.4, 7.4.1, 7.4.2, 7.4.3, 7.4.3.1, 7.4.3.3, 7.4.4, Figs. 7-3, 7-5

Cty	Patent	Description	Cl. #	Sections
FR	914,008	Frame display cycle	1	1, 3.106, 3.221, 6.3.3
FR	1,117,258	Frame display cycle	1	6.3.3, 6.3.5, 7
FR	1,117,259	Frame display cycle	1	6.2.3, 6.3.3
FR	1,117,260	Frame display cycle	1	3.14, 3.106, 3.221, 6.1, 6.1.3, 6.2.3, 6.2.5, 6.3.3, 6.3.5
FR	1,117,261	Frame display cycle	1	3.221, 6.1, 6.1.3.2, 6.1.3.4, 6.1.3.6, 6.3.3, 6.3.4, 6.3.5, Table 6-23
FR	1,025,704	Interpolation filtering	2	Intro., 7.6, 7.6.2.1, 7.6.2.2, 7.6.2.2.1, Figs. 7-18, V2-17, V2-18
FR	290,085*	Macroblock	1	3.146, 6.3.6, 6.3.6.2, 6.3.7, Annexes B.1, B.1.1, B.1.2, B.6, B.7
FR	638,218	Mismatch control	1	7.4.4.5, 7.4.5
FR	0467040	Motion compensation prediction	8	3.137, 3.144, 3.146, 3.164, 3.165, 6.3.5, 6.3.6, 7.1, 7.3, 7.6.3, Fig. 7-2, 7-3, Tables 6-24, 9-1, 9-5, B.6, B.7
FR	527,011	Motion vector range	1	Intro., 3.114 to 3.116, 6.3, 6.3.5, 6.3.6, 6.3.6.2, 7.6.3, Table B-12
FR	1032219	MPEG-4/H.263	1	6.2.3, 6.3.2, 6.3.3, 6.3.5, Tables 6-28, 6-29
FR	1328125	MPEG-4/H.263	1	5.1.3, 5.2, 5.3, 6.2.3, 6.2.5, 6.2.5.2, 6.3.3, 6.3.5, 6.3.5.2, Tables 6-28, 6-29, 9-1, 9-2, 9-4, 9-5, 9-6, 9-8
FR	731,608	Partial VOP temporal scalability	8	Intro., 3.14, 3.124, 3.137, 3.149, 3.221, 6.1.3, 6.2.3, 6.2.5, 6.3.3, 6.3.5, 7.5, 7.9, 7.9.1, 7.9.1.1,Table 9-5, Fig. 7-52
FR	1065883	Prediction decoding	1	Intro., 3.173, 3.175, 5.2.4, 6.1.3.9, 6.1, 6.2.1, 6.2.2, 6.2.5, 6.3.5, 7, 7.1, 7.2, 7.6.7, , Fig. 7-38
FR	884,912	Prediction sample rounding	1	3.6, 3.94, 3.127, 3.143. 3.185, 6.2.3, 6.2.6, 6.2.6.2, 6.3.3, 6.3.5, 6.3.6.2, 7, 7.1, 7.6, 7.6.2, 7.6.2.1, 7.6.2.2, Figs. 7-1, 7-2, 7-18
FR	279,053*	P-VOP decoding	1	Intro., 3.95, 6, 7, 7.1, 7.3, Fig. 7-2, Table B-1
FR	1113672	Quantization matrix	1	1, 3.230, 6.2.3, 6.3.2, 6.3.3, 7, 7.4, 7.4.2, 7.4.4.1, 7.4.4.1.1, 7.4.4.1.2, Fig. 7-3, 7-4, 7-7, Tables 9-4, 9-8
FR	1,119,199	Random reproduction	2	6.2.3, 6.2.4, 6.3.3
FR	1026899	Random_accessible_vol	1	1, 6.1.2, 6.1.3, 6.2.3, 6.3.3, 7.2, 9.1, 9.2,
FR	1,267,582	Reversible VLC	1	3.214, 6.2.3, 6.3.3, 7.4.1.2, 7.4.1.3, Tables B.16, B.17, B.23, B.24, B.25

[†]Shows *illustrative* essential claims for each patent; other claims may also be essential

Cty	Patent	Description	Cl. #	Sections
FR	981,909	SA-DCT	16	3.12, 3.13, 3.137, 6.3.3, 7, 7.4.5
FR	414,193	Saturation control	4	7, 7.1, 7.4.4, 7.4.4.1, 7.4.4.1.2, 7.4.4.2, 7.4.4.4, 7.4.5, Figs. 7-1, 7-2, 7-3, 7-7, Tables B-13, B-14
FR	940,995	Shape coding	1	3.121, 6, 6.1.3.1, 6.1.3.7.1, Figs. 6-1, 6-2, 6-3, Tables 9-1, 9-5
FR	1,025,706	Shape coding of B-VOPs	1	Intro., 1, 3.12, 6.1.3.5, 6.3.5.3, 7, 7.5.2.1.2, 7.5, Table 6-30
FR	956,703	Shape-adaptive transforms (SA-DCT, inverse SA-DCT)	1	3.12, 3.123, 3.124, 3.137, 3.157, 6.3.3, 7.3, 7.4, 7.4.5, 9.1, 9.2, Annex A.3, A.4, Table 9-2, Fig. 7-3
FR	2599577*	Skipped Blocks	1	Intro., 6.1.3, 6.1.3.1, 6.1.3.8, 6.1.3.9, 6.2.6, 6.3.6, 7.6.3, Tables B-1, B-2, B-8 to B-11
FR	725,545	Subframe timing	1	3.106, 3.137, 3.221, 6.2.5, 6.2.5.2, 6.3.5
FR	753,970	Temporal scalability	7	1, 6.3.3, 7.5, 7.5.1, 7.5.1.2, 7.9, 7.9.1, Fig. 7-52,Tables 6-22, 9-1
FR	880,286	Temporal scalability	3	Intro., 3.174, 3.202, 6.2.3, 6.3.3, 7.9.1, 7.9.1.1, 7.9.1.2, 7.9.1.3, 7.9.1.3.2, 7.9.1.3.3, 7.9.1.3.4, 7.9.1.3.5, Fig. 23
FR	864,228	Time base	1	3.221, 6.2.5, 6.2.5.2, 6.3.5, 7.7.2.2
FR	1,002,429	Time base	1	1, 6.25, 6.35
FR	1,455,536	Upsampling	1	6.3.5, 7, 7.3, 7.4, 7.4.6, Figs. 7-1, 7-3, 7-8, Table 9-2
FR	1,648,176	Upsampling	4	6.3.5, 7.1, 7.4, 7.4.6, 7.4.6.2, 9.2, Figs. 7-2, 7-3, 7-8, 7-10
FR	884,693	Upsampling	1	7.5, 7.5.2.5.3, 9.1, Tables 9-1, 9-5, Figs. 7-16, 7-17
FR	395,709	VLC escape coding	5	Intro., 7.4, 7.4.1, 7.4.1.2, 7.4.1.3, Tables B-16 to B-18, B-23 to B-25
FR	731,614	VLC escape coding	1	6.2.5, 6.2.5.2, 6.2.5.3, 6.3.3, 6.3.6, 7.1, 7.2, 7.3, Fig. 7-2, Tables B-8 to B-11
FR	260,748*	VLC events including run & level	1, 10	0.5.4, 7, 7.1, 7.4.1.2, 7.4.2, 7.4.3.4, Tables B-16, B-17, B-23, Fig. 7-2
FR	630,547	VLC events including run, level & end	1	3.230, 7, 7.3, 7.4.1.2, Figs. 7-2, 7-3, Tables B.17, 9-1, 9-5
FR	987,900	VLC table selection	5	6.3, 6.3.5, 6.3.6, 7, 7.4.1.4, 7.4.4, Tables 6-25, 6-32, B-1, B-6, B-7, B-13 to B-15, B-20, Fig. 7-103
FR	873,018	VLC/Escape code decoding	1	3.5, 7.4, 7.4.1, 7.4.1.2, 7.4.1.3, Table B.16, B.17, B.19, B.20, B.23

Cty	Patent	Description	Cl. #	Sections
FR	1,100,272	VLC/Escape code decoding	1	3.5, 7.4, 7.4.1, 7.4.1.2, 7.4.1.3, Table B.16, B.17, B.21 to B.23
FR	1100273	VLC/Escape code decoding	1	7, 7.4.1, 7.4.1.1, 7.4.1.2, 7.4.1.3, 7.4.2, Table B.16, B.17, B.18, B.23, B.24, B.25
FR	1100274	VLC/Escape code decoding	1	7, 7.4.1, 7.4.1.1, 7.4.1.2, 7.4.1.3, 7.4.2, Table B.16, B.17, B.18, B.19, B.20, B.23, B.24, B.25
FR	1,104,972	VLC/Escape code decoding	1	7.4, 7.4.1, 7.4.1.1, 7.4.1.2, 7.4.1.3, Fig. 7-3, Tables B.16, B.17, B.19, B.20, B.23
FR	443,676	VOP coding types	1	1, 3.96, 3.116, 3.161, 3.6, 6.1.3.5, 6.2.5, 6.3.5, Table 6-24
FR	1343330	VOP time base	1	6.2, 6.2.3, 6.2.4, 6.3.4, 6.3.5, Tables 6-23, 9-1, 9-5
FR	909,099	VOP time code	8	6.2.5, 6.2.5.2, 6.2.5.3, 6.3.5, 9.1, 9.2, Table 9-1
GB	961,498	Binary shape decoding	1	3.12, 3.13, 6.2.5, 6.2.5.2, 6.2.5.3, 6.2.6, 6.2.6.1, 6.3.5, 6.3.3, 6.3.6.1, 7.5, 7.5.2.5, 7.5.2.5.3, Fig. 7-2, Table 6-16, 9-1, 9-5, B.31
GB	456,433	Broken_link	4	6.1.3.4, 6.1.3.5, 6.1.3.7, 6.2.4, 6.3.4
GB	379,217	B-VOP coding	1	Intro., 3.116, 3.133, 6.1.3.2, 6.1.3.3, 6.1.3.4,
GB	572,046	B-VOP decoding	1	Intro., 3.133, 6.1.3.4, 6.1.3.7, 7.1, 7.3, 7.4, Fig. 7-2
GB	584,840	B-VOP decoding	1	Intro., 6.1.3.4, 6.1.3.7, 6.2.5, 6.3.5, 7.1, 7.4, 7.4.1, 7.4.2, 7.4.4, 7.4.5, Figs. 7-2, 7-3, Table 6-20
GB	424,026	B-VOPs	6	3.185, 6.1.3.4, 6.1.3.5, 6.1.3.7, 6.1.3.8, 7.3, 7.6, 7.6.7
GB	732,855	Data partitioning	4	6.3.7, 7.1, 7.4.1, 7.4.1.2, 7.4.1.3, Fig. 7-2, Table B-23
GB	843,484	DC/AC coefficient prediction	1	7.4, 7.4.2, 7.4.3.1, 7.4.3.2
GB	1,096,801	DC/AC coefficient prediction	1	7.4, 7.4.2, 7.4.3.1, 7.4.3.2, Figs. 7.4(a)-(c)
GB	1,096,802	DC/AC coefficient prediction	7	7.4, 7.4.2, 7.4.3.1, 7.4.3.2
GB	1098528	DC/AC coefficient prediction	1	7.4, 7.4.1, 7.4.2, 7.4.3, 7.4.3.1, 7.4.3.3, 7.4.4, Figs. 7-3, 7-5
GB	914,008	Frame display cycle	1	1, 3.106, 3.221, 6.3.3
GB	1,117,258	Frame display cycle	1	6.3.3, 6.3.5, 7

