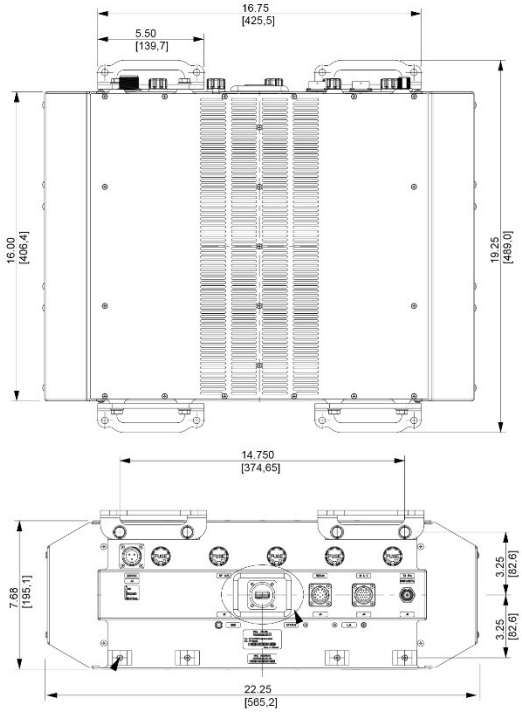
Taurus-Line

600w/800W X-Band GaN SSPA BUC

Overview

An ideal solution for both mobile and fixed Communication terminals. It is designed for high efficiency resulting in an optimal compact form factor with high performance and reliability. With the advanced customer interface and HTTP embedded web page, the operator is able to monitor and control the BUC and the System Redundancy.

- X-Band: 600W / 800W



Features:

- Highest power density in the industry
- Available in AC
- Up to 1000W of Saturated RF Output Power
- Up to 500W of RF Linear power
- Designed to comply with the Mil-STD-461 and Mil-STD-810G
- Built-in monitoring of critical parameters such as: RF power detection, mute control, over temperature shutdown, summary alarm
- M&C Interfaces included: RS485, RS232, Ethernet and dry-contacts
- WEB interface and SNMP monitoring
- Redundant Ready
- 1:1 and 1:2 built in, eliminating external controller

Options:

- Other frequency ranges available
- Optional 10MHz reference
- Optional output sample port
- Optional Remote control unit
- Advantech designs and manufactures external X-Band Tx and Rx band-pass and band-reject filters to comply with X-Band Certification testing (sold separately).

Taurus-Line X-Band GaN SSPA BUC

Technical Specifications

X-Band		
Electrical Characteristics	**600W**	**800W**
RF Output at P Sat (Typ, see Note below)*	58 dBm	59 dBm
RF Output at P Lin	55 dBm	56 dBm
Output Frequency Range	Standard X-band: 7.9 – 8.4 GHz/Low X-band: 7.145 to 7.250 GHz	
Input Frequency Range	Standard X-band: 950 – 1450 MHz/ Low X-band: 965-1070 MHz	
Local Oscillator Frequency	Standard X-band: 6.95 GHz/ Low X-band: 6.180 GHz	
Linear Gain	70 dB min.	
Gain Flatness	4dB p-p max.	
Gain Slope	1dB p-p max. over 40MHz	
Gain Stability Over Temperature	± 1.5 dB max.	
User Adjustable Gain	20 dB in 0.5 dB steps	

Spectral Re-growth	-30dBc @PLinear, (at 1 x Symbol Rate, QPSK, 8PSK, alpha=0.35)				
Third order IMD (2 equal tones 5MHz apart)	- 25dBc at Plin (MIL-STD-188-164B)				
10MHz Reference	0dBm ± 5.0 dB - External via IF / (Internal 10MHz reference optional)				
	@ 100 Hz	**@ 1 KHz**	**@ 10 KHz**	**@ 100 KHz**	**@ 1 MHz**
Ref Phase Noise Requirement		-140 dBc/Hz max	-150 dBc/Hz max	-155 dBc/Hz max	
Local Oscillator Phase Noise	-63 dBc/Hz max	-73 dBc/Hz max	-83 dBc/Hz max	-93 dBc/Hz max	-103 dBc/Hz max
Noise Power Density	-75 dBm/Hz in TX, -110 dBm/Hz in Rx without additional external filter, -145 dBm/Hz in RX with optional external filter				
Output Spurious	-60dBc max @PLinear				
Harmonics	-40dBc max @PLinear				
AM/PM	< 2deg/dB at PLin				
VSWR	Input (1:50:1) Output (1.30:1)				

Power consumption		
X-Band	**600W**	**800W**
Power consumption (at rated power) AC version	3800W	4000W
Power requirement	220 VAC	

Interface			
Output Interface	Waveguide, CPR 112G (Grooved)		
Input Interface	N-Type Female, 50 Ohms		
Connectors	AC Connector: MS3102R16-10P	M&C: MS3112E14-19P	Redundancy: MS3112E14-15P

Mechanical	
Dimensions (L x W x H)	16.0 x 22.3 x 7.7 in / 40.6 x 56.5 x 19.5 cm
Weight	93 lbs / 42kg

Environmental			
	Temperature Range (ambient)	**Humidity**	**Altitude**
	-40°C to + 55°C (operating) -40°C to + 75°C (storage)	0 to 100% (condensing)	10,000 ft ASL

- Operating the unit at Psat long term could cause permanent damage. For maximum reliability and link performance, the units should not be operated at more than 500W continuously.

Ref.: PB-AWT-TMLg-X-22318

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Specifications are subject to change without notice.