

M7 FEC Parameters

5/30/2012

FEC Mode	Typical Eb/No for 1E-8 BER				End-to-End Delay @ 64kbps	Occupied Bandwidth @ 1 Mbps (-10 dB)				FEC Data Rate Limit	Maximum Modem/FEC Data Rate				Actual Code Rate	Bandwidth Error
	B/Q/OQPSK	8PSK	8QAM	16QAM		BPSK	O/QPSK	8PSK/QAM	16QAM		BPSK	O/QPSK	8PSK/QAM	16QAM		
Viterbi, Rate 1/2	6.20 dB	n/a	n/a	8.74 dB	2.8 ms	2.380 MHz	1.190 MHz	n/a	0.595 MHz	Modem	7.38 Mbps	14.76 Mbps	n/a	29.52 Mbps	1/2	0.000%
Viterbi, Rate 1/2 + RS-308 *	3.08 dB	n/a	n/a	5.97 dB	61.5 ms	2.594 MHz	1.297 MHz	n/a	0.648 MHz	Modem	6.77 Mbps	13.54 Mbps	n/a	27.09 Mbps	89/194	+8.989%
Viterbi, Rate 1/2 + RS-309 *	3.04 dB	n/a	n/a	No Data	106.1 ms	2.593 MHz	1.297 MHz	n/a	0.648 MHz	Modem	6.77 Mbps	13.55 Mbps	n/a	27.09 Mbps	67/146	+8.955%
Viterbi, Rate 1/2 + RS-CT	2.95 dB	n/a	n/a	5.56 dB	105.5 ms	2.618 MHz	1.309 MHz	n/a	0.655 MHz	Modem	6.71 Mbps	13.42 Mbps	n/a	26.84 Mbps	5/11	+10.000%
Viterbi, Rate 3/4	7.19 dB	n/a	n/a	10.84 dB	4.5 ms	1.587 MHz	0.793 MHz	n/a	0.397 MHz	Modem	11.07 Mbps	22.14 Mbps	n/a	29.52 Mbps	3/4	0.000%
Viterbi, Rate 3/4 + RS-308 *	4.20 dB	n/a	n/a	7.72 dB	62.9 ms	1.729 MHz	0.865 MHz	n/a	0.432 MHz	Modem	10.16 Mbps	20.31 Mbps	n/a	29.52 Mbps	267/388	+8.989%
Viterbi, Rate 3/4 + RS-309 *	4.16 dB	n/a	n/a	No Data	107.8 ms	1.729 MHz	0.864 MHz	n/a	0.432 MHz	Modem	10.16 Mbps	20.32 Mbps	n/a	29.52 Mbps	201/292	+8.955%
Viterbi, Rate 3/4 + RS-CT	4.08 dB	n/a	n/a	7.36 dB	107.2 ms	1.745 MHz	0.873 MHz	n/a	0.436 MHz	Modem	10.06 Mbps	20.13 Mbps	n/a	29.52 Mbps	15/22	+10.000%
Viterbi, Rate 5/6	7.82 dB	n/a	n/a	11.49 dB	4.6 ms	1.428 MHz	0.714 MHz	n/a	0.357 MHz	Modem	12.30 Mbps	24.60 Mbps	n/a	29.52 Mbps	5/6	0.000%
Viterbi, Rate 5/6 + RS-308 *	4.95 dB	n/a	n/a	8.64 dB	63.0 ms	1.556 MHz	0.778 MHz	n/a	0.389 MHz	Modem	11.29 Mbps	22.57 Mbps	n/a	29.52 Mbps	445/582	+8.989%
Viterbi, Rate 5/6 + RS-309 *	4.89 dB	n/a	n/a	No Data	107.8 ms	1.556 MHz	0.778 MHz	n/a	0.389 MHz	Modem	11.29 Mbps	22.58 Mbps	n/a	29.52 Mbps	335/438	+8.955%
Viterbi, Rate 5/6 + RS-CT	4.80 dB	n/a	n/a	8.26 dB	107.3 ms	1.571 MHz	0.785 MHz	n/a	0.393 MHz	Modem	11.18 Mbps	22.36 Mbps	n/a	29.52 Mbps	25/33	+10.000%
Viterbi, Rate 7/8	8.22 dB	n/a	n/a	11.96 dB	4.7 ms	1.360 MHz	0.680 MHz	n/a	0.340 MHz	Modem	12.92 Mbps	25.83 Mbps	n/a	29.52 Mbps	7/8	0.000%
Viterbi, Rate 7/8 + RS-308 *	5.52 dB	n/a	n/a	9.13 dB	63.0 ms	1.482 MHz	0.741 MHz	n/a	0.371 MHz	Modem	11.85 Mbps	23.70 Mbps	n/a	29.52 Mbps	623/776	+8.989%
Viterbi, Rate 7/8 + RS-309 *	5.43 dB	n/a	n/a	No Data	107.8 ms	1.482 MHz	0.741 MHz	n/a	0.370 MHz	Modem	11.85 Mbps	23.71 Mbps	n/a	29.52 Mbps	469/584	+8.955%
Viterbi, Rate 7/8 + RS-CT	5.33 dB	n/a	n/a	8.92 dB	107.4 ms	1.496 MHz	0.748 MHz	n/a	0.374 MHz	Modem	11.74 Mbps	23.48 Mbps	n/a	29.52 Mbps	35/44	+10.000%
