City	Old EIRPs	Old EIRPs + 2.7	4/20 Turbo 8PSK 2/3 EIRPs	Delta (4/21 EIRPs - 4/20 EIRPs)	4/21 Turbo 8PSK 2/3 EIRPs	Delta (8PSK 2/3 - Old EIRPs)	Turbo 8PSK 3/4 EIRPs	Delta (8PSK 3/4 - Old EIRPs)
HONOLULU HI	50.00	52.70	50.00	#REF!	#REF!	#REF!	#REF!	#REF!
TAMPA FL	54.00	56.70	58.00	#REF!	#REF!	#REF!	#REF!	#REF!
ST PETERSBUR	54.00	56.70	58.00	#REF!	#REF!	#REF!	#REF!	#REF!
SARASOTA FL	54.00	56.70	58.00	#REF!	#REF!	#REF!	#REF!	#REF!
CHARLESTON S	54.00	56.70	58.00	#REF!	#REF!	#REF!	#REF!	#REF!
NEW ORLEANS	54.00	56.70	57.50	#REF!	#REF!	#REF!	#REF!	#REF!
HOUSTON TX	53.00	55.70	56.70	#REF!	#REF!	#REF!	#REF!	#REF!
SAN ANTONIO T	50.00	52.70	51.60	#REF!	#REF!	#REF!	#REF!	#REF!
ATLANTA GA	54.00	56.70	55.50	#REF!	#REF!	#REF!	#REF!	#REF!
NASHVILLE TN	54.00	56.70	55.70	#REF!	#REF!	#REF!	#REF!	#REF!
EL PASO TX	48.00	50.70	50.00	#REF!	#REF!	#REF!	#REF!	#REF!
LAS CRUCES NI	48.00	50.70	50.00	#REF!	#REF!	#REF!	#REF!	#REF!
SHREVEPORT L	52.00	54.70	54.40	#REF!	#REF!	#REF!	#REF!	#REF!
PHOENIX AZ	48.00	50.70	50.00	#REF!	#REF!	#REF!	#REF!	#REF!
PRESCOTT AZ	48.00	50.70	50.00	#REF!	#REF!	#REF!	#REF!	#REF!
OKLAHOMA CIT	49.50	52.20	52.20	#REF!	#REF!	#REF!	#REF!	#REF!
LOS ANGELES (	48.00	50.70	50.00	#REF!	#REF!	#REF!	#REF!	#REF!
WASHINGTON D	54.00	56.70	55.30	#REF!	#REF!	#REF!	#REF!	#REF!
HAGERSTOWN	54.00	56.70	55.30	#REF!	#REF!	#REF!	#REF!	#REF!
ST LOUIS MO	50.50	53.20	53.20	#REF!	#REF!	#REF!	#REF!	#REF!
SAN FRANCISC	48.00	50.70	50.00	#REF!	#REF!	#REF!	#REF!	#REF!
OAKLAND CA	48.00	50.70	50.00	#REF!	#REF!	#REF!	#REF!	#REF!
SAN JOSE CA	48.00	50.70	50.00	#REF!	#REF!	#REF!	#REF!	#REF!
DENVER CO	48.00	50.70	50.00	#REF!	#REF!	#REF!	#REF!	#REF!
SALT LAKE CITY	48.00	50.70	50.00	#REF!	#REF!	#REF!	#REF!	#REF!
CLEVELAND OH	51.10	53.80	54.50	#REF!	#REF!	#REF!	#REF!	#REF!
AKRON OH	51.10	53.80	54.50	#REF!	#REF!	#REF!	#REF!	#REF!
CANTON OH	51.10	53.80	54.50	#REF!	#REF!	#REF!	#REF!	#REF!
CHICAGO IL	51.50	54.20	53.90	#REF!	#REF!	#REF!	#REF!	#REF!
