CCSDS LINK DESIGN CONTROL TABLE
SPACE - TO - EARTH LINK
LINK COMPUTATIONS
(Link and Weather Not Combined)

MISSION AND SPACECRAFT		UNITS	DESIGN VALUE	MEAN VALUE	VARI-ANCE	PDF REF	REMARKS
S/C TRANSMITTING RF CARRIER CHANNEL PERFORMANCE:							
151	Transmitter Power	dBW	6.99	6.99	0.00	TRI	
152	Transmit Ant Gain [Effect]	dB	6.50	6.50	0.21	UNI	
153	Transmitting EIRP	dBW	13.49	13.49	0.21	TRI	
154	Trans Carrier Power	dBW	13.11	13.10	0.21	TRI	
155	Trans Carrier Power/PT	dB	-0.38	-0.39	0.00	TRI	10 , 11,11A
S/C TRANSMITTING DATA CHANNEL PERFORMANCE:							
156	Trans Ch 1 Data Power	dBW	-2.26	-2.26	0.21	TRI	
157	Trans Ch 1 Data Power/PT	dB	-15.75	-15.75	0.00	TRI	12, 13, 13A
158	Trans Ch 2 Data Power	dBW	No Tlm	No Tlm	No Tlm	TRI	
159	Trans Ch 2 Data Power/PT	dB	No Tlm	No Tlm	No Tlm	TRI	
S/C TRANSMITTING RNG CHANNEL PERFORMANCE:							
160	Tone - Code 1 Power	dBW	-1.17	-1.19	0.40	TRI	
161	Tone - Code 1 Power/PT	dB	-14.66	-14.68	0.19	TRI	14, 15, 15A
162	Tone - Code 2 Power	dBW				TRI	
163	Tone - Code 2 Power/PT	dB				TRI	
SPACE - TO - EARTH PATH PERFORMANCE:							
164	Free Space Loss	dB	-211.18	-211.18	0.00	TRI	16, 17
165	Atmospheric Attenuation	dB	-0.09	-0.09	0.00	GAU	18
166	Ionospheric Loss	dB	0.00	0.00	0.00	GAU	
E/S RECEIVING RF CARRIER CHANNEL PERFORMANCE:							
167	Receiving Ant Gain [Effect]	dBi	55.30	55.27	0.00	UNI	
168	Noise Spectral Density	dBW/Hz	-206.38	-206.38	0.00	GAU	
169	Threshold Loop BW, 2BLo	Hz	10.00	10.00	0.00	TRI	
170	Rcvd Carrier Power	dBW	-142.86	-142.89	0.22	TRI	
171	Carrier Performance Margin	dB	**41.52**	**41.49**	**0.22**	GAU	DSN Block V
E/S RECEIVING DATA CHANNEL PERFORMANCE (SIMULT RNG):							
172	Ch 1 Data Loss Due to Rng	dB	-0.07			TRI	
173	Rcvd Ch 1 Eb / No	dB	8.15	8.13	0.22	TRI	
174	Reqd Ch 1 Eb / No	dB	1.47	1.47	0.00		
175	Ch 1 Data Perform Margin	dB	**6.69**	**6.66**	**0.22**	GAU	DSN Block V
176	Ch 2 Data Loss Due to Rng	dB				TRI	
177	Rcvd Ch 2 Eb / No	dB	No Tlm	No Tlm	No Tlm	TRI	
178	Reqd Ch 2 Eb / No	dB	No Tlm	No Tlm	No Tlm		
179	Ch 2 Data Perform Margin	dB	**No Tlm**	**No Tlm**	**No Tlm**	GAU	
E/S RECEIVING RNG CHANNEL PERFORMANCE (SIMULT DATA):							
180	Rcvd Code 1 Power / No	dB-Hz	48.24	48.20	0.41	TRI	
181	Rcvd Code 2 Power / No	dB-Hz				TRI	
182	Rcvd Total Rng Power / No	dB-Hz	48.24	48.20	0.41	TRI	
183	Ranging Margin	dB	**22.79**	**22.75**	**0.41**	GAU	DSN Block V