

Table A.5-2. Typical Command carrier link budget

		EOC	Max Flux Density
Flux Density at satellite receive antenna input	dBW/m <sup>2</sup>	-90	-78
Transmit Earth station EIRP	dBW	71	83
Spacecraft G/T	dB/K	-33.5	-28
Frequency	GHz	17.797	17.797
Isotropic area	dB-m <sup>2</sup>	46.46	46.46
Sat/C receive antenna gain(EOC/Peak)	dB <sub>i</sub>	-2.5	3
Input losses(total)	dB	-2.86	-2.86
Input power level	dBm	-111.82	-94.32
Command threshold/maximum operating command threshold	dBm	-112	-60
Margin	dB	0.18	34.32

Table A.5-3. Typical telemetry carrier link budget

		Min EIRP	Max EIRP
Frequency	GHz	12.6985	12.6985
Transmit power (satellite)	dBW	-4	-2.85
Transmit losses	dBW	-7.88	-7.62
Antenna gain	dB <sub>i</sub>	22.4	34.85
EIRP	dBW	10.52	24.38
EIRP spec (min/max)	dBW	10	25
Link loss	dB	-206.13	-206.13
Rain loss	dB	8	8
Predicted EIRP	dBW	10	25
RxES G/T	dB/K	38.12	38.12
Boltzmann's constant	dBW/K-Hz	-228.6	-228.6
Downlink C/No	dB-Hz	62.59	77.59
EIRP margin	dB	0.5	0.6