

Cascade - Line

300W/400W X-Band GaN SSPA BUC

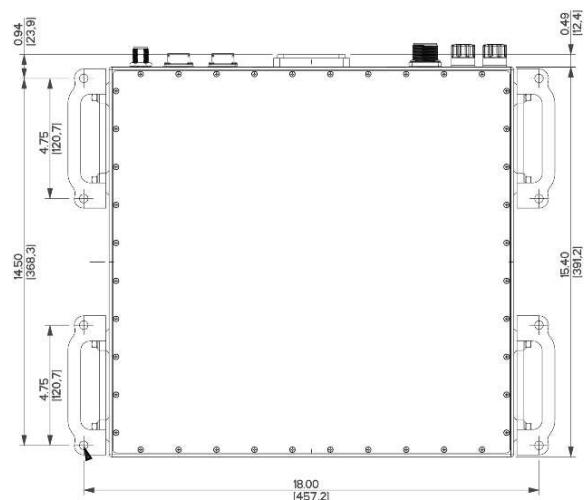
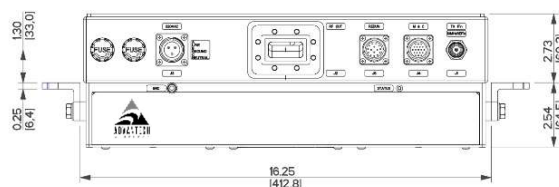
Overview

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: 300W / 400W

Features

- Compact size
- Available in AC
- Up to 400W of RF Output Power
- Up to 150W of Linear Power
- 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





Cascade - Line GaN SSPA BUC

Technical Specifications					
X-Band					
Electrical Characteristics	300W		400W		
RF Output at P Sat (typ.)	55 dBm		56 dBm		
RF Output at P Lin - Single carrier	52 dBm		53 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.				
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	-55dBc 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	300W		400W		
Power consumption (at rated power) AC version	2100W		2300W		
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 in. / 41.0 x 43.0 x 13.2 cm				
Weight	45 lbs / 20.4 kg				
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-CMLg-X-24195

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