HIGH POWER AMPLIFIERS 750 WATT HPA 2712 SERIES FOR KU-BAND



HPA 2712 A (indoor)

ND SatCom has been a supplier to the Satcom industry for over 25 years. All necessary features required in today's satellite communication applications such as serial/parallel M&C interfaces, local and remote panels are available in this HPA product line. All RF parameters can be monitored and controlled on the front panel. The modular construction ensures easy servicing. The high voltage section is potted and all other electrical components are coated to protect against humidity and dust.

The outdoor versions of this series are available with two choices of remote panel. The standard panel allows the user to control the operating status of the amplifiers (standby, run, RF-on). An optional microprocessor-controlled remote panel displays additional status information and gives extended control options.

// Unmatched TWT durability and reliability through our intelligent high-tech power supply unit //



HPA 2712 B (outdoor)

Key Features

- / Unmatched RF performance
- / Enhanced TWT longevity
- / High-tech power supply unit for highly reliable operation
- / Indoor and outdoor versions
- / Integrated power factor correction
- / Low power consumption (max. 2350 W)
- / Light-weight (only 36 kg / 79 lbs)
- / Small dimensions
- / Low phase noise (typ. IESS 308/309)

Options

- / Integrated linearizer
- / Redundancy switching
- / Remote control panel (outdoor version)



TECHNICAL SPECIFICATION HPA 2712 SERIES FOR KU-BAND

Frequency Range 12.75 · 14.50 GHz Flange Power > 630 W, >58 dBm TWT Power 75 0W Tube Gain at Rated Power > 72 dB Gain at 10 dB Backoff > 76 dB Gain Ariation < 1.0 dB / in any 80 MHz, < 2.5 dB / in any 500 MHz, < 5.5 dB / full band Gain Stope < 0.02 dB / MHz Gain Asiability < 4.0.25 dB / °C / 24 hrs after 30 min warm-up Gain Asiability < 0.20 dB / 0.1 dB setability Group Delay (in any 40 MHz) < 0.01 ns / MHz linear, < 0.005 ns / MHz² parabolic, < 0.5 ns ripple Intermodulation < -21 dB cat 6d B below rated power without linearizer < < 0.04 dB at 4 dB below rated power vithout linearizer < -30 dB cat at 4 dB below rated power vithout linearizer Noise Figure < 15 dB max. < -80 dB cat rated output Noise and Spurious Emissions < < 6 dB dW / 4 kHz 10.7.12.2 GHz VSWR 1.31 Input, 1.21: Output (waveguide) MRCHANICAL SPECIFICATION Version A (indoor) Version B (outdoor) RF Connectors Gron A (indoor) Version B (outdoor) Gron State for the	RF-SPECIFICATION			
