

**MPEG-2 Systems Patent Portfolio License Illustrative Cross-Reference Chart**  
 (Shows illustrative essential claims of one patent in each family; other claims may also be essential)

Ctry.	Patent No.	Claims	Category	Description	Standard Sections
EP	401,638	1	Systems	Transport stream, transport packet format with PID, transport_priority	Systems: Intro. 1, Intro. 8.1, 1.1, 2.4.1, 2.4.3, 2.4.3.2, 2.4.3.3, 2.4.3.6, 2.4.3.7, 2.4.4, 2.4.4.8, 2.4.4.9, Ann. D.0.1, Figs. Intro. 1, 2, D.1, Tables 2.23 and 2.29.
JP	2,814,819	1	Systems	Demultiplexing elementary streams based on PID's	Systems: Intro. 2.1.32, 2.1.44, 2.4.1, Ann. F
JP	2,907,072	1	Systems	Program mux rate	Systems: 2.5.2.2, 2.5.3.4
JP	3,019,827	1	Systems	Demultiplexing elementary streams based on PID's	Systems: 2.1.32, 2.4.1, 2.4.3.2, 2.4.3.3
JP	3,657,200	1	Systems	PTS and PCR	Systems: 2.4.2.1, 2.4.3.2, 2.4.3.4, 2.4.3.6, 2.5.2.1
				This patent is a counterpart of US Patent 5,565,923 owned by and separately listed under Thomson Licensing.	
KR	100,718	1	Systems	PCR and SCR	Systems: 2.1.42, 2.1.54, 2.4.2.2, 2.4.3.5, 2.5.2.2 and 2.5.3.4
KR	400,800	1	Systems	Transport packet with PID, continuity_counter & transport_error_indicator	Systems: 2.4.1, 2.4.3.3, 2.4.4, 2.4.4.3, 2.4.4.8, Tables 2-2, 2-3, 2-23
US	4,970,590	1	Systems	Multiplexing elementary and systems layer streams	Video: Intro. 4 and 4.1 Systems: 2.4.3.7, 2.4.4.8, 2.4.4.9, 2.5.4.2, 2.5.5.1, 2.5.5.2 Tables 2-18, 2-28, 2-35, 2-36
US	5,268,846	1	Systems	Program_stream_directory	Systems: Intro., 2.11, 2.1.36, 2.5.1, 2.5.5, 2.5.5.2, Table 2-36, MPEG-2 Video: Intro. 4.1.1, 3.107, 6.1.1.6, 6.1.1.7, 6.3.9.
US	5,289,276	1	Systems	Transport stream carrying repeat sequence headers	Systems: 2.1.20, 2.4.1, 2.4.3.2, 2.4.3.3, Table 2-3 Video: 6.1.1.6, 6.3.1, Fig. 6-15
US	5,291,486	12	Bit Rate Control	Halting input of data when decoder buffer fills	Systems: 2.4.2, 2.5.2 Video: Ann. C, C.3.2
US	5,333,135	10		PSI table format	Systems: 2.4.3.2, 2.4.3.3, 2.4.4.1, 2.4.4.2, 2.4.4.8, Ann. C.3, C.4
US	5,365,272	1		Transport packet format with PID, continuity_counter & adaptation_field_control	Systems: 2.4.1, 2.4.3.3, 2.4.3.5, Tables 2-2, 2-5, 2-6
US	5,381,181	1		Transport stream carrying PCR's and PTS's in packets	Systems: 1.1, 2.4.1, 2.4.2.1, 2.4.2.2, 2.4.3.3, 2.4.3.5, 2.4.3.7, 2.7.2, 2.7.4 Fig. D.1, Table 2-5
US	5,418,782	1,4	Systems	PMT, PAT	Systems: Intro., Intro. 1, 2.1.20, 2.1.41, 2.4.4, 2.4.4.5, 2.4.4.8, Ann. C.5, C.7, C.9
US	5,420,866	1,4,8,9	Systems	CAT, EMM's, ECM's.	Systems: 2.4.4, 2.4.4.6, 2.4.4.8, 2.6.16
US	5,457,701	1,4	Systems	Transport error indicator	Systems: Intro. 1, 2.4.2.6, 2.4.3.1, 2.4.3.2, 2.4.3.3, Fig. J.1
US	5,459,789	9	Systems	Demultiplexing elementary streams based on PID's	Systems: 2.4.1, 2.4.2, 2.4.3.3, 2.4.4.8, Figs. 2-1, Intro. 2, Table 2-2, 2-28, 2-39
US	5,483,287	1	Systems	Transport packet format with PID, continuity_counter, transport_priority, payload_unit_start_indicator, transport_scrambling_control & adaptation_field_control	Systems: 2.4.1, 2.4.3.3, 2.4.3.5 Tables 2-2, 2-4, 2-5, 2-6
US	5,486,864	7	Systems	PTS, PCR, OPCR	Systems: 2.4.1, 2.4.3.2, 2.4.3.5, 2.4.3.7, Ann.D.0.4, Tables 2-2, 2-6
US	5,565,923	1	Systems	PCR and OPCR	Systems: 2.4.1, 2.4.3, 2.4.3.2, 2.4.3.3, 2.4.3.5, Ann. D.04, Tables 2-2, 2-5, 2-6
US	5,606,539	1,18,23,29	Systems	PTS/DTS decoding delay	Systems: 2.7.5, Ann. D, D.0.2, F
US	5,608,697	1	Systems	PTS/DTS decoding delay	Systems: 2.7.5, Ann. D, D.0.2, F
US	5,784,110	1	Systems	PES header alignment in Transport packet	Systems: 2.4.1, 2.4.3, 2.4.3.1, 2.4.3.2, 2.4.3.3, 2.4.3.4, 2.4.3.5, 2.4.3.7, Tables 2-2
US	5,796,743	1	Systems	PES header alignment in Transport packet	Systems: 2.4.1, 2.4.3.2, 2.4.3.3, 2.4.3.4, 2.4.3.7, Tables 2-2, 2-6 Video: 6.2.1, 7.2.1, 7.2.2
US	5,844,867	1,19,29	Systems	PTS/DTS decoding delay	Systems: 2.7.5, Ann. D, D.0.2, F
US	5,867,501	5	Systems	Transport stream, transport packet format with adaptation_field_control, continuity_counter, discontinuity_indicator	Systems: 2.1.52, 2.4.3, 2.4.3.2, 2.4.3.3, 2.4.3.5, Tables 2-2, 2-5, 2-6
US	6,181,712	1	Systems	Transport stream with ltw_offset	Systems: Introduction, Intro. 1, 2.4.1, 2.4.2.6, 2.4.3.1, 2.4.3.2, 2.4.3.3, 2.4.3.4, 2.4.3.5, Annex D.0.4, Tables 2-1, 2-2, 2-5, 2-6, Fig. Intro. 3
US	6,792,001	1	Systems	Transport packet format with adaptation_field_control	Systems: Intro.1, 2.4.1, 2.4.3.1, 2.4.3.2, 2.4.3.3, 2.4.3.4, 2.4.3.5, Table 2-1, 2-2, 2-5, 2-6
US	7,334,248	1	Systems	Transport stream with PIDs, continuity_counter, transport_error_indicator	Systems: 2.1.13, 2.1.32, 2.4.1, 2.4.2.3, 2.4.3.1, 2.4.3.2, 2.4.3.3, Tables 2-1, 2-2, Figure 2-1