SpacePath COMMUNICATIONS

Solid-State RF Power Amplifier Product Range

Europe's dedicated satellite amplifier manufacturer and equipment specialist

www.space-path.com

Solid-State RF Power Amplifiers

Solid-state RF power amplifiers (SSPA) are increasingly being adopted in satellite uplink systems as alternatives to traditional TWTAs due to their extremely compact, lightweight and efficient design. SpacePath's SSPAs utilise either GaN (gallium nitride) or GaAs (gallium arsenide) technology.

SSPA Features

- Compact, lightweight and efficient design
- Low power consumption
- Forward/reverse power direction
- Input power detection
- Intuitive monitoring and control via RS232/RS485 and Ethernet (SNMP & HTTP)
- Automatic fault identification & alarm generation
- Temperature compensation facility
- Built-in redundancy facility
- 10MHz reference with auto-detection
- Built-in receive reject filter
- Sample port for output monitoring
- AC/DC power supply options
- Wide operating temperature range

STS 8/10/20 Ka-band

STS 60/80/100 Ku-band

STS 20/40 C-band

Power/frequency chart

Power Output (W)	Band	C	X	Ku	Ka
	1000	1000			
	800	800		800	
	700	700			
	600	600		600	
	500			500	
	400	400		400	
	300	300		250/300	
	200	150/200		150/200	
	100	100	100	100/125	
	80	80	80	80	
	60			60	
	50			50	
	40	40	40	40	40
	20	20	16/20/25	16/20/25	20
	10			8/12	8/10

Reliability

Field-proven and rugged, SpacePath's outdoor solid-state amplifiers can withstand temperatures ranging from -40°C to +60°C and 100% humidity.

Quality Assurance

All outdoor solid-state amplifiers are subjected to intensive active electrical stress tests with performance being monitored during screening.

In addition, all amplifiers undergo 100% waterproof testing equivalent to IP65 to ensure normal operation in the harshest of environments.

SSPA/SSPB Product Range

C-band

Type	Freq. (GHz)	Output	Input	Size (cm)	Weight	Prime Power Internal AC or DC options
STS20/40C	5.850 – 6.425 6.725 - 7.025 5.925 – 6.725 6.425 – 6.725 5.850 – 6.725	20W (P1dB) 40W (P1dB)	950 – 1525MHz	16.5 x 16.5 x 11.5	3kg	AC 90-265VAC 50-60Hz or 32-72VDC
STS80/100C	5.850 – 6.425 6.725 - 7.025 5.925 – 6.725 6.425 – 6.725 5.850 – 6.725	80W (P1dB) 100W (P1dB)	950 – 1525MHz	16.5 x 16.5 x 10.5 26.5 x 18.5 x 10.5 (WG Circulator)	3kg 3.5kg	AC 90-265 50-60Hz or 36-72VDC
STS150/ 200C	5.850 – 6.425 6.725 - 7.025 5.925 – 6.725 6.425 – 6.725 5.850 – 6.725	150W (Psat) 200W (Psat)	950 – 1525MHz	39 x 22.5 x 11 47 x 22.5 x 11 (with output circulator)	12kg	AC 90-265VAC 50-60Hz or 40-72VDC
STS300/ 400C	5.850 – 6.425 6.725 - 7.025 5.925 – 6.725 6.425 – 6.725 5.850 – 6.725	300W (Psat) 400W (Psat)	950 – 1525MHz	47 x 34.5 x 19.5	19kg	AC 190 – 265VAC 50-60Hz

X-band

Type	Freq.(GHz)	Output	Input	Size (cm)	Weight	Prime Power Internal AC or DC options
STS16/100X	7.9-8.4	16W (Psat) 20W (Psat) 25W(Psat) 40W (Psat) 80W (Psat) 100W (Psat)	950-1525MHz	16.5 x16.5 x 11.5	2.5kg	90-265VAC 50-60Hz or 36-72VDC

