

IRT Rack Mount 20W C-Band SSPA

The IRT Indoor rack-mount C-Band SSPA Series are revolutionary in size, weight and power efficiency. This series offers superior performance only 2RU size!

The Indoor 19" rack-mount series gives Satcom operators more options, and is easily installed in a 19" standard rack.



Options

- Output RF Sample Port
- Output power measurements - True RMS detector

Features

- Up to 20W PSAT Output Power in 19" Rack-mount 2RU only!
- Only 130W Power consumption at 20W output
- Superior RF performance:
 - o High Linearity
 - o Spurious below -60dBc
 - o Wide dynamic range of Gain Control
- Built in WG Circulator provides full output VSWR Protection
- Configuration packet protocol RS-485 - User friendly HTTP based GUI and SNMP
- Built in Auto-Ranging AC power supply
- Field Replaceable power supply



RF Parameters		
RF Frequency Range	5.85-6.425GHz (other frequency options available)	
Input Frequency Range	5.85-6.425GHz (other frequency options available)	
Gain	67dB min, 70dB typ	
Group Delay	Linear: $\pm 0.03\text{ns/MHz}$ Parabolic: $\pm 0.003\text{ns/MHz}^2$ max Ripple: 1.0ns peak to peak max	
Gain Flatness	$\pm 1\text{dB}$ typ $\pm 1.5\text{dB}$ max over full band; $\pm 0.4\text{dB}$ max over any 40MHz	
Gain Stability	$\pm 1.5\text{dB}$ over full temperature range; $\pm 10.25\text{dB}$, 24 hours at constant temperature	
Output Power at P1dB	44dBm min (20W min)	
Output Power at Psat	44dBm typ (25W typ)	
Linear Output Power P _{lin}	40dBm min (10W min)	
Gain Control	20dB min dynamic range with 0.1dB step	
AM/PM Conversion	1deg max up to 20W	
Input Return Loss	-16dB max	
Output Return Loss	-18dB max (for WR137 output)	
Linearity:	2 tone IMD	-25dBc max at P _{lin}
	Spectral Re-growth	-30dBc for QPSK at 1.5 x symbol rate at P _{lin} +1dB
Noise Power Density:	Transmit Band	-85dBm/Hz max
	Receive Band	-140dBm/Hz max
Output Spurious:	Non-signal related	-60dBc
	Signal related	-55dBc
Harmonic Output	$\leq -55\text{dBc}$ (at P _{lin})	
Power & Mechanical		
AC Voltage Range	90-265VAC 50-60Hz auto-ranging PFC	
Power Consumption	130W typ	
Size	2 RU 19" Chassis	
Weight	3.4kg (7.5lbs)	
Cooling	Forced Air	
Operating Temperature / Storage Temperature	0°C to +60°C / -40°C to +85°C	
Interfaces		
IF Input Connector	Precision N-; female	
RF Output Connector	CPR137 grooved	
RF Sample	Precision N-; female	
RS485-RS232	DB9 Connector rear panel	
Ethernet-SNMP	RJ45 rear panel	

Note 1: The specification is subject to regular reviews and will be updated from time to time as part of our continuing product development and improved spec accuracy.

Note 2: Operation beyond the quoted limits stated above may cause instantaneous and permanent damage.