TWT Power 750 W Tube Gain at Rated Power > 72 dB Gain at Rated Power > 72 dB Gain Variation < 1.0 dB / in any 80 MHz, < 2.5 dB / full band Gain Stability < 2.02 dB / MHz Gain Stability < 2.02 dB / MHz Gain Stability < 2.02 dB / MHz Gain Adjust > 0 - 20 dB, 20.1 dB setability Group Delay (in any 40 MHz) < 0.01 ns / MHz insar, < 0.005 ns / MHz' parabolic, < 0.5 ns ripple Intermodulation < -21 dBc at 6 dB below rated power without linearizer Noise Figure < 1.5 dB max. AM/PM Conversion < -25 '/ dB at 7 dB below rated power, < 6'' / dB at rated output power Noise and Spurious Emissions < -80 dBc at rated output -< 100 dBW / 4 kHz 10.2.12.5 GHz, < -115 dBW / 4 kHz 10.0.12.2 GHz Phase Noise Meets IESS 308/309 VSWR 1.31 Input, 1.2:1 Output (waveguide) MECHANICAL SPECIFICATION N -Jack (input/testport) RF Connectors WR 75 Waveguide Output, grooved, threaded UM C 6/32 grooved, threaded V or UNC 6/32 grooved, threaded UM C 06/32 grooved, threaded IN or UNC 6/32 grooved, threaded UM C 06/32 <tr< th=""><th>Frequency Range</th><th colspan="3">12.75 - 14.50 GHz</th></tr<>	Frequency Range	12.75 - 14.50 GHz		
Gain at Rated Power > 72 dB Gain at 10 dB Backoff > 76 dB Gain straition < 1.0 dB / in any 80 MHz, < 2.5 dB / in any 500 MHz, < 5.5 dB / full band Gain Stability < 0.02 dB / MHz Gain Stability < 0.02 dB / ML2 Gain Adjust > 0 - 20 dB, ±0.1 dB setability Group Delsy (in any 40 MHz) < 0.01 ns / MHz' Inaar, < 0.005 ns / MHz' parabolic, < 0.5 ns ripple Intermodulation < -21 dBc at 6 dB below rated power with unearizer > 0.30 dBc at 4 db below rated power with unearizer < -30 dBc at 7 dB below rated power with unearizer Noise Figure < 15 dB max. AM/PM Conversion < 2.5' / dB at 7 dB below rated power with unearizer Noise and Spurious Emissions < -80 dBc at rated output Noise and Spurious Emissions < -80 dBW / 4 kHz (nand, < -120 dBW / 4 kHz 18.019.0 GHz Phase Noise Meets IESS 308/309 VSWR 1.3:1 Input, 1.2:1 Output (waveguide) Inputs SMA (input) / N-Jack (testport) N -Jack (input/testport) Outputs WR 75 Waveguide Output, grooved, threaded UNC 6/32 grooved, threaded UNC 6/32 Serial Remote Interface 9-pin D fem. PT 851-00R19-10S50 Alarm / Mute Interface 15-pin D f	Flange Power	> 630 W, > 58 dBm		
Gain at 10 dB Backoff > 76 dB Gain Variation < 1.0 dB /in any 80 MHz, < 2.5 dB / in any 500 MHz, < 5.5 dB / full band Gain Stability < 0.02 dB / MHz Gain Stability < 0.02 dB / VC / 24 hrs after 30 min warm-up Gain Stability < 0.02 dB / VC / 24 hrs after 30 min warm-up Gain Adjust > 0 - 20 dB, ±0.1 dB setability Group Delay (in any 40 MHz) < 0.01 ns / MHz linear, < 0.005 ns / MHz ² parabolic, < 0.5 ns ripple Intermodulation < -21 dBc at 6 dB below rated power without linearizer < -30 dBc at 4 dB below rated power without linearizer < -30 dBc at 4 dB below rated power without power MA/PM Conversion < 2.5' / dB at 7 dB below rated power without power Harmonic Output Suppression < -85 dBW / 4 kHz (inband), < -120 dBW / 4 kHz 10.7, 12.2 GHz Noise and Spurious Emissions < -65 dBW / 4 kHz (inband), < -120 dBW / 4 kHz 10.7, 12.2 GHz VSWR 1.3:1 Input, 1.2:1 Output (waveguide) MECHANICAL SPECIFICATION Version A (indoor) Version B (outdoor) RF Connectors Inputs SMA (input) / N-Jack (testport) N -Jack (input/testport) Outputs WR 75 Waveguide Output, grooved, threaded UNC 6/32 grooved, threaded UNC 6/32 grooved, threaded UNC 6/32 Serial Remote Interf	TWT Power	750 W Tube		