Cty	Patent	Description	Cl. #	Sections
GB	1,117,259	Frame display cycle	1	6.2.3, 6.3.3
GB	1,117,260	Frame display cycle	1	3.14, 3.106, 3.221, 6.1, 6.1.3, 6.2.3, 6.2.5, 6.3.3, 6.3.5
GB	1,117,261	Frame display cycle	1	3.221, 6.1, 6.1.3.2, 6.1.3.4, 6.1.3.6, 6.3.3, 6.3.4, 6.3.5, Table 6-23
GB	1,025,704	Interpolation filtering	2	Intro., 7.6, 7.6.2.1, 7.6.2.2, 7.6.2.2.1, Figs. 7-18, V2-17, V2-18
GB	290,085*	Macroblock	1	3.146, 6.3.6, 6.3.6.2, 6.3.7, Annexes B.1, B.1.1, B.1.2, B.6, B.7
GB	448,590	Mismatch control	1	7.3, 7.4, 7.4.4.5, Figs. 7-2, 7-3, 7-4, Table 9-1
GB	638,218	Mismatch control	1	7.4.4.5, 7.4.5
GB	0467040	Motion compensation prediction	8	3.137, 3.144, 3.146, 3.164, 3.165, 6.3.5, 6.3.6, 7.1, 7.3, 7.6.3, Fig. 7-2, 7-3, Tables 6-24, 9-1, 9-5, B.6, B.7
GB	527,011	Motion vector range	1	Intro., 3.114 to 3.116, 6.3, 6.3.5, 6.3.6, 6.3.6.2, 7.6.3, Table B-12
GB	1032219	MPEG-4/H.263	1	6.2.3, 6.3.2, 6.3.3, 6.3.5, Tables 6-28, 6-29
GB	1328125	MPEG-4/H.263	1	5.1.3, 5.2, 5.3, 6.2.3, 6.2.5, 6.2.5.2, 6.3.3, 6.3.5, 6.3.5.2, Tables 6-28, 6-29, 9-1, 9-2, 9-4, 9-5, 9-6, 9-8
GB	731,608	Partial VOP temporal scalability	8	Intro., 3.14, 3.124, 3.137, 3.149, 3.221, 6.1.3, 6.2.3, 6.2.5, 6.3.3, 6.3.5, 7.5, 7.9, 7.9.1, 7.9.1.1, Table 9-5, Fig. 7-52
GB	1065883	Prediction decoding	1	Intro., 3.173, 3.175, 5.2.4, 6.1.3.9, 6.1, 6.2.1, 6.2.2, 6.2.5, 6.3.5, 7, 7.1, 7.2, 7.6.7, , Fig. 7-38
GB	884,912	Prediction sample rounding	1	3.6, 3.94, 3.127, 3.143. 3.185, 6.2.3, 6.2.6, 6.2.6.2, 6.3.3, 6.3.5, 6.3.6.2, 7, 7.1, 7.6, 7.6.2, 7.6.2.1, 7.6.2.2, Figs. 7-1, 7-2, 7-18
GB	279,053*	P-VOP decoding	1	Intro., 3.95, 6, 7, 7.1, 7.3, Fig. 7-2, Table B-1
GB	1113672	Quantization matrix	1	1, 3.230, 6.2.3, 6.3.2, 6.3.3, 7, 7.4, 7.4.2, 7.4.4.1, 7.4.4.1.1, 7.4.4.1.2, Fig. 7-3, 7-4, 7-7, Tables 9-4, 9-8
GB	1,119,199	Random reproduction	2	6.2.3, 6.2.4, 6.3.3
GB	1026899	Random_accessible_vol	1	1, 6.1.2, 6.1.3, 6.2.3, 6.3.3, 7.2, 9.1, 9.2,
GB	1,267,582	Reversible VLC	1	3.214, 6.2.3, 6.3.3, 7.4.1.2, 7.4.1.3, Tables B.16, B.17, B.23, B.24, B.25
GB	981,909	SA-DCT	16	3.12, 3.13, 3.137, 6.3.3, 7, 7.4.5

[†]Shows *illustrative* essential claims for each patent; other claims may also be essential

Cty	Patent	Description	Cl. #	Sections
GB	414,193	Saturation control	4	7, 7.1, 7.4.4, 7.4.4.1, 7.4.4.1.2, 7.4.4.2, 7.4.4.4, 7.4.5, Figs. 7-1, 7-2, 7-3, 7-7, Tables B-13, B-14
GB	940,995	Shape coding	1	3.121, 6, 6.1.3.1, 6.1.3.7.1, Figs. 6-1, 6-2, 6-3, Tables 9-1, 9-5
GB	1,025,706	Shape coding of B-VOPs	1	Intro., 1, 3.12, 6.1.3.5, 6.3.5.3, 7, 7.5.2.1.2, 7.5, Table 6-30
GB	956,703	Shape-adaptive transforms (SA-DCT, inverse SA-DCT)	1	3.12, 3.123, 3.124, 3.137, 3.157, 6.3.3, 7.3, 7.4, 7.4.5, 9.1, 9.2, Annex A.3, A.4, Table 9-2, Fig. 7-3
GB	248,711*	Skipped Blocks	1	Intro., 6.1.3, 6.1.3.1, 6.1.3.8, 6.1.3.9, 6.2.6, 6.3.6, 7.6.3, Tables B-1, B-2, B-8 to B-11
GB	725,545	Subframe timing	1	3.106, 3.137, 3.221, 6.2.5, 6.2.5.2, 6.3.5
GB	753,970	Temporal scalability	7	1, 6.3.3, 7.5, 7.5.1, 7.5.1.2, 7.9, 7.9.1, Fig. 7-52, Tables 6-22, 9-1
GB	880,286	Temporal scalability	3	Intro., 3.174, 3.202, 6.2.3, 6.3.3, 7.9.1, 7.9.1.1, 7.9.1.2, 7.9.1.3, 7.9.1.3.2, 7.9.1.3.3, 7.9.1.3.4, 7.9.1.3.5, Fig. 23
GB	864,228	Time base	1	3.221, 6.2.5, 6.2.5.2, 6.3.5, 7.7.2.2
GB	1,002,429	Time base	1	1, 6.25, 6.35
GB	1,455,536	Upsampling	1	6.3.5, 7, 7.3, 7.4, 7.4.6, Figs. 7-1, 7-3, 7-8, Table 9-2
GB	1,648,176	Upsampling	4	6.3.5, 7.1, 7.4, 7.4.6, 7.4.6.2, 9.2, Figs. 7-2, 7-3, 7-8, 7-10
GB	884,693	Upsampling	1	7.5, 7.5.2.5.3, 9.1, Tables 9-1, 9-5, Figs. 7-16, 7-17
GB	321318	Variable transmission rate	11	7.9.1.1, Fig. 7-53
GB	395,709	VLC escape coding	5	Intro., 7.4, 7.4.1, 7.4.1.2, 7.4.1.3, Tables B-16 to B-18, B-23 to B-25
GB	731,614	VLC escape coding	1	6.2.5, 6.2.5.2, 6.2.5.3, 6.3.3, 6.3.6, 7.1, 7.2, 7.3, Fig. 7-2, Tables B-8 to B-11
GB	260,748*	VLC events including run & level	1, 10	0.5.4, 7, 7.1, 7.4.1.2, 7.4.2, 7.4.3.4, Tables B-16, B-17, B-23, Fig. 7-2
GB	630,547	VLC events including run, level & end	1	3.230, 7, 7.3, 7.4.1.2, Figs. 7-2, 7-3, Tables B.17, 9-1, 9-5
GB	987,900	VLC table selection	5	6.3, 6.3.5, 6.3.6, 7, 7.4.1.4, 7.4.4, Tables 6-25, 6-32, B-1, B-6, B-7, B-13 to B-15, B-20, Fig. 7-103
GB	873,018	VLC/Escape code decoding	1	3.5, 7.4, 7.4.1, 7.4.1.2, 7.4.1.3, Table B.16, B.17, B.19, B.20, B.23

Cty	Patent	Description	Cl. #	Sections
GB	1,100,272	VLC/Escape code decoding	1	3.5, 7.4, 7.4.1, 7.4.1.2, 7.4.1.3, Table B.16, B.17, B.21 to B.23
GB	1100273	VLC/Escape code decoding	1	7, 7.4.1, 7.4.1.1, 7.4.1.2, 7.4.1.3, 7.4.2, Table B.16, B.17, B.18, B.23, B.24, B.25
GB	1100274	VLC/Escape code decoding	1	7, 7.4.1, 7.4.1.1, 7.4.1.2, 7.4.1.3, 7.4.2, Table B.16, B.17, B.18, B.19, B.20, B.23, B.24, B.25
GB	1,104,972	VLC/Escape code decoding	1	7.4, 7.4.1, 7.4.1.1, 7.4.1.2, 7.4.1.3, Fig. 7-3, Tables B.16, B.17, B.19, B.20, B.23
GB	443,676	VOP coding types	1	1, 3.96, 3.116, 3.161, 3.6, 6.1.3.5, 6.2.5, 6.3.5, Table 6-24
GB	1343330	VOP time base	1	6.2, 6.2.3, 6.2.4, 6.3.4, 6.3.5, Tables 6-23, 9-1, 9-5
GB	909,099	VOP time code	8	6.2.5, 6.2.5.2, 6.2.5.3, 6.3.5, 9.1, 9.2, Table 9-1
GR	3,032,133	Mismatch control	1	7.4.4.5, 7.4.5
GR	0467040	Motion compensation prediction	8	3.137, 3.144, 3.146, 3.164, 3.165, 6.3.5, 6.3.6, 7.1, 7.3, 7.6.3, Fig. 7-2, 7-3, Tables 6-24, 9-1, 9-5, B.6, B.7
GR	3053251	Shape coding	1	3.121, 6, 6.1.3.1, 6.1.3.7.1, Figs. 6-1, 6-2, 6-3, Tables 9-1, 9-5
GR	3025887	VLC events including run, level & end	1	3.230, 7, 7.3, 7.4.1.2, Figs. 7-2, 7-3, Tables B.17, 9-1, 9-5
IE	638,218	Mismatch control	1	7.4.4.5, 7.4.5
IE	81694	Motion compensation prediction	8	3.137, 3.144, 3.146, 3.164, 3.165, 6.3.5, 6.3.6, 7.1, 7.3, 7.6.3, Fig. 7-2, 7-3, Tables 6-24, 9-1, 9-5, B.6, B.7
IE	940,995	Shape coding	1	3.121, 6, 6.1.3.1, 6.1.3.7.1, Figs. 6-1, 6-2, 6-3, Tables 9-1, 9-5
IE	630,547	VLC events including run, level & end	1	3.230, 7, 7.3, 7.4.1.2, Figs. 7-2, 7-3, Tables B.17, 9-1, 9-5
IT	843,484	DC/AC coefficient prediction	1	7.4, 7.4.2, 7.4.3.1, 7.4.3.2
IT	1,096,801	DC/AC coefficient prediction	1	7.4, 7.4.2, 7.4.3.1, 7.4.3.2, Figs. 7.4(a)-(c)
IT	1,096,802	DC/AC coefficient prediction	7	7.4, 7.4.2, 7.4.3.1, 7.4.3.2
IT	1098528	DC/AC coefficient prediction	1	7.4, 7.4.1, 7.4.2, 7.4.3, 7.4.3.1, 7.4.3.3, 7.4.4, Figs. 7-3, 7-5
IT	914,008	Frame display cycle	1	1, 3.106, 3.221, 6.3.3

[†]Shows *illustrative* essential claims for each patent; other claims may also be essential

Cty	Patent	Description	Cl. #	Sections
IT	1,117,258	Frame display cycle	1	6.3.3, 6.3.5, 7
IT	1,117,259	Frame display cycle	1	6.2.3, 6.3.3
IT	1,117,260	Frame display cycle	1	3.14, 3.106, 3.221, 6.1, 6.1.3, 6.2.3, 6.2.5, 6.3.3, 6.3.5
IT	1,117,261	Frame display cycle	1	3.221, 6.1, 6.1.3.2, 6.1.3.4, 6.1.3.6, 6.3.3, 6.3.4, 6.3.5, Table 6-23
IT	1,025,704	Interpolation filtering	2	Intro., 7.6, 7.6.2.1, 7.6.2.2, 7.6.2.2.1, Figs. 7-18, V2-17, V2-18
IT	638,218	Mismatch control	1	7.4.4.5, 7.4.5
IT	0467040	Motion compensation prediction	8	3.137, 3.144, 3.146, 3.164, 3.165, 6.3.5, 6.3.6, 7.1, 7.3, 7.6.3, Fig. 7-2, 7-3, Tables 6-24, 9-1, 9-5, B.6, B.7
IT	1065883	Prediction decoding	1	Intro., 3.173, 3.175, 5.2.4, 6.1.3.9, 6.1, 6.2.1, 6.2.2, 6.2.5, 6.3.5, 7, 7.1, 7.2, 7.6.7, , Fig. 7-38
IT	884,912	Prediction sample rounding	1	3.6, 3.94, 3.127, 3.143. 3.185, 6.2.3, 6.2.6, 6.2.6.2, 6.3.3, 6.3.5, 6.3.6.2, 7, 7.1, 7.6, 7.6.2, 7.6.2.1, 7.6.2.2, Figs. 7-1, 7-2, 7-18
IT	279,053*	P-VOP decoding	1	Intro., 3.95, 6, 7, 7.1, 7.3, Fig. 7-2, Table B-1
IT	70254/BE/05	Quantization matrix	1	1, 3.230, 6.2.3, 6.3.2, 6.3.3, 7, 7.4, 7.4.2, 7.4.4.1, 7.4.4.1.1, 7.4.4.1.2, Fig. 7-3, 7-4, 7-7, Tables 9-4, 9-8
IT	1,119,199	Random reproduction	2	6.2.3, 6.2.4, 6.3.3
IT	981,909	SA-DCT	16	3.12, 3.13, 3.137, 6.3.3, 7, 7.4.5
IT	414,193	Saturation control	4	7, 7.1, 7.4.4, 7.4.4.1, 7.4.4.1.2, 7.4.4.2, 7.4.4.4, 7.4.5, Figs. 7-1, 7-2, 7-3, 7-7, Tables B-13, B-14
IT	940,995	Shape coding	1	3.121, 6, 6.1.3.1, 6.1.3.7.1, Figs. 6-1, 6-2, 6-3, Tables 9-1, 9-5
IT	1,025,706	Shape coding of B-VOPs	1	Intro., 1, 3.12, 6.1.3.5, 6.3.5.3, 7, 7.5.2.1.2, 7.5, Table 6-30
IT	956,703	Shape-adaptive transforms (SA-DCT, inverse SA-DCT)	1	3.12, 3.123, 3.124, 3.137, 3.157, 6.3.3, 7.3, 7.4, 7.4.5, 9.1, 9.2, Annex A.3, A.4, Table 9-2, Fig. 7-3
IT	248,711*	Skipped Blocks	1	Intro., 6.1.3, 6.1.3.1, 6.1.3.8, 6.1.3.9, 6.2.6, 6.3.6, 7.6.3, Tables B-1, B-2, B-8 to B-11
IT	880,286	Temporal scalability	3	Intro., 3.174, 3.202, 6.2.3, 6.3.3, 7.9.1, 7.9.1.1, 7.9.1.2, 7.9.1.3, 7.9.1.3.2, 7.9.1.3.3, 7.9.1.3.4, 7.9.1.3.5, Fig. 23
IT	864,228	Time base	1	3.221, 6.2.5, 6.2.5.2, 6.3.5, 7.7.2.2