BOISE ID	48.00	50.70	50.00	#REF!	#REF!	#REF!	#REF!	#REF!
MARQUETTE IA	50.80	53.50	53.50	#REF!	#REF!	#REF!	#REF!	#REF!
MARQUETTE IL	51.50	54.20	53.60	#REF!	#REF!	#REF!	#REF!	#REF!
MARQUETTE KS	49.00	51.70	51.10	#REF!	#REF!	#REF!	#REF!	#REF!
MARQUETTE MI	50.50	53.20	53.00	#REF!	#REF!	#REF!	#REF!	#REF!
MARQUETTE NE	49.00	51.70	51.30	#REF!	#REF!	#REF!	#REF!	#REF!
MARQUETTE W	50.50	53.20	52.40	#REF!	#REF!	#REF!	#REF!	#REF!
MINNEAPOLIS M	50.00	52.70	52.10	#REF!	#REF!	#REF!	#REF!	#REF!
ST PAUL MN	50.00	52.70	52.10	#REF!	#REF!	#REF!	#REF!	#REF!
SEATTLE WA	49.00	51.70	50.50	#REF!	#REF!	#REF!	#REF!	#REF!
TACOMA WA	49.00	51.70	50.50	#REF!	#REF!	#REF!	#REF!	#REF!
PORTLAND OR	49.00	51.70	50.50	#REF!	#REF!	#REF!	#REF!	#REF!
GREAT FALLS M	54.00	56.70	55.30	#REF!	#REF!	#REF!	#REF!	#REF!
GREAT FALLS M	48.00	50.70	50.00	#REF!	#REF!	#REF!	#REF!	#REF!
GREAT FALLS S	54.00	56.70	56.70	#REF!	#REF!	#REF!	#REF!	#REF!
GREAT FALLS V	54.00	56.70	55.30	#REF!	#REF!	#REF!	#REF!	#REF!
MINOT ND	49.40	52.10	51.90	#REF!	#REF!	#REF!	#REF!	#REF!
BISMARCK ND	49.40	52.10	51.80	#REF!	#REF!	#REF!	#REF!	#REF!
DICKINSON ND	49.40	52.10	50.00	#REF!	#REF!	#REF!	#REF!	#REF!
MIAMI FL	54.00	56.70	58.00	#REF!	#REF!	#REF!	#REF!	#REF!
ANCHORAGE AI	49.00	51.70	51.70	#REF!	#REF!	#REF!	#REF!	#REF!
CORPUS CHRIS	51.00	53.70	51.60	#REF!	#REF!	#REF!	#REF!	#REF!
LUBBOCK TX	49.00	51.70	50.40	#REF!	#REF!	#REF!	#REF!	#REF!
BAKERSFIELD C	48.00	50.70	50.00	#REF!	#REF!	#REF!	#REF!	#REF!
INDIANAPOLIS I	53.00	55.70	55.30	#REF!	#REF!	#REF!	#REF!	#REF!
TOPEKA KS	49.00	51.70	52.50	#REF!	#REF!	#REF!	#REF!	#REF!
SIOUX FALLS SI	49.00	51.70	51.60	#REF!	#REF!	#REF!	#REF!	#REF!
EUGENE OR	48.00	50.70	50.00	#REF!	#REF!	#REF!	#REF!	#REF!
IDAHO FALLS ID	48.00	50.70	50.00	#REF!	#REF!	#REF!	#REF!	#REF!
FARGO ND	49.00	51.70	52.00	#REF!	#REF!	#REF!	#REF!	#REF!
SPOKANE WA	48.00	50.70	50.00	#REF!	#REF!	#REF!	#REF!	#REF!
			# decreased:	0.00	Average:	#REF!	Average:	#REF!

