



Super High Power Intelligent Phase Combined System IPC Series 400W to 600W Ku-Band BUC/SSPA

Smaller, Lighter and more Powerful IPC™ Series Intelligent Phase Combined System allows significant high combining efficiency utilizing IRT Technologies World's Smallest and Lightest SSPAs / BUCs. The Phase Combined System provides high reliability, soft failure mode and shorter MTTR this is why IRT offers 3 years warranty for this system!

The IRT Technologies IPC™ series 400W / 500W / 600W Ku-Band GaN powered SSPA / BUC are very compact, light and extremely powerful. Super compact system at only 26"x38.5"x12", this Ku-Band 400W / 500W / 600W IPC™ product family is the most powerful and feature rich for its size: up to 600W at saturated power. IRT IPC® 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. IPC™ 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.

KEY FEATURES

- Supercompact - up to 600W Psat in 26"x38.5"x12" only!
- Available in both SSPA and BUC versions
- Superior RF performance:
 - ✓ High Linearity
 - ✓ Psat up to 58 dBm
 - ✓ Wide dynamic range of Gain Control
- High Combining Efficiency over full frequency band
- RF Overdrive Protection
- Available in both Standard and Extended Ku-Band
- Field Replaceable Power Supply
- Input and Output True RMS Power Detection
- Configuration via RS-232 Serial Console, Packet Protocol RS-485 - User friendly HTTP based GUI and SNMP Support
- Automated Level Control (ALC) Option
- Internal 10MHz Reference Option (BUC version)
- Status LED
- Phase Mismatch Alarm
- Power distribution box for ease of installation

IPC™ Series 400W / 500W / 600W Ku-Band Phase Combined SSPA/BUC System Specification

Parameter	400W	500W	600W
RF Performance			
RF Frequency Range-Available	14-14.5GHz		13.75-14.5GHz
Saturated Power (frequency info entered)	56dBm typ	57dBm typ	58dBm typ
Linear Power	53dBm min	54dBm min	55dBm min
Gain	SSPA- 68dB min, 70dB typ;		BUC-75dB min, 77dB typ
Gain Flatness	+/-1.5dB max over full band; +/-0.5dB max over any 40MHz		
Gain Stability over temperature	+/-1.5dB 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		
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	SSPA -65dBc max;	BUC -60dBc max	
Signal related	SSPA -60dBc max;	BUC -55dBc max	
BUC Version Only:			
External Reference Frequency	10MHz multiplexed with IF In		
External Reference Required Phase Noise	-130dBc/Hz @100Hz;	-140dBc/Hz@1kHz;	-150dBc/Hz@10kHz; -155dBc/Hz@100 kHz
Up-Converter Phase Noise	-68dBc/Hz @ 100Hz;	-80dBc/Hz @ 1kHz;	-90dBc/Hz @ 10kHz -95dBc/Hz @ 100kHz -115dBc/Hz @ 1MHz
Power			
AC Voltage Range	190-265VAC 50-60Hz auto-ranging PFC		
Power Consumption at rated power	3000W	3500W	4000W
Power Consumption at 3 dB back off	2500W	2900W	3500W
Mechanical			
Size	26"38.5"x12"		
Weight	125lbs		
Cooling	Forced Air		
Operating temperature	-40°C to +55°C		
Relative Humidity	Up to 100% condensing		
Interfaces			
RF/IF Input Connector	N-type female		
RF Output Connector	WR75 grooved		
RF Sample	N-type female		
AC Power In	MS3112E12-3P		
M&C Interface-Serial, Analog and Ethernet	MS3112E14-19S		
Redundant Interface	MS3112E14-19P		
Part Numbering Information			
IRT Part Number	400W	500W	600W
SSPA Version	TPA-KXB0560-HPCO	TPA-KXB0570-HPCO	TPA-KXB0580-HPCO
BUC Version	TPB-KXB0560-HPCO	TPB-KXB0570-HPCO	TPB-KXB0580-HPCO

