

M9 WWTV	M5/7	M3	Satellite	Frequency	Symbol Rate	Code Rate	Network ID	Polarization	Band	Decoder Type	Orbital Position
ASA105E	N/A	N/A	AsiaSat 3S	12352	30000	3/4	0X0002	Vertical	H	DVB QPSK	105E
			AsiaSat 3S	00000	20000	1/2	0XFFFE	Vertical	L	DVB QPSK	105E
			AsiaSat 3S	12471	20000	2/3	0XFFFE	Horizontal	H	DVB QPSK	105E
			AsiaSat 3S	00000	20000	1/2	0XFFFE	Horizontal	L	DVB QPSK	105E
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NSS108E	N/A	N/A	NSS 11	12411	11110	5/6	0X0002	Vertical	H	DVB QPSK	108E
			NSS 11	00000	20000	1/2	0XFFFE	Vertical	L	DVB QPSK	108E
			NSS 11	12551	28100	5/6	0X00AE	Horizontal	H	LDPC 8PSK STD DVB-S2	108E
			NSS 11	00000	20000	1/2	0XFFFE	Horizontal	L	DVB QPSK	108E
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ASA122E	(59) ASIASAT	122E	AsiaSat 4	11727	25000	2/3	0XFFFE	Circular Right	H	DVB QPSK	122E
			AsiaSat 4	11727	25000	2/3	0XFFFE	Circular Right	H	DVB QPSK	122E
			AsiaSat 4	00000	20000	1/2	0XFFFE	Circular Left	H	DVB QPSK	122E
			AsiaSat 4	00000	20000	1/2	0XFFFE	Circular Left	H	DVB QPSK	122E
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JCSAT 4A	JCSAT 4A	12508	21096	3/4	0XFFFE	Vertical	H	DVB QPSK	124E
	JCSAT 4A	00000	20000	1/2	0XFFFE	Vertical	L	DVB QPSK	124E
	JCSAT 4A	12523	21096	3/4	0XFFFE	Horizontal	H	DVB QPSK	124E
	JCSAT 4A	00000	20000	1/2	0XFFFE	Horizontal	L	DVB QPSK	124E

JCSAT 3A	JCSAT 3A	12508	21096	3/4	0XFFFE	Vertical	H	DVB QPSK	128E
	JCSAT 3A	00000	20000	1/2	0XFFFE	Vertical	L	DVB QPSK	128E
	JCSAT 3A	12408	21096	3/4	0XFFFE	Horizontal	H	DVB QPSK	128E
	JCSAT 3A	00000	20000	1/2	0XFFFE	Horizontal	L	DVB QPSK	128E

NA	Vinasat 1	12551	19100	3/4	0xFFFE	Vertical	H	DVB QPSK	132E
	Vinasat 1	11088	28100	3/4	0x0001	Vertical	L	DVB QPSK	132E
	Vinasat 1	11669	30000	2/3	0x0001	Horizontal	H	LDPC 8PSK STD DVB-S2	132E
	Vinasat 1	11048	28800	5/6	0x0001	Horizontal	L	DVB QPSK	132E

APS134E	N/A	N/A	Apstar 6	12515	27500	3/4	0X0041	Vertical	H	DVB QPSK	134E
			Apstar 6	12515	27500	3/4	0X0041	Vertical	L	DVB QPSK	134E
			Apstar 6	00000	20000	1/2	0XFFFE	Horizontal	H	DVB QPSK	134E
			Apstar 6	00000	20000	1/2	0XFFFE	Horizontal	L	DVB QPSK	134E
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TEL138E	N/A	N/A	Telstar 18	12354	43000	3/4	0X000A	Vertical	H	DVB QPSK	138E
			Telstar 18	12354	43000	3/4	0X000A	Vertical	L	DVB QPSK	138E
			Telstar 18	12689	43200	3/4	0X01FF	Horizontal	H	DVB QPSK	138E
			Telstar 18	12689	43200	3/4	0X01FF	Horizontal	L	DVB QPSK	138E
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HBD13E	(2) HOTBIRD	13E	Hot Bird	12594	27500	3/4	0X013E	Vertical	H	DVB QPSK	13E
			Hot Bird	11766	29900	3/4	0X013E	Vertical	L	LDPC 8PSK STD DVB-S2	13E
			Hot Bird	11747	27500	3/4	0X013E	Horizontal	H	DVB QPSK	13E
			Hot Bird	11137	27500	3/4	0X013E	Horizontal	L	DVB QPSK	13E
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AM140E	N/A	N/A	Express AM3	00000	20000	1/2	0XFFFE	Vertical	H	DVB QPSK	140E
			Express AM3	11665	39500	5/6	0XFFFE	Vertical	L	DVB QPSK	140E
			Express AM3	00000	20000	1/2	0XFFFE	Horizontal	H	DVB QPSK	140E
			Express AM3	11471	24800	1/2	0XFFFE	Horizontal	L	DVB QPSK	140E
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SB144E	N/A	N/A	SuperBird C2	12508	21096	3/4	0X0005	Vertical	H	DVB QPSK	144E
			SuperBird C2	00000	20000	1/2	0XFFFE	Vertical	L	DVB QPSK	144E
			SuperBird C2	12523	21096	3/4	0XF001	Horizontal	H	DVB QPSK	144E
			SuperBird C2	00000	20000	1/2	0XFFFE	Horizontal	L	DVB QPSK	144E
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OPT156E	(13) OPTUS_C1	156E	Optus C1	12177	27800	3/4	0X1000	Vertical	H	DVB QPSK	156E
			Optus C1	12177	27800	3/4	0X1000	Vertical	L	DVB QPSK	156E
			Optus C1	12177	27800	3/4	0X1000	Horizontal	H	DVB QPSK	156E
			Optus C1	12177	27800	3/4	0X1000	Horizontal	L	DVB QPSK	156E
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OPT160E	(12) OPTUS_D1	160E	Optus D1	00000	22500	3/4	0X00A9	Vertical	H	DVB QPSK	160E
			Optus D1	00000	22500	3/4	0X00A9	Vertical	L	DVB QPSK	160E
			Optus D1	12519	22500	3/4	0X00A9	Horizontal	H	DVB QPSK	160E
			Optus D1	00000	22500	3/4	0X00A9	Horizontal	L	DVB QPSK	160E