TCM, Rate 2/3	n/a	9.40 dB	n/a	n/a	7.5 ms	n/a	n/a	0.595 MHz	n/a	Modem	n/a	n/a	29.52 Mbps	n/a	2/3	0.000%
TCM, Rate 2/3 + RS-310 *	n/a	5.41 dB	n/a	n/a	110.6 ms	n/a	n/a	0.648 MHz	n/a	Modem	n/a	n/a	27.09 Mbps	n/a	134/219	+8.955%
TCM, Rate 2/3 + RS-CT	n/a	5.68 dB	n/a	n/a	110.0 ms	n/a	n/a	0.655 MHz	n/a	Modem	n/a	n/a	26.84 Mbps	n/a	20/33	+10.000%
TPC-4k Advanced, Rate 1/2-4k	2.63 dB	n/a	4.63 dB	6.20 dB	44.3 ms	2.413 MHz	1.207 MHz	0.804 MHz	0.603 MHz	3.80 Mbps	3.80 Mbps	3.80 Mbps	3.80 Mbps	3.80 Mbps	2027/4111	+1.406%
TPC-4k Advanced, Rate 3/4-4k	3.57 dB	6.10 dB	5.66 dB	7.08 dB	47.6 ms	1.592 MHz	0.796 MHz	0.531 MHz	0.398 MHz	4.70 Mbps	4.70 Mbps	4.70 Mbps	4.70 Mbps	4.70 Mbps	2451/3280	+0.367%
TPC-4k Advanced, Rate 7/8-4k	4.61 dB	7.45 dB	7.36 dB	8.17 dB	60.5 ms	1.385 MHz	0.692 MHz	0.462 MHz	0.346 MHz	6.39 Mbps	6.39 Mbps	6.39 Mbps	6.39 Mbps	6.39 Mbps	1767/2056	+1.811%
TPC-4k Advanced, Rate 0.950-4k	6.65 dB	9.82 dB	9.28 dB	10.47 dB	66.5 ms	1.253 MHz	0.626 MHz	0.418 MHz	0.313 MHz	7.00 Mbps	7.00 Mbps	7.00 Mbps	7.00 Mbps	7.00 Mbps	1953/2056	+0.010%
TPC-4k CT, Rate 5/16	2.46 dB	n/a	n/a	n/a	27.9 ms	3.808 MHz	n/a	n/a	n/a	2.30 Mbps	2.30 Mbps	n/a	n/a	n/a	5/16	0.000%
TPC-4k CT, Rate 21/44	3.05 dB	n/a	n/a	n/a	38.1 ms	2.493 MHz	1.247 MHz	n/a	n/a	3.49 Mbps	3.49 Mbps	3.49 Mbps	n/a	n/a	21/44	0.000%
TPC-4k CT, Rate 3/4	3.79 dB	6.39 dB	6.58 dB	7.48 dB	42.7 ms	1.587 MHz	0.793 MHz	0.529 MHz	0.397 MHz	6.90 Mbps	6.90 Mbps	6.90 Mbps	6.90 Mbps	6.90 Mbps	3/4	0.000%
TPC-4k CT, Rate 0.95	6.69 dB	9.90 dB	9.35 dB	10.59 dB	65.2 ms	1.260 MHz	0.630 MHz	0.420 MHz	0.315 MHz	6.88 Mbps	6.88 Mbps	6.88 Mbps	6.88 Mbps	6.88 Mbps	17/18	+0.588%
TPC-16k Advanced, Rate 0.453-16k	1.73 dB	n/a	3.40 dB	4.98 dB	155.6 ms	2.628 MHz	1.314 MHz	0.876 MHz	0.657 MHz	Modem	6.68 Mbps	13.37 Mbps	20.05 Mbps	26.73 Mbps	206/455	+0.056%
TPC-16k Advanced, Rate 1/2-16k	2.27 dB	n/a	4.12 dB	5.06 dB	90.4 ms	2.382 MHz	1.191 MHz	0.794 MHz	0.596 MHz	21.69 Mbps	7.37 Mbps	14.75 Mbps	21.69 Mbps	21.69 Mbps	1103/2208	+0.091%
TPC-16k Advanced, Rate 1/2-4k	2.72 dB	n/a	4.60 dB	6.22 dB	42.7 ms	2.413 MHz	1.207 MHz	0.804 MHz	0.603 MHz	Modem	7.28 Mbps	14.56 Mbps	21.83 Mbps	29.11 Mbps	2027/4111	+1.406%
TPC-16k Advanced, Rate 3/4-16k	2.81 dB	5.19 dB	4.70 dB	5.98 dB	213.5 ms	1.631 MHz	0.815 MHz	0.544 MHz	0.408 MHz	Modem	10.77 Mbps	21.54 Mbps	29.52 Mbps	29.52 Mbps	5981/8196	+2.775%
TPC-16k Advanced, Rate 3/4-4k	3.52 dB	6.08 dB	5.56 dB	6.96 dB	46.1 ms	1.592 MHz	0.796 MHz	0.531 MHz	0.398 MHz	Modem	11.03 Mbps	22.06 Mbps	29.52 Mbps	29.52 Mbps	2451/3280	+0.367%
TPC-16k Advanced, Rate 7/8-16k	3.98 dB	6.81 dB	5.98 dB	7.52 dB	241.2 ms	1.367 MHz	0.683 MHz	0.456 MHz	0.342 MHz	Modem	12.85 Mbps	25.70 Mbps	29.52 Mbps	29.52 Mbps	1784/2049	+0.497%
