

GENERAL DATA		ENLACE EARTH STATION 1 - EARTH STATION 2		
ASSIGNED SATELLITE		ARSAT-2		
Satellite Longitude	° West	81.0		
Assigned Transponder		To be designated		
Uplink Carrier Frequency	GHz	To be designated		
Downlink Carrier Frequency	GHz	To be designated		
		<u>Uplink Rain</u>	<u>Downlink Rain</u>	<u>Clear Sky</u>
Information Rate	Kbps	135000.0	135000.0	135000.0
Threshold Eb/No	dB-Hz	6.0	6.0	6.0
Threshold BER (Bit Error Rate)		1*10E-8	1*10E-8	1*10E-8
FEC		0.75	0.75	0.75
Reed-Solomon		1.00	1.00	1.00
Roll-Off	%	20.00	20.00	20.00
Occupied Bandwidth / Modulation	MHz	72.000	72.000	72.000
Assigned Bandwidth	MHz	72.000	72.000	72.000
Assigned Satellite SFD	dBW/m2	-105.0	-105.0	-105.0
ATP (Attenuator Setting)	dB	18.6	18.6	18.6
Assigned Satellite G/T	dB/°K	3.7	3.7	3.7
Transponder Input Back-Off	dB			
Transponder Output Back-Off	dB			
Transponder Intermodulation Density	dB			
Link Availability	%	99.96	99.96	99.96
Eb/No	dB	6.0	6.1	7.1
Implementation Margin	dB	1.0	1.0	1.0
Link Margin	dB	0.02	0.08	1.11
UPLINK FROM:		EARTH STATION 1		
Uplink EIRP	dBW	77.20	77.20	77.20
Transmit Antenna Diameter	m	7.60	7.60	7.60
Transmit Antenna Efficiency	%	60.0	60.0	60.0
Transmit Antenna Gain	dB	51.4	51.4	51.4
Free Space Path Loss	dB	199.9	199.9	199.9
Atmospheric Absorption Loss	dB	0.2	0.2	0.2
Antenna Pointing Error Loss / AutoTracking	dB	0.5	0.5	0.5
Uplink Rain Fade	dB	1.09	0.0	0.0
Carrier Flux Density	dBW/m2	-86.4	-86.4	-86.4
Carrier Input Back-Off	dB	1.1	0.0	0.0
Thermal C/N	dB	29.2	30.3	30.3
TOTAL C/N (UPLINK)	dB	29.2	30.3	30.3

8PSK / QPSK

0.0
0.0
21.0

DOWNLINK IN:		EARTH STATION 2		
Earth Station Longitude	°	74.0		
Earth Station Latitude	°	40.8		
Antenna Elevation	°	42.34		
Antenna Azimuth	° CW	190.65		
Receive Antenna Diameter	m	2.40	2.40	2.40
Receive Antenna Efficiency	%	63.0	63.0	63.0
Receive antenna Gain	dB	38.0	38.0	38.0
LNA/LNB/LNC Noise Temperature	°K	45.0	45.0	45.0
Receive Antenna Noise Temperature	°K	45.0	45.0	45.0
IFL/OMT Reception loss	dB	0.5	0.5	0.5
System Noise Temperature	dBK	21.0	21.0	21.0
Earth Station G/T	dB/°K	16.5	16.5	16.5
Satellite Saturation EIRP	dBW	41.9	41.9	41.9
Carrier Output Back-Off	dB	1.1	0.0	0.0
Carrier EIRP	dBW	40.8	41.9	41.9
Free Space Path Loss	dB	196.5	196.5	196.5
Atmospheric Absorption Loss	dB	0.1	0.1	0.1
Antenna Pointing Error Loss / AutoTracking	dB	0.5	0.5	0.5
Downlink Rain Fade	dB	0.0	0.40	0.0
Downlink Rain Fade Noise Enhancement	dB	0.0	0.7	0.0
Thermal C/N	dB	10.2	10.2	11.3
Transponder Intermodulation C/I	dB	19.9	21.0	21.0
TOTAL C/N (DOWNLINK)	dB	9.8	9.9	10.9
TOTAL C/N (UPLINK + DOWNLINK)	dB	9.7	9.8	10.8
Threshold C/N	dB	9.7	9.7	9.7
Voice Activation Factor (DAMA Only)	%	100		
Number of Carrier (VSAT Only)		1		
Required Power Percentage	%	99.72		99.72
Required Bandwidth Percentage	%	100.00		100.00
Usable Transponder Power (Back-Off)	dB			0.00
Usable Transponder Bandwidth	MHz			72
Minimum HPA Required:				
Assumed IFL (Inter-Facility Losses)	dB	0.0		
Uplink Power Control (UPC)	dB	0.0		
Satellite Automatic Level Control	dB	0.0		
Power, HPA Output in dBW	dBW	25.84		
Power, HPA Output in Watts	W	383.58		
HPA Back Off (single carrier = 1)	dB	1.0		
Minimum HPA Power	W	482.9		

* Value applicable only for multiple carriers.