Gain Variation < 1.0 dB / in any 80 MHz, < 2.5 dB / in any 500 MHz, < 5.5 dB / full band Gain Stope < 0.02 dB / MHz Gain Stability < 4.025 dB / °C / 24 hrs after 30 min warm-up Gain Adjust > 0 - 20 dB, 4.0.1 dB setability Group Delay (in any 40 MHz) < 0.01 ns / MHz linear, < 0.005 ns / MHz² parabolic, < 0.5 ns ripple Intermodulation < -21 dBc at 6 dB below rated power without linearizer < -30 dBc at 4 dB below rated power, < 6° / dB at rated output power Noise Figure < 15 dB max. AM/PM Conversion < 2.5° / dB at 7 dB below rated power, < 6° / dB at rated output power Harmonic Output Suppression < -80 dBc at rated output Noise and Spurious Emissions < -80 dBc at rated output < < -100 dBW / 4 kHz (nband), < -120 dBW / 4 kHz 18.0.19.0 GHz Phase Noise Meets IESS 308/309 VSWR 1.31 Input, 1.2:1 Output (waveguide) MECHANICAL SPECIFICATION Version A (indoor) Version B (outdoor) RF Connectors Inputs SMA (input) / N-Jack (testport) N -Jack (input/testport) Outputs SMA (input) / N-Jack (testport) N -Jack (input/testport) Outputs GMA (input) / N-Jack (testport) N -Jack (input/testport) <t< th=""><th>Gain at Rated Power</th><th colspan="2">> 72 dB</th></t<>	Gain at Rated Power	> 72 dB		
Gain Slope < 0.02 dB / MHz Gain Stability < ±0.25 dB / °C / 24 hrs after 30 min warm-up Gain Adjust > 0 - 20 dB, ±0.1 dB setability Group Delay (in any 40 MHz) < 0.01 n / MHz linear, < 0.005 ns / MHz² parabolic, < 0.5 ns ripple Intermodulation < -21 dBc at 6 dB below rated power without linearizer < -30 dBc at 4 dB below rated power, < 6° / dB at rated output power Moise Figure < 15 dB max. AM/PM Conversion < -20 dBc at 4 dB below rated power, < 6° / dB at rated output power Harmonic Output Suppression < -80 dBc at rated output Noise and Spurious Emissions < -65 dBW / 4 kHz (inband), < -120 dBW / 4 kHz 1012.2 GHz < 100 dBW / 4 kHz 12.2.12.5 GHz, < -115 dBW / 4 kHz 10.0 GHz Phase Noise VSWR 1.3:1 Input, 1.2:1 Output (waveguide) MECHANICAL SPECIFICATION Version A (indoor) MF Connectors Inputs Inputs SMA (input) / N-Jack (testport) N -Jack (input/estport) Outputs WR 75 Waveguide Output, grooved, threaded UNC 6/32 grooved, threaded UNC 6/32 Serial Remote Interface 9-pin D fem. RS422/RS485 (optional RS232) PT 851-00R12-10S50 Alarm / Mute Interface 15-pin D fem. PT 851-00R12-10S50	Gain at 10 dB Backoff	> 76 dB		