TPC-16k Advanced, Rate 7/8-4k	4.56 dB	7.46 dB	7.26 dB	8.09 dB	58.9 ms	1.385 MHz	0.692 MHz	0.462 MHz	0.346 MHz	Modem	12.69 Mbps	25.37 Mbps	29.52 Mbps	29.52 Mbps	1767/2056	+1.811%
TPC-16k Advanced, Rate 0.922-16k	4.91 dB	7.87 dB	7.60 dB	8.51 dB	242.3 ms	1.291 MHz	0.645 MHz	0.430 MHz	0.323 MHz	Modem	13.61 Mbps	27.21 Mbps	29.52 Mbps	29.52 Mbps	1889/2049	+0.009%
TPC-16k Advanced, Rate 0.950-4k	6.59 dB	9.86 dB	9.20 dB	10.41 dB	64.9 ms	1.253 MHz	0.626 MHz	0.418 MHz	0.313 MHz	Modem	14.02 Mbps	28.04 Mbps	29.52 Mbps	29.52 Mbps	1953/2056	+0.010%
TPC-16k CT, Rate 5/16	2.48 dB	n/a	n/a	n/a	26.1 ms	3.808 MHz	n/a	n/a	n/a	Modem	4.61 Mbps	n/a	n/a	n/a	5/16	0.000%
TPC-16k CT, Rate 21/44	3.07 dB	n/a	n/a	n/a	36.6 ms	2.493 MHz	1.247 MHz	n/a	n/a	Modem	7.04 Mbps	14.09 Mbps	n/a	n/a	21/44	0.000%
TPC-16k CT, Rate 3/4	3.84 dB	6.43 dB	6.54 dB	7.42 dB	41.6 ms	1.587 MHz	0.793 MHz	0.529 MHz	0.397 MHz	Modem	11.07 Mbps	22.14 Mbps	29.52 Mbps	29.52 Mbps	3/4	0.000%
TPC-16k CT, Rate 7/8	3.92 dB	6.75 dB	6.64 dB	7.52 dB	239.8 ms	1.360 MHz	0.680 MHz	0.453 MHz	0.340 MHz	Modem	12.92 Mbps	25.83 Mbps	29.52 Mbps	29.52 Mbps	7/8	0.000%
TPC-16k CT, Rate 0.95	6.63 dB	9.81 dB	9.22 dB	10.52 dB	63.8 ms	1.260 MHz	0.630 MHz	0.420 MHz	0.315 MHz	Modem	13.94 Mbps	27.88 Mbps	29.52 Mbps	29.52 Mbps	17/18	+0.588%

M7 FEC Parameters

5/30/2012

FEC Mode	Typical Eb/No for 1E-8 BER				End-to-End Delay @ 64kbps	Occupied Bandwidth @ 1 Mbps (-10 dB)				FEC Data Rate Limit	Maximum Modem/FEC Data Rate				Actual Code Rate	Bandwidth Error
	B/Q/OQPSK	8PSK	8QAM	16QAM		BPSK	O/QPSK	8PSK/QAM	16QAM		BPSK	O/QPSK	8PSK/QAM	16QAM		
LDPC-2k, Rate 1/2 & 256 Block	4.69 dB	n/a	6.54 dB	7.62 dB	7.4 ms	2.380 MHz	1.190 MHz	0.793 MHz	0.595 MHz	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	1/2	0.000%
LDPC-2k, Rate 1/2 & 512 Block	3.65 dB	n/a	5.39 dB	6.49 dB	13.8 ms	2.380 MHz	1.190 MHz	0.793 MHz	0.595 MHz	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	1/2	0.000%
LDPC-2k, Rate 1/2 & 1k Block	2.69 dB	n/a	4.41 dB	5.13 dB	26.5 ms	2.380 MHz	1.190 MHz	0.793 MHz	0.595 MHz	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	1/2	0.000%
LDPC-2k, Rate 1/2 & 2k Block	2.07 dB	n/a	3.84 dB	4.54 dB	51.9 ms	2.380 MHz	1.190 MHz	0.793 MHz	0.595 MHz	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	1/2	0.000%
LDPC-2k, Rate 2/3 & 256 Block	5.24 dB	7.78 dB	7.39 dB	8.52 dB	6.9 ms	1.785 MHz	0.893 MHz	0.595 MHz	0.446 MHz	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	2/3	0.000%
LDPC-2k, Rate 2/3 & 512 Block	4.22 dB	6.56 dB	6.18 dB	7.41 dB	12.6 ms	1.785 MHz	0.893 MHz	0.595 MHz	0.446 MHz	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	2/3	0.000%
LDPC-2k, Rate 2/3 & 1k Block	3.42 dB	5.44 dB	5.29 dB	6.43 dB	24.0 ms	1.785 MHz	0.893 MHz	0.595 MHz	0.446 MHz	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	2/3	0.000%
