

Overview

Smaller, lighter and more Powerful AntBUC® series allows significant high-power BUC / 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 300W to 500W X-Band AntBUC® series are very compact, light and extremely powerful. Weighing only 56lbs at 500W output power, this new C-band AntBUC® product family is the *most powerful and feature rich for its size*: up to 500W 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 500W Psat in 18.5" x 13.5" x 10"
 - Light weight – 56lbs
- **Superior RF performance**
 - Highest Linearity at small back – off
 - Spurious emission below -60 dBc
 - Wide range Gain Control
- **RF Overdrive Protection**
- **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

- **ALC option**
- **RX Reject Filter**
- **Antenna Mounting kit**
- **1:1 and 1:2 Redundancy Kit**
- **Remote Control Panel**



AntBUC®

Super High Power Density 300W – 500W X band GaN Powered SSPA

300W to 500W X-Band GaN SSPA Specification

RF Parameters					
RF Frequency Band, GHz	7.9-8.4GHz				
Gain, dB	75 minimum, 77 typical				
Gain Flatness, dB	+/-1 typical +/-1.5 maximum over full band +/-0.4 maximum over any 40MHz				
Gain Stability, dB	+/-1.5 maximum over full temperature range				
Gain Control, dB	20dB minimal dynamic range				
Linearity at Pout=Plin: 2 tone IMD Spectral Re- growth	-25dBc max at -30dBc for QPSK at 1 x symbol rate				
Input Impedance, Ohm	50				
Input/Output VSWR	1.3 : 1				
Noise Power Density, dBm/Hz	-70 in Transmit Band, -140 in Receive Band (10.7 GHz – 12.8 GHz)				
Spurious Emission dBc; Non-signal related / Signal related (at Plin)	-60 / -55 max				
AM/PM conversion at Plinear, °/dB	1.0deg/dB maximum				
Group Delay	Ripple 1 nsec p-p max over any 40 MHz band				
RF Monitor Coupling	-50dB typ				
Power					
AC Voltage Range	190-265V AC 50-60Hz PFC for 300,400 and 500W models				
Mechanical & Environment					
Size	18.5"x13.5"x10"				
Weight	26lbs(12kg) / 56lbs (25kg)				
Cooling	Forced Air				
Operating temperature / Relative Humidity	-40°C to +55°C / Up to 100% condensing				
Interfaces					
RF Input Connector	Precision N –female				
RF Output Connector	CPR112 Grooved				
RF Monitor	Precision N –female				
AC Power In	3 pin MS style				
RS485 – Ethernet – SNMPv3	MS3112E14-19S				
IRT Part Number	Output Power (W)	Prated (dBm/W)	Plinear (dBm/W)	P Cons at Prated	P Cons at Plin
TPA-XB00550-HMS X*	300W	55/300	52/150	1800W	1500W
TPA-XB00560-HMS X*	400W	56/100	53/200	2000W	1650W
TPA-XB00570-HMS X*	500W	57/500	54/250	2200W	1800W

Specifications are subject to change without notice

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