Gain Stability <±0.25 dB / *C / 24 hrs after 30 min warm-up Gain Adjust > 0 - 20 dB, ±0.1 dB setability Group Delay (in any 40 MHz) < 0.01 ns / MHz linear, < 0.005 ns / MHz² parabolic, < 0.5 ns ripple Intermodulation <>21 dB cat 6 dB below rated power without linearizer < -30 dBc at 4 dB below rated power without linearizer < -30 dBc at 4 dB below rated power without linearizer Noise Figure <15 dB max. AM/PM Conversion < 2.5° / dB at 7 dB below rated power, < 6° / dB at rate output power Naise and Spurious Emissions < -65 dBW / 4 kHz (inband), < -120 dBW / 4 kHz 10.7.12.2 GHz < -100 dBW / 4 kHz 12.2.12.5 GHz, < -115 dBW / 4 kHz 18.0.19.0 GHz Phase Noise Meets IESS 308/309 VSWR 1.3:1 Input, 1.2:1 Output (waveguide) MECHANICAL SPECIFICATION Version A (indoor) Version B (outdoor) N - Jack (input/testport) Outputs SMA (input) / N-Jack (testport) N - Jack (input/testport) Outputs WR 75 Waveguide Output, grooved, threaded M4 or UNC 6/32 grooved, threaded UNC 6/32 Serial Remote Interface 9-pin D fem. RS422/RS485 (optional RS232) PT 851-00R12-10S50 Alarm / Mute Interface 15-pin D fem. PT 851-00R12-10S50 Para	Gain Variation	< 1.0 dB / in any 80 MHz, $<$ 2.5 dB / in any 500 MHz, $<$ 5.5 dB / full band		
Gain Adjust > 0 - 20 dB, ±0.1 dB setability Group Delay (in any 40 MHz) < 0.01 ns / MHz linear, < 0.005 ns / MHz² parabolic, < 0.5 ns ripple Intermodulation < -21 dBc dt 6 dB below rated power withou linearizer < 30 dBc at 4 dB below rated power withou linearizer < 30 dBc at 4 dB below rated power with linearizer Noise Figure < 15 dB max. AMI/PM Conversion < 2.5' / dB at 7 dB below rated power, < 6° / dB at rated output power Harmonic Output Suppression < -80 dBc at rated output Noise and Spurious Emissions < -65 dBW/4 kHz (inband), < -120 dBW /4 kHz 10.7.12.2 GHz < 100 dBW /4 kHz (inband), < -120 dBW /4 kHz 10.7.12.2 GHz < -100 dBW /4 kHz 12.2.12.5 GHz, < -115 dBW /4 kHz 18.0.19.0 GHz Phase Noise Meets IESS 308/309 VSWR 1.3:1 Input, 1.2:1 Output (waveguide) MECHANICAL SPECIFICATION Version A (indoor) Version B (outdoor) RF Connectors Inputs SMA (input) / N-Jack (testport) N -Jack (input/testport) Outputs WR 75 Waveguide Output, grooved, threaded M4 or UNC 6/32 grooved, threaded UNC 6/32 Serial Remote Interface 9-pin D fem. SH22/RS485 (optional RS232) PT 851-00R12-10S50 RS422/RS485 Alarr / Mute Interface 15-pin D fem.	Gain Slope	< 0.02 dB / MHz		
Group Delay (in any 40 MHz) < 0.01 ns / MHz linear, < 0.005 ns / MHz ² parabolic, < 0.5 ns ripple Intermodulation < -21 dBc at 6 dB below rated power withiout linearizer Noise Figure < 15 dB max. AM/PM Conversion < 2.5° / dB at 7 dB below rated power, < 6° / dB at rated output power Harmonic Output Suppression < 80 dBc at rated output Noise and Spurious Emissions < -66 dBW / 4 KHz (inband), < -120 dBW / 4 kHz 10.712.2 GHz Yesse < -60 dBc at rated output Phase Noise Meets IESS 308/309 VSWR 1.3:1 Input, 1.2:1 Output (waveguide) MECHANICAL SPECIFICATION Version A (indoor) Version A (input) / N-Jack (testport) N - Jack (input/testport) Outputs SMA (input) / N-Jack (testport) N - Jack (input/testport) Outputs WR 75 Waveguide Output, grooved, threaded M4 or UNC 6/32 grooved, threaded UNC 6/32 Serial Remote Interface 9-pin D fem. RS422/RS485 (optional RS232) PT 851-00R12-10S50 Parallel Remote Interface 25-pin D fem. PT 851-00R12-10S50 Parallel Remote Interface 25-pin D fem. PT 851-00R19-10S50 Parallel Remote Interface 26-pin D fem. 24 x 233 x 649 mm Weight < 36 kg	Gain Stability	$< \pm 0.25$ dB / °C / 24 hrs after 30 min warm-up		