LDPC-2k, Rate 2/3 & 2k Block	2.81 dB	4.88 dB	4.73 dB	5.86 dB	46.7 ms	1.785 MHz	0.893 MHz	0.595 MHz	0.446 MHz	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	2/3	0.000%
LDPC-2k, Rate 3/4 & 256 Block	6.18 dB	9.09 dB	8.29 dB	9.72 dB	6.7 ms	1.587 MHz	0.793 MHz	0.529 MHz	0.397 MHz	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	4096/5461	-0.006%
LDPC-2k, Rate 3/4 & 512 Block	5.05 dB	7.71 dB	7.16 dB	8.52 dB	12.1 ms	1.587 MHz	0.793 MHz	0.529 MHz	0.397 MHz	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	4096/5461	-0.006%
LDPC-2k, Rate 3/4 & 1k Block	4.25 dB	6.76 dB	6.19 dB	7.58 dB	22.8 ms	1.587 MHz	0.793 MHz	0.529 MHz	0.397 MHz	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	4096/5461	-0.006%
LDPC-2k, Rate 3/4 & 2k Block	3.58 dB	5.97 dB	5.56 dB	6.86 dB	44.2 ms	1.587 MHz	0.793 MHz	0.529 MHz	0.397 MHz	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	4096/5461	-0.006%
LDPC-2k, Rate 14/17 & 256 Block	6.91 dB	10.02 dB	9.06 dB	10.65 dB	6.5 ms	1.445 MHz	0.722 MHz	0.482 MHz	0.361 MHz	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	4096/4973	-0.014%
LDPC-2k, Rate 14/17 & 512 Block	5.77 dB	8.78 dB	7.87 dB	9.46 dB	11.6 ms	1.445 MHz	0.722 MHz	0.482 MHz	0.361 MHz	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	4096/4973	-0.014%
LDPC-2k, Rate 14/17 & 1k Block	4.93 dB	7.73 dB	6.97 dB	8.43 dB	21.6 ms	1.445 MHz	0.722 MHz	0.482 MHz	0.361 MHz	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	4096/4973	-0.014%
LDPC-2k, Rate 14/17 & 2k Block	4.24 dB	6.89 dB	6.35 dB	7.71 dB	41.9 ms	1.445 MHz	0.722 MHz	0.482 MHz	0.361 MHz	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	4096/4973	-0.014%
LDPC-2k, Rate 7/8 & 256 Block	7.50 dB	10.77 dB	9.84 dB	11.28 dB	6.3 ms	1.360 MHz	0.680 MHz	0.453 MHz	0.340 MHz	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	4096/4681	-0.003%
LDPC-2k, Rate 7/8 & 512 Block	6.51 dB	9.73 dB	8.72 dB	10.24 dB	11.2 ms	1.360 MHz	0.680 MHz	0.453 MHz	0.340 MHz	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	4096/4681	-0.003%
LDPC-2k, Rate 7/8 & 1k Block	5.60 dB	8.68 dB	7.69 dB	9.29 dB	20.8 ms	1.360 MHz	0.680 MHz	0.453 MHz	0.340 MHz	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	4096/4681	-0.003%
LDPC-2k, Rate 7/8 & 2k Block	4.99 dB	7.89 dB	6.98 dB	8.50 dB	40.3 ms	1.360 MHz	0.680 MHz	0.453 MHz	0.340 MHz	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	4096/4681	-0.003%
LDPC-2k, Rate 10/11 & 256 Block	8.69 dB	12.02 dB	10.85 dB	12.61 dB	6.2 ms	1.309 MHz	0.654 MHz	0.436 MHz	0.327 MHz	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	4096/4505	-0.013%
LDPC-2k, Rate 10/11 & 512 Block	7.35 dB	10.64 dB	9.56 dB	11.16 dB	11.0 ms	1.309 MHz	0.654 MHz	0.436 MHz	0.327 MHz	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	4096/4505	-0.013%
