

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	5625.0	5625.0	5625.0
Threshold Eb/No	dB-Hz	5.0	5.0	5.0
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	4.500	4.500	4.500
Assigned Bandwidth	MHz	4.500	4.500	4.500
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	%	99.95	99.95	99.95
Eb/No	dB	5.1	5.1	6.0
Implementation Margin	dB	1.0	1.0	1.0
Link Margin	dB	0.05	0.08	1.02
UPLINK FROM:		EARTH STATION 1		
Uplink EIRP	dBW	59.15	59.15	59.15
Transmit Antenna Diameter	m	3.70	3.70	3.70
Transmit Antenna Efficiency	%	63.0	63.0	63.0
Transmit Antenna Gain	dB	45.3	45.3	45.3
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	0.97	0.0	0.0
Carrier Flux Density	dBW/m2	-104.5	-104.5	-104.5
Carrier Input Back-Off	dB	19.0	18.1	18.1
Thermal C/N	dB	23.3	24.3	24.3
TOTAL C/N (UPLINK)	dB	23.3	24.3	24.3

QPSK / QPSK

6.0
3.0
21.0

No

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
Receive Antenna Efficiency	%	63.0	63.0
Receive antenna Gain	dB	38.0	38.0
LNA/LNB/LNC Noise Temperature	°K	45.0	45.0
Receive Antenna Noise Temperature	°K	45.0	45.0
IFL/OMT Reception loss	dB	0.5	0.5
System Noise Temperature	dBK	21.0	21.0
Earth Station G/T	dB/°K	16.5	16.5
Satellite Saturation EIRP	dBW	41.9	41.9
Carrier Output Back-Off	dB	16.0	15.1
Carrier EIRP	dBW	25.9	26.8
Free Space Path Loss	dB	196.5	196.5
Atmospheric Absorption Loss	dB	0.1	0.1
Antenna Pointing Error Loss / AutoTracking	dB	0.5	0.5
Downlink Rain Fade	dB	0.0	0.35
Downlink Rain Fade Noise Enhancement	dB	0.0	0.7
Thermal C/N	dB	7.4	7.3
Transponder Intermodulation C/I	dB	20.0	21.0
TOTAL C/N (DOWNLINK)	dB	7.1	8.1
TOTAL C/N (UPLINK + DOWNLINK)	dB	7.0	8.0
Threshold C/N	dB	7.0	7.0
Voice Activation Factor (DAMA Only)	%	100	
Number of Carrier (VSAT Only)		1	
Required Power Percentage	%	6.22	6.22
Required Bandwidth Percentage	%	6.25	6.25
Usable Transponder Power (Back-Off)	dB		3.00
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	13.83	
Power, HPA Output in Watts	W	24.15	
HPA Back Off (single carrier = 1)	dB	1.0	
Minimum HPA Power	W	30.4	

* Value applicable only for multiple carriers.