

700W L/S-Band Hubmount SSPA

Advanced Solid State Technology

Taurus Line

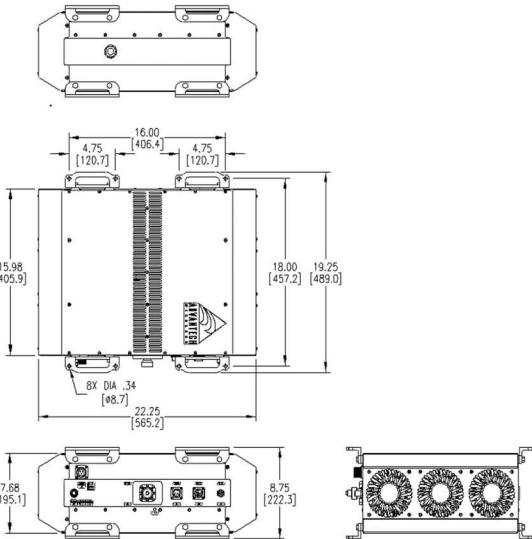
SSPA AWMAg-700L/S

Solid State Technology for Satellite TT&C and Deep Space Communication



Features

- Full range of output power up to 700W in a single package
- High linearity and cover both L and S bands from 1.760 - 2.160 GHz
- Unconditionally stable at any load VSWR
- Redundant ready with no external controller
- M&C capability via RS232/485/Ethernet/SNMP
- Infinite VSWR protection with automatic high reflected power shutdown
- Forward and Reflected power monitoring
- Output Sample Port
- Redundant Systems shipped fully tested, assembled and tested
- Weatherproof construction, IP 65 rated housing and fan



Overview

Advantech Wireless L/S-Band line of Amplifiers is intended for satellite TT&C and Deep Space Communication. The design of these units is based on Advantech Wireless proven techniques resulting in high linearity and operating efficiency. Conservative thermal design contributes to the high MTBF for these units. Full monitor and control is provided via the serial or Ethernet ports. Special features such as automatic over-temperature shutdown and high-reflected power protection contribute to a trouble-free operation.

This package is available for 700W. Higher power operation may be provided using external phase combining techniques. Please contact factory for more details.

The full set of accessories made available will facilitate the integration of these units in any application.

Options

- 1:1 or 1:2 Redundant configuration
- Phase combined systems for higher power

Specifications		L/S-band	
Operating Frequency		1.760 – 2.160 GHz	
Saturated Output Power		700W	
P _{SAT} , at Flange		+58.5dBm nominal *	
P _{LINEAR}		+55.5dBm minimum	
		Spectrum Regrowth ≤ 25dBc at 1.0 Symbol Rate, QPSK, α=0.35	
Gain	SSPA	70.0dB Min	
Gain adjustment range		20 dB in 0.1 dB steps	
Gain flatness over full band		3 dB p-p max	
Gain slope over 10 MHz		0.6 dB max	
Gain variation over temperature		± 1.5 dB max	
Input Impedance and VSWR	50 Ω	1.5:1	
Output VSWR		1.3:1	
Noise power density		-75dBm/Hz	
Spurious at P _{LINEAR}		-60 dBc max	
Harmonics		-60 dBc @ P _{LINEAR}	
AM/PM conversion		<1.0°/dB P _{LINEAR}	
Third order IMD (two tones)		-25 dBc two signals 5 MHz at Plin	
Group delay	Ripple	1 nsec p-p max over any 10 MHz band	
Residual Phase Noise, Continuous		-60 dBc/Hz at 10Hz -90 dBc/Hz at 100Hz -100 dBc/Hz at 1000Hz - 110 dBc/Hz at 10 kHz	-115 dBc/Hz at 100 KHz -125 dBc/Hz at 1 MHz -130 dBc/Hz at 10 MHz - 130 dBc/Hz at 100 MHz
Weight & Dimensions			
Dimensions		22.25" x 16.0" x 7.68" (565.2mm x 406.4mm x 195.1mm)	
Weight		90 lbs. (40.8kg)	
AC input voltage		190 - 265 VAC, (47-63 Hz)	
Power consumption		2500 kVA max.	
Interfaces	Input - Output Sample Port - RS485/Ethernet -	N-type female N type female MS3112 type	AC line - MS3102 type RF output - DIN 7/16
Environmental	Operating Temp. Storage Humidity Altitude	-30°C to +55 °C -55°C to +85 °C 100% condensing 10,000' AMSL, derated by 2 °C/1000' from AMSL	Option 1 -40°C to +55 °C

*Psat will be limited to +57.0dBm

[Ref.: PB-DB-LS-700W-26007](http://www.advantechwireless.com)
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