

Super High Power Density 150W / 200W Ku-Band GaN BUC/SSPA

AntBUC®



Smaller, Lighter and more Powerful 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 offers 3 years warranty for this product line!

The Next Generation IRT Technologies powered by GaN Technology 150W / 200W Ku-Band AntBUC® Series are very compact, light and extremely powerful. Using patent pending Z-combining method and advanced GaN technology new IRT 150W / 200W AntBUC® has truly outstanding power density - up to 200W PSAT in this super compact 15.5" x 10" x 6.3" package weighing only 28 lbs. IRT 150W / 200W Ku-Band AntBUC® features best in class RF characteristics, RF sample port, true RMS power measurements, extensive monitoring and control capabilities enabled via Ethernet, Serial and/or Analog Interfaces. 150W / 200W 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 15.5"x10"x6.3" only!
- Superior RF performance:
 - ✓ Phase noise 8-10dB better than IESS308/309
 - ✓ PSAT up to 53 dBm
 - ✓ Spurious below -60dBc
 - ✓ Wide dynamic range of Gain Control
- RF Overdrive Protection
- Available in both standard and Extended Ku-Band
- Field upgradable software
- Internal / Autosense 10MHz Reference Options
- 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
- Redundant ready - No External Redundancy Controller Required.
- Status LED
- Antenna Mounting kit Optional

150W / 200W Ku-Band GaN Block-Up-Converter Specification

Parameter	150W	200W		
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	52dBm typ	53dBm typ		
Linear Power	49 dBm typ	50 dBm 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	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	-150dBc/Hz @ 10kHz	-155dBc/Hz @ 100 kHz
Up-Converter Phase Noise	-68dBc/Hz @ 100Hz; -95dBc/Hz @ 100kHz	-80dBc/Hz @ 1kHz; -115dBc/Hz @ 1MHz	-90dBc/Hz @ 10kHz	
Linearity: 2 tone IMD Spectral Re-growth	-24dBc at P linear -30dBc for QPSK at 1.5xsymbol rate at Plinear+1dB			
Noise Power Density:	Transmit Band	Receive Band		
			-85dBm/Hz max -148dBm/Hz max	
Output Spurious: Non-signal related				-60dBc
Signal related				-55dBc
Power				
AC Voltage Range	90-265VAC 50-60Hz auto-ranging PFC			
Power Consumption at rated power	1000W	1150W		
Power Consumption at 3 dB back off	600W	800W		
Mechanical				
Size	15.4 "x9.9"x7.6"			
Weight	28lbs			
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			
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	150W	200W		
AC Power Supply	TPB-KXB0520-HMS0	TPB-KXB0530-HMS0		