IT166E	N/A	N/A	Intelsat 8	00000	20000	1/2	0XFFFE	Vertical	H	DVB QPSK	166E
			Intelsat 8	00000	20000	1/2	0XFFFE	Vertical	L	DVB QPSK	166E
			Intelsat 8	12646	28066	3/4	0XFFFE	Horizontal	H	DVB QPSK	166E
			Intelsat 8	00000	20000	1/2	0XFFFE	Horizontal	L	DVB QPSK	166E

Intelsat8NZ	N/A	N/A	Intelsat 19 NZ	12491	04400	3/4	0XFFFE	Vertical	H	DVB QPSK	166E
			Intelsat 19 NZ	00000	20000	1/2	0XFFFE	Vertical	L	DVB QPSK	166E
			Intelsat 19 NZ	00000	20000	1/2	0XFFFE	Horizontal	H	DVB QPSK	166E
			Intelsat 19 NZ	00000	20000	1/2	0XFFFE	Horizontal	L	DVB QPSK	166E

ETLS16E	N/A	N/A	Eutelsat	00000	20000	1/2	0XFFFE	Vertical	H	DVB QPSK	16E
			Eutelsat	11178	27500	3/4	0X0001	Vertical	L	DVB QPSK	16E
			Eutelsat	12525	30000	3/4	0X016E	Horizontal	H	DVB QPSK	16E
			Eutelsat	10976	27225	2/3	0X016E	Horizontal	L	LDPC QPSK STD DVB-S2	16E

ITP180E	N/A	N/A	Intelsat 18SP	00000	20000	1/2	0XFFFE	Vertical	H	DVB QPSK	180E
			Intelsat 18SP	00000	20000	1/2	0XFFFE	Vertical	L	DVB QPSK	180E
			Intelsat 18SP	12648	28066	3/4	0XFFFE	Horizontal	H	DVB QPSK	180E
			Intelsat 18SP	11155	28588	3/4	0XFFFE	Horizontal	L	LDPC 8PSK STD DVB-S2	180E

ITP180E	N/A	N/A	Intelsat 18FP	00000	20000	1/2	0XFFFE	Vertical	H	DVB QPSK	180E
			Intelsat 18FP	11155	28588	3/4	0XFFFE	Vertical	L	LDPC 8PSK STD DVB-S2	180E
			Intelsat 18FP	00000	20000	1/2	0XFFFE	Horizontal	H	DVB QPSK	180E
			Intelsat 18FP	00000	20000	1/2	0XFFFE	Horizontal	L	DVB QPSK	180E

NA			Astra 1 Holland	11739	27500	3/4	0X0001	Vertical	H	DVB QPSK	19E
			Astra 1 Holland	11156	22000	5/6	0X0001	Vertical	L	DVB QPSK	19E
			Astra 1 Holland	12692	22000	5/6	0X0001	Horizontal	H	DVB QPSK	19E
			Astra 1 Holland	11244	22000	5/6	0X0001	Horizontal	L	DVB QPSK	19E

AST19E	(1) ASTRA1	19E	Astra 1	12051	27500	3/4	0X0001	Vertical	H	DVB QPSK	19E
			Astra 1	11156	22000	5/6	0X0001	Vertical	L	DVB QPSK	19E
			Astra 1	11836	27500	3/4	0X0001	Horizontal	H	DVB QPSK	19E
			Astra 1	10744	22000	5/6	0X0001	Horizontal	L	DVB QPSK	19E

NA			Astra 3 Holland	12129	29900	2/3	0X0003	Vertical	H	LDPC 8PSK STD DVB-S2	23E
			Astra 3 Holland	11739	29900	2/3	0X0003	Vertical	L	LDPC 8PSK STD DVB-S2	23E
			Astra 3 Holland	12070	27500	3/4	0X0003	Horizontal	H	DVB QPSK	23E

