



Super High Power Intelligent Phase Combined System IPC Series 600W to 800W C-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 600W / 700W / 800W C-Band GaN powered SSPA / BUC are very compact, light and extremely powerful. Super compact system at only 26"x32.5"x9.25", this C-band 600W / 700W / 800W IPC™ product family is the most powerful and feature rich for its size: up to 800W 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 800W Psat in 26"x32.5"x9.25" only!
- Available in both SSPA and BUC versions
- Superior RF performance:
 - ✓ High Linearity
 - ✓ Psat up to 59 dBm
 - ✓ Wide dynamic range of Gain Control
- High Combining efficiency over full frequency band
- RF Overdrive Protection
- Different Frequency Options Available
- 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 600W / 700W / 800W C-Band Phase Combined SSPA/BUC System Specification

Parameter	600W	800W
RF Performance		
RF Frequency Range-Available in/switched:	5.85-6.425GHz (other frequency options available)	
Saturated Power	58dBm typ	59dBm typ
Linear power	55dBm min	56dBm min
Gain	SSPA- 68dB min, 70dB typ; BUC-75dB min, 77dB typ	
Gain Flatness	+/-1dB typ +/-1.5dB max over full band; +/-0.5dB max over any 40MHz	
Gain Stability over temperature	+/-1.5dB 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
Up-Converter Phase Noise	-68dBc/Hz @ 100Hz;	-80dBc/Hz @ 1kHz;
	-95dBc/Hz @ 100kHz	-90dBc/Hz @ 10kHz
		-115dBc/Hz @ 1MHz
Power		
AC Voltage Range	190-265VAC 50-60Hz auto-ranging PFC	
Power Consumption at rated power	2800W	3200W
Power Consumption at 3 dB back off	2300W	2750W
Mechanical		
Size	26 "x32.5"x9.25"	
Weight	105lbs	
Cooling	Forced Air	
Operating temperature	-40°C to +55°C	
Relative Humidity	Up to 100% condensing	
Interfaces		
IF Input Connector	N-type female	
RF Output Connector	CPR137 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		
	<i>IRT Part Number</i>	
IRT Part Number*	600W	800W
SSPA Version	TPA-CB00580-HPC0	TPA-CB00590-HPC0
BUC Version	TPB-CB00580-HPC0	TPB-CB00590-HPC0

