

2W Ku-Band Block Up-Converter

Level421 OEM BUC Series are ideal for Broadband VSAT RF terminal

- **2W Output Power**
- **Supreme Quality**
- **Small Size & Mass**
- **Low DC Power Consumption**
- **Two year Warranty**



Model

Model Number	Description	RF Band (GHz)	IF Band (MHz)	Output Power (dBm)
Regular KU-Band F/N	2W KU-Band BUC, Std, F/N	14.00 – 14.50	950 – 1450	+33 min
Extended X KU-Band F/N	2W KU-Band BUC, Ext, F/N	13.75 – 14.25	950 – 1450	+33 min

Reference

External Reference	Performance
Input Frequency	10MHz
Impedance	75ohm
Input Power	-5 to +5dBm @ Input port
Phase Noise	-125 dBc/Hz @ 100Hz offset -135 dBc/Hz @ 1kHz offset -140 dBc/Hz @ 10kHz offset

Specifications

Specifications	Performance
Conversion Type	Single, Fixed L.O.
Frequency Sense	Non-Inverted
Output Power @ 1dB G.C.P.	33dBm min. over temp.
Linear Gain	55 dB nominal
LO Phase Noise	-60 dBc/Hz max. @ 100 Hz -70 dBc/Hz Max. @ 1 kHz -80 dBc/Hz max. @ 10 kHz -90 dBc/Hz max. @ 100 kHz
Input V.S.W.R.	2 : 1 max.
Output V.S.W.R.	2 : 1 max.
DC Power Requirement	+15 to +24 VDC
Mute	Shut off the HPA in case of L.O. unlocked
Input Interface	F-type, female, 75 ohm N-type, female, 50 ohm
Output Interface	Waveguide, WR-75
Dimensions (w/o connector)	167x107x50 mm
Weight	1.1kg
Temperature Range	-40 to +55 C Operational

No	Parameter	Unit	Specifications	Remarks
Input Characteristics				
1	Frequency Range	MHz	950 ~ 1450	
2	Impedance F / N Connector	Ohms	75	
3	Return Loss	dB	9.5	VSWR 2:1
4	Connector	-	F(f)	
Output Characteristics				
5	Frequency Range	GHz	14 ~14.5	
6	Power @ 1dB Comp (dBm)	dBm	33 min.	
8	Return Loss	dB	9.5	VSWR 2:1
9	Connector	-	WR75	
Transfer Characteristics				
10	Frequency Sense	-	Non-inverted	LO Freq. = 13.05GHz
11	Linear Gain	Min.	dB	50
		Max.	dB	60
12	Gain Variation	Over 54 MHz	dBp_p	1.5
		Over 500 MHz	dBp_p	4.0
		Over Operating Temperature	dBp_p	4.0
13	Spurious	In Band (Full Span)	dBm	≤ -23
		Out of Band (3GHz Span)	dBm	≤ -45
		Spurious in Rx Band	dBm	≤ -70
14	Mute Output Power In case of L.O. Unlocked	dBm	≤ -45	
15	In Band Noise Emission	dBm/Hz	≤ -95	
16	Worst Case LO Leakage	dBm	≤ -45	
17	Worst Case Second Harmonics	dBm	≤ - 45	@ 28 ~ 29GHz
18	Rx Band Power Density @10.7~12.75GHz	dBm/Hz	-160	Rx Band 10.7~12.75GHz
19	L.O. Phase Noise	@100Hz		-60
		@1KHz		-70
		@10KHz	dBc/Hz	-80
		@100KHz		-90
		@1MHz		-100
Miscellaneous				
20	Ref. Singal	Frequency	MHz	10
		Power Level	dBm	-15 ~ +5
	Phase Noise	@100Hz		-125
		@1KHz	dBc/Hz	-135
	@10KHz		-140	
21	Shut off the Output when L.O. Unlocked	-	O.K.	
22	Operating Voltage	Vdc	15 ~ 24	
23	Power Consumption	W	20	
26	Operating Temperature	degree C	-40 ~ +55	
27	Storage Temperature	degree C	-40 ~ +75	
28	Humidity	%	0 ~ 100	

