

Super High Power Density 60W / 80W / 100W Ku-Band BUC/SSPA

AntBUC®



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 60W / 80W / 100W Ku-Band AntBUC® Series are very compact, light and extremely powerful. Weighing at only 16 lbs, This Next Generation Ku-band 60W / 80W / 100W AntBUC® Series product family is the most powerful and feature rich for its size: up to 100W 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

- Extremely high power density - up to 100W Psat in 13.6" x 8.4" x 4" only!
- Superior RF performance:
 - ✓ Phase noise 8-10dB better than IESS308/309
 - ✓ Psat up to 50dBm
 - ✓ Spurious below -60dBc
 - ✓ Wide dynamic range of Gain Control
 - ✓ High linearity
- RF Overdrive Protection
- Field Replaceable Unit Power Supply and Fans
- 48VDC Isolated power supply option
- Internal / Autosense 10 MHz Reference Optional
- Switchable LO option - Standard and Extended Ku-Band in one unit
- 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

Parameter	60W	80W	100W
RF Performance			
RF Frequency 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	48dBm typ	49dBm typ	50dBm typ
Linear Power	45dBm typ	46dBm typ	47dBm typ
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		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 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; -115dBc/Hz @ 1MHz
Linearity: 2 tone IMD Spectral Re-growth		-24dBc at P linear -30dBc for QPSK at 1.5xsymbol rate at Plin+1dB	
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 (48VDC Isolated optional)		90-265VAC 50-60Hz Auto-Ranging PFC	
Power Consumption at rated power	450W typ	550W typ	600W typ
Power Consumption at 3 dB back off	380 W typ	470W typ	520W typ
Mechanical			
Size		13.6 "x 8.4" x 4"	
Weight		16lbs	
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	
AC Power In		MS3112E12-3P	
M&C Interface-Serial, Analog and Ethernet		MS3112E14-19S	
Redundancy Interface		MS3112E14-19P	
Part Numbering Information			
AC Auto-ranging Power Supply	TPB-KXB0480-HMS0	TPB-KXB0490-HMS0	TPB-KXB0500-HMS0
DC Isolated Power Supply	TPB-KXB0480-HMS1	TPB-KXB0490-HMS1	TPB-KXB0500-HMS1

