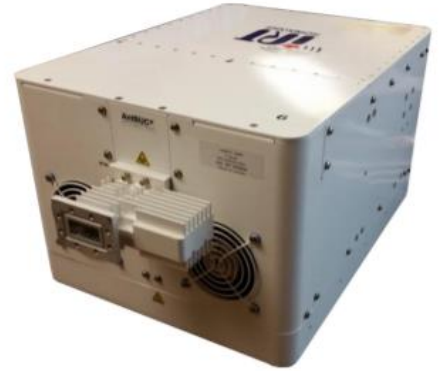




# KILOBUC® Series

Most Powerful SSPA/SSPB

**SUPER HIGH POWER DENSITY**  
**500W TO 1000W**  
**TROPOSCATTER**  
**GAN POWERED BUC / SSPA**



Smaller, lighter and more Powerful KiloBUC® series allows significant high power BUC / SSPA size and weight reduction and at the same time substantially improves thermal efficiency, which leads to higher reliability and longer MTBF. That's why IRT offers 3 years warranty for this product line!

The IRT Technologies 500W to 1000W Troposcatter KiloBUC® series are very compact, light and extremely powerful. Weighing only 75 lbs at 500W and 125lbs at 1000W output power, this new Tropo- KiloBUC® product family is the most powerful and feature rich for its size: up to 1000W output power. IRT KiloBUC® features best in class RF characteristics, RF sample port, true RMS power measurements, extensive monitor and control capabilities enabled via Ethernet, Serial and/or Analog Interfaces. KiloBUC® remarkably compact size and high thermal efficiency results in overall system size and cost reduction making it the ideal candidate for mobile and fixed VSAT applications.

## KEY FEATURES

- Extremely high power density - up to 500W PSAT in 18" x 13.5" x 10.5" and up to 1KW in 20.5" x 18" x 10.8"!
- Superior RF performance:
  - ✓ Phase noise 8-10dB better than IESS308/309
  - ✓ Psat up to 60 dBm
  - ✓ Spurious below -60dBc
  - ✓ Wide dynamic range of Gain Control
  - ✓ High linearity
- RF Overdrive Protection
- Field Upgradable Software
- Internal & Autosense 10MHz Reference Optional
- Input and Output True RMS Power Detection
- Configuration via RS-232 Serial Console, Packet Protocol RS-485 - User Friendly HTTP Based GUI and SNMP
- Automated Level Control (ALC) Option
- Redundant ready - No External Redundancy Controller Required.
- Status LED
- Available in SSPA options

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## 500W to 1000W TROPOSCATTER Block-Up-Converter GaN Specification

Parameter	
<b>RF Performance</b>	
RF Frequency Range	4.4-5.0GHz
IF Frequency Range	950-1550MHz
LO Frequency	3.45GHz
Conversion	Single Conversion; Non-Inverting
Conversion Gain	75dB min., 78dB typ.
Gain Flatness	+/-1dB typ +/-1.5dB max over full band; +/-0.5dB max over any 40MHz
Gain Stability over temperature	+/-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	-68dBc/Hz @ 100Hz;   -80dBc/Hz @ 1kHz;   -90dBc/Hz @ 10kHz -95dBc/Hz @ 100kHz   -115dBc/Hz @ 1MHz
Linearity: 2 tone IMD Spectral Re-growth	-25dBc at P linear -30dBc for QPSK at 1.5xsymbol rate at Plinear+1dB
Output Return Loss	-19dB max
Output Spurious: Non-signal related	-60dBc
Signal related	-55dBc
<b>Power</b>	
AC Voltage Range	180-265VAC 50-60Hz; PFC
<b>Environmental</b>	
Cooling	Forced Air
Operating temperature	-40°C to +55°C
Storage Temperature	-50°C to +75°C
Relative Humidity	Up to 100% condensing
<b>Interfaces</b>	
IF Input Connector	N-type female
RF Output Connector	CPR187 grooved
RF Sample	N-type female
AC Power In	3 pin MS style
M&C Interface-Serial, Analog and Ethernet	MS3112E14-19S
Redundant Interface	MS3112E14-19P

IRT Part Number	Prated(dBm/W)	Plinear(dBm/W)	P Cons at Prated	P Cons at Plin	Size	Weight
TPB-CBT0570-HMS0	57/500	54/250	1800W	1100W	18"x13.5"x10.2"	75lbs/34kg
TPB-CBT0600-HMS0	60/1000	57/500	3300W	1800W	20.5"x18"x10.8"	125lbs/57kg

\*Contact us for detailed ordering information at [sales@irttechnologies.com](mailto:sales@irttechnologies.com)

Rev.02

\*\*Specifications are subject to change without prior notice

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