



## 3W Ku-Band Block Up-Converter

*Neo BUC™ Series* are ideal for Broadband VSAT RF terminal.

- 3W 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)
TB34-APF	3W Ku-band BUC, Std, F	14.00 - 14.50	950 - 1450	+35 amb
TB34-APN	3W Ku-band BUC, Std, N	14.00 - 14.50	950 - 1450	+35 amb
TB34-BPF	3W Ku-band BUC, Ext, F	13.75 - 14.25	950 - 1450	+35 amb
TB34-BPN	3W Ku-band BUC, Ext, N	13.75 - 14.25	950 - 1450	+35 amb

### Reference

External Reference	Performance
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<b>Input Frequency</b>	<b>10MHz</b>
<b>Impedance</b>	<b>75ohm</b>
<b>Input Power</b>	<b>-15 to +5dBm@ Input port</b>
<b>Phase Noise</b>	<b>-125 dBc/Hz @ 100Hz offset -135 dBc/Hz @ 1kHz offset -140 dBc/Hz @ 10kHz offset</b>

### Specifications

<b>SPECIFICATION</b>	<b>PERFORMANCE</b>
<b>Conversion Type</b>	<b>Single, Fixed L.O.</b>
<b>Frequency Sense</b>	<b>Non-Inverted</b>
<b>Output Power @ 1dB G.C.P.</b>	<b>34 min. over temp.</b>
<b>Linear Gain</b>	<b>56 dB nominal</b>
<b>LO Phase Noise</b>	<b>-60 dBc/Hz max. @ 100 Hz -70 dBc/Hz max. @ 1 kHz -80 dBc/Hz max. @ 10 kHz -90 dBc/Hz max. @ 100 kHz</b>
<b>Input V.S.W.R.</b>	<b>2 : 1 max.</b>
<b>Output V.S.W.R.</b>	<b>2 : 1 max.</b>
<b>DC Power Requirement</b>	<b>+15 to +24 VDC</b>
<b>Mute</b>	<b>Shut off the HPA in case of L.O. unlocked</b>
<b>Input Interface</b>	<b>F-type: Female, 75ohm N-type: Female, 50ohm</b>
<b>Output Interface</b>	<b>Waveguide, WR-75</b>
<b>Dimensions (w/o connector)</b>	<b>167x107x50(mm)</b>
<b>Weight</b>	<b>1.1kg</b>
<b>Temperature Range</b>	<b>-40 to +55 C Operational</b>