Cty	Patent	Description	Cl. #	Sections
IT	1,002,429	Time base	1	1, 6.25, 6.35
IT	321318	Variable transmission rate	11	7.9.1.1, Fig. 7-53
IT	260,748*	VLC events including run & level	1, 10	0.5.4, 7, 7.1, 7.4.1.2, 7.4.2, 7.4.3.4, Tables B-16, B-17, B-23, Fig. 7-2
IT	630,547	VLC events including run, level & end	1	3.230, 7, 7.3, 7.4.1.2, Figs. 7-2, 7-3, Tables B.17, 9-1, 9-5
IT	443,676	VOP coding types	1	1, 3.96, 3.116, 3.161, 3.6, 6.1.3.5, 6.2.5, 6.3.5, Table 6-24
IT	1343330	VOP time base	1	6.2, 6.2.3, 6.2.4, 6.3.4, 6.3.5, Tables 6-23, 9-1, 9-5
IT	909,099	VOP time code	8	6.2.5, 6.2.5.2, 6.2.5.3, 6.3.5, 9.1, 9.2, Table 9-1
JP	3,935,613	Adaptive frame/field DCT coding	1	6.1.3.9, 6.2.6, 6.2.6.3, 6.3.6.3, 7.4, 7.5, Figs. 6-11, 6-12, 7-2
JP	3,466,080	Bit plane coding	7	Intro, 3.AMD2.1, 3.AMD2.3, 6.3.14.5, 6.3.14.6, 7.17.1, 7.17.2, Annex B.4, Fig. AMD2-1
JP	3,500,112	Block encoding	1	6.2, 6.3.3, 6.3.5, Fig. 6-11, Table N-1
JP	2,874,745	Broken_link	1	6.1.3.7, 6.3.4
JP	2,969,782	Broken_link	1	6.1.3.7, 6.3.4
JP	2,877,225	Broken_link, closed_gov	1	6.1.3.4, 6.3.4
JP	2,137,325	B-VOP coding	1	7.6.9, 7.6.9.2, 7.6.9.3, 7.6.9.4
JP	1,869,940*	CBPY coding	1	6.3.6, Table B-8, Fig. 7-2
JP	2,510,456*	CBPY coding, MCBPC coding	1	6.1.3.9, 6.3.6, 6.3.7, Tables B-6, B-7, B-8
JP	3,883,618	CBPY table selection	1	6.3.6, Annex B, Table B.8, B.9, B.10, B.11
JP	3,425,377	Complexity estimation header	1	6.2.3, 6.2.5, 6.2.5.1, 6.3.3, 6.3.5.1
JP	3,380,763	Compression decoding	1	6.2.3, 6.3.3
JP	3,380,797	Compression encoding	1	6.2.3, 6.3.3

[†]Shows *illustrative* essential claims for each patent; other claims may also be essential

Cty	Patent	Description	Cl. #	Sections
JP	3,592,926	Data partitioning	1	6.2.5.2, 6.2.5.3, 6.3.3, 6.3.5
JP	3,118,237	DC/AC coefficient prediction	1	7.4, 7.4.3, 7.4.3.1, 7.4.3.3, Figs. 7-3, 7-5, 7-6
JP	3,149,417	DC/AC coefficient prediction	1	6.3.6, 7.4.3, 7.4.3.1, 7.4.3.2, 7.4.3.3, Figs. 7-5, 7-6
JP	3,149,418	DC/AC coefficient prediction	1	6.3.6, 7.4, 7.4.2, 7.4.3, 7.4.3.1, 7.4.3.2, 7.4.3.3, Figs. 7-4, 7-5, 7-6
JP	3,157,144	DC/AC coefficient prediction	1	7.4, 7.4.3.1, 7.4.3.2, 7.4.3.3, Figs. 7-3, 7-5, 7-6
JP	3,343,554	DC/AC coefficient prediction	1	7.4, 7.4.1, 7.4.3, 7.4.3.1, 7.4.3.3, Figs. 7-3, 7-5, 7-6
JP	3,369,573	DC/AC coefficient prediction	1	6.2.7, 7.4, 7.4.3.1, 7.4.3.2, Figs. 7-2, 7-3, 7-5, Table 7-1
JP	3,851,063	DC/AC coefficient prediction	1	7.4, 7.4.2, 7.4.3, 7.4.3.1, 7.4.3.2, 7.4.3.3, Figs. 7-3, 7-4, 7-5, 7-6
JP	3,851,317	DC/AC coefficient prediction	1	7.4, 7.4.3, 7.4.3.1, 7.4.3.2, 7.4.3.3, Figs. 7-3, 7-5, 7-6
JP	3,857,297	DC/AC coefficient prediction	1	7.4, 7.4.2, 7.4.3, 7.4.3.1, 7.4.3.2, 7.4.3.3, Figs. 7-3, 7-4, 7-5, 7-6
JP	2,562,499	dct_type	1	6.1.3.8, 6.1.3.9, 6.3.6.3, Figs. 6-7, 6-8
JP	3,265,287	dct_type	1	6.1.3.1, 6.1.3.9, 6.2.6, 6.2.6.3, 6.3.6.3, Figs. 6-8, 6-11, 6-12
JP	3,191,935	Decoding pictures of dimension video_object_layer_height	10	6.3.3
JP	3,303,869	Decoding pictures of dimension video_object_layer_height	11	6.3.3
JP	2,072,546	Direct mode motion compensation	1	7.6.9.5, 7.6.9.5.1, 7.6.9.5.2, Fig. 7-25
JP	2,977,104	Encoding interlaced VOPs	1	6.3.5
JP	3,086,396	Enhancement_type	7	6.3.3, 6.3.5, 7.9.1.1, 7.9.1.3.4, 7.9.1.3.5
JP	1,835,550*	Forward & backward prediction	1	7.6.9, 7.6.9.2, 7.6.9.3
JP	3,407,726	Fractional sample interpolation	1	6.3.5, 7.1, 7.3, 7.5.2.3, 7.5.2.4, 7.6.2.1, Fig. 7-18
JP	3,407,727	Fractional sample interpolation	1	6.1.3.5, 6.3.5, 7.6.2.1, Annex D.1, Fig. 7-18

[†]Shows *illustrative* essential claims for each patent; other claims may also be essential

Cty	Patent	Description	Cl. #	Sections
JP	3,410,037	Fractional sample interpolation	1	6.1.3.5, 6.2.5, 6.3.5, 7.6.2.1, Fig. 7-18
JP	2,914,448	GMC	1	3.75, 6.3.6, 7.6.3, 7.6.5, 7.8.7.3, Fig. 7-34
JP	2,952,226	GMC	1	3.75, 6.2.6, 6.3.6
JP	3,386,142	GMC	1	6.3.3, 6.3.5.4, 7.8, 7.8.2, 7.8.3, 7.8.6, 7.8.7.1, Tables 6-19, 6-21
JP	3,836,827	GMC	1	6.2.3, 6.2.5.4, 6.3.3, 6.3.5.4, 7.1, 7.3, 7.8.4, 7.8.5, 7.8.7.1, Table 6-20
JP	3,907,623	GMC	1	3.116, 3.143, 3.154, 6.1.3.4, 6.2.5.4, 6.2.6.2, 6.3.3, 6.3.5, 6.3.5.4, 6.3.6.2, 7, 7.1, 7.6.3, 7.6.5, 7.8.4, 7.8.5, 7.8.7.1, 7.8.7.3, Tables 6-20, B-12, B-33, Figs. 7-1, 7-2
JP	3,218,874	GMC	4	6.2.5.4, 6.3.3, 7.8, 7.8.4, 7.8.5, 7.8.6, 7.8.7.1, Fig. 7-49, Table 6-21
JP	2,794,899	gob_number, gob_layer	1	3.61, 3.91, 6.2.5.2, 6.3.5.2, Table 6-25
JP	2,812,446	Inter/Intra VLC table selection	1	7.4.1, 7.4.1.2, Tables B-16, B-17, B-23
JP	3,702,178	Inverse quantization	1	6.2.3, 6.3.3, 7.1, 7.4.4.1, 7.4.4.1.1, 7.4.4.1.2, 7.4.4.2, 7.4.4.2.1, Table AMD 4-13
JP	3,369,422	Inverse scan	1	7.4, 7.4.1.2, 7.4.2, Fig. 7-4
JP	3,442,028	Inverse scan	1	7.4, 7.4.1.2, 7.4.2, Fig. 7-4
JP	3,439,146	Luminance & chrominance shape information	1	6.1.3.2, 6.1.3.3, 6.1.3.6, 6.1.3.7.1
JP	2,630,809*	Macroblock	1	3.16, 3.137, 3.221, 6.3.6, 7.6, 7.6.7, Annex B, B.1.1, B.1.2, Tables B.1, B.6 - B.11
JP	2,046,808	Mismatch control	1	7.1, 7.3, 7.4, 7.4.4, 7.4.4.5, Figs. 7-2, 7-3, 7-7
JP	2,665,127	Mode data/motion vector	9	6.3.6, 6.3.6.2, 7.1, 7.3, 7.4, 7.6.3, 7.6.7, B.1.1, B.1.2
JP	3,654,664	Motion compensation prediction	2	6.2.5.3, 6.3.3, 6.3.6, 7.6, 7.8.7.3
JP	3,734,488	Motion compensation prediction	1	6.2.5.3, 6.2.6, 6.3.3, 6.3.6, 7.6, 7.8.7.3, Figs. V2-24, Table AMD4-13
JP	3,197,420	Motion compensation with padding	1	7.6.1, 7.6.1.1, 7.6.1.2, 7.6.1.3
JP	2,712,645	Motion vector coding	1	6.3.5, 6.3.6.2, 7.6.3, Table B-12

†Shows *illustrative* essential claims for each patent; other claims may also be essential

Cty	Patent	Description	Cl. #	Sections
JP	3,993,212	MPEG-4/H.263	1	6.2.3, 6.2.5.2, 6.3.3, 6.3.5.2, 6.3.6, 7.4.1, 7.4.1.2, Annex B.1.4, Tables 6-28, 6-29, B.6, B.7, B.16, B.17
JP	3,993,213	MPEG-4/H.263	1	6.2.3, 6.2.5.2, 6.3.3, 6.3.5.2, 7.4.4.1.1, 7.4.4.3, Table 6-28, 6-29, 7-1
JP	3,387,820	Prediction decoding	1	6.2.5, 6.3.5, 7.3, 7.4, 7.6.7, Figs. 7-3, 7-24
JP	3,415,319	Prediction mode selection	3	6.2.5.3, 6.3.5, 6.3.6, 6.3.7, 7.1, 7.3, 7.4, Figs. 7-2, 7-3
JP	3,415,548	Prediction mode selection	3	6.2.5.3, 6.3.5, 6.3.6, 6.3.7, 7.1, 7.3, 7.4, Figs. 7-2, 7-3
JP	3,474,859	Prediction mode selection	15	6.2.5.3, 6.3.5, 6.3.6, 6.3.7, 7.1, 7.3, 7.4, Figs. 7-2, 7-3
JP	3,474,861	Prediction mode selection	4	6.2.5.3, 6.2.6.2, 6.3.5, 6.3.6, 6.3.6.2, 6.3.7, 7.1, 7.3, 7.4, Figs. 7-2, 7-3
JP	3,474,862	Prediction mode selection	7	6.2.5.3, 6.3.5, 6.3.6, 6.3.7, 7.1, 7.3, 7.4, Figs. 7-2, 7-3
JP	2,998,741	Prediction sample rounding	5	6.3.5, 7.6.2.1, Fig. 7-18
JP	3,092,610	Prediction sample rounding	1	4.1, 6.3.5, 7.6.2.1, Fig. 7-18
JP	3,092,613	Prediction sample rounding	2	4.1, 6.3.5, 7.6.2.1, Fig. 7-18
JP	3,234,807	Quantization matrix	1	3.97, 3.98, 3.99, 6.3.3, 7.4.4.1.2, 7.4.5, Figs. 7-3, 7-7
JP	3,860,323	Random_accessible_vol	1	6.2.3, 6.3.3, 7.2
JP	3,642,737	Resynchronization marker	1	6.2.5.2, 6.3.5, Annex N, Table 9-1
JP	3,933,483	Resynchronization marker	1	6.2.5, 6.2.5.2, 6.3.5, 7, Annex N, Tables 9-1, N-1
JP	3,408,104	Resynchronization markers	1	6.2.5.2, 6.3.5, Annex N, Table N-1
JP	3,693,636	Resynchronization/motion markers	1	6.2.5.2, 6.2.5.3, 6.3.3, 6.3.5, Table 9-1
JP	3,011,680	Reversible VLC	11	5.2.4, 5.2.5, 6.2.1, 6.3.3, Tables 6-2, B-23
JP	3,030,028	Reversible VLC	11	5.2.4, 5.2.5, 6.2.1, 6.3.3, Tables 6-2, B-23
JP	3,145,908	Reversible VLC	1	6.3.3, 9.1, Tables 6-10, 9-1