			Astra 3 Holland	11798	29500	3/4	0X0003	Horizontal	L	LDPC 8PSK STD DVB-S2	23E
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AST23E	N/A	N/A	Astra 3A	12168	27500	3/4	0X0003	Vertical	H	DVB QPSK	23E
			Astra 3A	11739	29900	2/3	0X0003	Vertical	L	LDPC 8PSK STD DVB-S2	23E
			Astra 3A	11798	29500	3/4	0X0003	Horizontal	H	LDPC 8PSK STD DVB-S2	23E
			Astra 3A	11798	29500	3/4	0X0003	Horizontal	L	LDPC 8PSK STD DVB-S2	23E
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ARAB26E	(10) ARABSAT	26E	Badr 6	11747	27500	3/4	0X02BE	Vertical	H	DVB QPSK	26E
			Badr 6	11747	27500	3/4	0X02BE	Vertical	L	DVB QPSK	26E
			Badr 6	11843	27500	3/4	0X02BE	Horizontal	H	DVB QPSK	26E
			Badr 6	10810	27500	3/4	0XFFFE	Horizontal	L	DVB QPSK	26E
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ASTN28E	(3) ASTRA2N	28NE	Astra 2 UK	12207	27500	5/6	0X0020	Vertical	H	DVB QPSK	28E
			Astra 2 UK	10788	22000	5/6	0X0020	Vertical	L	DVB QPSK	28E

			Astra 2 UK	12110	27500	5/6	0X0020	Horizontal	H	DVB QPSK	28E
			Astra 2 UK	10803	22000	5/6	0X0020	Horizontal	L	DVB QPSK	28E
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ASTS28E	(4) ASTRA2S	28SE	Astra 2 EU	11895	27500	2/3	0X0020	Vertical	H	DVB QPSK	28E
			Astra 2 EU	11568	22000	5/6	0X0020	Vertical	L	DVB QPSK	28E
			Astra 2 EU	11836	27500	5/6	0X0020	Horizontal	H	DVB QPSK	28E
			Astra 2 EU	11582	22000	5/6	0X0020	Horizontal	L	DVB QPSK	28E
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ETLN36E	N/A	N/A	Eutelsat W4 A	11843	27500	3/4	0X036E	Vertical	H	DVB QPSK	36E
			Eutelsat W4 A	00000	20000	1/2	0XFFFE	Vertical	L	DVB QPSK	36E
			Eutelsat W4 A	11747	27500	3/4	0X036E	Horizontal	H	DVB QPSK	36E
			Eutelsat W4 A	00000	20000	1/2	0XFFFE	Horizontal	L	DVB QPSK	36E
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NA			Eutelsat W7	11670	27500	5/6	0X0000	Vertical	H	DVB QPSK	36E
			Eutelsat W7	11766	27500	3/4	0XFFFE	Vertical	L	DVB QPSK	36E

			Eutelsat W7	12558	30000	5/6	0XC329	Horizontal	H	DVB QPSK	36E
			Eutelsat W7	11747	27500	3/4	0X036E	Horizontal	L	DVB QPSK	36E
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TRK42E	(8) TURKSAT1C	42E	Turksat	12379	27500	3/4	0X002A	Vertical	H	DVB QPSK	42E
			Turksat	11012	30000	5/6	0X0042	Vertical	L	DVB QPSK	42E
			Turksat	12054	27500	5/6	0X042E	Horizontal	H	DVB QPSK	42E
			Turksat	10963	16700	3/4	0X042E	Horizontal	L	DVB QPSK	42E
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NA			TurkmenAlem	11766	27500	5/6	0X0003	Vertical	H	DVB QPSK	52E
			TurkmenAlem	11766	27500	5/6	0X0003	Vertical	L	DVB QPSK	52E
			TurkmenAlem	11785	27500	5/6	0X020D	Horizontal	H	DVB QPSK	52E
			TurkmenAlem	11785	27500	5/6	0X020D	Horizontal	L	DVB QPSK	52E
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AME53E	N/A	N/A	Express AM22 W	12664	27500	5/6	0XFFFE	Vertical	H	DVB QPSK	53E
			Express AM22 W	11044	44950	3/4	0X1111	Vertical	L	DVB QPSK	53E

			Express AM22 W	00000	20000	1/2	0XFFFE	Horizontal	H	DVB QPSK	53E
			Express AM22 W	10974	10000	3/4	0XFFFE	Horizontal	L	DVB QPSK	53E
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AMM53E	N/A	N/A	Exp AM22 S2	12664	27500	5/6	0XFFFE	Vertical	H	DVB QPSK	53E
			Exp AM22 S2	11044	44950	3/4	0X1111	Vertical	L	DVB QPSK	53E
			Exp AM22 S2	00000	20000	1/2	0XFFFE	Horizontal	H	DVB QPSK	53E
			Exp AM22 S2	10974	10000	3/4	0XFFFE	Horizontal	L	DVB QPSK	53E
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BON56E	N/A	N/A	Bonum 1	12245	27500	3/4	0XFFFE	Circular Right	H	DVB QPSK	56E
			Bonum 1	12399	27500	3/4	0XFFFE	Circular Right	H	DVB QPSK	56E
			Bonum 1	12226	27500	3/4	0XFFFE	Circular Left	H	DVB QPSK	56E
			Bonum 1	12380	27500	3/4	0XFFFE	Circular Left	H	DVB QPSK	56E
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SIRI5E	(6) SIRIUS	5E	Astra 4A	11823	27500	5/6	0X0056	Vertical	H	DVB QPSK	5E

