

Overview

Smaller, lighter and more Powerful 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 IRT Technologies powered by GaN technology 100W to 500W Ku-Band AntBUC® Series are very compact, light and extremely powerful. Weighing at only 18 lbs for 100W to 125W, 32lbs for 150W to 250W and 72 lbs for 300W to 500W this new Ku-band 100W to 500W AntBUC® product family is the *most powerful and feature rich for its size*. 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 125W Psat in 14.2" x 8.4" x 4"
 - Up to 250W Psat in 15" x 10" x 7"
 - Up to 500W Psat in 18.3" x 14.2" x 10.7"
- **Superior RF performance**
 - Superior Phase Noise: 8 dB better than IESS308/309 recommendation
 - Spurious emission below -60 dBc
 - Wide range Gain Control
 - Highest Linearity at small back – off
- **RF Overdrive Protection**
- **Available in different frequency options**
 - Standard & Extended Ku band
 - Low Ku – Band 12.75-13.25GHz
- **Extensive M&C capability**
 - Serial: RS 232 & RS 485
 - Ethernet: embedded Web browser (HTTP) & SNMPv3 support
- **Built In Output Isolator provides full output VSWR Protection**
- **Input and output True RMS power detection**
- **Field upgradable software**
- **Redundancy ready with no need of external controller**
- **Status LED**
- **Analogue Interface**

Options & Accessories

- **Internal 10 MHz Reference clock**
- **Autosense 10 MHz Reference clock**
- **ALC option**
- **Antenna Mounting kit**
- **1:1 and 1:2 Redundancy Kit**
- **Remote Control Panel**



AntBUC®

Super High Power Density 100W – 500W Ku band GaN Powered BUC/SSPA

100W to 500W L- to Ku-Band Block-Up-Converter GaN Specification

RF Parameters				
RF Frequency Band, GHz	14-14.5GHz		13.75-14.5GHz	
IF Frequency Range, MHz	950-1450MHz		950-1700MHz	
LO Frequency	13.05GHz/12.8GHz;			
Conversion	Single Conversion; non-inverting			
Conversion Gain, dB	75dB minimum, 75dB typical			
Gain Flatness, dB	+/-1dB typical +/-1.5dB maximum over full band; +/-0.5dB maximum over any 40MHz			
Gain Stability, dB	+/-1.5dB over full temperature range			
Gain Control, dB	20dB minimal 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, dBm/Hz	-68dBc/Hz @ 100Hz; -80dBc/Hz @ 1kHz; -90dBc/Hz @ 10kHz -95dBc/Hz @ 100kHz; -115dBc/Hz @ 1MHz.			
Linearity: 2 tone IMD Spectral Re-growth	-25dBc maximum -30dBc for QPSK at 1.5 x symbol rate			
Noise Power Density:	Transmit Band	-85dBm/Hz maximum		
	Receive Band	-148dBm/Hz maximum		
Spurious Emission dBc; Non-signal related / Signal related	-60 / -55			
Power				
AC Voltage Range	90-265VAC 50-60Hz Auto-Ranging PFC (190-265VAC only for 300W-500W)			
Mechanical & Environment				
Size	14.2"x8.4"x4" / 15"x10"x7" / 18.3"x14"x10.7"			
Weight	18lbs/8.2kg / 30lbs/14kg / 72lbs/32kg			
Cooling	Forced Air			
Operating temperature / Relative Humidity	-40°C .. +55°C / 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			
Redundant Interface	MS3112E14-19P			
IRT Part Number	Output Power (W)	Prated (dBm/W)	Plinear (dBm/W)	P Cons at Prated
TPB-KXB0500-HMSX*	100W	50/100	47/50	600W
TPB-KXB0510-HMSX*	125W	51/125	48/60	630W
TPB-KXB0530-HMS X*	200W	53/200	50/100	1000W
TPB-KXB0540-HMS X*	250W	54/250	51/125	1200W
TPB-KXB0550-HMS X*	300W	55/300	52/150	2000W
TPB-KXB0560-HMS X*	400W	56/400	53/200	2300W
TPB-KXB0570-HMS X*	500W	57/500	54/250	2400W

Specifications are subject to change without notice

IRT Technologies Inc.
9630 TransCanada Route
Saint Laurent QC
Canada H4S 1V9

www.irttechnologies.com
Tel: +1-514-907-1161
sales@irttechnologies.com

