



# AAA 21 Series

1500W  
C-Band SSPA Booster

Agilis AAA 11 Series C-Band SSPA (Solid State Power Amplifier) Boosters offer premium performance and reliable microwave power amplification for satellite hub and remote terminals. Based on state-of-the-art technology, Agilis SSPA provides high RF power and gain stability for uplink applications. It is highly linear with guaranteed output power suitable for multi-carriers operation.

Equipped with efficient thermal management, Agilis SSPAs provides good heat dissipation enhancing long-term reliability. Agilis SSPA can operate as a stand-alone unit or as an add-on to boost up the transmit power for VSAT transceivers.

## Features

- High RF output power
- Low spurious levels
- Various output power rating
- Easy installation & configuration
- RF output monitor port
- RF input monitor port
- Built-in Redundancy (optional external Redundancy unit)
- Surge Protection
- Built-in M&C
- Built-in Isolator & Harmonic reject filter

## Applications

- Broadcast
- Video conferencing
- Rural Telephony
- Emergency Link restoration
- Point-of-sales
- Hub and VSAT Terminals

## Enhanced Monitoring and Control

Agilis SSPA offers M&C via RS485 / RS232 and optional Ethernet interface. It features full remote M&C through Windows using PC.

These include:

- Tx level monitoring
- Temperature monitoring
- RF inhibit selection
- Gain control
- Automatic fault identification & alarm

## Reliability

Field proven under harsh environment conditions.

Agilis indoor SSPA can withstand temperature ranging from 0°C to +50°C with up to 100% humidity.

## Quality Assurance

Agilis Indoor SSPAs go through intensive active electrical stress screening with performance being monitored during screening.

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## Technical Specifications

### Frequency Range (GHz)

Intelsat	5.850 – 6.425
Full C	5.850 – 6.725

### Transmit

Power	Output Power (dBm)	Small Signal Gain (dB)	Power Consumption Typical
1500W	61.8	75 min	12.5KVA

Gain Flatness Over Full BW	±2.0 dB max
Gain Flatness Over Any 40 MHz	±1.0 dB max
Gain Variation	±2.0 dB max
Gain Control Range	20 dB min step 0.5 dB

Input VSWR	1:3:1 max
Output VSWR	1:3:1 max
Inter Modulation	-25 dBc Relative to combine power of two carriers at 3dB total power backoff from Rated Output power

Harmonics (@Psat)	- 60 dBc max
Spurious (@Psat)	- 60 dBc max

Residual AM (0 – 10kHz)	-45 dBc max
(10 kHz – 500kHz)	-20 (1.0+logF*) dBc max
(500 kHz – 1MHz)	-80 dBc max

Group Delay (in any 40MHz band)	
Linear	±0.03 nsec/MHz max
Parabolic	±0.003 nsec/ max
Ripple	1.0 nsec p-p max

Maximum Input Power	+10 dBm (without damage)
Noise Figure at Gain max	10.0 dB max
Display	24 x 2 LCD Display

Power Supply	220 Vac, 1 phase ±10.0%
Frequency Voltage	47Hz ~ 63Hz

### Interface

RF Input	50ohms N-Type Female
RF output monitor	50ohms N-type @ 40dB coupling factor
RF Output	50ohms CPR137G waveguide

### Monitor And Control

Monitor	SSPA Temperature Status Alarm RF Output Power Reflected power
Control	SSPA On/Off Gain Control
Protection	Over temperature SSPA shutdown Reflected power shutdown
Interface	RS485 / RS232 Optional - Ethernet RJ-45 (SNMP + HTTP)

### Environmental

Operating Temperature	0°C to + 50°C (Indoor SSPA)
Relative Humidity	Up to 95°C (Non-condensing)
Cooling	Forced Air Cooling

### Mechanical

Size	19" rack, 23 RU height
Colour	Grey

### Compliance Standard

IEC 60950C	International Safety Standard for Information Technology Equipment
ETSI EN 300 673	Electromagnetic Compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) Standard for Very Small Aperture Terminal (VSAT)
ETSI EN 301 489-1	Electromagnetic Compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility Standard for Radio Equipment and Services

Note: All Specifications are subject to changes without notice  
Ver. 090614

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