



High Power GaN DBS SSPA

1kW/2kW/3.5kW

New Generation of GaN based SSPAs for high power uplink stations

Modular Architecture

The combination in phase of individual SSPA modules allows to achieve outstanding output power levels in DBS band.

Soft-Fail redundancy allows the system to operate even when an individual SSPA module fails. Hot swappable of SSPA modules. Field removable power supplies.

Multicarrier Operation & High Linear Power

In addition to high reliability and MTBF, this product allows Multicarrier Operation with no memory effects and limited back off.

Built-in lineariser to maximize linear output power.

Monitoring and Control

Full M&C capability is provided via: RS-485, Ethernet and Dry contacts. Web user interface. SNMP as option.

Key Features

- Outdoor Operation
- Super High linear power
- Multicarrier Operation
- Highest Availability
- Hot swappable of SSPA modules
- CAPEX and OPEX savings



TECHNICAL SPECIFICATIONS

OPTIONS:

- Extended temperature range:
T1 (-40°C, +55°C),
T2 (-40°C, +60°C)
- Indoor Control Panel
- External AC box
- Indoor SSPA versions
- SNMP
- Automatic Control Mode (AGC, ALC)
- External L to DBS Up-Converter

ELECTRICAL

Operating frequency	17.30 - 18.40 GHz		
	SSPA 1 kW	SSPA 2kW	SSPA 3.5KW
Output Power ($P_{SAT(ypical)}$)	60 dBm	63 dBm	65.4 dBm
Linear Output Power (P_{LINEAR^*})	59 dBm	62 dBm	64.4 dBm
Gain	>70 dB		
Gain flatness	<4dB p-p over full band; <1dB p-p over any 40MHz		
Gain variation over temperature	< \pm 1.5 dB over full operating range		
Attenuation Adjustment Range	30dB in 0.25dB step		
Input impedance and VSWR	50 Ω , \leq 1.5:1		
Output VSWR	\leq 1.3:1		
Spectral regrowth	-25 dBc @ P_{LINEAR}		
Spurious	-60 dBc max @ P_{LINEAR}		

* For single carrier with modulation DVB-S, 4MBaud, Roll-off: 0.25, ModCod QPSK-3/4, Occupied Bandwidth 5MHz, Measured @ 1.0x symbol rate

POWER SUPPLY

Input voltage	90-264 VAC, 50-60 Hz		
Power consumption @ P_{SAT}	SSPA 1kW	SSPA 2kW	SSPA 3.5KW
	<5 kW	<10 kW	<20 kW

MECHANICAL & INTERFACES

	SSPA 1 kW	SSPA 2 kW	SSPA 3.5kW
Dimensions (L x W x H mm)	1370 x 1070 x 1000	1370 x 1070 x 1000	1370 x 2000 x 1000
Interfaces	RF Input: N (f) RF Output: WR62 Grooved / RF Sample: SMA AC Line: 3-pin or 4-pin Circular M&C: Ethernet or 19-pin Circular		

MONITOR & CONTROL PARAMETERS

Remote control	RS-485 / Ethernet / Dry-Contacts, Web user interface
Monitor parameters	Forward & Reverse output power, Input power, Individual SSPAs output power, Temperature, Summary alarms
Internal self protection	Temperature (>85°C), Reflected power

ENVIRONMENTAL

Operating Temperature	-30°C to +55°C
Storage Temperature	-40°C to +85°C
Humidity	100%, condensing

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Information contained in this document is subject to change without notice.
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