Intermodulation < -21 dBc at 6 dB below rated power without linearizer Noise Figure < 15 dB max. AM/PM Conversion < 2.5° / dB at 7 dB below rated power, < 6° / dB at rated output power Harmonic Output Suppression < 80 dBc at rated output Noise and Spurious Emissions < -65 dBW / 4 kHz (inband), < -120 dBW / 4 kHz 10.712.2 GHz Phase Noise Meets IESS 300/309 VSWR 1.3:1 Input, 1.2:1 Output (waveguide) MECHANICAL SPECIFICATION Version A (indoor) VERSION SMA (input) / N-Jack (testport) Noty N 75 Waveguide Output, grooved, threaded M4 or UNC 6/32 Outputs WR 75 Waveguide Output, grooved, threaded M4 or UNC 6/32 Serial Remote Interface 9-pin D fem. 9-pin D fem. PT 851-00R19-10550 Main Power Inlet AMP C 16-1 4 pol. P AMP C 16-1 4 pol. P AMP C 16-1 4 pol. P Dimension 483 x 133 x 650 mm (3 RU) 294 x 233 x 649 mm Weight < 36 kg / 79 lbs < 36 kg / 79 lbs Cooling forced air min. 200 m³/h forced air min. 200 m³/h Noise Level (cooling fan) < 65 dBA measured in 1 m distance < 65 dBA measured in 1 m distance	Gain Adjust			
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AM/PM Conversion < 2.5° / dB at 7 dB below rated power, < 6° / dB at rated output power Harmonic Output Suppression < -80 dBc at rated output Noise and Spurious Emissions < -65 dBW / 4 kHz (inband), < -120 dBW / 4 kHz 10.712.2 GHz < > 100 dBW / 4 kHz (12.212.5 GHz, < -115 dBW / 4 kHz 18.019.0 GHz Phase Noise Meets IESS 080/309 VSWR 1.3:1 Input, 1.2:1 Output (waveguide) MECHANICAL SPECIFICATION Version A (indoor) Version B (outdoor) RF Connectors Inputs N - Jack (input/testport) Outputs WR 75 Waveguide Output, grooved, threaded UNC 6/32 grooved, threaded UNC 6/32 Serial Remote Interface 9-pin D fem. PT 851-00R12-10S50 RS422/RS485 Alarm / Mute Interface 15-pin D fem. PT 851-00R12-10S50 RS422/RS485 Parallel Remote Interface 25-pin D fem. PT 851-00R19-10S50 Main Power Inlet AMP C 16-14 pol. P AMP C 16-14 pol. P Dimension 483 x 133 x 650 mm (3 RU) 294 x 233 x 649 mm Weight < 36 kg / 79 lbs < 36 kg / 79 lbs Cooling forced air min. 200 m ³ /h forced air min. 200 m ³ /h Noise Level (cooling fan) < 65 dBA measured in 1 m distance < 65 dBA measured in 1	Intermodulation			
Harmonic Output Suppression <-80 dBc at rated output Noise and Spurious Emissions <-65 dBW / 4 kHz (inband), <-120 dBW / 4 kHz 10.712.2 GHz Phase Noise Meets IESS 308/309 VSWR 1.3:1 Input, 1.2:1 Output (waveguide) MECHANICAL SPECIFICATION Version A (indoor) Version A (input) / N-Jack (testport) N -Jack (input/testport) Outputs SMA (input) / N-Jack (testport) N -Jack (input/testport) Outputs WR 75 Waveguide Output, grooved, threaded M4 or UNC 6/32 grooved, threaded UNC 6/32 Serial Remote Interface 9-pin D fem. R5422/RS485 (optional RS232) PT 851-00R12-10S50 RS422/RS485 Alarm / Mute Interface 15-pin D fem. PT 851-00R12-10S50 RS422/RS485 Mer C 16-1 4 pol. P Dimension 483 x 133 x 650 mm (3 RU) 294 x 233 x 649 mm Weight < 36 kg / 79 lbs < 50 dBA measured in 1 m distance ELECTRICAL SPECIFICATION Prime Power 190 to 240 VAC / 50 - 60 Hz, single phase < 65 dBA measured in 1 m distance	Noise Figure			
