

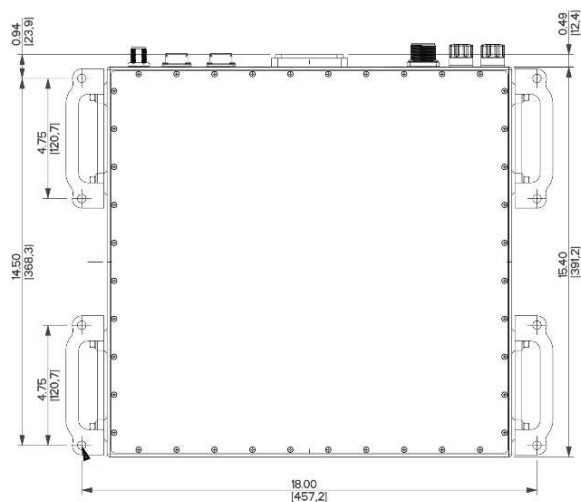
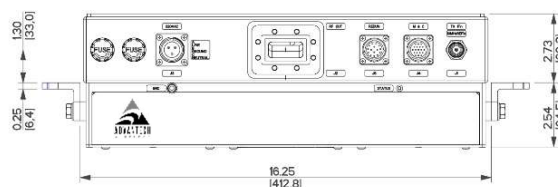
Cascade - Line

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 / 500W



Features

- Compact size
- Available in AC
- Up to 500W of RF Output Power
- Up to 250W 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
- Optional Remote control unit



Cascade - Line GaN SSPA BUC

Technical Specifications

X-Band			
Electrical Characteristics	300W	400W	500W
RF Output at P Sat (typ.)	55 dBm	56 dBm	57 dBm
RF Output at P Lin	52 dBm	53 dBm	54 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				
AM/PM	< 2deg/dB at PLin				
VSWR	Input (1:50:1) Output (1.30:1)				

Power consumption

X-Band	300W	400W	500W
Power consumption (at rated power) AC version	2100W	2300W	2500W
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-22317

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