

# PicoBUC® SUPER COMPACT

## 20W / 40W C-BAND BUC/SSPB

The IRT Technologies C-Band PicoBUC® series are revolutionary in size and weight - PicoBUC® offers superior performance in an extremely compact package that can fit in your palm! Weighing at only 6lbs, the new PicoBUC® is the most powerful and feature rich for its size: Up to 50W Psat.

Built in AC power supply provides the customer with the simplest and least expensive plug-into-the wall solution. IRT PicoBUC® features best in class RF characteristics, embedded output isolator, extensive monitor and control capabilities enabled via Ethernet, Serial and/or Analog Interfaces.

PicoBUC® remarkably small size and low power consumption results in better heat extraction that leads to overall system size and cost reduction. Its small size and weight allows direct feed horn mounting, which makes it a most economical solution for fixed VSAT applications.



### KEY FEATURES

- Up to 40W P1dB / 50W Psat
- Ideal for feed horn mounting
- Superior RF performance.
- Available also in Super-Extended, Palapa and Insat C-Band frequency options
- Internal 10 MHz Reference clock optional
- Low power consumption
- Built In Output Isolator provides full output VSWR Protection
- Output power measurement - True RMS detector
- Configuration via RS-232 serial console, packet protocol RS-485 - User friendly HTTP based GUI and SNMP optional.
- 48VDC isolated power supply
- Built in auto-ranging AC power supply optional
- Field upgradable software
- Status LED
- Antenna Mounting kit optional
- Redundant ready with no need of external controller

### RF PERFORMANCE (1/2)

RF Freq. Range-Available in/switched	5.85-6.425GHz / 5.850-6.725 GHz	
IF Frequency Range	950-1525MHz / 950-1825 MHz	
LO Frequency	4.9 GHz	
Conversion	Single Conversion; non-inverting	
	<b>20W</b>	<b>40W</b>
Output Power at 1dB comp. point	43dBm min	46dBm min
Saturated Power	44dBm typ	47dBm typ
Conversion Gain	72dB min, 75dB typ	
Gain Flatness	+/-1dB typ +/-1.5dB max over full band; +/-0.5dB max over any 40MHz	
Gain Stability	+/-1.5dB over full temp. range	
Gain Control	20dB min dynamic range	
External Reference Frequency	10MHz multiplexed with IF In	
External Reference Required	-130dBc/Hz @ 100Hz -140dBc/Hz @ 1kHz -150dBc/Hz @ 10kHz -155dBc/Hz @ 100 kHz	
Phase Noise		

### RF PERFORMANCE (2/2)

Up-Converter Phase Noise	-70dBc/Hz @ 100Hz -80dBc/Hz @ 1kHz -90dBc/Hz @ 10kHz -95dBc/Hz @ 100kHz -115dBc/Hz @ 1MHz
Linearity:	-26dBc at 3dB total power back off from P1dB
2 tone IMD Spectral Re-growth	-30dBc for QPSK at 1.5 x symbol rate at 2dB back off from P1dB
Output Spurious:	
Non-signal related	-60dBc
Signal related	-55dBc

### POWER

48V DC Voltage Range	32-72VDC Isolated
AC Voltage Range (Optional)	90-265VAC 50-60Hz auto-ranging
	<b>20W</b> <b>40W</b>
Power Consumption (DC/AC)	140W/150W 220W/230W

### MECHANICAL

Size	6.5" x 6.5" x 4.5"
Weight	6lbs
Cooling	Forced Air
Operating Temperature	-40 C to +60 C
Relative humidity	Up to 100% condensing

### INTERFACES

IF Input Connector	N-type female
RF Output Connector	CPR137 Grooved
AC Power In	MS3112E12-3P
RS485-RS232-Ethernet-SNMP	MS3112E14-19S

### PART NUMBERING INFORMATION

	<b>20W</b>	<b>40W</b>
DC Isolated	TPB-CB00430-HMA1	TPB-CB00460-HMA1
AC Auto-ranging	TPB-CB00430-HMA0	TPB-CB00460-HMA0