Noise and Spurious Emissions<-65 dBW / 4 kHz (inband), <-120 dBW / 4 kHz 10.712.2 GHz <-100 dBW / 4 kHz 12.212.5 GHz, <-115 dBW / 4 kHz 18.019.0 GHzPhase NoiseMeets IESS 308/309VSWR1.3:1 Input, 1.2:1 Output (waveguide)MECHANICAL SPECIFICATIONVersion A (indoor)Version B (outdoor)RF ConnectorsInputsInputsSMA (input) / N-Jack (testport)N - Jack (input/testport)OutputsWR 75 Waveguide Output, grooved, threaded M4 or UNC 6/32WR 75 Waveguide Output, grooved, threaded M4 or UNC 6/32Serial Remote Interface9-pin D fem. RS422/RS485 (optional RS232)PT 851-00R12-10S50 RS422/RS485Parallel Remote Interface15-pin D fem.PT 851-00R12-10S50Parallel Remote Interface25-pin D fem.PT 851-00R12-10S50Main Power InletAMP C 16-14 pol. PAMP C 16-14 pol. PDimension483 x 133 x 650 mm (3 RU)294 x 233 x 649 mmWeight< 36 kg / 79 lbs< 36 kg / 79 lbsCoolingforced air min. 200 m³/hforced air min. 200 m³/hNoise Level (cooling fan)< 65 dBA measured in 1 m distanceELECTRICAL SPECIFICATIONPower190 to 240 VAC / 50 - 60 Hz, single phasePower Consumption< 2350 W max.	AM/PM Conversion	$< 2.5^{\circ}$ / dB at 7 dB below rated power, $< 6^{\circ}$ / dB at rated output power		
< -100 dBW / 4 kHz 12.2.12.5 GHz, < -115 dBW / 4 kHz 18.019.0 GHz	Harmonic Output Suppression	•		
VSWR 1.3:1 Input, 1.2:1 Output (waveguide) MECHANICAL SPECIFICATION Version A (indoor) Version B (outdoor) RF Connectors Inputs SMA (input) / N-Jack (testport) N -Jack (input/testport) Outputs WR 75 Waveguide Output, grooved, threaded M4 or UNC 6/32 grooved, threaded UNC 6/32 Serial Remote Interface 9-pin D fem. RS422/RS485 (optional RS232) PT 851-00R12-10S50 RS422/RS485 Alarm / Mute Interface 15-pin D fem. PT 851-00R12-10S50 Parallel Remote Interface 25-pin D fem. PT 851-00R19-10S50 Main Power Inlet AMP C 16-1 4 pol. P AMP C 16-1 4 pol. P Dimension 483 x 133 x 650 mm (3 RU) 294 x 233 x 649 mm Weight <36 kg / 79 lbs <36 kg / 79 lbs Cooling forced air min. 200 m ³ /h forced air min. 200 m ³ /h Noise Level (cooling fan) < 65 dBA measured in 1 m distance < 65 dBA measured in 1 m distance ELECTRICAL SPECIFICATION Prime Power 190 to 240 VAC / 50 - 60 Hz, single phase Power Consumption <2350 W max. <2350 W max.	Noise and Spurious Emissions			
