PicoBUC®

SUPER COMPACT 20W / 40W C-BAND BUC

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 in this super-compact and light weight package 6.5"x6.5"x4.5" only!
- Ideal for feed horn mounting
- Superior RF performance:
  - ✓ Phase noise 10dB better than IESS308/309
  - ✓ P1dB of 46dBm min
  - ✓ Spurious below -60dBc
  - ✓ Wide dynamic range of Gain Control
- Integrated L-Band to C-Band up converter
- 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

ZA de Courtabœuf
3, Avenue du Canada
Parc Technopolis – Bat. Zeta
91940 Les Ulis -France

Tel : +331 69 18 19 38
www.eurosatcom.eu

PicoBUC®

20W / 40W L- to C-Band Block-Up-Converter Specification

Parameter	20W	40W
RF Performance		
RF Frequency Range-Available in/switched	5.85-6.425GHz (other frequency options available)	
IF Frequency Range	950-1525MHz	
LO Frequency	4.9 GHz (other options available)	
Conversion	Single Conversion; non-inverting	
Output Power at 1dB compression 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 temperature range	
Gain Control	20dB min dynamic range	
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	-70dBc/Hz @ 100Hz; -80dBc/Hz @ 1kHz; -90dBc/Hz @ 10kHz -95dBc/Hz @ 100kHz -115dBc/Hz @ 1MHz	
Linearity: 2 tone IMD Spectral Re-growth	-26dBc at 3dB total power back off from P1dB -30dBc for QPSK at 1.5 x symbol rate at 2dB back off from P1dB	
Output Spurious: Non-signal related Signal related	-60dBc -55dBc	
Power		
48V DC Voltage Range	32-72VDC Isolated	
AC Voltage Range (Optional)	90-265VAC 50-60Hz auto-ranging	
Power Consumption DC Power In/AC Power In	140W/150W	220W/230W
Mechanical		
Size	6.5"x6.5"x4.5"	
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	MS3112E10-8P	
RS485-RS232-Ethernet-SNMP	MS3112E14-19S	
Part Numbering Information		
Power Supply Option	20W	40W
DC Isolated	TPB-CB00430-HMS1-R01	TPB-CB00460-HMS1-R01
AC Auto-ranging	TPB-CB00430-HMS0-R01	TPB-CB00460-HMS0-R01

Rev.05

ZA de Courtabœuf
3, Avenue du Canada
Parc Technopolis – Bat. Zeta
91940 Les Ulis -France

Tel : +331 69 18 19 38
www.eurosatcom.eu