

# Cascade-X Line

## X Band GaAs SSPA BUC

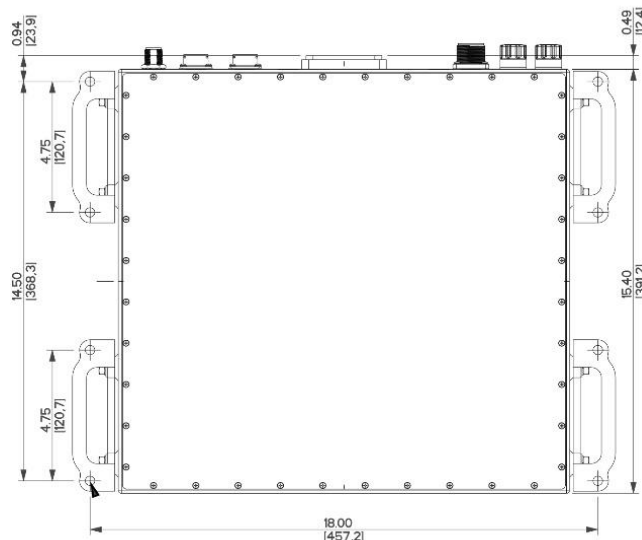
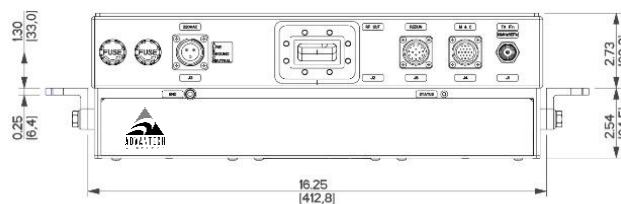
### Overview

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
- Available in AC
- Up to 250W of RF Output power
- Up to 125W 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-X Line GaAs SSPA BUC

Technical Specifications				
X-Band				
Electrical Characteristics	150W	200W	250W	
RF Output at P1dB	52 dBm	53 dBm	54 dBm	
RF Output at P Lin	49 dBm	50 dBm	51 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			
<b>Spectral Re-growth</b>				
	-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)			
	<b>@ 100 Hz</b>	<b>@ 1 KHz</b>	<b>@ 10 KHz</b>	<b>@ 100 KHz</b>
Ref Phase Noise Requirement				<b>@ 1 MHz</b>
Local Oscillator Phase Noise	-63 dBc/Hz max	-73 dBc/Hz max	-83 dBc/Hz max	-93 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)			
<b>Power consumption</b>				
X-Band	150W	200W	250W	
Power consumption (at rated power) AC version	1250W	1400W	1500W	
Power requirement	220 VAC			
<b>Interface</b>				
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)	
<b>Mechanical</b>				
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			
<b>Environmental</b>				
	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-19289-1

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