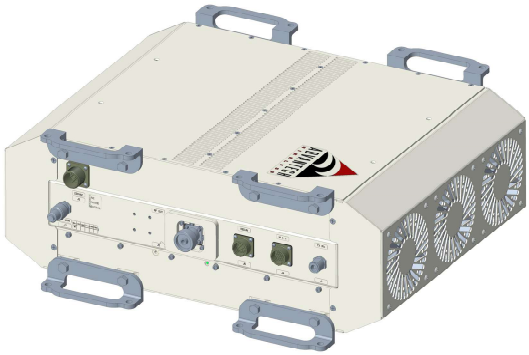
800W S-Band Hubmount SSPA
Advanced Solid State Technology

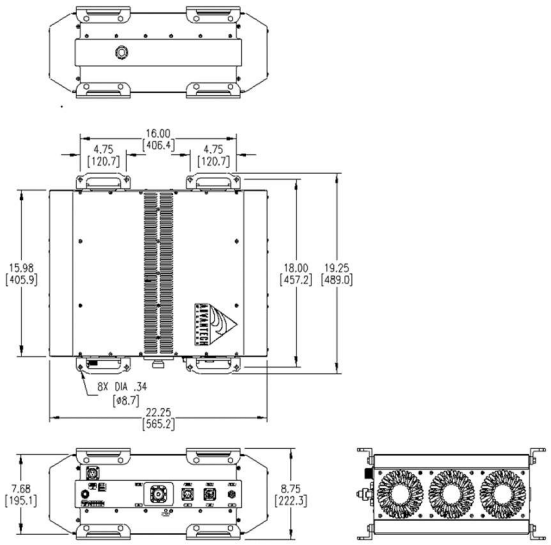
Taurus Line
SSPA AWMAg-800S

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



Features

- 800W in a single package
- High linearity and cover both L and S bands from 2.025 – 2.120 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 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 800W. 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

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Specifications	S-band
Operating Frequency	2.025 – 2.120 GHz
Saturated Output Power	800W
P_{SAT}, at Flange	+59.0dBm nominal*
P_{LINEAR}	+56.0dBm 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	2 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 - N-type female Output Sample Port - N type female RS485/Ethernet - MS3112 type AC line - MS3102 type RF output - DIN 7/16
Environmental	Operating Temp. -30ºC to +55 ºC Option 1 -40ºC to +55 ºC Storage -55ºC to +85 ºC Humidity 100% condensing Altitude 10,000' AMSL, derated by 2 ºC/1000> from AMSL

*Psat will be limited to +57.0 dBm

Ref.: PB-DB-S-800W-26007

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