MECHANICAL SPECIFICATION Version A (indoor) Version B (outdoor) RF Connectors Inputs SMA (input) / N-Jack (testport) N - Jack (input/testport) Outputs WR 75 Waveguide Output, grooved, threaded M4 or UNC 6/32 WR 75 Waveguide Output, grooved, threaded UNC 6/32 Serial Remote Interface 9-pin D fem. RS422/RS485 (optional RS232) PT 851-00R12-10S50 RS422/RS485 Alarm / Mute Interface 15-pin D fem. PT 851-00R12-10S50 Parallel Remote Interface 25-pin D fem. PT 851-00R19-10S50 Main Power Inlet AMP C 16-1 4 pol. P AMP C 16-1 4 pol. P Dimension 483 x 133 x 650 mm (3 RU) 294 x 233 x 649 mm Weight < 36 kg / 79 lbs < 36 kg / 79 lbs Cooling forced air min. 200 m³/h forced air min. 200 m³/h Noise Level (cooling fan) < 65 dBA measured in 1 m distance < 65 dBA measured in 1 m distance ELECTRICAL SPECIFICATION Prime Power 190 to 240 VAC / 50 - 60 Hz, single phase < 62 dBA measured in 1 m distance	Phase Noise	Meets IESS 308/309		
Version A (indoor)Version B (outdoor)RF ConnectorsSMA (input) / N-Jack (testport)N -Jack (input/testport)InputsSMA (input) / N-Jack (testport)N -Jack (input/testport)OutputsWR 75 Waveguide Output, grooved, threaded M4 or UNC 6/32WR 75 Waveguide Output, grooved, threaded UNC 6/32Serial Remote Interface9-pin D fem. RS422/RS485 (optional RS232)PT 851-00R12-10S50 RS422/RS485Alarm / Mute Interface15-pin D fem.PT 851-00R12-10S50Parallel Remote Interface25-pin D fem.PT 851-00R19-10S50Main Power InletAMP C 16-1 4 pol. PAMP C 16-1 4 pol. PDimension483 x 133 x 650 mm (3 RU)294 x 233 x 649 mmWeight< 36 kg / 79 lbs< 36 kg / 79 lbsCoolingforced air min. 200 m³/hforced air min. 200 m³/hNoise Level (cooling fan)< 65 dBA measured in 1 m distance< 65 dBA measured in 1 m distanceELECTRICAL SPECIFICATION190 to 240 VAC / 50 - 60 Hz, single phase< 2350 W max.	VSWR	1.3:1 Input, 1.2:1 Output (waveguide)		
RF ConnectorsSMA (input) / N-Jack (testport)N -Jack (input/testport)InputsSMA (input) / N-Jack (testport)N -Jack (input/testport)OutputsWR 75 Waveguide Output, grooved, threaded M4 or UNC 6/32WR 75 Waveguide Output, grooved, threaded UNC 6/32Serial Remote Interface9-pin D fem. RS422/RS485 (optional RS232)PT 851-00R12-10S50 RS422/RS485Alarm / Mute Interface15-pin D fem.PT 851-00R12-10S50Parallel Remote Interface25-pin D fem.PT 851-00R12-10S50Main Power InletAMP C 16-1 4 pol. PAMP C 16-1 4 pol. PDimension483 x 133 x 650 mm (3 RU)294 x 233 x 649 mmWeight< 36 kg / 79 lbs< 36 kg / 79 lbsCoolingforced air min. 200 m³/hforced air min. 200 m³/hNoise Level (cooling fan)< 65 dBA measured in 1 m distance< 65 dBA measured in 1 m distanceELECTRICAL SPECIFICATION190 to 240 VAC / 50 - 60 Hz, single phase< 2350 W max.	MECHANICAL SPECIFICATION			
RF ConnectorsSMA (input) / N-Jack (testport)N -Jack (input/testport)InputsSMA (input) / N-Jack (testport)N -Jack (input/testport)OutputsWR 75 Waveguide Output, grooved, threaded M4 or UNC 6/32WR 75 Waveguide Output, grooved, threaded UNC 6/32Serial Remote Interface9-pin D fem. RS422/RS485 (optional RS232)PT 851-00R12-10S50 RS422/RS485Alarm / Mute Interface15-pin D fem.PT 851-00R12-10S50Parallel Remote Interface25-pin D fem.PT 851-00R12-10S50Main Power InletAMP C 16-1 4 pol. PAMP C 16-1 4 pol. PDimension483 x 133 x 650 mm (3 RU)294 x 233 x 649 mmWeight< 36 kg / 79 lbs< 36 kg / 79 lbsCoolingforced air min. 200 m³/hforced air min. 200 m³/hNoise Level (cooling fan)< 65 dBA measured in 1 m distance< 65 dBA measured in 1 m distanceELECTRICAL SPECIFICATION190 to 240 VAC / 50 - 60 Hz, single phase< 2350 W max.		Version A (indoor)	Version B (outdoor)	