[†]Shows *illustrative* essential claims for each patent; other claims may also be essential

Cty	Patent	Description	Cl. #	Sections
JP	3,164,806	Reversible VLC	7	6.3.3, 7.4.1.3, Table B-23
JP	3,217,771	Reversible VLC	7	5.2.4, 5.2.5, 6.2.1, 6.3.3, Annex B.1.4, Table 6-2, B.23
JP	3,233,360	Reversible VLC	1	6.3.3, 7.4.1.3, Table B-23
JP	3,275,003	Reversible VLC	18	5.2.4, 5.2.5, 6.2.1, 6.3.3, Tables 6-2, B-23
JP	3,417,933	Reversible VLC	1	6.3.3, Table B-23
JP	3,417,934	Reversible VLC	2	Table B-23
JP	3,431,368	Reversible VLC	4	B.1.4, Table B.23
JP	3,579,409	Reversible VLC	1	6.3.3, Annex B, Tables B.23, B.24, B.25
JP	3,579,412	Reversible VLC	1	6.3.3, Annex B, Table B.23
JP	3,597,848	Reversible VLC	1	6, 6.2, 6.2.1, 6.2.5, 6.2.5.2, 6.3, 6.3.3, 6.3.5, Annex B, B.1, B.1.4, Table 6-2, B.23
JP	3,597,851	Reversible VLC	1	6, 6.2, 6.2.1, 6.2.5, 6.2.5.2, 6.3, 6.3.3, 6.3.5, Annex B, B.1, B.1.4, Table 6-2, B.23
JP	3,609,813	Reversible VLC	1	6.3.3, 7.4.1.3, Annex B, Tables B.23 - B.25
JP	3,748,215	Reversible VLC	1	6.3.3, 7.4.1.3, Annex B, Table B-23
JP	3,766,426	Reversible VLC	1	6.3.3, 7.4.1.2, Annex B, Table B-23
JP	3,819,638	Reversible VLC	1	6.2.5.2, 6.2.5.3, 6.2.7, 6.3.3, 6.3.5, Annex B, Tables B.7, B.23
JP	3,866,687	Reversible VLC	1	6.3.3, Annex B, Table B-23
JP	2,128,624	Saturation control	3	3.155, 7.4, 7.4.4, 7.4.4.4, Figs. 7-3, 7-7
JP	2,823,843	Shape adaptive DCT	1	7.4.2, Annex A.3, A.3.1, A.3.2
JP	3,062,507	Shape decoding	4	3.11, 6.2.3, 6.2.5, 6.2.6, 6.3.3, 6.3.5, 7.1, 7.5, Fig. 7-2
JP	3,247,893	Shape decoding	2	6.2.3, 6.2.5, 6.2.6, 6.3.3, 6.3.5, 7.1, 7.5, Fig. 7-2

Cty	Patent	Description	Cl. #	Sections
JP	3,570,863	Shape decoding	1	Intro., 6.3.5.3, 7.5, Fig. 7-2, Table 6-30
JP	3,596,728	Shape decoding	8	7.5.4, 7.5.4.4, 7.4.5.6, Table 7-6
JP	3,122,445	Source_format, vop_width/vop_height	1	6.3.5, 6.3.5.2, Table 6-25
JP	3,414,304	Sprite	4	6.2.5.4, 6.3.3, 7.8, 7.8.4, 7.8.6, Fig. 7-49, Table 6-21
JP	3,509,610	Sprite	1	6.2.3, 6.2.5.4, 6.3.3, 7.8, 7.8.4, 7.8.5, 7.8.6, 7.8.7.1, Fig. 7-49, Tables 6-20, 6-21
JP	3,591,483	Sprite	4	6.2.5.4, 6.3.3, 7.8, 7.8.4, 7.8.5, 7.8.6, 7.8.7.1, Fig. 7-49, Table 6-21
JP	3,864,977	Sprite	4	6.2.5.4, 6.3.3, 7.8, 7.8.4, 7.8.5, 7.8.6, 7.8.7.1, Fig. 7-49, Table 6-21
JP	3,921,441	Sprite	1	6.2.3, 6.2.5.4, 6.3.3, 7.8, 7.8.4, 7.8.5, 7.8.6, 7.8.7.1, Fig. 7-49, Tables 6-20, 6-21
JP	3,657,978	Start codes	2	6.2.1, 6.2.5, 6.2.5.2, 6.3.5
JP	3,597,843	Synchronization code	1	6, 6.2.1, 6.3.5, B.1.4, Tables 6-2, B.23
JP	3,597,846	Synchronization code	1	6, 6.2.1, 6.3.3, 6.3.5, B.1.4, Table B.23
JP	3,597,847	Synchronization code	1	6, 6.2.1, 6.3.3, 6.3.5, B.1.4, Tables 6-2, B.23
JP	3,597,849	Synchronization code	1	3.199, 6, 6.2.1, 6.3.3, 6.3.5, B.1.4, Tables 6-2, B.23
JP	3,597,850	Synchronization code	1	6, 6.2.1, 6.3.3, 6.3.5,B.1.4, Tables 6-2, B.23
JP	3,597,852	Synchronization code	1	6, 6.2.1, 6.3.3, 6.3.5, B.1.4, Tables 6-2, B.23
JP	3,631,488	Synchronization code	1	6, 6.2, 6.2.1, 6.3.5, Table 6-2
JP	3,657,954	Synchronization code	1	5.2.4, 5.2.5, 6.2.1, 6.3.5, Annex B.1, B.1.4, Table 6-2
JP	3,657,955	Synchronization code	1	5.2.4, 5.2.5, 6.2.1, 6.3.5, Annex B.1, B.1.4, Table 6-2
JP	3,657,956	Synchronization code	1	3.21, 3.87, 3.114, 3.115, 3.143, 3.144, 7.31, 7.3.2.11, 7.4.1, Annexes B, B.1.1

Cty	Patent	Description	Cl. #	Sections
JP	3,657,965	Synchronization code	1	6.2.1, 6.2.5, 6.2.5.2, 6.2.5.3, 6.2.7, 6.3.5
JP	3,657,967	Synchronization code	1	5.2.4, 5.2.5, 6.2.1, 6.3.5, Annex B.1, B.1.4, Table 6-2
JP	3,657,969	Synchronization code	2	3.21, 3.87, 3.114, 3.115, 3.143, 3.144, 7.3.1, 7.3.2.11, 7.4.1, Annexes B, B.1.1
JP	3,657,970	Synchronization code	2	5.2.4, 5.2.5, 6.2.1, 6.3, 6.3.1, 6.3.5, Annex B.1, B.1.4, Table 6-2
JP	2,661,220	Temporal enhancement	1	6.2, 6.3, 6.3.3, 7.9.1.1, 7.9.2.3, Annex D2, Figs. 7-33,7-34
JP	3,098,939	Temporal scalability	6	6.2.5, 6.2.6, 6.3.3, 6.3.5, 7.1, 7.5, 7.9, 7.9.1, 7.9.1.1, 7.9.1.2, 7.9.1.3, Figs. 7-2, 7-33, Table 9-1
JP	3,401,505	Time base	1	6.3.5
JP	3,769,457	Time base	1	6.2.4, 6.2.5, 6.3.4, 6.3.5
JP	3,466,032	Upsampling	16	6.3.5, 7.4.6, 7.4.6.2, 7.6.10, 7.6.10.1.1, 7.6.10.1.2, 7.6.10.1.3, 7.6.10.1.4, 7.6.10.2, Figs. 7-3, V2-6, V2-8, V2-19
JP	3,669,833	Upsampling	1	7.5.2.5.3, Figs. 7-16, 7-17
JP	3,669,834	Upsampling	1	7.5.2.5.3, 9.1, Figs. 7-16, 7-17
JP	2,898,212	video_session_error_code	1	6.2.1, Table 6-3
JP	2,791,822	VLC	1	3.33 3.135, 6.1.3.7.1, 6.1.3.7.2, 6.1.3.7.3, 7.4, Fig. 7-3, Tables B-13, B-14
JP	3,489,581	VLC	2	6.1.3.8, 6.3.6, Tables B.6-B.11
JP	3,539,910	VLC	4	6.1.3.8, 6.3.6, Tables B.6-B.11
JP	3,612,314	VLC coding	1	6.2.3, 6.2.5.3, 6.2.7, 6.3.3, 6.3.6
JP	3,822,630	VLC decoding	1	6.3.3, Annex B, Table B-23
JP	2,790,509	VLC escape coding	3	3.178, 7.4.1, 7.4.1.2, 7.4.1.3, B.1.4, Tables B-17, B-18
JP	2,711,665*	VLC events including run & level	1	7.4.1.2, 7.4.2, 7.4.4, 7.4.5, Tables B-16, B-17, Figs. 7-4, 7-7
JP	2,955,363	VLC events including run, level & end	1	6.2.7, 7.4.1.2, 7.4.2, 7.4.4, 7.4.5

* Up to and through date of expiration (See Att. 1 to the MPEG-4 Visual Patent Portfolio License)   [†]Shows *illustrative* essential claims for each patent; other claims may also be essential

Cty	Patent	Description	Cl. #	Sections
JP	2,951,861	VLC table selection	3	6.3.6, Tables B-7, B-8
JP	3,103,383	VLC/Escape code decoding	1	7.4, 7.4.1, 7.4.1.2, 7.4.1.3
JP	3,135,061	VLC/Escape code decoding	1	7.4.1, 7.4.1.3, Tables B-16, B-17, B-21, B-22
JP	3,135,062	VLC/Escape code decoding	1	7.4.1, 7.4.1.3, Tables B-16, B-17, B-19, B-20
JP	3,743,960	VLC/Escape code decoding	1	7.4, 7.4.1, 7.4.1.2, 7.4.1.3
JP	3,743,961	VLC/Escape code decoding	1	7.4, 7.4.1, 7.4.1.2, 7.4.1.3, Tables B-16 to B-18, B-21 to B-23, Fig. 7-3
JP	3,743,962	VLC/Escape code decoding	1	7.4, 7.4.1, 7.4.1.2, 7.4.1.3
JP	3,612,315	VLC; mcbpc	1	6.2.3, 6.2.5.3, 6.2.7, 6.3.3, 6.3.6
JP	3,174,586	VOP coding types	1	3.8, 3.123, 3.157, 6.1.3.5, 6.2.5, 6.3.5, 7.6.7, Table 6-24, Fig. 7-38
JP	3,232,052	VOP time code	1	6.3.3, 6.3.5, Table 6-15
JP	3,232,082	VOP time code	1	6.3.3, 6.3.5, Table 6-15
JP	3,803,348	VOP time code	1	6.1.3.5, 6.2.3, 6.2.4, 6.3.3, 6.3.4, 6.3.5, 7.1
JP	3,803,349	VOP time code	1	6.1.3.5, 6.2.3, 6.2.4, 6.3.3, 6.3.4, 6.3.5, 7.1
JP	3,894,206	VOP time code	1	6.2.3, 6.3.3
JP	3,186,775	VOP time recovery	1	6.3.3, 6.3.5
JP	3,197,264	VOP time recovery	1	6.3.4, 6.3.5
JP	3,232,080	VOP timing	1	6.3.3, 6.3.5
JP	3,232,081	VOP timing	1	6.3.3, 6.3.5
JP	3,573,759	MPEG-4/H.263	3	6.2.5.2, 6.3.3, 6.3.2.5, Tables 6-28, 6-29
KR	392,379	Binary shape decoding	24	6.3.5.3, 7.5.4, 7.5.4.6, 7.5.4.7, Table V2-3, 29, 30, 31, 39, 40

