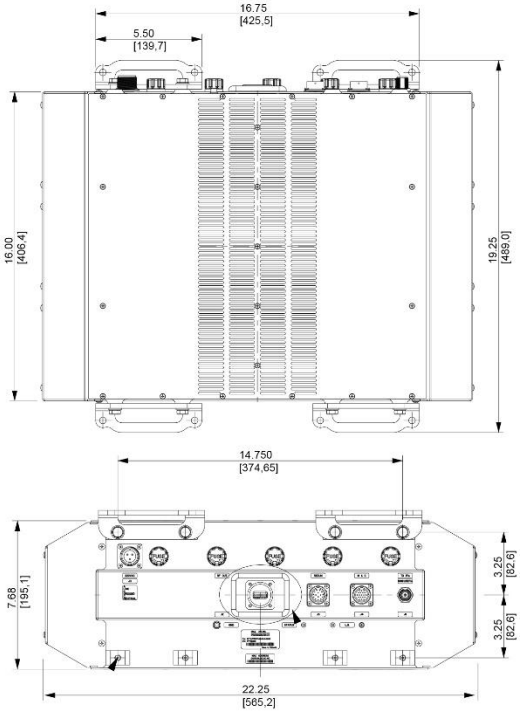
Taurus-X Line

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: 800W / 1000W



Features

- Highest power density in the industry
- Available in AC
- Up to 1000W of RF Output Power
- Up to 500W of RF Linear power
- Designed to comply with the most stringent requirements for EMI/RFI shielding
- Built-in monitoring of critical parameters such as: RF power detection, mute control, over temperature shutdown, summary alarm
- IP55 rated housing and fan (weather proof construction)
- M&C Interfaces included: RS485, RS232, Ethernet and dry-contacts
- WEB interface and SNMP monitoring
- Redundant Ready
- 1:1 and 1:2 built into the BUC eliminating external controller
- 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

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Technical Specifications

X-Band					
Electrical Characteristics	**800W**			**1000W**	
RF Output at P Sat	59 dBm			60 dBm	
RF Output at P Lin	56 dBm			57 dBm	
Output Frequency Range	7.9 – 8.4 GHz				
Input Frequency Range	950 – 1450 MHz				
Local Oscillator Frequency	6.95 GHz				
Gain Stability Over Temperature	± 1.5 dB nominal				
Gain Variation at fixed temperature	± 0.5 dB over max over 40 MHz; ± 2.0 dB over full band				
Linear Gain	70 dB min.				
User Adjustable Gain	20 dB in 0.5 dB steps				
Spectral Re-growth	-30dBc @PLinear				
Third order IMD (2 equal tones 5MHz apart)	-25 dBc, with 2 equal carriers (5MHz spacing) at 3dB total power back off from rated power (P Sat -3dB)				
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
Output Spurious	-60dBc max @PLinear				
Harmonics	-60dBc max @PLinear				
AM/PM	< 2deg/dB at PLin				
VSWR	Input (1:50:1) Output (1.30:1)				
Power consumption					
X-Band	**800W**			**1000W**	
Power consumption (at rated power) AC version	3750W			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 (Optional)
Mechanical					
Dimensions (L x W x H)	16.0 x 22.3 x 7.7 / 40.6 x 56.5 x 19.5				
Weight	93lb / 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

Ref.: PB-AWT-TMLg-X-19289-1

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Specifications are subject to change without notice.