

# AntBUC®

## **SUPER HIGH POWER DENSITY 80W / 100W / 125W KU-BAND GAN BUC / SSPA**



Smaller, Lighter and more Powerful The Next Generation AntBUC® Series allows significant high power BUC / SSPB / SSPA size and weight reduction and at the same time substantially improves thermal efficiency, which leads to higher reliability and longer MTBF. That's why IRT Technologies offers 3 years warranty for this product line!

The Next Generation IRT Technologies Powered by GaN Technology 80W / 100W / 125W Ku-Band AntBUC® Series are very compact, light and extremely powerful. Weighing at only 18 lbs, This Next Generation Ku-band 80W / 100W / 125W AntBUC® Series product family is the most powerful and feature rich for its size: up to 120W at saturated power. IRT AntBUC® features best in class RF characteristics, true RMS power measurements, extensive monitor and control capabilities enabled via Ethernet, Serial and/or Analog Interfaces. AntBUC® remarkably compact size and high thermal efficiency results in overall system size and cost reduction making it the ideal candidate for mobile and fixed VSAT applications.

### KEY FEATURES

- Extremely high power density - up to 125W PsAT in 14.4" x 8.4" x 3.9" only!
- Superior RF performance:
  - ✓ Phase noise 8-10dB better than IESS308/309
  - ✓ PsAT up to 50dBm
  - ✓ Spurious below -60dBc
  - ✓ Wide dynamic range of Gain Control
  - ✓ High linearity
- RF Overdrive Protection
- Field Replaceable Unit Power Supply and Fans
- 48VDC Isolated power supply option
- Internal / Autosense 10 MHz Reference Optional
- Switchable LO option - Standard and Extended Ku-Band in one unit
- Input and Output True RMS Power Detection
- Configuration via RS-232 serial console, packet protocol RS-485 - User friendly HTTP based GUI and SNMP
- Automated Level Control (ALC) Option
- Field upgradable software
- Status LED
- Redundant Ready with No External Controller Required
- Antenna Mounting kit optional

5580 Boulevard Thimens  
Saint Laurent, QC  
Canada H4R 2K9

Authorized Distributor: Servsat Communications, Inc.  
sales@iservsat.com



# AntBUC®

## 80W / 100W / 125W L- to Ku-Band Block-Up-Converter GaN Specification

Parameter	80W	100W	125W
<b>RF Performance</b>			
RF Frequency Range-Available in/switched:	14-14.5GHz (Std. Ku-Band)		13.75-14.5GHz (Ext. Ku-Band)
IF Frequency Range	950-1450MHz		950-1700MHz
LO Frequency	13.05GHz		12.8GHz
Conversion	Single Conversion; non-inverting		
Saturated Power	49dBm typ	50dBm typ	51dBm typ
Linear Power	46dBm min.	47dBm min.	48dBm min.
Conversion Gain	75dB min, 77dB typ		
Gain Flatness	+/-1dB typ +/-1.5dB max over full band; +/-0.5dB max over any 40MHz		
Gain Stability over temperature	+/-1.5dB over full temperature range		
Gain Stability over input power	2dB typ 3dB max from 10dB back off to rated power		
Gain Control	20dB min dynamic range		
External Reference Frequency	10MHz 0dBm +/-5dB multiplexed with IF In		
External Reference Required Phase Noise	-130dBc/Hz @ 100Hz	-140dBc/Hz @ 1kHz	-150dBc/Hz @ 10kHz -155dBc/Hz @ 100 kHz
Up-Converter Phase Noise	-68dBc/Hz @ 100Hz; -80dBc/Hz @ 1kHz; -90dBc/Hz @ 10kHz -95dBc/Hz @ 100kHz -115dBc/Hz @ 1MHz		
Linearity: 2 tone IMD Spectral Re-growth	-24dBc at P linear -30dBc for QPSK at 1.5xsymbol rate at Plin+1dB		
Noise Power Density: Transmit Band / Receive Band	-85dBm/Hz max / -148dBm/Hz max		
Output Spurious: Non-signal related / Signal related	-60dBc / -55dBc		
<b>Power</b>			
AC Voltage Range (48VDC Isolated optional)	90-265VAC 50-60Hz Auto-Ranging PFC		
Power Consumption at rated power	450W typ	580W typ	600W typ
Power Consumption at 3 dB back off	380 W typ	500W typ	520W typ
<b>Mechanical</b>			
Size	14.4" x 8.4" x 3.9"		
Weight	18lbs		
Cooling	Forced Air		
Operating temperature	-40°C to +55°C		
Relative Humidity	Up to 100% condensing		
<b>Interfaces</b>			
IF Input Connector	N-type female		
RF Output Connector	WR75 grooved		
AC Power In	MS3112E12-3P		
M&C Interface-Serial, Analog and Ethernet	MS3112E14-19S		
Redundancy Interface	MS3112E14-19P		
<b>Part Numbering Information</b>			
	80W	100W	125W
AC Auto-ranging Power Supply (Ext. Ku-Band)	TPB-KXB0490-HMS0	TPB-KXB0500-HMS0	TPB-KXB0510-HMS0
AC Auto-ranging Power Supply (Std. Ku-Band)	TPB-KUB0490-HMS0	TPB-KUB0500-HMS0	TPB-KUB0510-HMS0

Rev.13

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