

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		+/-1dB typ +/-1.5dB max over full band; +/-0.4dB max over any 40MHz
Gain Stability		+/-1.5dB over full temperature range; +/-10.25dB, 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 _{linear}
	Spectral Re-growth	-30dBc for QPSK at 1.5 x symbol rate at P _{linear} +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