Cty	Patent	Description	Cl. #	Sections
KR	338,801	Bit plane decoding	8	3.AMD4.1, 3AMD4.3, 6.2.14.6, 6.3.14.6, 7.17.1, 7.17.2, 7.17.3
KR	221,889	Broken_link	4	6.1.3.4, 6.1.3.5, 6.1.3.7, 6.2.4, 6.3.4
KR	211,917	CBPY table selection	1	Tables B-9 to B-11
KR	359,093	Data partitioning	25	6.2.3, 6.3.3, 7.4.1.3, Fig. 7-3
KR	303,685	DC coefficient prediction	1	6.1.3.8, 6.1.3.9, 7.4.1.1, 7.4.3.1, 7.4.3.2, 7.4.4, Figs. 7-2, 7-3, 7-5
KR	403,077	DC coefficient prediction	16	6.2.7, 7, 7.4, 7.4.1, 7.4.2, 7.4.3, 7.4.3.1, 7.4.3.2, 7.4.4, 7.4.4.1.1, 7.4.4.2, Tables 9-1, 9-5, Figs. 7-5, 7-7
KR	413,979	DC coefficient prediction	1	7.4, 7.4.3.1, 7.4.3.2, Figs. 7-3, 7-5, Tables 9-1, 9-5
KR	324,608	DC/AC coefficient prediction	5	6.2.6, 6.2.7, 6.3.6, 7, 7.4, 7.4.1, 7.4.3.1, 7.4.3.2, 7.4.3.3, Figs. 7-1, 7-3, 7-5, 7-6
KR	324,609	DC/AC coefficient prediction	1	7.4, 7.4.1, 7.4.3.1, 7.4.3.2, 7.4.4, Figs. 7-3, 7-5
KR	324,610	DC/AC coefficient prediction	1	6.2.6, 6.2.7, 6.3.6, 7, 7.4.1, 7.4.2, 7.4.3.1, 7.4.3.3, 7.4.4, 7.4.4.2.1, Figs. 7-4, 7-5, 7-6, 7-7, Tables 9-1, 9-5
KR	324,611	DC/AC coefficient prediction	1	7.4, 7.4.1, 7.4.3.1, 7.4.3.3, 7.4.4, 7.4.4.2.1, Figs. 7-3, 7-5, Table 9-1
KR	371,130	DC/AC coefficient prediction	1	7.4.1.1, 7.4.3.1, 7.4.3.2, 7.4.4, 7.4.5, Figs. 7-3, 7-5, Tables B-13, B-14, B-15
KR	155,642	Deblocking filter	1	7.6.10.1.5, 7.6.10.2, Tables V2-39,V2-40
KR	251,549	Deblocking filter	1	7.4.6, 7.6.10, 7.6.10.1.4, 7.6.10.1.5, 7.6.10.2, Figs. 7-40, 7-44
KR	147,549	Deblocking filtering	1	7.4, 7.4.5, 7.6.10, 7.6.10.1.5, Figs. 7-3, V2-19, V2-23
KR	374,717	Decoding interlaced VOPs	1	6.1.3.6, 6.1.3.8, Figs. 6-1, 6-2, 6-3, 6-5
KR	86,346	Enhanced Spatial Scalability	1	6.3.5, 7.4.6, 7.9, 7.9.2.3, Figs. 7-3, 7-32, 7-34
KR	400,537	Fractional sample interpolation	1	4.1, 6.1.3.5, 6.2.5, 6.3.5, 7.1, 7.6.2, 7.6.2.1, Figs. 7-2, 7-29, Tables 9-1, 9-4, 9-5, 9-8
KR	400,538	Fractional sample interpolation	1	3.144, 3.145, 3.165, 4.1, 6.1.3.5, 6.2.5, 6.2.6.2, 6.2.7, 6.3.5, 7.1, 7.6.2, 7.6.2.1, Figs. 7-2, 7-29, Tables 9-1, 9-4, 9-5, 9-8
KR	617,598	Fractional sample interpolation	1	7.6, 7.6.2.2, 7.6.2.2.1, 7.6.2.2.2, 7.6.5, Figs. 7-31, 7-32, Tables 9-4, 9-8

Cty	Patent	Description	Cl. #	Sections
KR	757,829	Fractional sample interpolation	1	7.3, 7.6, 7.6.2.2, 7.6.2.2.1, 7.6.2.2.2, 7.6.2.2.3, 7.6.5, Figs. 7-30, 7-31, 7-32, Tables 9-4, 9-8
KR	757,830	Fractional sample interpolation	1	7.3, 7.6, 7.6.2.2, 7.6.2.2.1, 7.6.2.2.2, 7.6.2.2.3, 7.6.5, Figs. 7-30, 7-31, 7-32, Tables 9-4, 9-8
KR	757,831	Fractional sample interpolation	1	7.3, 7.6, 7.6.2.2, 7.6.2.2.1, 7.6.2.2.2, 7.6.2.2.3, 7.6.5, Figs. 7-30, 7-31, 7-32, Tables 9-4, 9-8
KR	757,832	Fractional sample interpolation	1	7.3, 7.4.1, 7.4.5, 7.6, 7.6.2, 7.6.2.2, 7.6.2.2.1, 7.6.2.2.2, 7.6.2.2.3, Figs. 7-2, 7-3, 7-31, 7-32, Tables 9-4, 9-8
KR	525,862	Frame display cycle	2	6.1.3.4, 6.2.3, 6.3.3, Table 6-18
KR	530,394	Frame display cycle	1	6.1.3.4, 6.2.3, 6.2.5, 6.3.3, 6.3.5, Annex D.2, Table 6-18
KR	530,395	Frame display cycle	1	6.1.3.4, 6.2.3, 6.2.5, 6.3.3, Table 6-18
KR	530,406	Frame display cycle	1	6.1.3.4, 6.2.3, 6.2.5, 6.3.3, 6.3.5, Annex D.2
KR	319,944	GMC	4	6.2.3, 6.2.5.4, 6.3.3, 6.3.5.4, 6.3.6, 7.1, 7.3, 7.8.4, 7.8.5, 7.8.6, 7.8.7.1, Figs. 7-2, 7-50, Tables 6-20, 6-21, 9-2, 9-4, 9-6, 9-8
KR	124,164	Inverse DCT	1	7.4.1.2, 7.4.2, 7.4.4.1.2, 7.4.4.2, 7.4.4.2.1, Tables B-16, B-17
KR	531,566	Inverse quantization	1	6.2, 6.2.1, 6.3.3, 6.3.5, 6.3.5.2, 7.2, 7.4, 7.4.4.1.1, 7.4.4.2, 7.4.4.3, Fig. 7-3, Tables 6-3, 7-1, 9-1, 9-2, 9-4, 9-5, 9-6, 9-8
KR	393,125	Motion compensation with rounding	1	6.3.5, 7.1, 7.3, 7.6, 7.6.2.1, 7.6.3, Figs. 7-2, 7-18
KR	313,870	Motion vector coding	1	7.6.3
KR	393,123	Prediction sample rounding	46	6.3.5, 7.1, 7.3, 7.6.2.1, Figs. 7-2, 7-18
KR	319,248	Predictive decoding	1	6.3.5, 7.3, 7.5.2.1.2, 7.6, 7.6.7, Figs. 7-2, 7-24
KR	371,129	Predictive decoding	1	7.4.1, 7.4.2, 7.4.3.1, 7.4.3.3, Figs. 7-3, 7-4, 7-5, 7-6
KR	132,895	Quantizer matrix selection	3	6.1.3.8, 6.3.3, 7.4.1, 7.4.4, 7.4.4.1, 7.4.4.2, 7.4.5, Fig. 7-3
KR	394,938	Random reproduction	3	3.184, 6.2.1, 6.2.3, 6.3.3, Fig. 6-11,
KR	446,365	Random reproduction	1	3.184, 6.2.1, 6.2.3, 6.3.3, Fig. 6-11

Cty	Patent	Description	Cl. #	Sections
KR	365,259	Random_accessible_vol	25	3.37, 3.221, 6.2.3, 6.3.3, 7.2, 7.4, 7.6, Fig. 7-3
KR	773,304	Resynchronization marker	1	5.2.5, 6.2.5, 6.2.5.2, 6.2.6.2, 6.2.7, 6.3.5, 7.4.1.2, Table B.23
KR	375,345	Reversible VLC	25	6.2.3, 6.3.3, 7.4, 7.4.1.3, Fig. 7-3
KR	77,808	Saturation control	4	6.2.5.3, 7.4, 7.4.4, 7.4.4.4, Figs. 7-3, 7-7
KR	83,730	Scan pattern selection	1	7.4.2, 7.4.3.1, Fig. 7-5
KR	237,359	Shape adaptive DCT	1	7.4.2, A.3, A.3.1
KR	269,205	Shape data interpolation	1	7.5.2.5.3, Fig. 7-17
KR	314,098	Shape data interpolation	1	7.5.2.5.3, Figs. 7-13, 7-14
KR	252,010	Shape data upsampling	1	7.5.2.5.3, Figs. 7-13, 7-14
KR	196,867	Shape-Adaptive DCT	1	7.1, 7.4, 7.4.5, Annex A.3, A.3.1
KR	487,986	short_video_header	2	6.2.3, 6.2.5.2, 6.2.7, 6.3.3, 6.3.5.2, 6.3.7, 7.4.1, 7.6.1.1, 7.4.3
KR	487,989	short_video_header	1	6.2.3, 6.2.5, 6.2.5.2, 6.3.3, 6.3.5, 6.3.5.2
KR	511,693	short_video_header	4	6.2.6, 6.3.3, 6.3.6, 7.4.3, 7.4.3.3
KR	685,771	Synchronization code	1	5.2.4, 6.2.1, 6.2.5, 6.2.6.2, 6.2.7, Tables 6-2 and 6-3
KR	685,772	Synchronization code	1	5.2.4, 6.2.1, 6.2.5, 6.2.6.2, 6.2.7, 7, 7.1, Tables 6-2, 6-3, Figures 7-1 and 7-2
KR	423,719	Upsampling	1	6.3.5.3, 7.5.2.5.3
KR	166,715	VLC escape coding	1	7.4.1, 7.4.1.1, 7.4.1.2, 7.4.1.3, Tables B-13 to B-17
KR	318,057	VLC escape coding	1	7.4.1.2, 7.4.1.3, Fig. 7-3, Tables B-16, B-17, B-21, B-22
KR	318,058	VLC escape coding	1	7.4.1.2, 7.4.1.3, Fig. 7-3, Tables B-16, B-17, B-19, B-20
KR	118,698	VLC events including run & level	6	7.4.1.2, 7.4.2, 7.4.4, 7.4.5, Tables B-16, B-17, Figs. 7-3, 7-4

[†]Shows *illustrative* essential claims for each patent; other claims may also be essential

Cty	Patent	Description	Cl. #	Sections
KR	318,055	VLC/Escape code decoding	1	7.4.1.2, 7.4.1.3, Table B.16, B.17
KR	318,059	VLC/Escape code decoding	1	7.4.1.2, 7.4.1.3, Tables B.16, B.17
KR	402,541	VLC/Escape code decoding	19	7.4.1.2, 7.4.1.3, Tables B.16, B.17
KR	384,918	VOP time code	2	3.184, 6.2.3, 6.3.3, 6.3.5, 7.4, Table 6-15, Fig. 7-3
LU	638,218	Mismatch control	1	7.4.4.5, 7.4.5
LU	940,995	Shape coding	1	3.121, 6, 6.1.3.1, 6.1.3.7.1, Figs. 6-1, 6-2, 6-3, Tables 9-1, 9-5
LU	630,547	VLC events including run, level & end	1	3.230, 7, 7.3, 7.4.1.2, Figs. 7-2, 7-3, Tables B.17, 9-1, 9-5
MC	638,218	Mismatch control	1	7.4.4.5, 7.4.5
MC	940,995	Shape coding	1	3.121, 6, 6.1.3.1, 6.1.3.7.1, Figs. 6-1, 6-2, 6-3, Tables 9-1, 9-5
MC	630,547	VLC events including run, level & end	1	3.230, 7, 7.3, 7.4.1.2, Figs. 7-2, 7-3, Tables B.17, 9-1, 9-5
NL	584,840	B-VOP decoding	1	Intro., 6.1.3.4, 6.1.3.7, 6.2.5, 6.3.5, 7.1, 7.4, 7.4.1, 7.4.2, 7.4.4, 7.4.5, Figs. 7-2, 7-3, Table 6-20
NL	638,218	Mismatch control	1	7.4.4.5, 7.4.5
NL	0467040	Motion compensation prediction	8	3.137, 3.144, 3.146, 3.164, 3.165, 6.3.5, 6.3.6, 7.1, 7.3, 7.6.3, Fig. 7-2, 7-3, Tables 6-24, 9-1, 9-5, B.6, B.7
NL	1032219	MPEG-4/H.263	1	6.2.3, 6.3.2, 6.3.3, 6.3.5, Tables 6-28, 6-29
NL	1328125	MPEG-4/H.263	1	5.1.3, 5.2, 5.3, 6.2.3, 6.2.5, 6.2.5.2, 6.3.3, 6.3.5, 6.3.5.2, Tables 6-28, 6-29, 9-1, 9-2, 9-4, 9-5, 9-6, 9-8
NL	884,912	Prediction sample rounding	1	3.6, 3.94, 3.127, 3.143. 3.185, 6.2.3, 6.2.6, 6.2.6.2, 6.3.3, 6.3.5, 6.3.6.2, 7, 7.1, 7.6, 7.6.2, 7.6.2.1, 7.6.2.2, Figs. 7-1, 7-2, 7-18
NL	279,053*	P-VOP decoding	1	Intro., 3.95, 6, 7, 7.1, 7.3, Fig. 7-2, Table B-1
NL	1026899	Random_accessible_vol	1	1, 6.1.2, 6.1.3, 6.2.3, 6.3.3, 7.2, 9.1, 9.2,
NL	981,909	SA-DCT	16	3.12, 3.13, 3.137, 6.3.3, 7, 7.4.5
NL	414,193	Saturation control	4	7, 7.1, 7.4.4, 7.4.4.1, 7.4.4.1.2, 7.4.4.2, 7.4.4.4, 7.4.5, Figs. 7-1, 7-2, 7-3, 7-7, Tables B-13, B-14

[†]Shows *illustrative* essential claims for each patent; other claims may also be essential