LDPC-2k, Rate 10/11 & 1k Block	6.34 dB	9.55 dB	8.48 dB	10.06 dB	20.4 ms	1.309 MHz	0.654 MHz	0.436 MHz	0.327 MHz	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	4096/4505	-0.013%
LDPC-2k, Rate 10/11 & 2k Block	5.67 dB	8.73 dB	7.68 dB	9.35 dB	39.2 ms	1.309 MHz	0.654 MHz	0.436 MHz	0.327 MHz	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	4096/4505	-0.013%
LDPC-2k, Rate 16/17 & 256 Block	10.15 dB	13.89 dB	11.98 dB	14.39 dB	6.1 ms	1.264 MHz	0.632 MHz	0.421 MHz	0.316 MHz	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	16/17	0.000%
LDPC-2k, Rate 16/17 & 512 Block	8.04 dB	11.49 dB	10.29 dB	12.06 dB	10.8 ms	1.264 MHz	0.632 MHz	0.421 MHz	0.316 MHz	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	16/17	0.000%
LDPC-2k, Rate 16/17 & 1k Block	7.00 dB	10.27 dB	9.18 dB	10.75 dB	19.9 ms	1.264 MHz	0.632 MHz	0.421 MHz	0.316 MHz	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	16/17	0.000%
LDPC-2k, Rate 16/17 & 2k Block	6.36 dB	9.49 dB	8.46 dB	10.13 dB	38.2 ms	1.264 MHz	0.632 MHz	0.421 MHz	0.316 MHz	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	3.00 Mbps	16/17	0.000%

M7 FEC Parameters

5/30/2012

FEC Mode	Typical Eb/No for 1E-8 BER				End-to-End Delay @ 64kbps	Occupied Bandwidth @ 1 Mbps (-10 dB)				FEC Data Rate Limit	Maximum Modem/FEC Data Rate				Actual Code Rate	Bandwidth Error
	B/Q/OQPSK	8PSK	8QAM	16QAM		BPSK	O/QPSK	8PSK/QAM	16QAM		BPSK	O/QPSK	8PSK/QAM	16QAM		
LDPC-16k, Rate 1/2 & 256 Block	4.65 dB	n/a	6.48 dB	7.52 dB	7.2 ms	2.380 MHz	1.190 MHz	0.793 MHz	0.595 MHz	Modem	7.38 Mbps	14.76 Mbps	22.14 Mbps	29.52 Mbps	1/2	0.000%
LDPC-16k, Rate 1/2 & 512 Block	3.55 dB	n/a	5.32 dB	6.44 dB	13.4 ms	2.380 MHz	1.190 MHz	0.793 MHz	0.595 MHz	Modem	7.38 Mbps	14.76 Mbps	22.14 Mbps	29.52 Mbps	1/2	0.000%
LDPC-16k, Rate 1/2 & 1k Block	2.62 dB	n/a	4.35 dB	5.02 dB	25.3 ms	2.380 MHz	1.190 MHz	0.793 MHz	0.595 MHz	Modem	7.38 Mbps	14.76 Mbps	22.14 Mbps	29.52 Mbps	1/2	0.000%
LDPC-16k, Rate 1/2 & 2k Block	2.04 dB	n/a	3.80 dB	4.48 dB	49.6 ms	2.380 MHz	1.190 MHz	0.793 MHz	0.595 MHz	Modem	7.38 Mbps	14.76 Mbps	22.14 Mbps	29.52 Mbps	1/2	0.000%
LDPC-16k, Rate 1/2 & 4k Block	1.73 dB	n/a	3.44 dB	4.16 dB	98.0 ms	2.380 MHz	1.190 MHz	0.793 MHz	0.595 MHz	Modem	7.38 Mbps	14.76 Mbps	22.14 Mbps	29.52 Mbps	1/2	0.000%
LDPC-16k, Rate 1/2 & 8k Block	1.52 dB	n/a	3.19 dB	3.92 dB	195.0 ms	2.380 MHz	1.190 MHz	0.793 MHz	0.595 MHz	Modem	7.38 Mbps	14.76 Mbps	22.14 Mbps	29.52 Mbps	1/2	0.000%
LDPC-16k, Rate 1/2 & 16k Block	1.38 dB	n/a	3.04 dB	3.76 dB	388.6 ms	2.380 MHz	1.190 MHz	0.793 MHz	0.595 MHz	Modem	7.38 Mbps	14.76 Mbps	22.14 Mbps	29.52 Mbps	1/2	0.000%
LDPC-16k, Rate 2/3 & 256 Block	5.15 dB	7.77 dB	7.38 dB	8.60 dB	6.7 ms	1.785 MHz	0.893 MHz	0.595 MHz	0.446 MHz	Modem	9.84 Mbps	19.68 Mbps	29.52 Mbps	29.52 Mbps	2/3	0.000%
