

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	64.0	64.0	64.0
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	%	40.00	40.00	40.00
Occupied Bandwidth / Modulation	MHz	0.060	0.060	0.060
Assigned Bandwidth	MHz	0.060	0.060	0.060
Assigned Satellite SFD	dBW/m2	-101.0	-101.0	-101.0
ATP (Attenuator Setting)	dB	12.0	12.0	12.0
Assigned Satellite G/T	dB/°K	8.0	8.0	8.0
Transponder Input Back-Off	dB			
Transponder Output Back-Off	dB			
Transponder Intermodulation Density	dB			
Link Availability	%	99.74	99.74	99.74
Eb/No	dB	5.0	5.0	9.1
Implementation Margin	dB	1.0	1.0	1.0
Link Margin	dB	0.04	0.01	4.08
UPLINK FROM:		EARTH STATION 1		
Uplink EIRP	dBW	37.30	37.30	37.30
Transmit Antenna Diameter	m	2.44	2.44	2.44
Transmit Antenna Efficiency	%	70.0	70.0	70.0
Transmit Antenna Gain	dB	49.5	49.5	49.5
Free Space Path Loss	dB	206.9	206.9	206.9
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	4.03	0.0	0.0
Carrier Flux Density	dBW/m2	-125.8	-125.8	-125.8
Carrier Input Back-Off	dB	40.8	36.8	36.8
Thermal C/N	dB	14.5	18.5	18.5
TOTAL C/N (UPLINK)	dB	14.5	18.5	18.5

QPSK / QPSK

6.0  
3.0  
21.0

No

<b>DOWNLINK IN:</b>		<b>EARTH STATION 2</b>	
Earth Station Longitude	°	74.0	
Earth Station Latitude	°	40.8	
Antenna Elevation	°	42.34	
Antenna Azimuth	° CW	190.65	
Receive Antenna Diameter	m	1.20	1.20
Receive Antenna Efficiency	%	63.0	63.0
Receive antenna Gain	dB	41.3	41.3
LNA/LNB/LNC Noise Temperature	°K	75.0	75.0
Receive Antenna Noise Temperature	°K	45.0	45.0
IFL/OMT Reception loss	dB	0.5	0.5
System Noise Temperature	dBK	21.9	21.9
Earth Station G/T	dB/°K	18.9	18.9
Satellite Saturation EIRP	dBW	51.9	51.9
Carrier Output Back-Off	dB	37.8	33.8
Carrier EIRP	dBW	14.1	18.1
Free Space Path Loss	dB	205.7	205.7
Atmospheric Absorption Loss	dB	0.1	0.1
Antenna Pointing Error Loss / AutoTracking	dB	0.5	0.5
Downlink Rain Fade	dB	0.0	2.59
Downlink Rain Fade Noise Enhancement	dB	0.0	0.0
Thermal C/N	dB	7.5	6.7
Transponder Intermodulation C/I	dB	17.0	21.0
<b>TOTAL C/N (DOWNLINK)</b>	dB	7.1	6.6
<b>TOTAL C/N (UPLINK + DOWNLINK)</b>	dB	6.3	10.4
Threshold C/N	dB	6.3	6.3
Voice Activation Factor (DAMA Only)	%	100	6.3
Number of Carrier (VSAT Only)		1	
Required Power Percentage	%	0.08	0.08
Required Bandwidth Percentage	%	0.08	0.08
Usable Transponder Power (Back-Off)	dB		3.00
Usable Transponder Bandwidth	MHz		72
<b>Minimum HPA Required:</b>			
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	-12.22	
Power, HPA Output in Watts	W	0.06	
HPA Back Off (single carrier = 1)	dB	1.0	
Minimum HPA Power	W	0.1	

\* Value applicable only for multiple carriers.