



AAA11 Series

Compact 100W/200W
C-Band High Power SSPA

This small and lightweight SSPA is ideal for mobile and satellite uplink applications.

The SSPA has excellent efficiency and consumes less than 1300W for 200W RF power. Innovative and efficient thermal design makes this SSPA one of the smallest in the industry.

Built-in redundancy-ready feature eliminates the use of an external controller for 1:1 redundancy operation. This eliminates messy cabling at the antenna making this a very elegant solution.

Extensive M/C interface with RS232/485, Ethernet (SNMP & HTTP) and Wifi.

Features

- Compact and lightweight
- Available for all C-Band frequencies
- Forward & reverse power detection facility
- Input power detection facility
- Intuitive monitoring & control through RS232/485, Ethernet (SNMP & HTTP)
- Automatic fault identification & alarm generation
- Temperature compensation facility
- Built-in redundancy facility
- Built-in 10MHz reference with auto-detection
- Built-in harmonics reject filter
- Sample port for output monitoring
- Wide operating temperature range -40°C to +60°C
- RoHS Compliant
- Waterproof

Quality Assurance

100% of all SSPAs go through stringent quality checks in addition to well defined Electrical Stress Screening to ensure operation in harsh outdoor environments. The SSPAs are also subjected to seal test for water ingress verification.

Reliability

Field proven under harsh environment conditions, Agilis ODUs can withstand temperature ranging from -40°C to +60°C with up to 100% humidity.

Frequency Band

INTELSAT

Tx : 5.850 to 6.425GHz

INSAT

Tx : 6.725 to 7.025GHz

PALAPA / ST1

Tx : 6.425 to 6.725GHz

FULL C

Tx : 5.850 to 6.725GHz

EXTENDED

Tx : 5.725 to 6.725GHz

Table 1



AAA11Series

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Technical Specifications

RF Specifications

Transmit Frequency	Intelsat / Full C/ Insat/ Palapa C/Extended
Output Power @ P1dB	50dBm (100W) / 53dBm (200W)
Small Signal Gain	50dB Min
Gain Flatness	±0.75dB over the O/P frequency band
Gain Variation	±0.75dB over the operating temperature range
Gain Control	20dB in step of 0.5dB 30dB in step of 0.1dB (optional)
O/P spurious	According to EN301443
Phase Noise @ Offset	-80dBc/Hz
1KHz	-90dBc/Hz
10KHz	-100dBc/Hz
100KHz	1.5.1
I/P VSWR	1.5.1
O/P VSWR	70dBm/ 4KHz
Noise Power Density Tx BD	142dBm/ 4KHz
Rx BD	

DC Power Requirement

Prime Power	90 – 264VAC, 50 – 60Hz
Power Consumption	600W (Typical for 100W) 1000W (Typical for 200W)

Interfaces

IF Input Interface	50Ohms N-type Female
Output Interface	CPRG 137G

Monitor & Control

Monitor	SSPA Temperature Status Alarm RF Output Power/RF Input Power RF Reflected Output Power LED Status Indication
Control	Attenuation RF output mute
Interface	RS232/485, Ethernet (SNMP & HTTP) & Wifi (Optional)
Tx Redundancy	Built-in

Environmental

Operating Temperature	-40°C to +60°C
Humidity	Up to 100% Weather protection sealed to IP65

Mechanical

Size	284L x 209W x 164H
Weight	9kg
Color	White Powder Coat

Compliance Standard

IEC 609501-2nd Edition	International Safety Standard for Information Technology Equipment
ETSI EN 301 489-12	Electromagnetic Compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) Standard for radio equipment and services; Part 12: Specific conditions for Very Small Aperture Terminal, Satellite Interactive Earth Stations operated in the frequency ranges between 4 GHz and 30 GHz in the fixed Satellite Service (FSS)
ETSI EN 301 489-1	Electromagnetic Compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility Standard for Radio Equipment and Services
FCC Class A	Two levels of radiation and conducted emissions Limits for unintentional radiators (FCC Mark)

Note: All specifications are subject to change without notice.
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