LDPC-16k, Rate 2/3 & 512 Block	4.21 dB	6.33 dB	6.10 dB	7.35 dB	12.2 ms	1.785 MHz	0.893 MHz	0.595 MHz	0.446 MHz	Modem	9.84 Mbps	19.68 Mbps	29.52 Mbps	29.52 Mbps	2/3	0.000%
LDPC-16k, Rate 2/3 & 1k Block	3.29 dB	5.36 dB	5.21 dB	6.39 dB	22.8 ms	1.785 MHz	0.893 MHz	0.595 MHz	0.446 MHz	Modem	9.84 Mbps	19.68 Mbps	29.52 Mbps	29.52 Mbps	2/3	0.000%
LDPC-16k, Rate 2/3 & 2k Block	2.77 dB	4.88 dB	4.68 dB	5.85 dB	44.4 ms	1.785 MHz	0.893 MHz	0.595 MHz	0.446 MHz	Modem	9.84 Mbps	19.68 Mbps	29.52 Mbps	29.52 Mbps	2/3	0.000%
LDPC-16k, Rate 2/3 & 4k Block	2.46 dB	4.53 dB	4.36 dB	5.46 dB	87.5 ms	1.785 MHz	0.893 MHz	0.595 MHz	0.446 MHz	Modem	9.84 Mbps	19.68 Mbps	29.52 Mbps	29.52 Mbps	2/3	0.000%
LDPC-16k, Rate 2/3 & 8k Block	2.23 dB	4.28 dB	4.09 dB	5.19 dB	173.7 ms	1.785 MHz	0.893 MHz	0.595 MHz	0.446 MHz	Modem	9.84 Mbps	19.68 Mbps	29.52 Mbps	29.52 Mbps	2/3	0.000%
LDPC-16k, Rate 2/3 & 16k Block	2.09 dB	4.14 dB	3.91 dB	5.01 dB	346.1 ms	1.785 MHz	0.893 MHz	0.595 MHz	0.446 MHz	Modem	9.84 Mbps	19.68 Mbps	29.52 Mbps	29.52 Mbps	2/3	0.000%
LDPC-16k, Rate 3/4 & 256 Block	6.10 dB	9.04 dB	8.27 dB	9.63 dB	6.7 ms	1.587 MHz	0.793 MHz	0.529 MHz	0.397 MHz	Modem	11.07 Mbps	22.14 Mbps	29.52 Mbps	29.52 Mbps	4096/5461	-0.006%
LDPC-16k, Rate 3/4 & 512 Block	4.91 dB	7.57 dB	7.07 dB	8.40 dB	11.5 ms	1.587 MHz	0.793 MHz	0.529 MHz	0.397 MHz	Modem	11.07 Mbps	22.14 Mbps	29.52 Mbps	29.52 Mbps	4096/5461	-0.006%
LDPC-16k, Rate 3/4 & 1k Block	4.17 dB	6.62 dB	6.14 dB	7.48 dB	21.8 ms	1.587 MHz	0.793 MHz	0.529 MHz	0.397 MHz	Modem	11.07 Mbps	22.14 Mbps	29.52 Mbps	29.52 Mbps	4096/5461	-0.006%
LDPC-16k, Rate 3/4 & 2k Block	3.52 dB	5.97 dB	5.51 dB	6.78 dB	41.9 ms	1.587 MHz	0.793 MHz	0.529 MHz	0.397 MHz	Modem	11.07 Mbps	22.14 Mbps	29.52 Mbps	29.52 Mbps	4096/5461	-0.006%
LDPC-16k, Rate 3/4 & 4k Block	3.14 dB	5.56 dB	5.11 dB	6.37 dB	82.4 ms	1.587 MHz	0.793 MHz	0.529 MHz	0.397 MHz	Modem	11.07 Mbps	22.14 Mbps	29.52 Mbps	29.52 Mbps	4096/5461	-0.006%
LDPC-16k, Rate 3/4 & 8k Block	2.89 dB	5.27 dB	4.83 dB	6.07 dB	163.1 ms	1.587 MHz	0.793 MHz	0.529 MHz	0.397 MHz	Modem	11.07 Mbps	22.14 Mbps	29.52 Mbps	29.52 Mbps	4096/5461	-0.006%
LDPC-16k, Rate 3/4 & 16k Block	2.72 dB	5.07 dB	4.63 dB	5.87 dB	325.0 ms	1.587 MHz	0.793 MHz	0.529 MHz	0.397 MHz	Modem	11.07 Mbps	22.14 Mbps	29.52 Mbps	29.52 Mbps	4096/5461	-0.006%
LDPC-16k, Rate 14/17 & 256 Block	6.85 dB	10.01 dB	9.16 dB	10.61 dB	6.3 ms	1.445 MHz	0.722 MHz	0.482 MHz	0.361 MHz	Modem	12.16 Mbps	24.31 Mbps	29.52 Mbps	29.52 Mbps	4096/4973	-0.014%
LDPC-16k, Rate 14/17 & 512 Block	5.71 dB	8.62 dB	7.83 dB	9.33 dB	11.1 ms	1.445 MHz	0.722 MHz	0.482 MHz	0.361 MHz	Modem	12.16 Mbps	24.31 Mbps	29.52 Mbps	29.52 Mbps	4096/4973	-0.014%