			Astra 4A	11823	27500	5/6	0X0056	Vertical	L	DVB QPSK	5E
			Astra 4A	11804	27500	5/6	0X0056	Horizontal	H	DVB QPSK	5E
			Astra 4A	11804	27500	5/6	0X0056	Horizontal	L	DVB QPSK	5E
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ITE68E	N/A	N/A	Intelsat 20 Euro/Africa	12722	26657	1/2	0X0049	Vertical	H	DVB QPSK	68E
			Intelsat 20 Euro/Africa	00000	20000	5/6	0XFFFE	Vertical	L	DVB QPSK	68E
			Intelsat 20 Euro/Africa	12722	26657	1/2	0X0001	Horizontal	H	DVB QPSK	68E
			Intelsat 20 Euro/Africa	00000	20000	5/6	0XFFFE	Horizontal	L	DVB QPSK	68E
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ITA68E	N/A	N/A	Intelsat 20 S Africa	00000	20000	1/2	0XFFFE	Vertical	H	DVB QPSK	68E
			Intelsat 20 S Africa	11010	30000	5/6	0X1800	Vertical	L	DVB QPSK	68E
			Intelsat 20 S Africa	00000	20000	1/2	0XFFFE	Horizontal	H	DVB QPSK	68E
			Intelsat 20 S Africa	11010	30000	5/6	0X1800	Horizontal	L	DVB QPSK	68E

Africa

ETL70E	N/A	N/A	Eutelsat 70B	00000	20000	1/2	0XFFFE	Vertical	H	DVB QPSK	70E
			Eutelsat 70B	00000	20000	1/2	0XFFFE	Vertical	L	DVB QPSK	70E
			Eutelsat 70B	00000	20000	1/2	0XFFFE	Horizontal	H	DVB QPSK	70E
			Eutelsat 70B	11210	10000	3/4	0X013E	Horizontal	L	DVB QPSK	70E

ABSN75E	N/A	N/A	ABS 1 North	12640	22000	3/4	0X0064	Vertical	H	DVB QPSK	75E
			ABS 1 North	00000	20000	1/2	0XFFFE	Vertical	L	DVB QPSK	75E
			ABS 1 North	00000	20000	1/2	0XFFFE	Horizontal	H	DVB QPSK	75E
			ABS 1 North	00000	20000	1/2	0XFFFE	Horizontal	L	DVB QPSK	75E

ABSS75E	N/A	N/A	ABS 1 South	00000	20000	1/2	0XFFFE	Vertical	H	DVB QPSK	75E
			ABS 1 South	00000	20000	1/2	0XFFFE	Vertical	L	DVB QPSK	75E
			ABS 1 South	12579	22000	3/4	0X0064	Horizontal	H	DVB QPSK	75E

			ABS 1 South	00000	20000	1/2	0XFFFE	Horizontal	L	DVB QPSK	75E
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TEL76E	N/A	N/A	Telstar 10	12528	30000	3/4	0X0001	Vertical	H	DVB QPSK	76E
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			Telstar 10	00000	20000	1/2	0XFFFE	Vertical	L	DVB QPSK	76E
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			Telstar 10	00000	20000	1/2	0XFFFE	Horizontal	H	DVB QPSK	76E
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			Telstar 10	00000	20000	1/2	0XFFFE	Vertical	L	DVB QPSK	76E
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THAI78E	N/A	N/A	Thaicom	12313	30000	3/4	0XFFFE	Vertical	H	DVB QPSK	78E
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			Thaicom	00000	20000	1/2	0XFFFE	Vertical	L	DVB QPSK	78E
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			Thaicom	12272	30000	2/3	0XFFFE	Horizontal	H	DVB QPSK	78E
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			Thaicom	00000	20000	1/2	0XFFFE	Horizontal	L	DVB QPSK	78E
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ETL7E	(14) EUTELSAT_W3A	7E	Eutelsat W3A	00000	20000	1/2	0XFFFE	Vertical	H	DVB QPSK	7E
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			Eutelsat W3A	11617	30000	3/4	0X007E	Vertical	L	DVB QPSK	7E
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			Eutelsat W3A	00000	20000	1/2	0XFFFE	Horizontal	H	DVB QPSK	7E
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			Eutelsat W3A	11596	30000	3/4	0X007E	Horizontal	L	DVB QPSK	7E
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AM80E	N/A	N/A	Express AM2	11606	30000	5/6	0XFFFE	Vertical	H	DVB QPSK	80E
			Express AM2	11101	30000	3/4	0XFFFE	Vertical	L	DVB QPSK	80E
			Express AM2	00000	20000	1/2	0XFFFE	Horizontal	H	DVB QPSK	80E
			Express AM2	11044	30000	5/6	0XFFFE	Horizontal	L	DVB QPSK	80E
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ST88E	N/A	N/A	ST 2	00000	20000	1/2	0XFFFE	Vertical	H	DVB QPSK	88E
			ST 2	11483	43978	3/5	0XFFFE	Vertical	L	LDPC 8PSK STD DVB-S2	88E
			ST 2	12702	20000	3/4	0X000E	Horizontal	H	DVB QPSK	88E
			ST 2	11609	43978	3/5	0XFFFE	Horizontal	L	DVB QPSK	88E
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YAM90E	N/A	N/A	Yamal 201	00000	20000	1/2	0XFFFE	Vertical	H	DVB QPSK	90E
			Yamal 201	11057	26470	3/4	0X0064	Vertical	L	DVB QPSK	90E
			Yamal 201	00000	20000	1/2	0XFFFE	Horizontal	H	DVB QPSK	90E

