

AntBUC®

SUPER HIGH POWER DENSITY 300W / 400W C-BAND GAN BUC/SSPA



Smaller, lighter and more Powerful AntBUC® series allows significant high power BUC 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 300W / 400W C-Band AntBUC® series are very compact, light and extremely powerful. Weighing at only 56 lbs, this new C-band 300W / 400W AntBUC® product family is the most powerful and feature rich for its size: up to 400W at saturated power. IRT AntBUC® 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. 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 400W PsAT in 18.7"x13.3"x10.1" only!
- Superior RF performance:
 - ✓ Phase noise 8-10dB better than IESS308/309
 - ✓ PsAT up to 56 dBm
 - ✓ Spurious below -60dBc
 - ✓ Wide dynamic range of Gain Control
- RF Overdrive Protection
- Available in various C-Band frequency options
- Field upgradable software
- Filed replaceable power supply
- Internal 10MHz reference 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
- Redundant Ready - No External Redundancy Controller Required.
- Status LED

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300W / 400W L- to C-Band Block-Up-Converter Specification

Parameter	300W	400W
RF Performance		
RF Frequency Range-Available in/switched:	5.85-6.425GHz (other frequency options available)	
IF Frequency Range	950-1525MHz	
LO Frequency	4.9GHz	
Conversion	Single Conversion; non-inverting	
Saturated Power	55dBm/300W typ	56dBm/400W typ
Linear power	52dBm min	53dBm 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 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; -95dBc/Hz @ 100kHz	-80dBc/Hz @ 1kHz; -90dBc/Hz @ 10kHz -115dBc/Hz @ 1MHz
Linearity: 2 tone IMD Spectral Re-growth	-25dBc at P linear -30dBc for QPSK at 1.5xsymbol rate at Plinear	
Noise Power Density: Transmit Band	-85dBm/Hz max	
Receive Band	-150dBm/Hz max	
Output Spurious: Non-signal related	-60dBc	
Signal related	-55dBc	
Power		
AC Voltage Range	190-265VAC 50-60Hz auto-ranging PFC	
Power Consumption at rated power	1600W	1900W
Power Consumption at 3 dB back off	1200W	1600W
Mechanical		
Size	17.7 "x 13.3"x 10.1"	
Weight	56lbs	
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	CPR137 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		
	IRT Part Number	
AC Power Supply	TPB-CB00550-HMS0	TPB-CB00560-HMS0

* Specifications are subject to change without prior notice

Rev.04

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