Cty	Patent	Description	Cl. #	Sections
NL	940,995	Shape coding	1	3.121, 6, 6.1.3.1, 6.1.3.7.1, Figs. 6-1, 6-2, 6-3, Tables 9-1, 9-5
NL	956,703	Shape-adaptive transforms (SA-DCT, inverse SA-DCT)	1	3.12, 3.123, 3.124, 3.137, 3.157, 6.3.3, 7.3, 7.4, 7.4.5, 9.1, 9.2, Annex A.3, A.4, Table 9-2, Fig. 7-3
NL	880,286	Temporal scalability	3	Intro., 3.174, 3.202, 6.2.3, 6.3.3, 7.9.1, 7.9.1.1, 7.9.1.2, 7.9.1.3, 7.9.1.3.2, 7.9.1.3.3, 7.9.1.3.4, 7.9.1.3.5, Fig. 23
NL	1,002,429	Time base	1	1, 6.25, 6.35
NL	884,693	Upsampling	1	7.5, 7.5.2.5.3, 9.1, Tables 9-1, 9-5, Figs. 7-16, 7-17
NL	321318	Variable transmission rate	11	7.9.1.1, Fig. 7-53
NL	260,748*	VLC events including run & level	1, 10	0.5.4, 7, 7.1, 7.4.1.2, 7.4.2, 7.4.3.4, Tables B-16, B-17, B-23, Fig. 7-2
NL	630,547	VLC events including run, level & end	1	3.230, 7, 7.3, 7.4.1.2, Figs. 7-2, 7-3, Tables B.17, 9-1, 9-5
NL	873,018	VLC/Escape code decoding	1	3.5, 7.4, 7.4.1, 7.4.1.2, 7.4.1.3, Table B.16, B.17, B.19, B.20, B.23
NL	1,100,272	VLC/Escape code decoding	1	3.5, 7.4, 7.4.1, 7.4.1.2, 7.4.1.3, Table B.16, B.17, B.21 to B.23
NL	1100273	VLC/Escape code decoding	1	7, 7.4.1, 7.4.1.1, 7.4.1.2, 7.4.1.3, 7.4.2, Table B.16, B.17, B.18, B.23, B.24, B.25
NL	1100274	VLC/Escape code decoding	1	7, 7.4.1, 7.4.1.1, 7.4.1.2, 7.4.1.3, 7.4.2, Table B.16, B.17, B.18, B.19, B.20, B.23, B.24, B.25
NL	1,104,972	VLC/Escape code decoding	1	7.4, 7.4.1, 7.4.1.1, 7.4.1.2, 7.4.1.3, Fig. 7-3, Tables B.16, B.17, B.19, B.20, B.23
NL	443,676	VOP coding types	1	1, 3.96, 3.116, 3.161, 3.6, 6.1.3.5, 6.2.5, 6.3.5, Table 6-24
PT	638,218	Mismatch control	1	7.4.4.5, 7.4.5
PT	940,995	Shape coding	1	3.121, 6, 6.1.3.1, 6.1.3.7.1, Figs. 6-1, 6-2, 6-3, Tables 9-1, 9-5
PT	630,547	VLC events including run, level & end	1	3.230, 7, 7.3, 7.4.1.2, Figs. 7-2, 7-3, Tables B.17, 9-1, 9-5
SE	1,025,704	Interpolation filtering	2	Intro., 7.6, 7.6.2.1, 7.6.2.2, 7.6.2.2.1, Figs. 7-18, V2-17, V2-18
SE	638,218	Mismatch control	1	7.4.4.5, 7.4.5
SE	0467040	Motion compensation prediction	8	3.137, 3.144, 3.146, 3.164, 3.165, 6.3.5, 6.3.6, 7.1, 7.3, 7.6.3, Fig. 7-2, 7-3, Tables 6-24, 9-1, 9-5, B.6, B.7

Cty	Patent	Description	Cl. #	Sections
SE	884,912	Prediction sample rounding	1	3.6, 3.94, 3.127, 3.143. 3.185, 6.2.3, 6.2.6, 6.2.6.2, 6.3.3, 6.3.5, 6.3.6.2, 7, 7.1, 7.6, 7.6.2, 7.6.2.1, 7.6.2.2, Figs. 7-1, 7-2, 7-18
SE	1026899	Random_accessible_vol	1	1, 6.1.2, 6.1.3, 6.2.3, 6.3.3, 7.2, 9.1, 9.2,
SE	981,909	SA-DCT	16	3.12, 3.13, 3.137, 6.3.3, 7, 7.4.5
SE	414,193	Saturation control	4	7, 7.1, 7.4.4, 7.4.4.1, 7.4.4.1.2, 7.4.4.2, 7.4.4.4, 7.4.5, Figs. 7-1, 7-2, 7-3, 7-7, Tables B-13, B-14
SE	940,995	Shape coding	1	3.121, 6, 6.1.3.1, 6.1.3.7.1, Figs. 6-1, 6-2, 6-3, Tables 9-1, 9-5
SE	1,025,706	Shape coding of B-VOPs	1	Intro., 1, 3.12, 6.1.3.5, 6.3.5.3, 7, 7.5.2.1.2, 7.5, Table 6-30
SE	956,703	Shape-adaptive transforms (SA-DCT, inverse SA-DCT)	1	3.12, 3.123, 3.124, 3.137, 3.157, 6.3.3, 7.3, 7.4, 7.4.5, 9.1, 9.2, Annex A.3, A.4, Table 9-2, Fig. 7-3
SE	248,711*	Skipped Blocks	1	Intro., 6.1.3, 6.1.3.1, 6.1.3.8, 6.1.3.9, 6.2.6, 6.3.6, 7.6.3, Tables B-1, B-2, B-8 to B-11
SE	1,002,429	Time base	1	1, 6.25, 6.35
SE	321318	Variable transmission rate	11	7.9.1.1, Fig. 7-53
SE	260,748*	VLC events including run & level	1, 10	0.5.4, 7, 7.1, 7.4.1.2, 7.4.2, 7.4.3.4, Tables B-16, B-17, B-23, Fig. 7-2
SE	630,547	VLC events including run, level & end	1	3.230, 7, 7.3, 7.4.1.2, Figs. 7-2, 7-3, Tables B.17, 9-1, 9-5
SE	443,676	VOP coding types	1	1, 3.96, 3.116, 3.161, 3.6, 6.1.3.5, 6.2.5, 6.3.5, Table 6-24
US	Re. 39,167	Adaptive variable length decoding	8	6.3.5, 6.3.6, 7, 7.4, 7.4.1, 7.4.1.4, 7.4.2, Annexes B.1.1, B.1.2, Tables 6-24, 6-25, 6-32, B.1, B.6, B.7, Figs. 7-3, 7-4
US	Re. 35,910	Bidirectional decoding	7	3.107, 6.1.3.7, 7.2, 7.3, 7.4, 7.6.9.1, 7.6.9.4, 7.15.1, Fig. 7-3
US	5,883,678	Binary shape coding	6	3.12, 3.13, 6.2.6.1, 6.3.5.3, 7, 7.4, 7.5, 7.5.2.5, 7.5.2.5.3, 7.6, 7.6.1, 7.6.1.1, Figs. 7-2, 7-3, 7-27
US	6,088,061	Binary shape decoding	4	3.12, 3.13, 4.7, 6.2.6.1, 6.3.5, 6.3.5.3, 7, 7.4, 7.5, 7.5.1.2, 7.5.2.5, 7.5.2.5.1, Figs. 7-2, 7-3, 7-13, Table 9-1
US	6,580,832	Binary shape decoding	7	3.12, 3.73, 6.3.5.3, 7, 7.4, 7.5.4.6, Fig. 7-3, Tables 6-31, 7-6
US	6,016,111	Bit plane decoding	18	Intro. (Streaming), 3.AMD2.1, 3.AMD2.3, 6.3.14.5, 6.3.14.6, 7.17.1, 7.17.2, 7.17.3, Fig. AMD2-1
US	Re. 40,177	Block boundary filtering	21	3.173, 6.3.5, 7.6.10, 7.6.10.1.5, Figs. 7-40, 7-44

* Up to and through date of expiration (See Att. 1 to the MPEG-4 Visual Patent Portfolio License)

[†]Shows *illustrative* essential claims for each patent; other claims may also be essential

Cty	Patent	Description	Cl. #	Sections
US	5,191,436	Broken_link	4	6.1.3.4, 6.1.3.5, 6.1.3.7, 6.2.4, 6.3.4
US	Re. 34,965	B-VOP decoding	13	3.82, 3.84, 6.1.3.2, 6.1.3.7, 7.3, 7.6, 7.6.9.4
US	Re. 35,158	B-VOP decoding	16	3.82, 3.84, 6.1.3.2, 6.1.3.7, 6.3.6, 7.3, 7.6, 7.6.9.4
US	Re. 37,222	B-VOPs/Motion vector coding	33, 36	6.1.3.4, 6.1.3.7, 6.2.6.2, 6.3.5, 6.3.6.2, 7.6.3, Table B-12
US	6,944,351	CBPY table selection	19	6.2.6, 6.3.6, 7, 7.1, 7.5, Annex B.1.2, Tables B.8 to B.11, Figs. 7-1, 7-2
US	6,408,099	Complexity estimation	1	Intro., 3.16, 3.37, 3.137, 6.1.3, 6.2.3, 6.2.5.1, 6.3.3, 6.3.5.1, Fig. 7-2
US	6,418,268	Complexity estimation	1	3.16, 3.37, 3.137,, 6.1.3, 6.2.3, 6.2.5.1, 6.3.3, 6.3.5.1, Fig. 7-2
US	6,408,096	Complexity estimation header	1	Intro., 3.14, 3.31, 3.107, 6.1.3, 6.2.3, 6.2.5.1, 6.3.3, 6.3.5.1, Fig. 7-2
US	6,480,628	Complexity estimation header	1	Intro., 3.14, 3.16, 3.31, 3.37, 3.107, 3.137, 6.1.3, 6.2.3, 6.2.5, 6.2.5.1, 6.3.3, 6.3.5.1, Fig. 7-2
US	6,025,881	Data partitioning	4	6.2.5, 6.2.5.2, 6.2.5.3, 6.3.3, 6.3.6, 7.2, 7.3
US	6,052,150	Data partitioning	6-9	6.2.5, 6.2.5.2, 6.2.5.3, 6.3.3, 6.3.6
US	6,215,905	DC coefficient prediction	1	7.4.3, 7.4.3.1, 7.4.3.2
US	6,148,109	DC/AC coefficient prediction	3	Intro., 3.14, 7.4.2, 7.4.3, 7.4.3.1, 7.4.3.2, 7.4.3.3, 7.4.5, Figs. 7-4, 7-5, 7-6
US	6,292,588	DC/AC coefficient prediction	7	3.5, 3.14, 3.47, 3.48, 6.1.3.2, 6.1.3.3, 6.2.7, 7.1, 7.4, 7.4.3, 7.4.3.1, 7.4.3.2, 7.4.3.3, Figs. 7-2, 7-3, 7-5, 7-6
US	6,366,703	DC/AC coefficient prediction	2	6.2.7, 6.3.5, 6.3.6, 7.1, 7.4, 7.4.1, 7.4.2, 7.4.3, 7.4.3.1, 7.4.3.2, 7.4.3.3, 7.4.4, Table 6-32, Figs. 7-3, 7-5, 7-6, 7-7
US	6,377,708	DC/AC coefficient prediction	7	3.16, 7.4.3, 7.4.3.1, 7.4.3.2, 7.4.5, Fig. 7-5
US	6,532,306	DC/AC coefficient prediction	1	3.16, 7.4.3, 7.4.3.1, 7.4.3.2, 7.4.5, Fig. 7-5
US	6,859,559	DC/AC coefficient prediction	1	3.16, 7.4.3, 7.4.3.1, 7.4.3.2, 7.4.3.3, 7.4.4, 7.4.5, Figs. 7-5, 7-6, 7-7
US	7,079,694	DC/AC coefficient prediction	1	3.16, 7.4.3, 7.4.3.1, 7.4.3.2, 7.4.3.3, 7.4.4, 7.4.5, Figs. 7-5, 7-6, 7-7
US	5,128,758	DCT	11	3.33, 3.135, 6.1.3.7.1 to 6.1.3.7.3, 7.4, 7.4.1, 7.4.1.1, 7.4.4, 7.4.5, B.1.4, Figs. 6-1 to 6-7, 7-3

[†]Shows *illustrative* essential claims for each patent; other claims may also be essential