			Yamal 201	00000	20000	1/2	0XFFFE	Horizontal	L	DVB QPSK	90E
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MEAM91E	N/A	N/A	Measat 3	11682	30000	7/8	0X0880	Vertical	H	DVB QPSK	91E
			Measat 3	11062	30000	3/4	0X0880	Vertical	L	DVB QPSK	91E
			Measat 3	12683	27500	5/6	0X03E7	Horizontal	H	DVB QPSK	91E
			Measat 3	00000	20000	1/2	0XFFFE	Horizontal	L	DVB QPSK	91E
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MEAI91E	N/A	N/A	Measat 3 SA	12523	27500	5/6	0XFFFE	Vertical	H	DVB QPSK	91E
			Measat 3 SA	00000	20000	1/2	0XFFFE	Vertical	L	DVB QPSK	91E
			Measat 3 SA	12683	22700	3/4	0XFFFE	Horizontal	H	DVB QPSK	91E
			Measat 3 SA	00000	20000	1/2	0XFFFE	Horizontal	L	DVB QPSK	91E
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ISAT93E	N/A	N/A	Intelsat 3A 4B	00000	20000	1/2	0XFFFE	Vertical	H	DVB QPSK	93E
			Intelsat 3A 4B	10990	27500	3/4	0X0001	Vertical	L	DVB QPSK	93E
			Intelsat 3A 4B	00000	20000	1/2	0XFFFE	Horizontal	H	DVB QPSK	93E

			Intelsat 3A 4B	00000	20000	1/2	0XFFFE	Horizontal	L	DVB QPSK	93E
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NSSS95E	N/A	N/A	NSS6 SE Asia	00000	20000	1/2	0XFFFE	Vertical	H	DVB QPSK	95E
			NSS6 SE Asia	11131	27500	5/6	0X1111	Vertical	L	DVB QPSK	95E
			NSS6 SE Asia	00000	20000	1/2	0XFFFE	Horizontal	H	DVB QPSK	95E
			NSS6 SE Asia	11635	27500	3/4	0X2000	Horizontal	L	DVB QPSK	95E
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NSSI95E	N/A	N/A	NSS6, India	12688	27500	3/4	0XFFFE	Vertical	H	DVB QPSK	95E
			NSS6, India	00000	20000	1/2	0XFFFE	Vertical	L	DVB QPSK	95E
			NSS6, India	12688	27500	3/4	0XFFFE	Horizontal	H	DVB QPSK	95E
			NSS6, India	11090	29500	7/8	0XFFFE	Horizontal	L	DVB QPSK	95E
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NSSN95E	N/A	N/A	NSS6 NE Asia	00000	20000	1/2	0XFFFE	Vertical	H	DVB QPSK	95E
			NSS6 NE Asia	11494	20000	3/4	0XFFFE	Vertical	L	DVB QPSK	95E
			NSS6 NE Asia	12688	28000	3/4	0X0009	Horizontal	H	DVB QPSK	95E

			NSS6 NE Asia	00000	20000	1/2	0XFFFE	Horizontal	L	DVB QPSK	95E
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Eusat9A	Eusat9A	9E	Eutelsat 9A	12418	27500	2/3	0X00AA	Vertical	H	LDPC 8PSK STD DVB-S2	9E
			Eutelsat 9A	00000	20000	1/2	0XFFFE	Vertical	L	DVB QPSK	9E
			Eutelsat 9A	11976	27500	3/4	0X009E	Horizontal	H	DVB QPSK	9E
			Eutelsat 9A	00000	20000	1/2	0XFFFE	Horizontal	L	DVB QPSK	9E
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DTV101W	(55) DSS_101	101W	DIRECTV	12428	20000	6/7	0X0000	Circular Right	H	DSS DTV	101W
			DIRECTV	12428	20000	6/7	0X0000	Circular Right	H	DSS DTV	101W
			DIRECTV	12443	20000	6/7	0X0000	Circular Left	H	DSS DTV	101W
			DIRECTV	12239	20000	6/7	0X0000	Circular Left	H	DSS DTV	101W
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SES1			SES 1	00000	20000	1/2	0XFFFE	Vertical	H	DVB QPSK	101W
			SES 1	00000	20000	1/2	0XFFFE	Vertical	L	DVB QPSK	101W

			SES 1	11820	20000	3/4	0X0002	Horizontal	H	DVB QPSK	101W
			SES 1	00000	20000	1/2	0XFFFE	Horizontal	L	DVB QPSK	101W
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NA			Anik F1R	11745	19510	3/4	0XFFFE	Vertical	H	DCII QPSK DigiCipher 2	107W
			Anik F1R	00000	20000	1/2	0XFFFE	Vertical	L	DVB QPSK	107W
			Anik F1R	11728	19510	3/4	0XFFFE	Horizontal	H	DCII QPSK DigiCipher 2	107W
			Anik F1R	00000	20000	1/2	0XFFFE	Horizontal	L	DVB QPSK	107W
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DTV110W	(56) DSS_110	110W	DIRECTV 5	12516	20000	9/9	0X1006	Circular Right	H	DVB QPSK	110W
			DIRECTV 5	12428	20000	9/9	0X1006	Circular Right	H	DVB QPSK	110W
			DIRECTV 5	12414	20000	9/9	0X1006	Circular Left	H	DVB QPSK	110W
			DIRECTV 5	12443	20000	9/9	0X1006	Circular Left	H	DVB QPSK	110W
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DSH110W	(52) ECHO_110	110W	EchoStar 11	12516	21500	2/3	0X1006	Circular	H	Turbo 8PSK Dish	110W