Green: lower than old EIRPs + 2.7 dB
Red: higher

BSS @129W

	Eb/No	datarate			EIRP values?
DVB S2 QPSK 1/4	**0.75**	**9804.86**	**#DIV/0!**		n/a
DVB S2 QPSK 1/3	**0.59**	**13128.96**	**#DIV/0!**		n/a
DVB S2 QPSK 2/5	**0.73**	**15788.24**	**#DIV/0!**		n/a
Turbo QPSK 1/2	**1.7**	**18974.44**	**#DIV/0!**	updated 3/23	Old EIRPs
DVB S2 QPSK 3/5	**1.48**	**23766.08**	**#DIV/0!**		n/a
Turbo QPSK 2/3	**2.7**	**#REF!**	**#REF!**	updated 3/23	Old EIRPs
Turbo QPSK 3/4	**3.1**	**#REF!**	**#REF!**	updated 3/23	Old EIRPs
DVB S2 QPSK 4/5	**2.67**	**#REF!**	**#REF!**		n/a
Turbo QPSK 5/6	**3.7**	**#REF!**	**#REF!**	updated 4/18 u	4/19 EIRPs
Turbo QPSK 7/8	**4.2**	**#REF!**	**#REF!**	updated 4/19 u	4/19 EIRPs
DVB S2 QPSK 9/10	**3.89**	**#REF!**	**#REF!**		n/a
Turbo 8PSK 2/3	**4.4**	**#REF!**	**#REF!**	updated 4/18 u	4/19 EIRPs
Turbo 8PSK 3/4	**4.9**	**#REF!**	**#REF!**	updated 4/18 u	4/19 EIRPs
Turbo 8PSK 5/6	**6.4**	**#REF!**	**#REF!**	updated 4/18 u	4/19 EIRPs
Turbo 8PSK 8/9	**6.7**	**#REF!**	**#REF!**	updated 4/18 u	n/a

Earth Station G/T degrade by:	**0.5**	dB

DATA RATE	9804.86	kbps	sat	#REF!	
NUMBER OF PHASES	4		xpdr	#REF!	
LDPC	1 / 4		loc	#REF!	
SPECTRAL EFFICIENCY	0.490243				
REQUIRED Eb/No	0.75	dB			
IF BANDWIDTH	20000.0	kHz			
C/N REQUIRED	-2.35	dB			
Faded System Margin	0.3	dB			
Antenna Efficiency	63.00%				

UPLINK SITE	#NAME?	#NAME?
UPLINK SFD	#NAME?	dBW/m2
ATTENUATOR	10.0	dB
UPLINK G/T	#NAME?	dB/K
UPLINK FREQ	#REF!	MHz
DOWNLINK FREQ	#REF!	MHz
UPLINK EIRP	#NAME?	dBW
Uncompensated U/L Fade	0.0	dB
UPLINK C/N	#NAME?	dB

Spacing Factor	1.2	
Required Bandwidth	24.000	MHz
Allocated Bandwidth	24.000	MHz
Transponder SCPC IBO	0.0	dB
Transponder SCPC OBO	0.0	dB
Carrier IBO	0.00	dB
Carrier OBO	0.00	dB

Transponder Bandwidth	24.0	MHz
Required Bandwidth	100.00	%
Allocated Bandwidth	100.00	%
Carrier Allocated Power	100.00	%

0.45

RECEIVE SITE	ANT DIA (m)	ES Tsys (K)	ANT G/T (dB/K)	Assumed C/I (dB)	MINIMUM C/N DOWN (dB)	XPDR SAT EIRP (dBW)	CXR EIRP (dBW)	CLEAR-SKY DOWNLINK C/N (dB)	MARGIN TO MIN C/Ndn (dB)	
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#

#NAME?	**0.45**	#NAME?	#REF!	**14.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**14.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**14.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**14.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**14.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**14.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**14.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**14.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**14.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**14.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**14.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**14.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**14.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**14.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**14.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**14.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#

DATA RATE	13128.96	kbps	sat	#REF!	UPLINK SITE	#NAME?	#NAME?		
NUMBER OF PHASES	4		xpdr	#REF!	UPLINK SFD			#NAME?	dBW/m2
LDPC	1 / 3		loc	#REF!	ATTENUATOR			10.0	dB
SPECTRAL EFFICIENCY	0.656448				UPLINK G/T			#NAME?	dB/K
REQUIRED Eb/No	0.59	dB			UPLINK FREQ			#REF!	MHz
IF BANDWIDTH	20000.0	kHz			DOWNLINK FREQ			#REF!	MHz
C/N REQUIRED	-1.24	dB			UPLINK EIRP		#NAME?		dBW
Faded System Margin	0.3	dB			Uncompensated U/L Fade			0.0	dB
Antenna Efficiency	63.00%				UPLINK C/N		#NAME?		dB

