

EXPLORER Series BUC



20 Watt Extended BUC used in EXPLORER 6100, 8100 and 8120

Interface	Model	Specification
Input, IF		N-Connector (50 Ohm)
Output, Ku-band	20W	WR75 waveguide (43.0 dBm min. Tamb ≤ 55°C)
Spectrum	-	Non inverting
Stability		Stable with any passive load on input and output
LO type	-	Locked to 10 MHz external reference over IF interface
LO frequency	Extended	12.80 GHz
TX ON/OFF	-	10 MHz reference ON/OFF
Cooling	-	Internal temperature controlled fan (S)
Protection		TX shutdown at over-temperature not required (>70°C ambient air)

Parameter	Condition / Remark	Unit	Min.	Typical	Max.
Output frequency range	VSAT ext. TX	GHz	13.75		14.50
Input (IF) frequency range		MHz	950		1700
VSWR	Input (10, 950 – 1700 MHz)	-			2.0 : 1
	Output (13.75 - 14.50 GHz)	-			2.0 : 1
Output power at P1dB	Worst case, Tamb ≤ 55°C	dBm	43.0		
	Worst case, Tamb > 55°C	dBm	42.5		
Output power 10 MHz ref OFF	TX band, at – 35 dBm ref.	dBm			-60
Gain (absolute linear)	Over output freq range, min	dB	64	68	
	Over output freq range, max	dB		68	72
Gain (relative)	Over 500 MHz BW	dB	-2.5	0	2.5
Gain (relative)	Over 36 MHz BW	db	-1.0	0	1.0
Phase noise	10 Hz	dBc/Hz			-50
	100 Hz				-60
	1 kHz				-70
	10 kHz				-80
	100 kHz				-90
	≥ 1 MHz				-110
Spurious	RX band 10.70 - 12.75 GHz	dBm			-56
	13.50 - 13.75 GHz band				-15
	TX band 13.75 - 14.50 GHz				-15
	14.50 - 14.80 GHz band				-17
	Carrier ±10 MHz to 9.99 MHz				-30
	Carrier ±10 MHz to 50 MHz				-30
	Out of banda				-26
External ref. freq. (input)	Nominal	MHz		10	
External reference freq. (input)	Deviation	Hz	-100	0	100
Power supply voltage	DC	V	39.0		50
Supply current	DC	W			185
Temperature range (ambient)	Operation	°C	-30		70
	Storage	°C	-40		85
Weight	Total	g			2900
	L	mm			190
Dimensions (incl. connector) over all	W	mm			125
	H	mm			110

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