



EUROSATCOM
VSATECH ASSOCIÉ

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

- Up to 125W PSAT
- Superior RF performance
- RF overdrive protection
- Field Replaceable Unit Power Supply and Fans
- 48VDC Isolated power supply option
- Internal / Autosense 10 MHz Reference Optional
- Switchable LO option
- 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

RF PERFORMANCE

RF Freq. 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 (Switchable)	13.05GHz / 12.8GHz
Conversion	Single Conversion; Non-Inverting

Saturated Power

80W	49dBm typ.
100W	50dBm typ.
125W	51dBm typ.

Linear Power

80W	46dBm min.
100W	47dBm min.
125W	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 temp.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:	-24dBc at P linear
2 tone IMD	-30dBc for QPSK at 1.5xsymbol rate at Plin+1dB

Spectral Re-growth

Noise Power Density:

Transmit Band	-85dBm/Hz max
Receive Band	-148dBm/Hz max

Output Spurious:	
Non-signal related	-60dBc
Signal related	-55dBc

POWER

AC Voltage Range (48VDC Isolated optional)	90-265VAC 50-60Hz Auto-Ranging PFC
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Power Consumption at rated power

80W	450W typ
100W	580W typ
125W	600W typ

at 3 dB back off

80W	380 W typ
100W	500 W typ
125W	520 W typ



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MECHANICAL

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

INTERFACES

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

PART NUMBERING INFORMATION

AC Auto-ranging Power Supply (Ext. Ku-Band)

80W	TPB-KXB0490-HMS0
100W	TPB-KXB0500-HMS0
125W	TPB-KXB0510-HMS0

AC Auto-ranging Power Supply (Std. Ku-Band)

80W	TPB-KUB0490-HMS0
100W	TPB-KUB0500-HMS0
125W	TPB-KUB0510-HMS0



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