Cty	Patent	Description	Cl. #	Sections
US	5,179,442	DCT	1	3.1.3.7, 3.33, 3.135, 6.1.2, 6.1.3, 6.1.3.4, 6.1.3.7.1 to6.1.3.7.3, 6.1.3.9, 6.3.1.10, 7.2, 7.3, 7.4, 7.4.1, 7.4.1.1, 7.4.4, 7.4.5, B.1.4, Tables B.13, B.14, Figs. 6-1 to 6-7, 7-2, 7-3
US	6,580,834	Decoding (Run, EOP) coded bit planes	25	Intro., 3.AMD2.1, 3.AMD2.2, 6.3.14.1, 6.3.14.5, 7.17, 7.17.1, 7.17.2, 7.17.3, 7.17.4, Annex A, Fig. AMD2-1, Tables AMD2-7, AMD2-8, AMD2-11, AMD2-12
US	5,343,248	Decoding interlaced VOPs	1	6.1.3.1, 6.3.5, 7, 7.2, Figs. 6-2, 6-3, AMD1: 6.1.3.1, 6.3.13.5, 7.16.1, 7.16.2, 7.16.8
US	6,134,269	Deinterleaving	1	3.16, 3.56, 3.57, 3.123, 3.137, 3.170, 6.1.3.9, 6.2.5, 7.3, 7.4, 7.4.1, 7.4.1.1, 7.4.1.2, 7.4.2, 7.4.3, 7.4.3.1, 7.4.3.2, 7.4.3.3, 7.4.4, 7.4.4.1.1, 7.4.5, Figs. 6-11, 6-12, 7-3, 7-4, 7-5, 7-6, 7-7, Table 7-1
US	5,815,601	Enhanced temporal scalability	8	6.3.3, 6.3.5, 7, 7.1, 7.2, 7.4, 7.5.1.2, 7.9, 7.9.1, 7.9.1.1, 7.9.1.3, 7.9.1.3.4 Figs. 7-1, 7-2, 7-3, 7-32, 7-33
US	7,167,590	Fractional sample interpolation	2	6.3.3, 7.1, 7.4, 7.4.4, 7.4.5, 7.6, 7.6.2.1, 7.6.2.2, 7.6.2.2.1, 7.6.2.2.2, Tables 9-2, 9-4, Figs. 7-3, 7-29, 7-30, 7-31, 7-32
US	6,549,724	Frame display cycle	1	1, 3.106, 3.163, 6.2.3, 6.3.3
US	6,654,541	Frame display cycle	1	1, 3.106, 3.163, 6.2.3, 6.3.3
US	6,671,456	Frame display cycle	4	1, 3.31, 3.58, 3.106, 3.163, 3.218, 6.2.3, 6.3.3, 6.3.5, 7, 7.4, Annexes D.1, D.2, Figs. 7-1, 7-3, D.1, D.2
US	6,707,986	Frame display cycle	1	1, 3.106, 3.163, 6.2.3, 6.3.3, 6.3.5
US	6,404,815	GMC	13	3.75, 3.189, 3.228, 4.1, 6.2.3, 6.3.3, 6.3.5.4, 7.3, 7.8, 7.8.1, 7.8.2, 7.8.3, 7.8.3.1, 7.8.3.2, 7.8.4, 7.8.5, 7.8.6, 7.8.7.1, Figs. 7-2, 7-49, 7-50, Tables 6-20, 9-2, 9-4
US	7,110,456	GMC	1	3.75, 3.189, 4.1, 6.2.3, 6.3.3, 6.3.5.4, 7.3, 7.8, 7.8.2, 7.8.4, 7.8.5, 7.8.6, 7.8.7.1, Figs. 7-2, 7-50, Table 6-21
US	6,983,014	Header display speed information	18	3.71, 3.109, 3.221, 6.1.3, 6.2.1, 6.2.3, 6.3.3, 7, 7.3, 7.4, Figs. 6-19, 7-1, 7-3, Table 6-18
US	5,930,395	Header extension	1	6.2.5, 6.2.5.2, 6.3.5
US	6,334,000	Header extension	1	6.2.5, 6.2.5.2, 6.3.5
US	6,353,681	Header extension	1, 9	6.2.5, 6.2.5.2, 6.3.5
US	6,408,098	Header extension	1	6.2.5, 6.2.5.2, 6.3.5
US	6,621,931	Header extension	1	6.2.5, 6.2.5.2, 6.3.5
US	5,068,724	Inter/Intra Macroblock Decoding	17	6.3.6, 7.2, 7.3, 7.4, 7.4.4, 7.4.5, 7.6, Tables B.1, B.6, B.7, Figs. 7-3, 7-16
US	7,194,136	Inverse quantization	6	6.3.3, 7.1, 7.4, 7.4.4, 7.4.4.1, 7.4.4.2, 7.4.5, 7.6, Fig. 7-2, 7-3, Tables 9-1, 9-4

†Shows *illustrative* essential claims for each patent; other claims may also be essential

Cty	Patent	Description	Cl. #	Sections
US	Re. 37,568	Inverse Quantizer	4	6.2.3, 6.2.5, 6.2.5.2, 6.2.6, 6.2.7, 6.3.3, 6.3.5, 6.3.6, 7.4.2.1, 7.4.2.2, 7.4.4, 7.4.4.1, 7.4.4.1.1, 7.4.4.1.2, 7.4.4.2, 7.4.4.2.1, 7.4.4.6, 7.4.5, AMD1:7.16.4.3, 7.16.4.3.1, 7.16.4.3.2, 7.16.4.3.2.1, 7.16.4.3.2.2, 7.16.4.3.2.3, 7.16.4, 7.16.4.3.5, 7.16.4.4, Figs. AMD1-12, AMD1-15, Tables AMD1-38, AMD1-39
US	6,360,016	Inverse scan	1	6.2.6, 6.2.7, 6.3.6, 7.1, 7.4, 7.4.1, 7.4.2, Figs. 7-2, 7-3, 7-4
US	6,680,975	Inverse scan	56	6.1.3.9, 6.3.5, 7, 7.1, 7.2, 7.4.1, 7.4.1.1, 7.4.1.2, 7.4.2, 7.4.3, 7.4.3.1, 7.4.3.3, 7.4.4, Figs. 7-2, 7-4, 7-5, 7-6, 7-7
US	5,654,706	Inverse scan selection	1, 7	6.3.6, 7.4, 7.4.1.2, 7.4.2, Figs. 7-3, 7-4
US	6,097,759	Inverse scanning & predictive decoding	4	7.3, 7.4, 7.4.2, 7.6, Figs. 7-3, 7-4, 7-16
US	5,021,879*	Macroblock	1	3.16, 3.37, 3.137, 3.144, 3.157, 3.164, 3.165, 3.166, 3.173, 3.175, 3.221, 6.1.2, 6.1.3, 6.1.3.4, 6.1.3.9, 6.1.3.10, 6.2.6, 6.2.7, 6.3.6, 7.6, 7.6.7, B.1.1, B.1.2, Tables B.1, B.6 to B.11, Figs. 6-8, 6-9, 6-10, 7-27, 7-38
US	5,291,284	Mismatch control	12	3.144, 7.4, 7.4.4, 7.4.4.1, 7.4.4.1.1, 7.4.4.1.2, 7.4.4.3, 7.4.4.5, 7.4.4.6, 7.4.5, 7.6, Annex A.1, Figs. 7-3, 7-7
US	5,481,553	Mismatch control	1	7.4.4.5, 7.4.5
US	6,128,342	Motion vector	7	3.61, 3.71, 3.106, 3.144, 3.146, 3.170, 3.214, 3.221, 6.1.3.4, 6.2.5, 6.2.5.3, 6.3.5, 7.1, 7.3, 7.4,7.6.3, Figs. 7-2, 7-3
US	5,467,086	Motion vector decoding	19	Intro., 3.157, 3.175, 6.3.6, 6.3.6.2, 7, 7.1, 7.3, 7.4, 7.6.3, 7.6.7, B.1.1, B.1.2, Tables B.1, B.2, B.6, B.7, Figs. 7-2, 7-3, 7-38
US	5,298,991	Motion vector range	9	6.3.5, 7.6.3, Tables 7-5, B-12
US	5,428,396	Motion vector range	1, 14	6.3.5, 7.6.3, Tables 7-5, B-12
US	6,862,320	MPEG-4/H.263	1	6.2.3, 6.2.5, 6.2.5.2, 6.2.5.3, 6.2.7, 6.3.3, 6.3.5.2, 7, Fig. 7-1
US	5,978,515	Partial VOP temporal scalability	1	6.2.7, 6.3.3, 6.3.5, 6.3.6.1, 7, 7.2, 7.9.1.1, 7.9.1.3.4, 7.9.1.3.5
US	6,912,351	Prediction decoding	12	3.157, 6.3.5, 7, 7.6.7, 7.6.9.2, Table 6-24, Figs. 7-1, 7-38
US	5,699,476	Prediction encoding	5	3.8, 3.44, 3.106, 3.109, 3.123, 3.157, 6.135, 6.3.5, 7.3, 7.6.7, Table 6-24, Fig. 7-38
US	6,282,243	Prediction sample rounding	38	6.3.5, 6.3.6.2, 7.1, 7.6.2.1, 7.6.3, Figs. 7-2, 7-18
US	6,295,376	Prediction sample rounding	3	4.1, 6.2.5, 6.3.5, 7, 7.1, 7.2, 7.3, 7.4, 7.6.2, 7.6.2.1, Figs. 7-2, 7-3, 7-18
US	6,567,558	Prediction sample rounding	1	4.1, 6.2.5, 6.3.5, 7, 7.1, 7.2, 7.3, 7.4, 7.4.4, 7.4.5, 7.6.2.1, Figs. 7-2, 7-3, 7-7, 7-18

Cty	Patent	Description	Cl. #	Sections
US	6,574,371	Prediction sample rounding	2	4.1, 6.2.5, 6.3.5, 7, 7.1, 7.2, 7.3, 7.4, 7.6.2, 7.6.2.1, Figs. 7-2, 7-3, 7-18
US	6,584,227	Prediction sample rounding	1	3.143, 3.175, 6.2.5, 6.3.5, 7, 7.1, 7.2, 7.3, 7.6.2, 7.6.2.1, Figs. 7-2, 7-18, 7-29
US	6,606,419	Prediction sample rounding	2	4.1, 6.2.5, 6.3.5, 7, 7.1, 7.2, 7.3, 7.4, 7.6.2, 7.6.2.1, Figs. 7-2, 7-3, 7-18
US	6,631,214	Prediction sample rounding	11	3.114, 3.133, 4.1, 6.2.5, 6.3.5, 7, 7.1, 7.2, 7.3, 7.4, 7.6.2.1, Figs. 7-2, 7-3, 7-7, 7-18
US	6,643,409	Prediction sample rounding	5	3.182, 3.49, 4.1, 6.2.5, 6.3.5, 7, 7.1, 7.2, 7.3, 7.4, 7.6.2, 7.6.2.1, Figs. 7-2, 7-3, 7-7, 7-18
US	6,650,781	Prediction sample rounding	3	4.1, 6.25, 6.35, 7, 7.1, 7.2, 7.3, 7.4, 7.6.2.1, Figs. 7-2, 7-3, 7-7, 7-18
US	6,868,185	Prediction sample rounding	1	3.8, 3.157, 4.1, 6.2.5, 6.3.5, 7, 7.4, 7.6.2.1, Annex D.1, Figs. 7-3, 7-29, Table 9-4
US	6,909,809	Prediction sample rounding	1	3.8, 3.157, 4.1, 6.2.5, 6.3.5, 7, 7.1, 7.2, 7.3, 7.4, 7.6.2.1, Figs. 7-2, 7-3, 7-2
US	6,915,013	Prediction sample rounding	1	3.8, 3.144, 3.157, 3.164, 3.165, 4.1, 6.1, 6.2.5, 6.2.6.2, 6.2.7, 6.3.5, 6.3.6.2, 7.1, 7.2, 7.3, 7.6.2.1, 7.6.3, Figs. 7-2, 7-3, 7-29
US	6,370,276	P-VOP decoding	1	Intro., 3.32, 3.33, 3.94, 3.127, 3.141, 3.143, 3.185, 6.2.5, 6.3.5, 7.3, 7.4, 7.6.7, Figs. 7-3, 7-24
US	6,445,739	Quantization matrix generation	1	3.71, 3.169, 3.171, 6.2.3, 6.3.3, 7.1, 7.4, 7.4.1.2, 7.4.4, 7.4.4.1.2, Figs. 7-2, 7-3, 7-7
US	6,501,793	Quantization matrix generation	1	3.71, 3.169, 6.2.3, 6.3.3, 7.4, 7.4.4, Figs. 7-2, 7-7
US	6,400,889	Random reproduction	1	3.61, 3.106, 3.214, 6.1.3.4, 6.2.1, 6.2.3, 6.3.3, 7.4, Figs. 6-21, 7-3
US	6,449,424	Random reproduction	1	3.61, 3.106, 3.214, 6.1.3.4, 6.2.1, 6.2.3, 6.3.3, 7.4, Figs. 6-21, 7-3
US	7,155,110	Random reproduction	1	3.14, 6.1.3.4, 6.2.1, 6.2.3, 6.3.3, 7.4, Figs. 6-19, 6-21, 7-3
US	7,127,110	Random_accessible_vol	93	6.2.3, 6.3.3, 7, 7.2, 7.4, Fig. 7-3
US	7,197,188	Random_accessible_vol	1	6.2.1, 6.2.3, 6.2.5, 6.3.3, 7, 7.2, 7.4, Figs. 6-21, 7-3, Tables 9-1, 9-3
US	7,362,907	Random_accessible_vol	1	Intro., 3.71, 3.221, 6.1.3, 6.2.1, 6.2.3, 6.2.4, 6.2.5, 6.3.3, 6.3.5, 7, 7.2, 7.4, 7.5, Figs. 6-19, 6-21, 7-3, Tables 6-24, 9-1, 9-3
US	4,706,260*	Rate buffer control	1	3.114, 3.132, 3.133, 3.134, 7.3, 7.4.1, Annex D.1, D.2
US	6,701,018	Resynchronization marker	1	6.2.5, 6.2.5.2, 6.3.5

* Up to and through date of expiration (See Att. 1 to the MPEG-4 Visual Patent Portfolio License)

[†]Shows *illustrative* essential claims for each patent; other claims may also be essential