								Right			
			EchoStar 11	12428	20000	9/9	0X1006	Circular Right	H	DVB QPSK	110W
			EchoStar 11	12414	21500	2/3	0X1006	Circular Left	H	Turbo 8PSK Dish	110W
			EchoStar 11	12443	20000	9/9	0X1006	Circular Left	H	DVB QPSK	110W
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NA			Anik F2	11941	19510	3/4	0XFFFE	Vertical	H	DCII QPSK DigiCipher 2	111W
			Anik F2	00000	20000	1/2	0XFFFE	Vertical	L	DVB QPSK	111W
			Anik F2	11941	19510	3/4	0XFFFE	Horizontal	H	DCII QPSK DigiCipher 2	111W
			Anik F2	00000	20000	1/2	0XFFFE	Horizontal	L	DVB QPSK	111W
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NA	(60) SINOSAT	110E	Anik F3	11715	20000	9/9	0X1001	Circular Right	H	DVB QPSK	118W
			Anik F3	11745	20000	9/9	0X1001	Circular Right	H	DVB QPSK	118W
			Anik F3	11728	20000	9/9	0X1001	Circular Left	H	DVB QPSK	118W
			Anik F3	11758	20000	9/9	0X1001	Circular Left	H	DVB QPSK	118W

DTV119W	(57) DSS_119	119W	DIRECTV 7S	12603	20000	6/7	0X0003	Circular Right	H	DSS DTV	119W
			DIRECTV 7S	12545	20000	6/7	0X0003	Circular Right	H	DSS DTV	119W
			DIRECTV 7S	12676	20000	6/7	0X0003	Circular Left	H	DSS DTV	119W
			DIRECTV 7S	12530	20000	6/7	0X0003	Circular Left	H	DSS DTV	119W

DSH119W	(53) ECHO_119	119W	EchoStar 7	12486	21500	2/3	0X1004	Circular Right	H	Turbo 8PSK Dish	119W
			EchoStar 7	12341	20000	9/9	0X1004	Circular Right	H	DVB QPSK	119W
			EchoStar 7	12326	21500	2/3	0X1004	Circular Left	H	Turbo 8PSK Dish	119W
			EchoStar 7	12355	20000	9/9	0X1004	Circular Left	H	DVB QPSK	119W

GLX123W	N/A	N/A	Galaxy 18	00000	20000	1/2	0XFFFE	Vertical	H	DVB QPSK	123W
			Galaxy 18	00000	20000	1/2	0XFFFE	Vertical	L	DVB QPSK	123W
			Galaxy 18	11732	13240	3/4	0XFFFE	Horizontal	H	DVB QPSK	123W

			Galaxy 18	00000	20000	1/2	0XFFFE	Horizontal	L	DVB QPSK	123W
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AMC21			AMC 21	11980	30000	3/5	0X0001	Vertical	H	LDPC QPSK STD DVB-S2	125W
			AMC 21	00000	20000	1/2	0XFFFE	Vertical	L	DVB QPSK	125W
			AMC 21	00000	20000	1/2	0XFFFE	Horizontal	H	DVB QPSK	125W
			AMC 21	00000	20000	1/2	0XFFFE	Horizontal	L	DVB QPSK	125W
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DSH129W	(54) ECHO_129	129W	Ceil 2	12516	21500	2/3	0X1008	Circular Right	H	Turbo 8PSK Dish	129W
			Ceil 2	12545	21500	9/9	0X1008	Circular Right	H	Turbo 8PSK Dish	129W
			Ceil 2	12501	21500	2/3	0X1008	Circular Left	H	Turbo 8PSK Dish	129W
			Ceil 2	12530	21500	9/9	0X1008	Circular Left	H	Turbo 8PSK Dish	129W
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TELE15W	N/A	N/A	Telstar 12, ESA	12524	26470	3/4	0X0001	Vertical	H	DVB QPSK	15W
			Telstar 12, ESA	11150	19279	3/4	0XFFFE	Vertical	L	DVB QPSK	15W

			Telstar 12, ESA	12608	19279	2/3	0X0002	Horizontal	H	DVB QPSK	15W
			Telstar 12, ESA	11124	18386	3/4	0X0601	Horizontal	L	DVB QPSK	15W
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TELA15W	N/A	N/A	Telstar 12 A	11842	20000	9/9	0XFFFE	Vertical	H	LDPC 8PSK STD DVB-S2	15W
			Telstar 12 A	00000	20000	1/2	0XFFFE	Vertical	L	DVB QPSK	15W
			Telstar 12 A	11964	14700	2/3	0X345E	Horizontal	H	DVB QPSK	15W
			Telstar 12 A	00000	20000	1/2	0XFFFE	Horizontal	L	DVB QPSK	15W
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THOR1W	(5) THOR	1W	Thor 5/6	12188	28000	7/8	0X0600	Vertical	H	DVB QPSK	1W
			Thor 5/6	11372	25000	3/4	0X0046	Vertical	L	LDPC 8PSK STD DVB-S2	1W
			Thor 5/6	11938	28000	7/8	0X0600	Horizontal	H	DVB QPSK	1W
			Thor 5/6	11325	24500	7/8	0X0046	Horizontal	L	DVB QPSK	1W
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HSPE30W	(7) HISPASAT	30W	Hispasat 1C	12379	27500	3/4	0X0031	Vertical	H	DVB QPSK	30W

			Hispasat 1C	11771	27500	3/4	0X0031	Vertical	L	DVB QPSK	30W
			Hispasat 1C	12322	27500	3/4	0X0036	Horizontal	H	DVB QPSK	30W
			Hispasat 1C	11811	27500	3/4	0X0036	Horizontal	L	DVB QPSK	30W

