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

MISSION AND SPACECRAFT		UNITS	DESIGN VALUE	MEAN VALUE	VARI-ANCE	PDF REF	REMARKS
E/S TRANSMITTING RF CARRIER CHANNEL PERFORMANCE:							
101	Transmitter Power	dBW	42.30	42.30	0.00	TRI	
102	Transmit Ant Gain [Effect]	dB	55.10	55.10	0.00	UNI	
103	Transmitting EIRP	dBW	97.40	97.40	0.00	TRI	
104	Trans Carrier Power	dBW	91.94	91.94	0.00	TRI	
105	Trans Carrier Power/PT	dB	-5.46	-5.46	0.00	TRI	1, 2, 2A
E/S TRANSMITTING DATA CHANNEL PERFORMANCES:							
106	Trans Ch 1 Data Power	dBW	90.14	90.14	0.00	TRI	
107	Trans Ch 1 Data Power/PT	dB	-7.26	-7.26	0.00	TRI	3, 4, 4A
108	Trans Ch 2 Data Power	dBW				TRI	
109	Trans Ch 2 Data Power/PT	dB				TRI	
E/S TRANSMITTING RNG CHANNEL PERFORMANCE:							
110	Tone - Code 1 Power	dBW	92.19	92.19	0.00	TRI	
111	Tone - Code 1 Power/PT	dB	-5.21	-5.21	0.00	TRI	5, 6, 6A
112	Tone - Code 2 Power	dBW				TRI	
113	Tone - Code 2 Power/PT	dB				TRI	
EARTH - TO - SPACE PATH PERFORMANCE:							
114	Free Space Loss	dB	-210.47	-210.47	0.00	TRI	7, 8
115	Atmospheric Attenuation	dB	-0.16	-0.16	0.00	GAU	9
116	Ionospheric Loss	dB	-0.10	-0.10	0.00	GAU	
S/C RECEIVING RF CARRIER CHANNEL PERFORMANCE:							
117	Receiving Ant Gain [Effect]	dBi	-2.50	-2.50	0.00	UNI	
118	Noise Spectral Density	dBW/Hz	-200.54	-200.54	0.00	GAU	
119	Threshold Loop BW, 2BLo	Hz	463.60	174.40	0.00	TRI	
120	Rcvd Carrier Power	dBW	-121.29	-121.29	0.00	TRI	SMEX S-Band
121	Carrier Performance Margin	dB	**40.09**	**44.34**	**0.00**	TRI	Sim Cmd & Rng
S/C RECEIVING DATA CHANNEL PERFORMANCE (SIMULT RNG):							
122	Ch 1 Data Loss Due to Rng	dB	-0.15			TRI	
123	Rcvd Ch 1 Eb / No	dB	44.45	44.45	0.00	TRI	
124	Reqd Ch 1 Eb / No	dB	12.17	12.17	0.00	TRI	
125	Ch 1 Data Perform Margin	dB	**32.28**	**32.28**	**0.00**	TRI	SMEX S-Band
126	Ch 2 Data Loss Due to Rng	dB				TRI	
127	Rcvd Ch 2 Eb / No	dB				TRI	
128	Reqd Ch 2 Eb / No	dB					
129	Ch 2 Data Perform Margin	dB				TRI	
S/C RECEIVING RNG CHANNEL PERFORMANCE (SIMULT DATA):							
130	Rcvd Code 1 Power / No	dB-Hz	78.51	78.51	0.00	TRI	
131	Rcvd Code 2 Power / No	dB-Hz				TRI	
132	Rcvd Total Rng Power / No	dB-Hz	78.51	78.51	0.00	TRI	
133	Ranging Margin	dB	**16.74**	**16.74**	**0.00**	TRI	SMEX S-Band