LDPC-16k, Rate 14/17 & 1k Block	4.87 dB	7.65 dB	6.93 dB	8.39 dB	20.6 ms	1.445 MHz	0.722 MHz	0.482 MHz	0.361 MHz	Modem	12.16 Mbps	24.31 Mbps	29.52 Mbps	29.52 Mbps	4096/4973	-0.014%
LDPC-16k, Rate 14/17 & 2k Block	4.23 dB	6.92 dB	6.27 dB	7.66 dB	39.6 ms	1.445 MHz	0.722 MHz	0.482 MHz	0.361 MHz	Modem	12.16 Mbps	24.31 Mbps	29.52 Mbps	29.52 Mbps	4096/4973	-0.014%
LDPC-16k, Rate 14/17 & 4k Block	3.72 dB	6.44 dB	5.80 dB	7.19 dB	77.6 ms	1.445 MHz	0.722 MHz	0.482 MHz	0.361 MHz	Modem	12.16 Mbps	24.31 Mbps	29.52 Mbps	29.52 Mbps	4096/4973	-0.014%
LDPC-16k, Rate 14/17 & 8k Block	3.44 dB	6.09 dB	5.45 dB	6.82 dB	153.9 ms	1.445 MHz	0.722 MHz	0.482 MHz	0.361 MHz	Modem	12.16 Mbps	24.31 Mbps	29.52 Mbps	29.52 Mbps	4096/4973	-0.014%
LDPC-16k, Rate 14/17 & 16k Block	3.27 dB	5.86 dB	5.24 dB	6.68 dB	306.3 ms	1.445 MHz	0.722 MHz	0.482 MHz	0.361 MHz	Modem	12.16 Mbps	24.31 Mbps	29.52 Mbps	29.52 Mbps	4096/4973	-0.014%
LDPC-16k, Rate 7/8 & 256 Block	7.43 dB	10.86 dB	9.83 dB	11.26 dB	6.5 ms	1.360 MHz	0.680 MHz	0.453 MHz	0.340 MHz	Modem	12.92 Mbps	25.83 Mbps	29.52 Mbps	29.52 Mbps	4096/4681	-0.003%
LDPC-16k, Rate 7/8 & 512 Block	6.42 dB	9.62 dB	8.65 dB	10.23 dB	10.8 ms	1.360 MHz	0.680 MHz	0.453 MHz	0.340 MHz	Modem	12.92 Mbps	25.83 Mbps	29.52 Mbps	29.52 Mbps	4096/4681	-0.003%
LDPC-16k, Rate 7/8 & 1k Block	5.59 dB	8.63 dB	7.66 dB	9.19 dB	20.0 ms	1.360 MHz	0.680 MHz	0.453 MHz	0.340 MHz	Modem	12.92 Mbps	25.83 Mbps	29.52 Mbps	29.52 Mbps	4096/4681	-0.003%
LDPC-16k, Rate 7/8 & 2k Block	4.96 dB	7.89 dB	6.98 dB	8.48 dB	38.1 ms	1.360 MHz	0.680 MHz	0.453 MHz	0.340 MHz	Modem	12.92 Mbps	25.83 Mbps	29.52 Mbps	29.52 Mbps	4096/4681	-0.003%
LDPC-16k, Rate 7/8 & 4k Block	4.32 dB	7.21 dB	6.40 dB	7.84 dB	74.6 ms	1.360 MHz	0.680 MHz	0.453 MHz	0.340 MHz	Modem	12.92 Mbps	25.83 Mbps	29.52 Mbps	29.52 Mbps	4096/4681	-0.003%
LDPC-16k, Rate 7/8 & 8k Block	4.00 dB	6.86 dB	6.05 dB	7.51 dB	147.3 ms	1.360 MHz	0.680 MHz	0.453 MHz	0.340 MHz	Modem	12.92 Mbps	25.83 Mbps	29.52 Mbps	29.52 Mbps	4096/4681	-0.003%
LDPC-16k, Rate 7/8 & 16k Block	3.90 dB	6.66 dB	5.87 dB	7.32 dB	293.6 ms	1.360 MHz	0.680 MHz	0.453 MHz	0.340 MHz	Modem	12.92 Mbps	25.83 Mbps	29.52 Mbps	29.52 Mbps	4096/4681	-0.003%
LDPC-16k, Rate 10/11 & 256 Block	8.65 dB	12.11 dB	10.73 dB	12.58 dB	6.1 ms	1.309 MHz	0.654 MHz	0.436 MHz	0.327 MHz	Modem	13.42 Mbps	26.84 Mbps	29.52 Mbps	29.52 Mbps	4096/4505	-0.013%
LDPC-16k, Rate 10/11 & 512 Block	7.35 dB	10.61 dB	9.48 dB	11.20 dB	10.6 ms	1.309 MHz	0.654 MHz	0.436 MHz	0.327 MHz	Modem	13.42 Mbps	26.84 Mbps	29.52 Mbps	29.52 Mbps	4096/4505	-0.013%
LDPC-16k, Rate 10/11 & 1k Block	6.29 dB	9.42 dB	8.37 dB	10.01 dB	19.3 ms	1.309 MHz	0.654 MHz	0.436 MHz	0.327 MHz	Modem	13.42 Mbps	26.84 Mbps	29.52 Mbps	29.52 Mbps	4096/4505	-0.013%
