

# AntBUC®

## **SUPER HIGH POWER DENSITY 150W / 200W 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 IRT Technologies powered by GaN technology 150W / 200W C-Band AntBUC® series are very compact, light and extremely powerful. Weighing at only 22 lbs, this new C-band 150W / 200W AntBUC® product family is the most powerful and feature rich for its size: up to 200W 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 200W Psat in 15.3" x 8.7" x 4.2" only!
- Superior RF performance:
  - ✓ Phase noise 8-10dB better than IESS308/309
  - ✓ Psat up to 54 dBm
  - ✓ Spurious below -60dBc
  - ✓ Wide dynamic range of Gain Control
  - ✓ High linearity
- RF Overdrive Protection
- Available in various C-Band frequency options
- Field upgradable software
- Internal 10MHz reference optional
- 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.
- 48VDC isolated power supply option
- Status LED

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## 150W / 200W C-Band Block-Up-Converter GaN Specification

Parameter	150W	200W
<b>RF Performance</b>		
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	52dBm typ	53dBm typ
Linear power	49dBm min	50dBm 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	3dB typ 4dB 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
Up-Converter Phase Noise	-68dBc/Hz @ 100Hz; -95dBc/Hz @ 100kHz	-80dBc/Hz @ 1kHz; -115dBc/Hz @ 1MHz
Linearity: 2 tone IMD Spectral Re-growth	-25dBc at P linear -30dBc for QPSK at 1.5xsymbol rate at Plinear+1dB	
Noise Power Density:	Transmit Band	Receive Band
Output Spurious: Non-signal related	-60dBc	
Signal related	-55dBc	
<b>Power</b>		
AC Voltage Range	90-265VAC 50-60Hz auto-ranging PFC	
Power Consumption at rated power	850W	1000W
Power Consumption at 3 dB back off	650W	750W
48VDC Isolated optional	40-72VDC Isolated	
<b>Mechanical</b>		
Size	15.375 "x 8.750" x 4.250" (18.625" x 8.750" x 4.250" with output circulator)	
Weight	26lbs	
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	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	
<b>Part Numbering Information</b>		
AC Power Supply	150W TPB-CB00520-HMS0	200W TPB-CB00530-HMS0

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

Rev.05

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