Spacing Factor	1.2	
Required Bandwidth	24.000	MHz
Allocated Bandwidth	24.000	MHz
Transponder SCPC IBO	0.0	dB
Transponder SCPC OBO	0.0	dB
Carrier IBO	0.00	dB
Carrier OBO	0.00	dB

Transponder Bandwidth	24.0	MHz
Required Bandwidth	100.00	%
Allocated Bandwidth	100.00	%
Carrier Allocated Power	100.00	%

0.45

RECEIVE SITE	ANT DIA (m)	ES Tsys (K)	ANT G/T (dB/K)	Assumed C/I (dB)	MINIMUM C/N DOWN (dB)	XPDR SAT EIRP (dBW)	CXR EIRP (dBW)	CLEAR-SKY DOWNLINK C/N (dB)	MARGIN TO MIN C/Ndn (dB)	
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	14.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#

#NAME?	**0.45**	#NAME?	#REF!	**14.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**14.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**14.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**14.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**14.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**14.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**14.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**14.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**14.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**14.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**14.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**14.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**14.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**14.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**14.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**14.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**14.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#

DATA RATE	15788.24	kbps	sat	#REF!	
NUMBER OF PHASES	4		xpdr	#REF!	
LDPC	2 / 5		loc	#REF!	
SPECTRAL EFFICIENCY	0.789412				
REQUIRED Eb/No	0.73	dB			
IF BANDWIDTH	20000.0	kHz			
C/N REQUIRED	-0.30	dB			
Faded System Margin	0.3	dB			
Antenna Efficiency	63.00%				
Spacing Factor	1.2				
Required Bandwidth	24.000	MHz			
Allocated Bandwidth	24.000	MHz			
Transponder SCPC IBO	0.0	dB			
Transponder SCPC OBO	0.0	dB			
Carrier IBO	0.00	dB			
Carrier OBO	0.00	dB			

UPLINK SITE	#NAME?	#NAME?	
UPLINK SFD		#NAME?	dBW/m2
ATTENUATOR		10.0	dB
UPLINK G/T		#NAME?	dB/K
UPLINK FREQ		#REF!	MHz
DOWNLINK FREQ		#REF!	MHz
UPLINK EIRP		#NAME?	dBW
Uncompensated U/L Fade		0.0	dB
UPLINK C/N		#NAME?	dB
Adjacent satellite C/I		16	
Spot beam C/I		15.0	
Transponder Bandwidth		24.0	MHz
Required Bandwidth		100.00	%
Allocated Bandwidth		100.00	%
Carrier Allocated Power		100.00	%

0.45

RECEIVE SITE	ANT DIA (m)	ES Tsys (K)	ANT G/T (dB/K)	Assumed C/I (dB)	MINIMUM C/N DOWN (dB)	XPDR SAT EIRP (dBW)	CXR EIRP (dBW)	CLEAR-SKY DOWNLINK C/N (dB)	MARGIN TO MIN C/Ndn (dB)	
#NAME?	0.45	#NAME?	#REF!	12.5	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	12.5	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	12.5	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	12.5	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	12.5	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	12.5	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	12.5	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	12.5	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	12.5	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	12.5	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	12.5	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	12.5	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	12.5	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	12.5	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	12.5	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	12.5	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	12.5	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	12.5	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	12.5	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	12.5	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	12.5	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	12.5	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	12.5	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	#NAME?	#REF!	12.5	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#

#NAME?	**0.45**	#NAME?	#REF!	**12.5**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**12.5**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**12.5**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**12.5**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**12.5**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**12.5**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**12.5**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**12.5**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**12.5**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**12.5**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**12.5**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**12.5**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**12.5**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**12.5**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**12.5**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**12.5**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	#NAME?	#REF!	**12.5**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#

