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HIGH POWER AMPLIFIER

750 W DBS-BAND INDOOR HPA 4717A

ND SATCOM has been a supplier to the SatCom industry for over three decades and has an excellent reputation for consistently developing high-end satellite communications products at competitive prices for customers in more than 130 countries worldwide. Our team of dedicated engineers works closely with customers around the world to develop, tailor and adapt our product portfolio to deliver innovative broadcast and network solutions that fit evolving market requirements with superior reliability and quality.

As a system integrator for global broadcasters and armed forces, we design both indoor and outdoor HPAs whose modular design is compact, reliable, service-friendly and powerful. Our products are designed to adapt to your operational needs, providing highly secure, customised solutions that have established us as a trusted and reliable partner in satellite communications.

OPTIONS

- Integrated BUC and Linearizer
- Waveguide Switching System
- Redundancy Control Unit (RCU) or M&C System
- Plug-in/plug-out exchange kit for CPI HPAs, including adaptation of interface protocol and all mechanical connections

BENEFITS

• User Interface

Intuitive touch screen and WebUI with amplifier and system level control functions, exportable log and measurement data files

- Unrivalled and improved RF performance
- Efficient and reliable

Extremly efficient power supply saves power cost, increases MTBF and significantly reduces fan noise in your shelter racks

• Safe and durable

High voltage section is potted and all other electrical components are coated to protect against humidity and dust

Compact

light weight and small dimensions (3RU)

• Easy to maintain

All RF parameters can be monitored and controlled directly or remotely

Made in Germany

EUR1 certificate/no ITAR restrictions

Downward compatible to HPA 2717A/AL



TECHNICAL SPECIFICATIONS - HPA 4717A

RF SPECIFICATIONS			
Frequency Range	17.30 – 18.40 GHz (extended DBS-Band)		
Flange Power	>650 W, >58.1 dBm		
TWT Power	750 W Tube		
Gain at Rated Power	>65 dB		
Small Signal Gain (10 dB OBO)	>72 dB		
Gain Adjust	>0 – 20 dB, min. step size 0.1 dB		
Gain Stability	<±0.25 dB/°C/24 hrs after 30 min warm-up		
Gain Slope	<0.02 dB/MHz		
Gain Variation	<1.0 dB/in any 80 MHz, <2.5 dB/in any 500 MHz, <4.5 dB/full band		
VSWR	<1.3:1 Input, <1.2:1 Output (waveguide)		
Group Delay (in any 40 MHz)	<0.01 ns/MHz linear, <0.005 ns/MHz² parabolic, <0.5 ns ripple		
Intermodulation (two equal carriers at total output power)	Without Linearizer 4717A	With Linearizer 4717AL	
	<-22 dBc at 6 dB below rated power	<-30 dBc at 4 dB below rated power	
	<-24 dBc at 7 dB below rated power	(meets ASTRA access agreement 6.4.2	
		for FSS Band with rated power -2 dB)	
AM/PM Conversion	<2.5°/dB at 7 dB below rated power	<2.5°/dB at 4 dB below rated power	
	<6°/dB at rated output power		
Noise Figure	<15 dB		
Phase Noise	Meets IESS 308/309		
Noise and Spurious Emissions	<-65 dBW/4 kHz (inband)		
	<-120 dBW/4 kHz (10.7 – 12.7 GHz)		
Harmonic Output Suppression	<-80 dBc at rated output		
PHYSICAL			



Input RF Connector

Output RF Connector

WR 62 Waveguide Output, grooved, UNC 6/32

Dimensions (L x W x H)

650 x 483 x 133 mm (3RU)

Weight

<36 kg/79 lbs

Cooling

Forced air min. 200 m³/h



MONITOR & CONTROL

Serial Remote Interface

9-pin D female RS232/RS422/RS485

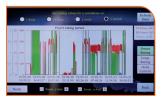
Network Interface

RJ45, 10/100 Ethernet, IPv4 for WebUI and M&C

Alarm/Mute Interface

15-pin D female

Control range and activation of gain adjustment configurable via M&C/WebUI



ELECTRICAL SPECIFICATIONS

AC Power	180 to 240 V AC/47 - 63 Hz, single phase
Power Factor	>95 %
Power Consumption	<2,350 W
Inrush Current	<110 %
CE Directive	73/23/EEC, 92/31/EEC, 89/336/EEC and 1999/5/EC



Temperature Range (operational)	-10 °C to +50 °C
Humidity	<95 %, non-condensing at 40 °C
Shock and Vibration	For normal commercial transport
Noise Level (cooling fan)	<65 dBA measured in 1 m distance

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