

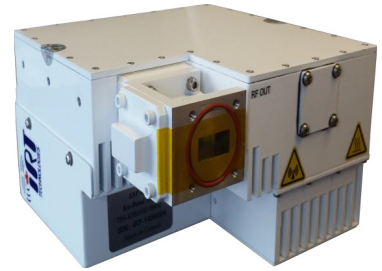
PicoBUC® SUPER COMPACT

40W/50W/60W KU-BAND BUC/SSPA GAN

The IRT Technologies 40W-60W BUC / SSPB / SSPA powered by GaN technology PicoBUC® series are revolutionary in size, weight and power density- PicoBUC® offers superior performance in an extremely compact package that can fit in your palm!

Weighing at only 8.8lbs, our feature-rich GaN PicoBUC® is exceptionally powerful for its size: up to 60W Psat. Built in AC power supply provides the customer with the simplest and least expensive plug-into-the wall solution. IRT GaN PicoBUC® features best in class RF characteristics, embedded WG circulator, extensive monitor and control capabilities enabled via Ethernet, Serial and/or Analog Interfaces.

PicoBUC®'s remarkably small size and low power consumption results in better heat extraction that leads to overall system size and cost reduction making it the ideal candidate for portable, mobile and VSAT on the move applications. 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 60W PSAT Output Power
- Only 290W Power consumption at 60W output
- 200W power consumption at 3dB back off
- Superior RF performance
- Switchable LO option - standard and Extended Ku- Band in one unit
- RF overdrive protection
- Internal / Autosense 10 MHz Reference Options
- Output power measurement - True RMS detector optional
- Built In Waveguide Output Circulator provides full output VSWR Protection
- Configuration via RS-232 serial console, packet protocol RS-485 and User friendly Ethernet HTTP based GUI and SNMP support
- 48VDC isolated power supply
- Built in auto-ranging AC power supply optional
- Redundant ready with no external controller
- Field upgradable software
- Status LED
- Antenna Mounting kit optional

RF PERFORMANCE

RF Freq. Range-Available in/switched	14-14.5GHz / 13.75-14.5GHz
IF Frequency Range	950-1450MHz / 950-1700MHz
LO Frequency (Switchable)	13.05GHz / 12.8GHz
Conversion	Single Conversion; Non-Inverting
Saturated Power	
40W	46dBm typ.
50W	47dBm typ.
60W	48dBm typ.
Linear Power	
40W	43dBm min.
50W	44dBm min.
60W	45dBm 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
Linearity:	-25dBc at 3dB total power back off from rated power
2 tone IMD	-30dBc at 6dB total power back off from rated power
Spectral Re-growth	-30dBc for QPSK at 1.5xsymbol rate at 3dB back off from rated power
Noise Power Density:	
Transmit Band	-85dBm/Hz max
Receive Band	-140dBm/Hz max
Output Spurious:	
Non-signal related	-60dBc
Signal related	-55dBc

POWER

48V DC Voltage Range	36-72VDC Isolated
28VDC Voltage Range (optional)	24-75VDC Isolated (optional)
AC Voltage Range (optional)	90-265VAC 50-60Hz Auto-Ranging
Power Consumption	
DC power in (@ Psat / @ Plin)	
16W	225W typ. / 160W typ.
20W	280W typ. / 220W typ.
25W	290W typ. / 230W typ.
AC power in (@ Psat / @ Plin)	
16W	250W typ. / 180W typ.
20W	260W typ. / 200W typ.
25W	270W typ. / 210W typ.





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MECHANICAL

Size	6.5" x 7.6" x 4.2"
Weight	8.8lbs
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	WR75 grooved
AC Power In	MS3112E10-8P
RS485-RS232-Ethernet-SNMP	MS3112E14-19S

PART NUMBERING INFORMATION

DC Isolated

40W	TPB-KXB0460-HMS1
50W	TPB-KXB0470-HMS1
60W	TPB-KXB0480-HMS1

AC Auto-ranging

40W	TPB-KXB0460-HMS0
50W	TPB-KXB0470-HMS0
60W	TPB-KXB0480-HMS0



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