

Parameter	Value	Unit	Budget
fc_DL	32E+9	Hz	
lamb_DL	9.4E-3	m	
Orbiter p_tx	75	W	
P_tx	18.75	dBW	
Orbiter HGA ø	3.2	m	
Ground Dish ø	35.0	m	
Path Loss	302.2	dB	-302.2
Orbiter a_eff	0.65		
Ground a_eff	0.75		
Orbiter G_a	58.7	dB	
Ground G_aRx	80.1	dB	
Orbiter Tx2Ant Loss: Lt	0.5	dB	-0.5
Orbiter EIRP	77.5	dBW	77.5
Elevation Ang	10	deg	
Atm Loss	2.9	dB	-2.9
Sky Noise @ 90deg	25	K	
Sky Noise @ 10deg	125	K	
Rx frontend loss Lr	0.8	dB	
F_LNA	0.4	dB	
G_LNA	60	dB	
Subsys Noise Temp T2	600	K	
Rx sys, Tsys			
T_Rx	94.73	K	
T_a	125	K	
T_sys	219.73	K	
G/T	56.7	dB/K	56.7
Symbol Constallation	2	bits/symb	
Symbol Rate	50.3E+3	Baude	
Daily Window (8h)	28.8E+3	s	
Bit Rate	100.6E+3	bps	-50.0
Sci dataload	2.90E+09	bits	
Eb/No			7.2 dB
Required Eb/No	1	dB	
Margin			6.24 dB