

PicoBUC® SUPER COMPACT

80W / 100W C-BAND GAN BUC / SSPA

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 100W 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 (other frequency options available) |
| IF Frequency Range | 950-1525MHz |
| LO Frequency | 4.9 GHz |
| Conversion | Single Conversion; non-inverting |
| | 80W 100W |
| Rated Power | 49dBm min 50dBm min |
| 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 | |
| Up-Converter Phase Noise | -70dBc/Hz @ 100Hz -80dBc/Hz @ 1kHz -90dBc/Hz @ 10kHz -95dBc/Hz @ 100kHz -115dBc/Hz @ 1MHz |

RF PERFORMANCE (2/2)

| | |
|-------------------------------|--|
| Linearity: | |
| 2 tone IMD Spectral Re-growth | -25dBc at 3dB total power back off from rated power -30dBc at 6dB total power back off from rated power -30dBc for QPSK at 1.5x symbol rate at 2dB back off from rated power |
| Output Spurious: | |
| Non-signal related | -60dBc |
| Signal related | -55dBc |

POWER

| | |
|-----------------------------|-----------------------------------|
| 48V DC Voltage Range | 36-72VDC Isolated |
| AC Voltage Range (Optional) | 90-265VAC 50-60Hz Auto-Ranging |

| Power Consumption | 80W | 100W |
|-------------------|--|--|
| DC Power In | 360W at rated power; 320W at 3dB b.o. | 400W at rated power; 350W at 3dB b.o. |
| AC Power In | 280W at rated power; 240W at 3dB b.o. | 420W at rated power; 380W at 3dB b.o. |

MECHANICAL

| | |
|-----------------------|------------------------|
| Size | 6.5" x 6.5" x 4.5" |
| Weight | 6lbs (7.5lbs for 100W) |
| 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 |
| AC Power In | MS3112E10-8P |
| RS485-RS232-Ethernet-SNMP | MS3112E14-19S |

PART NUMBERING INFORMATION

| | 80W | 100W |
|-----------------|------------------|------------------|
| DC Isolated | TPB-CBD0490-HMS1 | TPB-CBD0500-HMS1 |
| AC Auto-ranging | TPB-CBD0490-HMS0 | TPB-CBD0500-HMS0 |

