

# ***iPA™ SERIES SUPER HIGH POWER DENSITY 200W / 300W / 400W C-BAND RACK MOUNT GAN POWERED SSPA***

The IRT Technologies Intelligent Power Amplifier *iPA™* Series is Smaller, lighter and more powerful 200W / 300W / 400W C-Band Rack Mount SSPA *iPA™* Series allows significant high power 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 new IRT Technologies powered by GaN technology 200W / 300W / 400W C-Band SSPA *iPA™* Series are very compact, light and extremely powerful. Using patent pending Z-combining method and advanced GaN technology new IRT 200W / 300W / 400W C-Band Rack Mount SSPA has truly outstanding power density - up to 400W Psat in 4RU light compact package. IRT 200W / 300W / 400W C-Band Rack Mount SSPA 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. Redundant truly hot swappable power supply gives even higher overall reliability.

## **KEY FEATURES**

- Extremely high power density - up to 400W Psat in 19" Rackmount, 4RU only!
- Superior RF performance:
  - ✓ High Linearity
  - ✓ Psat up to 56 dBm
  - ✓ Spurious below -65dBc
  - ✓ Wide dynamic range of Gain Control
- RF Overdrive Protection
- Available in different frequency options
- Field upgradable software
- Full VSWR protection
- Redundant Hot Swappable Power Supply
- Input and Output RF Sample port
- Configuration via RS-232 serial console, packet protocol RS-485 - User friendly HTTP based GUI and SNMP
- User Friendly Front Panel with Menu Driven Display
- Automated Level Control (ALC) Option
- Redundant Ready - No External Redundancy Controller Required.
- Built-in Power Metering

800 Boulevard Saint-Jose  
La Prairie, QC  
Canada J5R 6W9  
+1-450-444-1227  
[www.irttechnologies.com](http://www.irttechnologies.com)

Canada (Headquarters)  
[sales@irttechnologies.com](mailto:sales@irttechnologies.com)

USA  
[usa\\_sales@irttechnologies.com](mailto:usa_sales@irttechnologies.com)

Europe  
[europe\\_sales@irttechnologies.com](mailto:europe_sales@irttechnologies.com)

Asia Pacific  
[asia\\_sales@irttechnologies.com](mailto:asia_sales@irttechnologies.com)



## iPA™ SERIES 200W / 300W / 400W C-Band Rack Mount SSPA Specification

Parameter	200W	300W	400W
<b>RF Performance</b>			
RF Frequency Range-Available	5.85-6.425GHz (other frequency options are available)		
Rated Power	53dBm/200W min	55dBm/300W min	56dBm/400W min
Saturated Power	53dBm/200W typ	55dBm/300W typ	56dBm/400W typ
Linear power	50dBm min	52dBm min	53dBm min
Conversion Gain	72dB min, 75dB typ		
Gain Flatness	+/-1dB typ +/-1.5dB max over full band; +/-0.5dB max over any 40MHz		
Gain Stability over temperature	+/-1dB over full temperature range		
Gain Stability over input power	3dB typ 4dB max from 10dB back off to rated power		
Gain Control	20dB min dynamic range		
Noise Figure	6dB max		
AM/PM Conversion	1.5 deg/dB max up to rated power		
Group Delay	Linear: 0.02 nsec/MHz max; Parabolic: 0.003 nsec/MHz**2 max; Ripple: 1nsec p-p max		
Input Return Loss	16dB min		
Output Return Loss	20dB min		
Linearity: 2 tone IMD Spectral Re-growth	-24dBc at P linear -30dBc for QPSK at 1.5xsymbol rate at Plin		
Output Spurious:	-65dBc		
<b>Power</b>			
AC Voltage Range	90-265VAC 50-60Hz auto-ranging PFC		
Power Consumption at rated power	800W	1400W	1600W
Power Consumption at 3 dB back off	600W	1100W	1200W
<b>Mechanical</b>			
Size	4RU		
Weight	56lbs		
Cooling	Forced Air		
Operating temperature	0°C to +55°C		
Relative Humidity	Up to 99% non-condensing		
<b>Interfaces</b>			
RF Input Connector	N-type female rear panel		
RF Output Connector	CPR137 grooved rear panel		
RF Sample	N-type female front panel		
AC Power In	NEMA Connector rear panel		
M&C Interface-Serial, Analog and Ethernet	DSUB Connectors, RJ45 rear panel		
Redundant Interface	HD15 Connector rear panel		
<b>Part Numbering Information</b>			
	200W	300W	400W
IRT Part Number	IPA-CB00530-RMS0	IPA-CB00550-RMS0	IPA-CB00560-RMS0

Specifications are subject to change without notice

Rev.02

800 Boulevard Saint-Jose  
La Prairie, QC  
Canada J5R 6W9  
+1-450-444-1227  
www.irttechnologies.com

Canada (Headquarters)  
sales@irttechnologies.com

USA  
usa\_sales@irttechnologies.com

Europe  
europe\_sales@irttechnologies.com

Asia Pacific  
asia\_sales@irttechnologies.com

