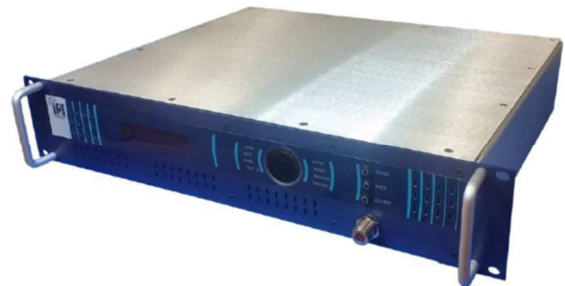


## ***iPB*<sup>™</sup> SERIES SUPER HIGH POWER DENSITY 100W - 400W C-BAND AND 50W-400W KU-BAND RACK MOUNT GAN POWERED SSPA/BUC**



The IRT Technologies Intelligent Power Block-Up Converter *iPB*<sup>™</sup> Series is Smaller, lighter and more powerful 50W-400W Ku-Band and 100W-400W C-Band Rack Mount BUC / SSPA *iPB*<sup>™</sup> 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 new IRT Technologies powered by GaN technology 50W / 100W / 200W / 250W / 300W / 350W / 400W BUC/SSPA *iPB*<sup>™</sup> Series are very compact, light and extremely powerful. Using patent pending Z-combining method and advanced GaN technology new IRT 50W - 400W Rack Mount BUC / SSPA has truly outstanding power density - up to 400W Ku-Band Psat in 5RU and up to 400W C-Band Psat in 4RU light compact package. IRT 50W - 400W Rack Mount BUC / 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 C-Band PsAT in 19" Rackmount, 4RU only!
- Extremely high power density - up to 400W Ku-Band PsAT in 19" Rackmount, 5RU only!
- Superior RF performance:
  - ✓ Phase Noise 5-8dB better than IESS308/309
  - ✓ High Linearity
  - ✓ PsAT up to 56 dBm
  - ✓ Wide dynamic range of Gain Control
- RF Overdrive Protection
- Internal 10MHz reference option (BUC)
- Full VSWR protection
- 10MHz reference auxiliary output option (BUC)
- Redundant Hot Swappable Power Supply
- Input and Output RF Sample port options
- 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

## *iPB*<sup>TM</sup> SERIES 50W-400W C-Band and Ku-Band Rack Mount SSPA/BUC Specification

Parameter	C-Band		Ku-Band		
<b>RF Performance</b>					
RF Frequency Range-Available:	5.85-6.425GHz (other options available)		14-14.5GHz	13.75-14.5GHz	
IF Frequency Range (BUC)	950-1525MHz (other options available)		950-1700MHz		
LO Frequency C/KU	4.9GHz/12.8GHz; Single Conversion; non-inverting				
Gain	75dB min, 77dB typ				
Gain Flatness	+/-1dB typ +/-1.5dB max over full band; +/-0.5dB max over any 40MHz				
Gain Stability over temperature	+/-1.0dB over full temperature range				
Gain Control	20dB min dynamic range				
Up-Converter Phase Noise	-68dBc/Hz @ 100Hz; -80dBc/Hz @ 1kHz; -90dBc/Hz @ 10kHz -95dBc/Hz @ 100kHz -115dBc/Hz @ 1MHz				
Linearity: 2 tone IMD Spectral Re-growth	-24dBc at P linear -30dBc for QPSK at 1.5xsymbol rate at Plinear				
Output Spurious: Non-signal related	-65dBc				
Signal related	-60dBc				
<b>Power</b>					
AC Voltage Range	190-265VAC 50-60Hz Auto-Ranging PFC				
<b>Environmental</b>					
Cooling	Forced Air				
Operating temperature	0°C to +50°C				
Relative Humidity	Up to 99% non-condensing				
<b>Interfaces</b>					
IF Input Connector	N-type female rear panel				
RF Output Connector	CPR137/ WR75 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				
<b>IRT Part Number</b>	<b>Prated(dBm/W)</b>	<b>Plinear (dBm/W)</b>	<b>P Cons at Prated</b>	<b>P Cons at Plin</b>	<b>RU</b>
<b>C-BAND</b>					
TPB*-CB00500-RMSX*	50/100	47/50	400W	320W	3RU
TPB-CB00530-RMSX*	53/200	50/100	1000W	750W	4RU
TPB-CB00540-RMSX*	54/250	51/125	1600W	1350W	4RU
TPB-CB00550-RMSX*	55/300	52/150	1800W	1600W	4RU
TPB-CB00560-RMSX*	56/400	53/200	2000W	1800W	4RU
<b>KU-BAND</b>					
TPB-KXB0470-RMSX*	47/50	44/25	300W	260W	2RU
TPB-KXB0500-RMSX*	50/100	47/50	600W	520W	3RU
TPB-KXB0530-RMSX*	53/200	50/100	1100W	800W	4RU
TPB-KXB0540-RMSX*	54/250	51/125	1500W	1200W	5RU
TPB-KXB0550-RMSX*	55/300	52/150	2000W	1700W	5RU
TPB-KXB0560-RMSX*	56/400	53/200	2300W	2000W	5RU