HSPA30W	N/A	N/A	Hispasat 1C A	12052	27500	3/4	0X0033	Vertical	H	DVB QPSK	30W
			Hispasat 1C A	00000	20000	1/2	0XFFFE	Vertical	L	DVB QPSK	30W
			Hispasat 1C A	12132	27500	3/4	0XFFFE	Horizontal	H	DVB QPSK	30W
			Hispasat 1C A	00000	20000	1/2	0XFFFE	Horizontal	L	DVB QPSK	30W

IT34W	N/A	N/A	Intelsat 903	00000	20000	1/2	0XFFFE	Vertical	H	DVB QPSK	34W
			Intelsat 903	11675	30000	2/3	0X0001	Vertical	L	LDPC 8PSK STD DVB-S2	34W
			Intelsat 903	00000	20000	1/2	0XFFFE	Horizontal	H	DVB QPSK	34W
			Intelsat 903	11675	30000	2/3	0X0001	Horizontal	L	LDPC 8PSK STD DVB-S2	34W

IT43W	N/A	N/A	Intelsat 11	00000	20000	2/3	0XFFFE	Vertical	H	DVB QPSK	43W
			Intelsat 11	10722	30000	3/4	0XFFFE	Vertical	L	DVB QPSK	43W
			Intelsat 11	00000	20000	2/3	0XFFFE	Horizontal	H	DVB QPSK	43W
			Intelsat 11	10882	30000	3/4	0XFFFE	Horizontal	L	DVB QPSK	43W

AMOSE4W	N/A	N/A	Amos 2	00000	20000	1/2	0XFFFE	Vertical	H	DVB QPSK	4W
			Amos 2	10806	27500	3/4	0X00AB	Vertical	L	DVB QPSK	4W
			Amos 2	00000	20000	1/2	0XFFFE	Horizontal	H	DVB QPSK	4W
			Amos 2	10806	27500	3/4	0X0001	Horizontal	L	DVB QPSK	4W

AMOSM4W	N/A	N/A	Amos 2 ME	00000	20000	1/2	0XFFFE	Vertical	H	DVB QPSK	4W
			Amos 2 ME	10722	27500	5/6	0X00AB	Vertical	L	DVB QPSK	4W
			Amos 2 ME	00000	20000	1/2	0XFFFE	Horizontal	H	DVB QPSK	4W
			Amos 2 ME	00000	20000	1/2	0XFFFE	Horizontal	L	DVB QPSK	4W

INT58W	(63) PAS_9	58W	Sky Mexico	12180	30000	3/4	0XFFFE	Vertical	H	DVB QPSK	58W
			Sky Mexico	00000	20000	1/2	0XFFFE	Vertical	L	DVB QPSK	58W
			Sky Mexico	11960	30000	3/4	0XFFFE	Horizontal	H	DVB QPSK	58W
			Sky Mexico	00000	20000	1/2	0XFFFE	Horizontal	L	DVB QPSK	58W

NA			Eutelsat W5	12564	29900	2/3	0X055F	Vertical	H	LDPC 8PSK STD DVB-S2	5W
			Eutelsat W5	11554	29900	3/4	0X055F	Vertical	L	LDPC 8PSK STD DVB-S2	5W
			Eutelsat W5	12543	27500	3/4	0X0801	Horizontal	H	DVB QPSK	5W
			Eutelsat W5	11634	29950	3/4	0X055F	Horizontal	L	LDPC 8PSK STD DVB-S2	5W

DSH61W	(51) ECHO_61	61W	EchoStar 3	12457	21500	2/3	0X1002	Circular Right	H	Turbo 8PSK Dish	61W
			EchoStar 3	12457	21500	2/3	0X1002	Circular Right	H	Turbo 8PSK Dish	61W
			EchoStar 3	12414	20000	7/8	0X1002	Circular Left	H	DVB QPSK	61W

			EchoStar 3	12414	20000	7/8	0X1002	Circular Left	H	DVB QPSK	61W
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TELB63W	N/A	N/A	Telstar 14R	11720	31300	3/4	0XFFFE	Vertical	H	DVB QPSK	63W
			Telstar 14R	00000	20000	1/2	0XFFFE	Vertical	L	DVB QPSK	63W
			Telstar 14R	12055	26666	5/6	0XFFFE	Horizontal	H	DVB QPSK	63W
			Telstar 14R	00000	20000	1/2	0XFFFE	Horizontal	L	DVB QPSK	63W
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TELM63W	N/A	N/A	Telstar 14 EB	00000	20000	1/2	0XFFFE	Vertical	H	DVB QPSK	63W
			Telstar 14 EB	11640	18100	7/8	0XFFFE	Vertical	L	DVB QPSK	63W
			Telstar 14 EB	11979	13021	3/4	0XFFFE	Horizontal	H	DVB QPSK	63W
			Telstar 14 EB	00000	20000	1/2	0XFFFE	Horizontal	L	DVB QPSK	63W
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NA			Star One C2	00000	20000	1/2	0XFFFE	Vertical	H	DVB QPSK	70W
			Star One C2	11130	29890	3/4	0X1325	Vertical	L	DVB QPSK	70W
			Star One C2	11880	29890	3/4	0X1325	Horizontal	H	DVB QPSK	70W