Cty	Patent	Description	Cl. #	Sections
US	4,982,270	Resynchronization markers	9	3.14, 6.1.3.8, 6.2.5.2, 6.2.5.3, 6.3.5, 6.3.5.2
US	6,959,046	Resynchronization markers	1	3.8, 4.3, 6.3.5, 7, 7.4, 7.4.1, Fig. 7-3, Table 9-4
US	5,852,469	Reversible VLC	5	6.3.7, 7.4.1.2, 7.4.1.3, B.1.4, Table B-23
US	6,256,064	Reversible VLC	1	6.2.1, 6.2.5.2, 6.3.3, 6.3.5, 7.4, 7.4.1, 7.4.1.1, 7.4.1.2, 7.4.1.3, Annexes B.1.4, Figs. 7-3, Tables 6-1, 6-2, 6-3, B.23
US	6,704,494	Reversible VLC	1	6.2.1, 6.3.3, 6.3.5, 7.4, 7.4.1, 7.4.1.1, 7.4.1.2, 7.4.1.3, Annex B.1.4, Fig. 7-3, Tables 6-2, 6-3, B.23
US	6,408,025	SA-DCT	1	3.71, 6.3.3, 7, 7.4.5, Annex A.3, A.3.1, Fig. 7-1, Table 7-2
US	6,636,637	SA-DCT	1	3.71, 3.125, 3.126, 3.164, 6.3.3, 7, 7.4.5, A.3, A.3.1, A.4, A.4.1, Table 7-2, Fig. 7-1
US	5,072,295	Saturation control	3, 4	3.132, 3.133, 3.134, 3.141, 3.143, 7.3, 7.4, 7.4.1.2, 7.4.4, 7.4.4.4, 7.4.5, Figs. 7-3, 7-7, 7-16
US	7,292,657	Scan pattern selection	1	6.1.3.9, 6.2.13.5, 6.3.13.5, 7, 7.1, 7.2, 7.4, 7.4.1, 7.4.1.1, 7.4.1.2, 7.4.2, 7.4.3, 7.4.3.1, 7.4.3.2, 7.4.3.3, 7.16.4.2, Figs. 7-2, 7-3, 7-4, 7-5, 7-6, 7-104, 7-105
US	6,301,301	Shape coding using prior VOP shape data	2	Intro., 3.10, 3.107, 6.2.5, 6.2.5.3, 6.3.5, 6.3.5.3, 7, 7.5, 7.5.2.1.2, 7.5.2.4, Fig. 7-1, Tables 6-20, 6-26, 7-2
US	7,027,517	Shape data coding	1	Intro., 1, 3.12, 3.14, 6.2.5.2, 6.2.5.3, 6.3.5, 6.3.5.3, 6.3.6.1, 7, 7.1
US	Re. 37,792	Shape data interpolation	6	7.5.2.5.3, Figs. 7-16, 7-17
US	6,002,812	Shape data upsampling	1	7.5.2.5.3, Figs. 7-13, 7-14
US	4796087*	Skipped Blocks	1	3.82, 3.84, 3.107, 6.1.3.2, 6.1.3.8, 6.2.6, 6.3.6, Tables B-1, B-2, B-8 to B-11
US	5,748,789	Skipping texture for transparent shape macroblock	1	Intro., 5.2.6, 6.1.1, 6.2.1, 6.2.5.3, 6.2.6, 6.2.7, 7, 7.2, 7.4, 7.5, Figs. 6-11 to 6-13, 7-2
US	4,654,484*	Spatial, Temporal, FGS or FGST Scalable Bitstream	11	3.AMD2.8, 3.AMD2.9, 3.9, 3.12, 3.60, 3.61, 3.62, 3.150, 6.1, 6.2.3(7), 6.2.14, 7.4, 7.4.6, 7.9.2.3, 7.17, 7.17.3 7.17.4, Figs. AMD2-1, AMD2-2, 7-1, 7-3, 7-34
US	5,963,259	Sprite	17	6.2.5.4, 6.3.3, 6.3.5.4, 7, 7.1, 7.3, 7.4, 7.8, 7.8.4, 7.8.5, 7.8.6, 7.8.7.1, Table 6-21, Figs. 7-2, 7-3, 7-49
US	6,285,713	Sprite	1	6.2.5.4, 6.3.3, 6.3.5.4, 7, 7.1, 7.3, 7.4, 7.8, 7.8.4, 7.8.5, Table 6-21, Figs. 7-2, 7-3, 7-49
US	6,516,033	Sprite	1	6.2.5.4, 6.3.3, 6.3.5.4, 7, 7.1, 7.4, 7.8, 7.8.4, 7.8.5, Figs. 7-2, 7-3, 7-49, Table 6-21
US	7,133,454	Sprite	1	6.2.5.4, 6.3.3, 6.3.5.4, 7, 7.1, 7.3, 7.4, 7.8, 7.8.4, 7.8.5, 7.8.6, 7.8.7.1, Table 6-21, Figs. 7-2, 7-3, 7-49

Cty	Patent	Description	Cl. #	Sections
US	7,321,995	Start codes	1	1, 3.199, 6.2.1, 6.2.6.2, 6.2.7, 6.3.5, 7, 7.4, Fig. 7-3, Tables 6-2, 9-1
US	Re. 38,726	Subframe timing	1	3.137, 6.1.3.2, 6.1.3.4, 6.2.5, 6.2.5.2, 6.2.5.3, 6.3.5
US	Re. 39,367	Subframe timing	17	3.137, 6.1.3.2, 6.1.3.4, 6.2.5, 6.2.5.2, 6.2.5.3, 6.3.5
US	6,510,554	Sub-stream generation	7	Intro., 3.11, 3.14, 3.73, 3.184, 3.202, 7.4, 7.9, 7.9.1.1, 7.9.1.2, Figs. 7-3, 7-52, 7-53
US	6,571,361	Synchronization code	19	6.2.1, 6.2.5, 6.2.5.2, 6.2.6.2, 6.2.7, 6.3.5, 7, 7.4, Tables 6-2, 6-3, Fig. 7-3
US	4,933,762	Temporal scalability	1	6.2, 6.3, 6.3.3, 7.9.1.1, Annex D.2, Fig. 7-33
US	5,963,257	Temporal scalability	7	7, 7.1, 7.4, 7.5, 7.5.1.2, 7.5.2, 7.9, 7.9.1, 7.9.1.3, 7.9.1.3.2, Figs. 7-1, 7-2, 7-3, 7-32
US	6,023,299	Temporal scalability	6	7, 7.1, 7.4, 7.5, 7.5.1.2, 7.5.2, 7.9, 7.9.1, 7.9.1.1, 7.9.1.3, 7.9.1.3.2, Figs. 7-1, 7-2, 7-3, 7-32, 7-33
US	6,148,030	Temporal scalability	7, 13	3.37, 3.8, 3.157, 3.221, 6.1, 6.1.3, 6.1.3.4, 6.3.3, 6.3.5, 7.1, 7.9, 7.9.1, 7.9.1.1, 7.9.1.3, 7.9.1.3.2, 7.9.1.3.3, Tables 7-17, 9-1, Figs. 7-1, 7-2
US	6,324,215	Temporal scalability	1	Intro., 3.174, 3.202, 3.221, 6.1, 6.1.3, 6.1.3.4, 6.3.3, 6.3.5, 7.1, 7.9, 7.9.1, 7.9.1.1, 7.9.1.3, 7.9.1.3.2, Table 9-1, Figs. 7-1, 7-2, 7-17, 7-52
US	6,466,622	Temporal scalability	1	Intro., 3.174, 3.202, 3.221, 6.1, 6.1.3, 6.1.3.4, 6.3.3, 6.3.5, 7.1, 7.9, 7.9.1, 7.9.1.1, 7.9.1.3, 7.9.1.3.2, Table 9-1, Figs. 7-1, 7-2, 7-17, 7-52
US	6,678,326	Temporal scalability	1	Intro., 3.174, 3.202, 3.221, 6.1, 6.1.3, 6.1.3.4, 6.3.3, 6.3.5, 7.1, 7.9, 7.9.1, 7.9.1.1, 7.9.1.3, 7.9.1.3.2, Table 9-1, Figs. 7-1, 7-2, 7-52
US	6,952,432	Time base	1	1, 3.14, 6.2.5, 6.2.5.2, 6.2.7, 6.3.5, 7, 7.1
US	Re. 38,923	Time base	1	6.2.3, 6.2.5, 6.3.5, 9.1, Table 9-1
US	6,373,856	Time code	8	6.2.5, 6.2.5.2, 6.3.1
US	6,104,434	Upsampling	19	6.1.3.4, 6.3.3, 6.3.5, 6.3.6.2, 7.1, 7.3, 7.4, 7.4.4, 7.4.5, 7.4.6, 7.4.6.2, 7.6.3, 7.6.10.1.1, 7.6.10.1.2, 7.6.10.1.3, 7.6.10.1.4, 7.6.10.2, Figs. 7-3, V2-6, V2-8, V2-19
US	6,333,949	Upsampling	9	6.1.3.4, 6.2.5, 6.3.3, 6.3.5, 7.1, 7.4, 7.4.6, 7.6.3, 7.6.10, 7.6.10.1.1, 7.6.10.1.3, 7.6.10.1.4, 7.6.10.2, Annex N, Figs. 7-3, V2-6, V2-19
US	6,404,929	Variable length coding	1	7.4.1, 7.4.1.2, 7.4.1.3, Annex B, Fig. 7-3, Tables B-16, B-17, B-19, B-20
US	6,654,545	Variable size block encoding	1	1, 3.106, 3.163, 6.2.3, 6.3.3, 6.3.5
US	5,606,539	VBV Buffer	1	Intro. 1, 3.31, 3.218, 6.1.3.8, 6.2.3, 6.3.3, 7, Annexes D.1, D.2, Figs. 7-1, D.1, D.2

[†]Shows *illustrative* essential claims for each patent; other claims may also be essential

Cty	Patent	Description	Cl. #	Sections
US	5,608,697	VBV Buffer	1	Intro. 1, 3.31, 3.218, 6.1.3.8, 6.2.3, 6.3.3, 7, Annexes D.1, D.2, Figs. 7-1, D.1, D.2
US	5,844,867	VBV Buffer	1	Intro. 1, 3.31, 3.218, 6.1.3.8, 6.2.3, 6.3.3, 7, Annexes D.1, D.2, Figs. 7-1, D.1, D.2
US	5,235,618	Video rate buffer model	25	3.82, 3.83, 3.84, 7, Annex D.1, Figs. 7-1
US	6,104,754	VLC	12	6.2.1, 6.2.5.2, 6.3.3, 6.3.5, 7.4, 7.4.1, 7.4.1.1, 7.4.1.2, 7.4.1.3, B.1.4 ,Figs. 7-3, Tables 6-1, 6-2, B.23
US	6,345,123	VLC escape coding	1	Intro., 3.48, 6.2.7, 7.4, 7.4.1, 7.4.1.2, 7.4.1.3
US	6,490,372	VLC escape coding	1	Intro., 3.48, 6.2.7, 7.4, 7.4.1, 7.4.1.2, 7.4.1.3
US	6,574,369	VLC escape coding	1	Intro., 3.48, 6.2.7, 7.4, 7.4.1, 7.4.1.2, 7.4.1.3
US	6,608,936	VLC escape coding	1	Intro., 3.48, 6.2.7, 7.4, 7.4.1, 7.4.1.2, 7.4.1.3
US	4,813,056*	VLC escape coding	21	3.178, 6.3.3, 7.4.1, 7.4.1.1, 7.4.1.2, 7.4.1.3, Tables B-16 to B-18
US	4,901,075*	VLC events including run & level	8	7.4.1.2, 7.4.2, 7.4.4, 7.4.5, Tables B-16, B-17, Figs. 7-4, 7-7
US	5,579,413	VLC events including run, level & end	1	6.2.7, 7.4.1.2, 7.4.2, 7.4.4, 7.4.5
US	6,349,149	VLC/Escape code decoding	1	Intro., 3.48, 6.2.7, 7.4, 7.4.1, 7.4.1.2, 7.4.1.3, Fig. 7-3, Tables B-16, B-17, B-18a, B-18b, B-19, B-20, B-21, B-22
US	6,556,717	VLC/Escape code decoding	1	7.4.1, 7.4.1.2, 7.4.1.3, Tables B-16, B-17, B-21, B-22, Fig. 7-3
US	7,116,829	VLC/Escape code decoding	1	7.4.1, 7.4.1.2, 7.4.1.3, Fig. 7-3, Tables B-19, B-20
US	7,289,670	VLC/Escape code decoding	1	7.4.1, 7.4.1.2, 7.4.1.3, Fig. 7-3, Tables B-16, B-17, B-19, B-20, B-21, B-22
US	5,223,949	VOP ordering	1, 5	Intro., 3.6, 3.147, 6.1.3.7, 6.3.5, 7.2, Table 6-20
US	5,740,310	VOP time code	1	Intro., 6.1.3.8, 6.1.3.9, 6.2.4, 6.2.5, 6.3.4, 6.3.5
US	6,351,563	Enhancement Layer VOP Modes	1	7.5.4.6, 7.5.4.7, Table V2-29

* Up to and through date of expiration (See Att. 1 to the MPEG-4 Visual Patent Portfolio License)   [†]Shows *illustrative* essential claims for each patent; other claims may also be essential