Transparent Payload - Type C Receivers -   1.71 MHz Carriers

Item	Value	Unit
Symbol rate	1.485	Msps
Bits/Symbol Rate	2	
Coding Rate	0.4	
Aggregate Carrier Information Rate	1188	kbit/s
Occupied bandwidth	1.71	MHz
E_b/N_0 Required	0.8	dB
Total implementation loss	1.5	dB
$C/(N_0+I_0)$ Required	63.1	dB(Hz)
C/(N+I) Required	1.4	dB
C/N Required	2.2	dB
HPA output power in W	63.0	W
HPA output power in dBW	18.0	dBW
Output losses	1.0	dB
Tx Antenna gain	48.6	dBi
Uplink e.i.r.p.	65.6	dBW
Elevation angle	90	°
Uplink path loss	200.5	dB
Atmospheric absorption	0.1	dB
Receive G/T @ Contour	-8.3	dB/K
Uplink C/N_O	85.3	dB(Hz)
Uplink C/N	23.6	dB
Single entry interfering power density	-44.7	dBW/Hz
Uplink interference eirp	43.3	dBW
I_0 after antenna	-199.0	dBW/Hz
N_0 after antenna	-200.3	dBW/Hz
Uplink N_0+I_0	-196.6	dBW/Hz
C after antenna	-115.0	dBW
Uplink $C/(N_0+I_0)$	81.6	dB(Hz)
Downlink $C/(N_0+I_0)$ Required	63.1	dB(Hz)
Downlink peak eirp per carrier	26.4	dBW
Downlink beam contour	0	dB
Elevation angle	90	°
Downlink path loss	187.0	dB
Atmospheric absorption	0.1	dB
Earth Station antenna gain	17.0	dBi
Earth Station noise temperature	150.0	K
Earth Station antenna receive G/T	-4.8	dB/K
Downlink receiver power	-143.7	dBW
Downlink C/N_0	63.1	dB(Hz)
Downlink C/I_0	80.4	dB
Downlink $C/(N_0+I_0)$	63.1	dB(Hz)
Downlink Margin	-0.1	dB
Overall $C/(N_0+I_0)$	63.0	dB(Hz)
System Margin	-0.1	dB