

# AntBUC®



## SUPER HIGH POWER DENSITY 40W GAN POWERED KA-BAND BUC

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 40W Ka-Band AntBUC® Series are very compact, light and extremely powerful. Weighing at only 30 lbs, This Next Generation Ka-band 40W AntBUC® Series product family is the most powerful and feature rich for its size: up to 40W 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 40W PSAT in this super-compact and light weight package
- Ideal for Feed Horn Mounting
- Superior RF performance:
  - ✓ Phase noise 3dB better than IESS308/309
  - ✓ Rated Power up 43dBm
  - ✓ Spurious below -65dBc
  - ✓ Wide dynamic range of Gain Control
- Integrated L-Band to Ka-Band Up Converter
- Switchable LO – Dual Band Commercial and Military Ka-Band in One Unit Optional
- Status LED
- Configuration via RS-232 Serial Console, Packet Protocol RS-485 - User friendly HTTP based GUI and SNMP Standard
- Bluetooth M&C Interface Optional
- Built in Auto-Ranging AC Power Supply
- Low Power Consumption
- Redundant Ready with No Need of External Redundancy Controller
- Field Upgradable Software
- Internal / Autosense 10MHz Ref Clock Optional
- Antenna Mounting Kit Optional
- 48VDC Power Supply Optional

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## 40W L- to Ka-Band Block-Up-Converter GaN Specification

Parameter	40W
<b>RF Performance</b>	
RF Frequency Range-Available in/switched:	28 -29GHz / 29-30GHz / 30-31GHz
IF Frequency Range	950-1950MHz
LO Frequency (Switchable)	27.05GHz / 28.05GHz / 29.05GHz
Conversion	Single Conversion; Non-Inverting
Saturated Power	46dBm typ
Linear Power	43dBm min
Conversion Gain	65dB typ
Gain Flatness	+/-1.5dB typ +/-2dB max over full band; +/-1dB max over any 40MHz
Gain Stability	+/-2dB over full temperature range
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	-63dBc/Hz @100Hz; -73dBc/Hz @1kHz; -83dBc/Hz @10kHz; -93dBc/Hz @100kHz; -110dBc/Hz @1MHz
Linearity: 2 tone IMD Spectral Re-growth	-23dBc at Plinear (-26dBc for QPSK at 1.5xsymbol rate at Plinear)
Noise Power Density:      Transmit Band Receive Band	-85dBm/Hz max -148dBm/Hz max
Output Spurious: Non-signal related Signal related	-65dBc -60dBc
I/P VSWR	1.5:1
O/P VSWR	1.3:1
AM/PM conversion @ Plinear	2 Deg/dB
<b>Power</b>	
AC Voltage Range	90-265VAC 50-60Hz Auto-Ranging
Power Consumption	250W typ
<b>Mechanical</b>	
Size AC Version	11.187" x 10.75" x 4.30"
Weight	30lbs
Cooling	Forced Air
Operating temperature	-40°C to +60°C
Relative Humidity	Up to 100% condensing
<b>Interfaces</b>	
IF Input Connector	N-type female
RF Output Connector	WR28 grooved
DC Power In	MS3112E12-3P
RS485-RS232-Ethernet-SNMP	MS3112E14-19S
<b>Part Numbering Information</b>	
Power Option	40W
AC Powered	TPB-KAB0460-HMSO

\*Contact us for detailed ordering information at [sales@irttechnologies.com](mailto:sales@irttechnologies.com)

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

Rev.02

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