

SYSTEM G/T ANALYSIS, General					18-Oct-19
ASC Signal:	4.6m at:	11.725 GHz	4LPKU-46T-1		
CONFIGURATION INPUTS:					
Antenna Gain			52.80	dBi	
Antenna Noise Temperature			60	Deg K	
Feed VSWR			1.3	:1	
Elevation Angle			20	Degrees	
Frequency			11.725	GHz	
Ambient Temp (deg C)			20	C	
Coupler, TX Filter & W/G Loss (dB):			0.5	dB	
Waveguide Switch Losses:			0.2	dB	Cum Gain (dB)
LNA/LNB Temperature	NF 0.7dB		51	Deg K	from LNA I/P
LNA/LNB Gain, min.			60	dB	60.0
INPUT VSWR			2.5	:1	60.0
LNA to BDC Loss:			0.0	dB	60.0
BDC Gain:			0.0	dB	60.0
BDC NF:			0.0	dB	60.0
IFL Cable Loss:			5.0	dB	55.0
Eq/Ampl & LDA NF:			0.0	dB	55.0
LDA Gain:			0.0	dB	55.0
Divider Loss:			4.0	dB	51.0
Demod NF:			0.0	dB	51.0
ANALYSIS:					
System Gain:					
Gain of Antenna:			52.8	dBi	
Coupler, TX Filter & W/G Loss (dB):			-0.5	dB	
Waveguide Switch Losses:			-0.2	dB	
LNA Mismatch Loss (DB):			-0.9	dB	
Net Gain to LNA Input			51.2	dBi	
System Temperature at LNA I/P:				Deg K	
LNA/LNB Temperature			51.0		
Antenna			41.7		
Coupler & W/G Loss (T):			24.8		
Waveguide Switch Losses:			10.8		
LNA Reflec. Noise			2.9		
LNA to BDC Loss:			0.0		
BDC NF:			0.0		
IFL Cable Loss:			0.0		
Eq/Ampl & LDA NF:			0.0		
Divider Loss:			0.0		
Demod NF:			0.0		
Net System Temp:			131.2	Deg Kelvin	
		Post LNA Degradation:	0.0	K	
Clear Sky G/T =			30.0	Deg/K	
Elevation Angle =			20	Deg	
Frequency =			11.725	GHz	
Note: "Clear Sky" = water vapor ≤ 7.5 gm/cubic meter					