			Star One C2	10974	29890	3/4	0X1325	Horizontal	L	DVB QPSK	70W
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AM40E	N/A	N/A	Nimiq 5	12224	21500	9/9	0X1005	Circular Right	H	Turbo QPSK Dish	72W
			Nimiq 5	12253	21500	9/9	0X1005	Circular Right	H	Turbo QPSK Dish	72W
			Nimiq 5	12297	21500	9/9	0X1005	Circular Left	H	Turbo QPSK Dish	72W
			Nimiq 5	12384	21500	9/9	0X1005	Circular Left	H	Turbo QPSK Dish	72W
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DSH77W	N/A	N/A	EchoStar 8	12224	22500	9/9	0X1003	Circular Right	H	Turbo 8PSK Dish	77W
			EchoStar 8	12282	22500	9/9	0X1003	Circular Right	H	Turbo 8PSK Dish	77W
			EchoStar 8	12239	22500	9/9	0X1713	Circular Left	H	Turbo 8PSK Dish	77W
			EchoStar 8	12268	22500	9/9	0X1003	Circular Left	H	Turbo 8PSK Dish	77W
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77W			EchoStar 1 - Mexico	12486	20000	5/6	0X1713	Circular Right	H	DVB QPSK	77W

			EchoStar 1 - Mexico	12253	22500	9/9	0X1713	Circular Right	H	Turbo 8PSK Dish	77W
			EchoStar 1 - Mexico	12297	20000	7/8	0X1713	Circular Left	H	DVB QPSK	77W
			EchoStar 1 - Mexico	00000	20000	1/2	0XFFFE	Circular Left	H	Turbo 8PSK Dish	77W

NILE7W	(11) NILESAT	7W	Nilesat 101	11938	27500	3/4	0X0800	Vertical	H	DVB QPSK	7W
			Nilesat 101	11747	27500	3/4	0X0800	Vertical	L	DVB QPSK	7W
			Nilesat 101	12226	27500	3/4	0X0800	Horizontal	H	DVB QPSK	7W
			Nilesat 101	11727	30000	3/4	0X0800	Horizontal	L	LDPC 8PSK STD DVB-S2	7W

EXVU82W	(50) EXPRESSVU	82W	Bell TV HD	12428	20000	9/9	0X0101	Circular Right	H	DVB QPSK	82W
			Bell TV HD	12224	20000	9/9	0X0101	Circular Right	H	Turbo 8PSK Dish	82W
			Bell TV HD	12443	20000	9/9	0X0101	Circular Left	H	DVB QPSK	82W
			Bell TV HD	12268	20000	9/9	0X0101	Circular Left	H	Turbo 8PSK Dish	82W

AMC87W	N/A	N/A	SES 2	11900	30000	2/3	0XFFFE	Vertical	H	DVB QPSK	87W
			SES 2	00000	20000	1/2	0XFFFE	Vertical	L	DVB QPSK	87W
			SES 2	11960	29270	3/4	0XFFFE	Horizontal	H	DVB QPSK	87W
			SES 2	00000	20000	1/2	0XFFFE	Horizontal	L	DVB QPSK	87W

EXVU91W	(61) EXPRESSTV	91W	Bell TV	12428	20000	9/9	0X0100	Circular Right	H	DVB QPSK	91W
			Bell TV	12224	20000	9/9	0X0100	Circular Right	H	DVB QPSK	91W
			Bell TV	12239	20000	9/9	0X0100	Circular Left	H	DVB QPSK	91W
			Bell TV	12268	20000	9/9	0X0100	Circular Left	H	DVB QPSK	91W

GLX93W	N/A	N/A	Galaxy 25	11780	30000	5/6	0XFFFE	Vertical	H	DVB QPSK	93W
			Galaxy 25	00000	20000	1/2	0XFFFE	Vertical	L	DVB QPSK	93W
			Galaxy 25	11874	19510	3/4	0XFFFE	Horizontal	H	DVB QPSK	93W

			Galaxy 25	00000	20000	1/2	0XFFFE	Horizontal	L	DVB QPSK	93W
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GLX95W	(58) GALAXY3CN	N/A	DIRECTV LA	11570	20000	2/3	0XFFFE	Circular Right	H	DSS DTV	95W
			DIRECTV LA	11480	20000	2/3	0XFFFE	Circular Right	H	DSS DTV	95W
			DIRECTV LA	11597	22500	2/3	0XFFFE	Circular Left	H	DSS DTV	95W
			DIRECTV LA	11480	20000	2/3	0XFFFE	Circular Left	H	DSS DTV	95W
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NA	N/A	N/A	DIRECTV INTL	00000	20000	1/2	0XFFFE	Vertical	H	DVB QPSK	95W
			DIRECTV INTL	00000	20000	1/2	0XFFFE	Vertical	L	DVB QPSK	95W
			DIRECTV INTL	11720	20000	2/3	0X0001	Horizontal	H	DSS DTV	95W
			DIRECTV INTL	00000	20000	1/2	0XFFFE	Horizontal	L	DVB QPSK	95W
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GLX97W	N/A	N/A	Galaxy 19	11929	22000	3/4	0X0001	Vertical	H	DVB QPSK	97W
			Galaxy 19	00000	20000	1/2	0XFFFE	Vertical	L	DVB QPSK	97W

Galaxy 19	11937	28100	2/3	0X4048	Horizontal	H	DVB QPSK	97W
Galaxy 19	00000	20000	1/2	0XFFFE	Horizontal	L	DVB QPSK	97W