DATA RATE	18974.44	kbps	sat	#REF!
NUMBER OF PHASES	4		xpdr	#REF!
LDPC	1 / 2		loc	#REF!
SPECTRAL EFFICIENCY	0.948722			
REQUIRED Eb/No	1.70	dB		
IF BANDWIDTH	20000.0	kHz		
C/N REQUIRED	1.47	dB		
Faded System Margin	0.3	dB		
Antenna Efficiency	63.00%			
Spacing Factor	1.2			
Required Bandwidth	24.000	MHz		
Allocated Bandwidth	24.000	MHz		
Transponder SCPC IBO	0.0	dB		
Transponder SCPC OBO	0.0	dB		
Carrier IBO	0.00	dB		
Carrier OBO	0.00	dB		

UPLINK SITE	#NAME? #NAME?	
UPLINK SFD	#NAME?	dBW/m2
ATTENUATOR	10.0	dB
UPLINK G/T	#NAME?	dB/K
UPLINK FREQ	#REF!	MHz
DOWNLINK FREQ	#REF!	MHz
UPLINK EIRP	#NAME?	dBW
Uncompensated U/L Fade	0.0	dB
UPLINK C/N	#NAME?	dB
Adjacent satellite C/I	15	
Spot beam C/I	15.0	
Transponder Bandwidth	24.0	MHz
Required Bandwidth	100.00	%
Allocated Bandwidth	100.00	%
Carrier Allocated Power	100.00	%

0.45

RECEIVE SITE	ANT DIA (m)	ES Tsys (K)	ANT G/T (dB/K)	Assumed C/I (dB)	MINIMUM C/N DOWN (dB)	XPDR SAT EIRP (dBW)	CXR EIRP (dBW)	CLEAR-SKY DOWNLINK C/N (dB)	MARGIN TO MIN C/Ndn (dB)	
#NAME?	0.45	110.0	13.6	12.0	#NAME?	50.00	50.00	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	52.60	52.60	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	52.60	52.60	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	52.60	52.60	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	53.80	53.80	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	51.50	51.50	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	51.00	51.00	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	50.00	50.00	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	52.60	52.60	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	52.50	52.50	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	48.00	48.00	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	48.00	48.00	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	52.00	52.00	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	48.00	48.00	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	48.00	48.00	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	49.50	49.50	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	48.00	48.00	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	52.50	52.50	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	52.50	52.50	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	50.00	50.00	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	48.00	48.00	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	48.00	48.00	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	48.00	48.00	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	48.00	48.00	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	51.50	51.50	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	51.50	51.50	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	51.50	51.50	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	51.00	51.00	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	48.00	48.00	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	50.50	50.50	#NAME?	#NAME?	#

