AAA 12 Series
Ku-Band VSAT SSPA Booster
(Outdoor/Rack Mount)

Ku-Band SSPA

Agilis AAA 12 Series Ku-Band SSPA (Solid State Power Amplifier) Boosters offer premium performance and reliable microwave power amplification at 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 P1dB output power suitable for multi-carriers operation.

Equipped with efficient thermal management, Agilis SSPAs provides good heat dissipation to enhance 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
- High ICP3 (3rd order intercept)
- Low spurious levels
- Various output power rating
- Easy installation & configuration
- RF output sample port
- Available for specific satellite bands
- Surge Protection
- Redundancy ready
- Built-in M&C (Indoor)
- Built-in redundancy controller (Rack Mount)

Applications

- Hub and VSAT terminals
- Video conferencing
- Broadcast
- Rural Telephony
- Emergency link restoration
- Point-of-sales

Enhanced Monitoring and Control

Agilis SSPA offers M&C via RS232/485. It features full remote M&C through Windows using PC.
These include:

- Tx level monitoring
- Temperature monitoring
- RF inhibit selection
- Gain control for rack mount SSPA
- Automatic fault identification & alarm

Reliability

Field proven under harsh environmental conditions.

Agilis Outdoor SSPA can withstand temperature ranging from -40°C to +60°C with up to 100% humidity.

Quality Assurance

Agilis Outdoor SSPAs go through intensive active electrical stress screening with performance being monitored during screening. In addition, all units undergo 100% waterproof test equivalent to IP65 to ensure normal operation during tropical, cold and harsh environment.

TECHNICAL SPECIFICATIONS

AAA 12 Series Ku-Band VSAT SSPA Booster (Outdoor/Rack Mount)

Frequency Range (GHz)

Standard	14.00 - 14.50
Offset	13.75 - 14.25
Extended	13.75 - 14.50
Low	13.00 - 13.25

Transmit

Power	Output P1dB (dBm) min	Gain (dB)	Typ AC Power Consumption (VA)
16W	42	12 - 16	250
25W	44	14 - 18	300
40W	46	16 - 20	600
80W	49	19 - 23	800

Gain Flatness Over Full BW	±1.0 dB max
Gain Slope Over 36 MHz	±0.5 dB max (Outdoor SSPA) ±0.3 dB max (Rack Mount SSPA)
Gain Stability Over Temperature	±1.0 dB max (Rack Mount SSPA)
Gain Control Range	20 dB min (Rack Mount SSPA)
Input VSWR	1:5:1 max
Output VSWR	1:5:1 max
Intermodulation	-27 dBc max (with 2 carriers, 1MHz apart, at 6 dB backoff from Output@P1dB)
Harmonics (@P1dB)	-25 dBc max
Spurious (@P1dB)	-60 dBc max
Maximum Input Power	+33 dBm (without damage) (Outdoor SSPA) +10 dBm (without damage) (Rack Mount SSPA)
Display	24 x 2 LCD Display (Rack Mount SSPA)
Power Supply	220Vac or 110Vac (factory preset)

Interface

RF Input	50Ω N-type Female
RF Output	WR75/G

Monitor And Control

Monitor	SSPA Temperature Status Alarm RF Output Power RF Output monitor -30 dBc
Control	Temperature threshold setting SSPA On/Off control
Protection	Over temperature SSPA shutdown
Interface	RS232 / RS485

Environmental

Operating Temperature	-40ºC to + 60ºC (Outdoor SSPA) 0ºC to + 50ºC (Rack Mount SSPA)

Mechanical

	Outdoor SSPA
Size	342L x 235W x 204H mm (16W, 25W) 525L x 285W x 275H mm (40W) 434L x 420W x 232H mm (80W)
Weight	15.0 kg (16W, 25W) 20.0 kg (40W) 28.0 kg (80W)
Color	White Powder Coat
	Rack Mount SSPA
Size	19" rack, 3 RU height (16W to 40W) 19" rack, 5 RU height (80W)
Weight	25.0 kg (16W to 40W) 34.0 kg (80W)
Color	Grey

Compliance Standard

IEC 60950	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.

Ku-Band SSPA

ST Electronics (Satcom & Sensor Systems) Pte Ltd • 29 New Industrial Road, ST Electronics Paya Lebar Building, Singapore 536213
Tel: (65) 6521 7888 • Fax: (65) 6521 7333 • Email: mktg_satcoms@stee.stengg.com • www.stee.stengg.com • (*Regn. No.: 199103901W*)