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 range; +/-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
-130dBc/Hz @ 100Hz
-140dBc/Hz @ 1kHz
-150dBc/Hz @ 10kHz
-155dBc/Hz @ 100 kHz

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 1.5x symbol rate at Pin+1dB

Noise Power Density:
-85dBm/Hz max
-148dBm/Hz max

Non-signal related
-60dBc

Signal related
-55dBc

POWER

AC Voltage Range
90-265VAC 50-60Hz

Auto-Ranging PFC

Power Consumption
450W typ
580W typ
600W typ

at rated power
80W
100W
125W

at 3 dB back off
80W
100W
125W

380 W typ
500 W typ
520 W typ

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**AntBUC® SUPER HIGH POWER DENSITY**  
**80W/100W/125W KU-BAND GAN BUC/SSPA**

### MECHANICAL

<table>
<thead>
<tr>
<th>Specification</th>
<th>Measurement</th>
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<tbody>
<tr>
<td>Size</td>
<td>14.4” x 8.4” x 3.9”</td>
</tr>
<tr>
<td>Weight</td>
<td>18lbs</td>
</tr>
<tr>
<td>Cooling</td>
<td>Forced Air</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-40 C to +55 C</td>
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<tr>
<td>Relative humidity</td>
<td>Up to 100% condensing</td>
</tr>
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### INTERFACES

<table>
<thead>
<tr>
<th>Interface</th>
<th>Connector/Connection</th>
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<tbody>
<tr>
<td>IF Input Connector</td>
<td>N-type female</td>
</tr>
<tr>
<td>RF Output Connector</td>
<td>WR75 grooved</td>
</tr>
<tr>
<td>AC Power In</td>
<td>MS3112E12-3P</td>
</tr>
<tr>
<td>M&amp;C Interface-Serial, Analog and Ethernet</td>
<td>MS3112E14-19S</td>
</tr>
<tr>
<td>Redundancy Interface</td>
<td>MS3112E14-19P</td>
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### 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