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
- 48VDC isolated power supply
- Built in auto-ranging AC power supply optional
- Field upgradeable software
- Status LED
- Antenna Mounting kit optional
- Redundant ready with no need of external controller

RF PERFORMANCE (1/2)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>80W</th>
<th>100W</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF Freq. Range Available in switched Frequency</td>
<td>5.85-6.425GHz (other frequency options available)</td>
<td>950-1525MHz</td>
</tr>
<tr>
<td>LO Frequency</td>
<td>4.9 GHz</td>
<td></td>
</tr>
<tr>
<td>Conversion</td>
<td>Single Conversion; non-inverting</td>
<td></td>
</tr>
<tr>
<td>Rated Power</td>
<td>49dBm min</td>
<td>50dBm min</td>
</tr>
<tr>
<td>Conversion Gain</td>
<td>72dB min, 75dB typ</td>
<td>+/-1dB typ +/-15dB max over full band +/-.0.5dB max over any 40MHz +/-15dB over full temp. range</td>
</tr>
<tr>
<td>Gain Flatness</td>
<td>20dB min dynamic range</td>
<td></td>
</tr>
<tr>
<td>Gain Stability</td>
<td>10MHz multiplexed with IF in</td>
<td></td>
</tr>
<tr>
<td>Gain Control</td>
<td>-130dBc/Hz @ 100Hz</td>
<td></td>
</tr>
<tr>
<td>External Reference Frequency</td>
<td>-140dBc/Hz @ 1kHz</td>
<td></td>
</tr>
<tr>
<td>External Reference Required</td>
<td>-150dBc/Hz @ 10kHz</td>
<td></td>
</tr>
<tr>
<td>Phase Noise</td>
<td>-155dBc/Hz @ 100kHz</td>
<td></td>
</tr>
<tr>
<td>Up-Converter Phase Noise</td>
<td>-70dBc/Hz @ 100Hz</td>
<td></td>
</tr>
</tbody>
</table>

48V DC Voltage Range
AC Voltage Range (Optional)
Power Consumption
DC Power In
80W
360W at rated power, 320W at 3dB b.o.
100W
400W at rated power, 350W at 3dB b.o.
AC Power In
80W
280W at rated power, 240W at 3dB b.o.
100W
420W at rated power, 380W at 3dB b.o.

POWER

Size
Weight
Cooling
Operating Temperature
Relative humidity

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

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

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

RF PERFORMANCE (2/2)

3 avenue du Canada, bât. Zeta, 91940 Les Ulis, France
+33 1 69 18 19 30
www.eurosatcom.eu
sales@eurosatcom.eu