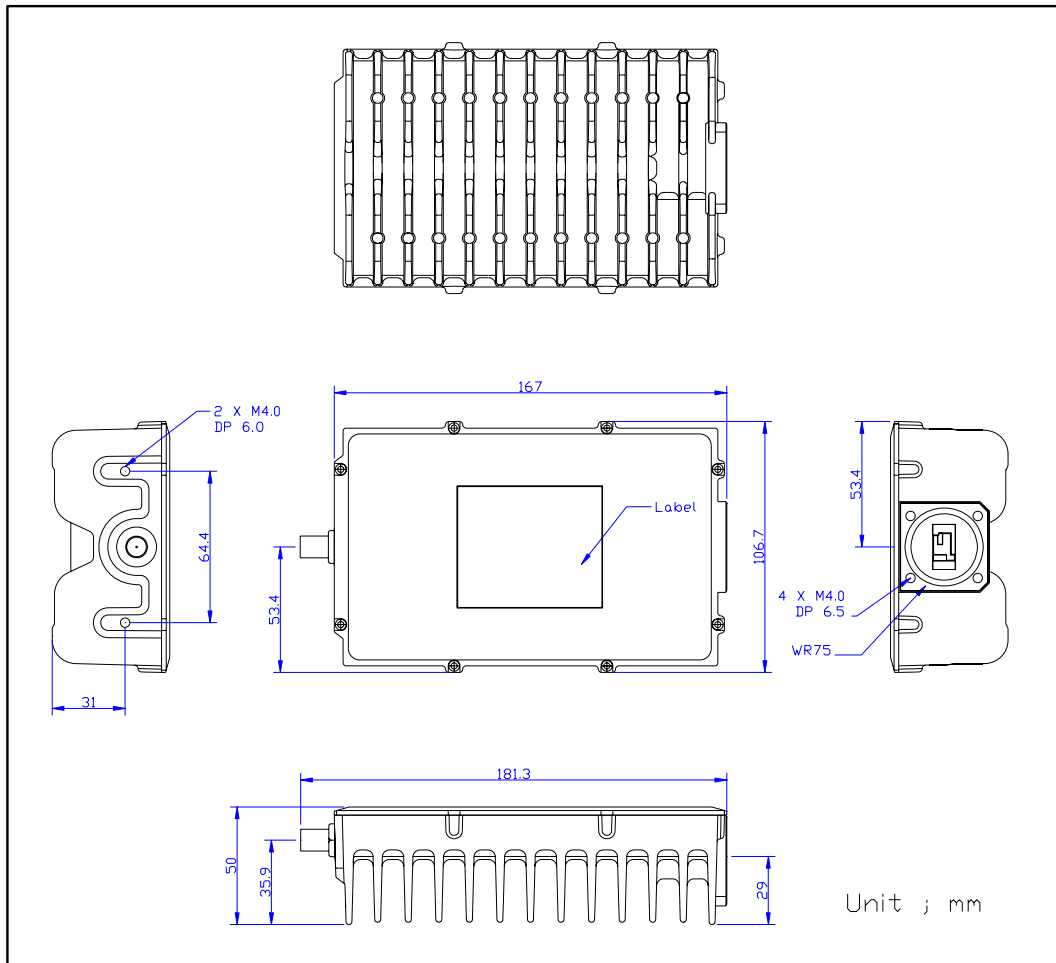


## 3W Ku-band BUC

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No	Parameter	Unit	Specifications	Remarks
<b>Input Characteristics</b>				
1	Frequency Range	MHz	950 ~ 1450	
2	Impedance <span style="float: right;">F / N Connector</span>	Ohms	75	
3	Return Loss	dB	9.5	VSWR 2:1
4	Connector	-	F(f)	
<b>Output Characteristics</b>				
5	Frequency Range	GHz	14 ~14.5	
6	Power @ 1dB Comp (dBm)	dBm	34 min.	
8	Return Loss	dB	9.5	VSWR 2:1
9	Connector	-	WR75	
<b>Transfer Characteristics</b>				
10	Frequency Sense	-	Non-inverted	LO Freq. = 13.05GHz
11	Linear Gain <span style="float: right;">Min.</span>	dB	50	
		dB	60	
12	Gain Variation <span style="float: right;">Over 54 MHz</span>	dBp_p	1.5	
		dBp_p	4.0	
	Over Operating Temperature <span style="float: right;">Over 500 MHz</span>	dBp_p	4.0	@ Fixed Frequency
13	Spurious <span style="float: right;">In Band (Full Span)</span>	dBm	≤ -23	
	<span style="float: right;">Out of Band (3GHz Span)</span>	dBm	≤ -45	
	<span style="float: right;">Spurious in Rx Band</span>	dBm	≤ -70	
14	Mute Output Power <span style="float: right;">In case of L.O. Unlocked</span>	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 <span style="float: right;">@100Hz</span>	dBc/Hz	-60	
		dBc/Hz	-70	
		dBc/Hz	-80	
		dBc/Hz	-90	
		dBc/Hz	-100	
<b>Miscellaneous</b>				
20	Ref. Singal <span style="float: right;">Frequency</span>	MHz	10	
		dBm	-15 ~ +5	
	Phase Noise <span style="float: right;">@100Hz</span>	dBc/Hz	-125	
		dBc/Hz	-135	
	<span style="float: right;">@1KHz</span>	dBc/Hz	-140	
	<span style="float: right;">@10KHz</span>	dBc/Hz	-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	
29	Dimension	(L x W x H)mm	170/130/40	
30	Weight	Kg	1.2	

## Interconnection Drawing



**\* Specifications are subject to change without notice**



### Quality Assurance

NexGenWave products are manufactured under ISO9001:  
2000 quality certified facility



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