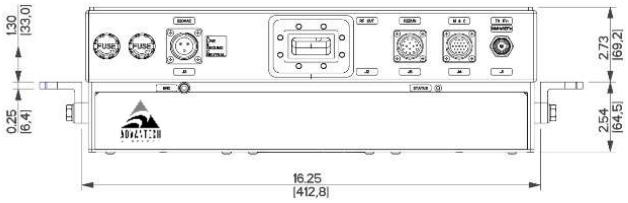
Cascade-X Line

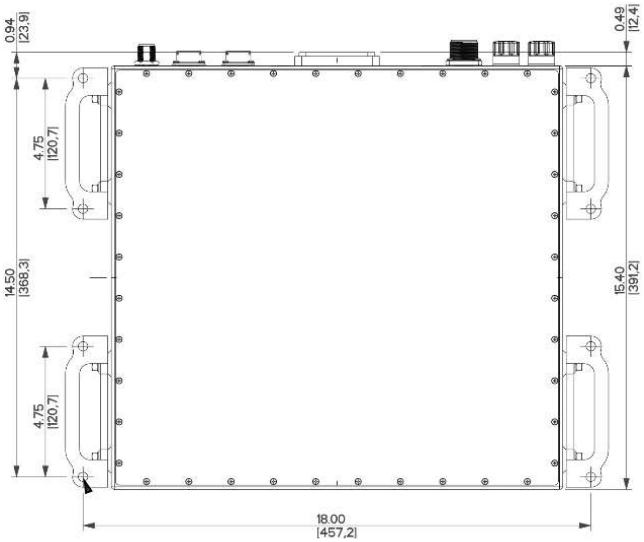
X Band GaAs SSPA BUC

Overview

An ideal solution for both mobile and fixed Communication terminals. The Cascade-X Line SSPAs / BUCs are 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 GaAs: 150W / 200W / 250W





Features

- Compact size
- 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
- 1:1 and 1:2 Redundant Ready built into the BUC eliminating external controller
- Other frequency ranges available
- Optional 10MHz reference
- Optional output sample port
- Optional Remote control unit

Cascade-X Line GaAs SSPA BUC

Technical Specifications

X-Band			
Electrical Characteristics	**150W**	**200W**	**250W**
RF Output at Psat	52 dBm	53 dBm	54 dBm
RF Output at P1dB	51 dBm	52 dBm	53 dBm
RF Output at P Lin	48 dBm	49 dBm	50 dBm
Output Frequency Range	7.9 – 8.4 GHz		
Input Frequency Range	950 – 1450 MHz		
Local Oscillator Frequency	6.95 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				
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
Output Spurious	-60dBc max @PLinear				
Harmonics	-60dBc max @PLinear				
Noise Power Density	-70dBm/Hz in Tx band (-150dBm/Hz in Rx band (7.25 – 7.75GHz)				
AM/PM	< 2deg/dB at PLin				
VSWR	Input (1:50:1) Output (1.30:1)				

Power consumption			
X-Band	**150W**	**200W**	**250W**
Power consumption (at rated power) AC version	1350W	1500W	1650W
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 16.9 x 5.2 / 41.0 x 43.0 x 13.2		
Weight	45 / 20.4		
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-CML-GaAs-X-22317

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