

#### Command carrier link budget

UL Antenna flange power	dBW	25.0
UL Antenna flange power density	dBW/4KHz	1.0
TxES antenna gain	dB	64.2
UL EIRP	dBW	89.2
Sat. Rec antenna gain (Global beam)	dBW	4.3
Sat. reciver system temp	K	790.0
Satellite G/T	dB/K	-24.7
Carrier BW	KHz	1000.0
Rain fade margin (beyond UPC range)	dB	10.0
Path Loss	dB	210.0
CNR	dB	13.1
CNR(required)	dB	10.0
Margin	dB	3.1

#### Telemetry carrier link budget

EIRP	dBW	20.0
EIRP density	dBW/4KHz	-2.8
RxES antenna gain	dB	59.5
RxES G/T	dB/K	39.5
Carrier BW	KHz	750.0
Rain fade	dB	12.0
Path loss	dB	206.2
CNR	dB	11.1
CNR(required)	dB	9.0
Margin	dB	2.1