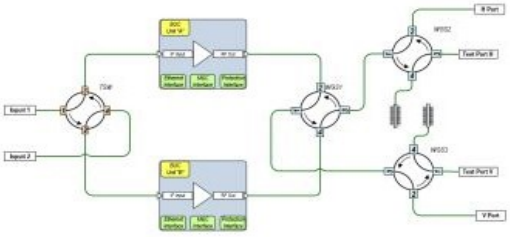
Ku-band

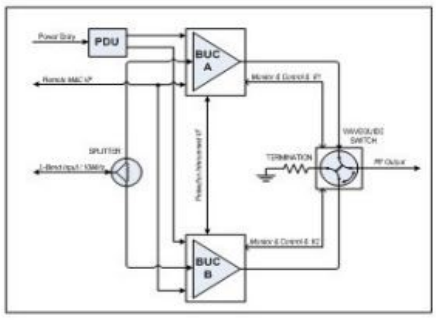
Type	Freq.(GHz)	Output	Input	Size (cm)	Weight	Prime Power Internal AC or DC Options
STS16/20/ 25K	14.00 – 14.5 13.75 – 14.5	16W (P1dB) 20W (P1dB) 25W (P1dB)	950 – 1450MHz 950 – 1700MHz	16.5 x 16.5 x 9.5	2.5kg	90-265VAC 50-60Hz or 36-72VDC
STS40/50/ 60K	13.75 – 14.5 14.0 - 14.5	40W (Psat) 50W (Psat) 60W (Psat)	950 – 1450MHz 950 - 1700MHz	16.5 x 16.5 x 9.4	2.5kg	90-265VAC 50-60Hz or 36-72VDC
STS80/100/ 125K	14.0 - 14.5 13.75-14.5	80W (Psat) 100W (Psat) 125W (Psat)	950 - 1450MHz 950 – 1700MHz	30 x 19.5 x 11.5	7kg	90-265VAC 50-60Hz
STS150/200K	14.0 – 14.5 13.75 – 14.5	150W (Psat) 200W (Psat)	950 - 1450MHz 950 – 1700MHz	39 x 22.5 x 11	12kg	90-265VAC 50-60Hz
STS250/300/ 400/500K	14.0 – 14.5 13.75 – 14.5	250W (Psat) 300W (Psat) 400W (Psat) 500W (Psat)	950 - 1450MHz 950 – 1700MHz	48 x 30 x 24	25kg	190-265VAC 50-60Hz

Ka-band

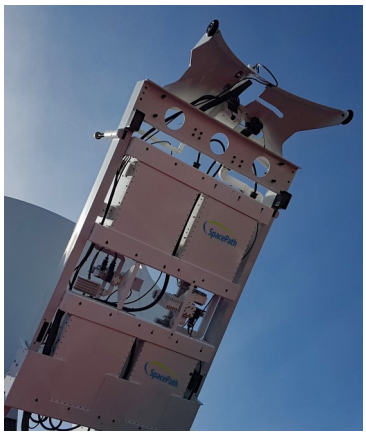
Type	Freq. (GHz)	Output	Input	Size (cm)	Weight	Prime Power Internal AC or DC options
STS8/10Ka	29.0 – 31.0	8W (P1dB) 10W (P1dB)	1000-2000MHz	20 x 14 x 10	3.5kg	36-72VDC
STS20/40Ka	29.0 – 31.0	20W (Psat) 40W (Psat)	1000-2000MHz	28 x 25 x 10	13kg	90-265VAC 50-60Hz

1:1 and 1:2 Outdoor single C-band and Ku-band & simultaneous Ku-band LNB redundant system





SpacePath's intelligent redundant systems offer unprecedented system performance, simplicity and reliability. The 1:1 redundancy system includes two LNBs, output waveguide switch, outdoor 1:1 redundant controller, WGS redundancy cables, RF interconnection cables, termination and aluminium plate. The 1:2 system additionally includes three LNBs, two output waveguide switches and outdoor 1:2 redundant controller.



Setting new standards in customer-driven innovation and performance

SpacePath Communications designs, manufactures and distributes an expanding range of innovative satellite uplink amplifiers and associated equipment, including RF high-power amplifiers (HPA), solid-state amplifiers (SSPA/SSPB), redundant system controllers and sub-systems.

SpacePath COMMUNICATIONS

SpacePath Communications Ltd.
Unit 4, Bartley Point, Osborn Way, Hook, Hampshire, RG27 9GX, UK.
Tel: +44 1256 760525 Email: sales@space-path.com
www.space-path.com

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