

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	-105.0	-105.0	-105.0
ATP (Attenuator Setting)	dB	19.0	19.0	19.0
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	%	99.97	99.97	99.97
Eb/No	dB	5.1	5.1	6.3
Implementation Margin	dB	1.0	1.0	1.0
Link Margin	dB	0.08	0.09	1.34
UPLINK FROM:		EARTH STATION 1		
Uplink EIRP	dBW	40.40	40.40	40.40
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	1.27	0.0	0.0
Carrier Flux Density	dBW/m2	-123.2	-123.2	-123.2
Carrier Input Back-Off	dB	38.5	37.2	37.2
Thermal C/N	dB	23.1	24.3	24.3
TOTAL C/N (UPLINK)	dB	23.1	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	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	35.5	34.2	34.2	
Carrier EIRP	dBW	6.4	7.7	7.7	
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	0.48	0.0	
Downlink Rain Fade Noise Enhancement	dB	0.0	0.8	0.0	
Thermal C/N	dB	6.7	6.6	7.9	
Transponder Intermodulation C/I	dB	19.7	21.0	21.0	
TOTAL C/N (DOWNLINK)	dB	6.5	6.5	7.7	
TOTAL C/N (UPLINK + DOWNLINK)	dB	6.4	6.4	7.6	
Threshold C/N	dB	6.3	6.3	6.3	
Voice Activation Factor (DAMA Only)	%	100			
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
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	-4.92			
Power, HPA Output in Watts	W	0.32			
HPA Back Off (single carrier = 1)	dB	1.0			
Minimum HPA Power	W	0.4			

* Value applicable only for multiple carriers.