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

Overview

Key Features

Extremely High Power Density

Light weight - 56lbs

Superior RF performance

RF Overdrive Protection

Extensive M&C capability

VSWR Protection

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.

Up to 500W Psat in 18.5" x 13.5" x 10"

Highest Linearity at small back - off

Spurious emission below -60 dBc

Ethernet: embedded Web browser

Wide range Gain Control

Serial: RS 232 & RS 485

(HTTP) & SNMPv3 support Built In Output Isolator provides full output

AntBUC®

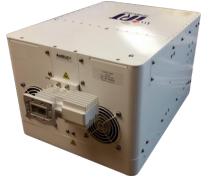
Input and output True RMS power detection

- 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

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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, GI	7.9-8.4GHz					
Gain, dB			75 minimum, 77 typical			
		+/-1 typical +/-1.5 maximum over full band				
Gain Flatness, dB		+/-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		-25dB	c max at		
	Spectral Re-		-30dBc for QPSI	K at 1 x symbol r	ate	
growth						
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, ⁰ /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 & Environ						
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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