



AntBUC® SUPER HIGH POWER DENSITY 300W/400W/500W KU-BAND GAN POWERED SSPA / SSPB / BUC

Smaller, lighter and more Powerful AntBUC® Series World's Smallest and Lightest The Most Powerful and Linear GaN Powered Ku-Band SSPA / BUC 300W / 400W / 500W available on the market today AntBUC® Series allows significant high power Solid State Power Amplifier / Block Up Converter 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 offers 3 years warranty for this product line! The new IRT Technologies Powered by GaN Technology 300W / 400W / 500W Ku-Band SSPAs / BUCs AntBUC® series are very compact, light and extremely powerful. Using patent pending Z-combining method and advanced GaN technology new IRT 300W / 400W / 500W Ku-Band AntBUC® SSPA / SSPB / BUC has truly outstanding power density - up to 500W PSAT in this super compact 18.5"x11.6"x9.55" package weighing only 72 lbs.

IRT 300W / 400W / 500W Ku-Band AntBUC® BUC features best in class RF characteristics, RF sample port, true RMS power measurements, extensive monitor and control capabilities enabled via Ethernet, Serial and/or Analog Interfaces. 300W / 400W / 500W Ku-Band AntBUC® BUC 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 500W PSAT
- Superior RF performance
- RF overdrive protection
- Field Upgradable Software
- Internal / Autosense 10MHz Reference Optional
- Available in Standard, Extended and Low Ku-Band
- 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) Optional
- Redundant Ready
- Status LED
- Antenna Mounting Kit Optional
- External Rackmount Remote M&C Panel Optional

RF PERFORMANCE

RF Freq. Range-Available in/switched	14-14.5GHz / 13.75-14.5GHz
IF Frequency Range	950-1450MHz / 950-1700MHz
LO Frequency	13.05GHz / 12.8GHz
Conversion	Single Conversion; non-inverting

Saturated Power

300W	55dBm / 300W typ.
400W	56dBm / 400W typ.
500W	57dBm / 500W typ.

Linear Power

300W	+52dBm / +150W min.
400W	+53dBm / +200W min.
500W	+54dBm / +250W 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 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; -30dBc for QPSK at 1.5xsymbol rate at Plinear+1dB
2 tone IMD	
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	90-265VAC 50-60Hz Auto-Ranging PFC
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Power Consumption at rated power

80W	2000W
100W	2300W
125W	2400W

at 3 dB back off

80W	1700W
100W	1900W
125W	2000W





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MECHANICAL

Size	18.5" x 11.6" x 9.55"
Weight	72lbs
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
RF Sample	N-type female
AC Power In	MS3112E12-3P
M&C Interface-Serial, Analog and Ethernet	MS3112E14-19S
Redundant Interface	MS3112E14-19P



PART NUMBERING INFORMATION

Ext. Ku-Band, AC Power Supply,

Ext. 10MHz Ref.

300W	TPB-KXB0550-HMS0
400W	TPB-KXB0560-HMS0
500W	TPB-KXB0570-HMS0