#NAME?	**0.45**	110.0	13.6	**12.0**	#NAME?	50.50	50.50	#NAME?	#NAME?	#
#NAME?	**0.45**	110.0	13.6	**12.0**	#NAME?	48.50	48.50	#NAME?	#NAME?	#
#NAME?	**0.45**	110.0	13.6	**12.0**	#NAME?	50.00	50.00	#NAME?	#NAME?	#
#NAME?	**0.45**	110.0	13.6	**12.0**	#NAME?	48.50	48.50	#NAME?	#NAME?	#
#NAME?	**0.45**	110.0	13.6	**12.0**	#NAME?	50.00	50.00	#NAME?	#NAME?	#
#NAME?	**0.45**	110.0	13.6	**12.0**	#NAME?	49.10	49.10	#NAME?	#NAME?	#
#NAME?	**0.45**	110.0	13.6	**12.0**	#NAME?	49.10	49.10	#NAME?	#NAME?	#
#NAME?	**0.45**	110.0	13.6	**12.0**	#NAME?	48.00	48.00	#NAME?	#NAME?	#
#NAME?	**0.45**	110.0	13.6	**12.0**	#NAME?	48.00	48.00	#NAME?	#NAME?	#
#NAME?	**0.45**	110.0	13.6	**12.0**	#NAME?	48.00	48.00	#NAME?	#NAME?	#
#NAME?	**0.45**	110.0	13.6	**12.0**	#NAME?	48.00	48.00	#NAME?	#NAME?	#
#NAME?	**0.45**	110.0	13.6	**12.0**	#NAME?	48.00	48.00	#NAME?	#NAME?	#
#NAME?	**0.45**	110.0	13.6	**12.0**	#NAME?	48.30	48.30	#NAME?	#NAME?	#
#NAME?	**0.45**	110.0	13.6	**12.0**	#NAME?	48.30	48.30	#NAME?	#NAME?	#
#NAME?	**0.45**	110.0	13.6	**12.0**	#NAME?	48.90	48.90	#NAME?	#NAME?	#
#NAME?	**0.45**	110.0	13.6	**12.0**	#NAME?	48.90	48.90	#NAME?	#NAME?	#
#NAME?	**0.45**	110.0	13.6	**12.0**	#NAME?	48.90	48.90	#NAME?	#NAME?	#
#NAME?	**0.45**	110.0	13.6	**12.0**	#NAME?	53.00	53.00	#NAME?	#NAME?	#
#NAME?	**0.45**	110.0	13.6	**12.0**	#NAME?	49.00	49.00	#NAME?	#NAME?	#

DATA RATE	23766.08	kbps	sat	#REF!
NUMBER OF PHASES	4		xpdr	#REF!
LDPC	3 / 5		loc	#REF!
SPECTRAL EFFICIENCY	1.188304			
REQUIRED Eb/No	1.48	dB		
IF BANDWIDTH	20000.0	kHz		
C/N REQUIRED	2.23	dB		
Faded System Margin	0.3	dB		
Antenna Efficiency	63.00%			

UPLINK SITE	#NAME?	#NAME?
UPLINK SFD	#NAME?	dBW/m2
ATTENUATOR	10.0	dB
UPLINK G/T	#NAME?	dB/K
UPLINK FREQ	#REF!	MHz
DOWNLINK FREQ	#REF!	MHz
UPLINK EIRP	#NAME?	dBW
Uncompensated U/L Fade	0.0	dB
UPLINK C/N	#NAME?	dB

Spacing Factor	1.2	
Required Bandwidth	24.000	MHz
Allocated Bandwidth	24.000	MHz
Transponder SCPC IBO	0.0	dB
Transponder SCPC OBO	0.0	dB
Carrier IBO	0.00	dB
Carrier OBO	0.00	dB

Adjacent satellite C/I	15	
Spot beam C/I	15.0	
Transponder Bandwidth	24.0	MHz
Required Bandwidth	100.00	%
Allocated Bandwidth	100.00	%
Carrier Allocated Power	100.00	%

0.45

RECEIVE SITE	ANT DIA (m)	ES Tsys (K)	ANT G/T (dB/K)	Assumed C/I (dB)	MINIMUM C/N DOWN (dB)	XPDR SAT EIRP (dBW)	CXR EIRP (dBW)	CLEAR-SKY DOWNLINK C/N (dB)	MARGIN TO MIN C/Ndn (dB)	
#NAME?	0.45	110.0	13.6	12.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	0.45	110.0	13.6	12.0	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#

#NAME?	**0.45**	110.0	13.6	**12.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	110.0	13.6	**12.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	110.0	13.6	**12.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	110.0	13.6	**12.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	110.0	13.6	**12.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	110.0	13.6	**12.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	110.0	13.6	**12.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	110.0	13.6	**12.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	110.0	13.6	**12.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	110.0	13.6	**12.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	110.0	13.6	**12.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	110.0	13.6	**12.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	110.0	13.6	**12.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	110.0	13.6	**12.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	110.0	13.6	**12.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	110.0	13.6	**12.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#
#NAME?	**0.45**	110.0	13.6	**12.0**	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#

Table A,4.2-1 (schedule S, section S-13