LDPC-16k, Rate 10/11 & 2k Block	5.63 dB	8.73 dB	7.68 dB	9.37 dB	37.0 ms	1.309 MHz	0.654 MHz	0.436 MHz	0.327 MHz	Modem	13.42 Mbps	26.84 Mbps	29.52 Mbps	29.52 Mbps	4096/4505	-0.013%
LDPC-16k, Rate 10/11 & 4k Block	5.00 dB	7.99 dB	7.02 dB	8.63 dB	72.3 ms	1.309 MHz	0.654 MHz	0.436 MHz	0.327 MHz	Modem	13.42 Mbps	26.84 Mbps	29.52 Mbps	29.52 Mbps	4096/4505	-0.013%
LDPC-16k, Rate 10/11 & 8k Block	4.58 dB	7.51 dB	6.60 dB	8.18 dB	143.0 ms	1.309 MHz	0.654 MHz	0.436 MHz	0.327 MHz	Modem	13.42 Mbps	26.84 Mbps	29.52 Mbps	29.52 Mbps	4096/4505	-0.013%
LDPC-16k, Rate 10/11 & 16k Block	4.40 dB	7.33 dB	6.35 dB	7.95 dB	284.5 ms	1.309 MHz	0.654 MHz	0.436 MHz	0.327 MHz	Modem	13.42 Mbps	26.84 Mbps	29.52 Mbps	29.52 Mbps	4096/4505	-0.013%
LDPC-16k, Rate 16/17 & 256 Block	10.14 dB	13.91 dB	12.21 dB	14.26 dB	6.1 ms	1.264 MHz	0.632 MHz	0.421 MHz	0.316 MHz	Modem	13.89 Mbps	27.78 Mbps	29.52 Mbps	29.52 Mbps	16/17	0.000%
LDPC-16k, Rate 16/17 & 512 Block	8.00 dB	11.50 dB	10.32 dB	11.96 dB	10.2 ms	1.264 MHz	0.632 MHz	0.421 MHz	0.316 MHz	Modem	13.89 Mbps	27.78 Mbps	29.52 Mbps	29.52 Mbps	16/17	0.000%
LDPC-16k, Rate 16/17 & 1k Block	6.95 dB	10.26 dB	9.06 dB	10.74 dB	18.9 ms	1.264 MHz	0.632 MHz	0.421 MHz	0.316 MHz	Modem	13.89 Mbps	27.78 Mbps	29.52 Mbps	29.52 Mbps	16/17	0.000%
LDPC-16k, Rate 16/17 & 2k Block	6.35 dB	9.53 dB	8.39 dB	10.14 dB	35.8 ms	1.264 MHz	0.632 MHz	0.421 MHz	0.316 MHz	Modem	13.89 Mbps	27.78 Mbps	29.52 Mbps	29.52 Mbps	16/17	0.000%
LDPC-16k, Rate 16/17 & 4k Block	5.71 dB	8.83 dB	7.71 dB	9.40 dB	70.2 ms	1.264 MHz	0.632 MHz	0.421 MHz	0.316 MHz	Modem	13.89 Mbps	27.78 Mbps	29.52 Mbps	29.52 Mbps	16/17	0.000%
LDPC-16k, Rate 16/17 & 8k Block	5.24 dB	8.29 dB	7.24 dB	8.89 dB	138.7 ms	1.264 MHz	0.632 MHz	0.421 MHz	0.316 MHz	Modem	13.89 Mbps	27.78 Mbps	29.52 Mbps	29.52 Mbps	16/17	0.000%
LDPC-16k, Rate 16/17 & 16k Block	4.99 dB	8.01 dB	6.99 dB	8.63 dB	276.1 ms	1.264 MHz	0.632 MHz	0.421 MHz	0.316 MHz	Modem	13.89 Mbps	27.78 Mbps	29.52 Mbps	29.52 Mbps	16/17	0.000%
No FEC, Diff Encoded BPSK	12.3 dB				0.6 ms	1.190 MHz				Modem	14.76 Mbps				1/1	0.000%
No FEC, Diff Encoded QPSK	12.3 dB				0.9 ms		0.595 MHz			Modem		29.52 Mbps			1/1	0.000%
No FEC, Diff Encoded OQPSK	12.3 dB				1.0 ms		0.595 MHz			Modem		29.52 Mbps			1/1	0.000%
No FEC, Diff Encoded 8PSK		16.4 dB			1.2 ms			0.397 MHz		Modem			29.52 Mbps		1/1	0.000%
No FEC, Diff Encoded 8QAM			14.4 dB		1.2 ms			0.397 MHz		Modem			29.52 Mbps		1/1	0.000%
No FEC, Diff Encoded 16QAM				16.5 dB	1.4 ms				0.298 MHz	Modem				29.52 Mbps	1/1	0.000%

* IEEE Reed-Solomon parameters change with data rate. Information provided is at > 10 Mbps.

End-to-End delay measured at highest supported modulation mode (worst case) for each FEC mode and does NOT include the satellite propagation delay.