OutputsWR 75 Waveguide Output, grooved, threaded M4 or UNC 6/32WR 75 Waveguide Output, grooved, threaded UNC 6/32Serial Remote Interface9-pin D fem. RS422/RS485 (optional RS232)PT 851-00R12-10S50 RS422/RS485Alarm / Mute Interface15-pin D fem.PT 851-00R12-10S50Parallel Remote Interface25-pin D fem.PT 851-00R12-10S50Main Power InletAMP C 16-1 4 pol. PAMP C 16-1 4 pol. PDimension483 x 133 x 650 mm (3 RU)294 x 233 x 649 mmWeight< 36 kg / 79 lbs	RF Connectors	· · ·		
grooved, threaded M4 or UNC 6/32grooved, threaded UNC 6/32Serial Remote Interface9-pin D fem. RS422/RS485 (optional RS232)PT 851-00R12-10S50 RS422/RS485Alarm / Mute Interface15-pin D fem.PT 851-00R12-10S50Parallel Remote Interface25-pin D fem.PT 851-00R19-10S50Main Power InletAMP C 16-1 4 pol. PAMP C 16-1 4 pol. PDimension483 x 133 x 650 mm (3 RU)294 x 233 x 649 mmWeight< 36 kg / 79 lbs< 36 kg / 79 lbsCoolingforced air min. 200 m³/hforced air min. 200 m³/hNoise Level (cooling fan)< 65 dBA measured in 1 m distance< 65 dBA measured in 1 m distancePrime Power190 to 240 VAC / 50 - 60 Hz, single phase< 2350 W max.	Inputs	SMA (input) / N-Jack (testport)	N -Jack (input/testport)	
Alarm / Mute Interface15-pin D fem.PT 851-00R12-10S50Parallel Remote Interface25-pin D fem.PT 851-00R19-10S50Main Power InletAMP C 16-1 4 pol. PAMP C 16-1 4 pol. PDimension483 x 133 x 650 mm (3 RU)294 x 233 x 649 mmWeight< 36 kg / 79 lbs	Outputs			
Parallel Remote Interface25-pin D fem.PT 851-00R19-10S50Main Power InletAMP C 16-1 4 pol. PAMP C 16-1 4 pol. PDimension483 x 133 x 650 mm (3 RU)294 x 233 x 649 mmWeight< 36 kg / 79 lbs	Serial Remote Interface	9-pin D fem. RS422/RS485 (optional RS232)	PT 851-00R12-10S50 RS422/RS485	
Main Power Inlet AMP C 16-1 4 pol. P AMP C 16-1 4 pol. P Dimension 483 x 133 x 650 mm (3 RU) 294 x 233 x 649 mm Weight < 36 kg / 79 lbs	Alarm / Mute Interface	15-pin D fem.	PT 851-00R12-10S50	
Dimension 483 x 133 x 650 mm (3 RU) 294 x 233 x 649 mm Weight < 36 kg / 79 lbs < 36 kg / 79 lbs Cooling forced air min. 200 m³/h forced air min. 200 m³/h Noise Level (cooling fan) < 65 dBA measured in 1 m distance < 65 dBA measured in 1 m distance ELECTRICAL SPECIFICATION 190 to 240 VAC / 50 - 60 Hz, single phase Prime Power 190 to 240 VAC / 50 - 60 Hz, single phase Power Consumption <2350 W max.	Parallel Remote Interface	25-pin D fem.	PT 851-00R19-10S50	
Weight < 36 kg / 79 lbs < 36 kg / 79 lbs Cooling forced air min. 200 m³/h forced air min. 200 m³/h Noise Level (cooling fan) < 65 dBA measured in 1 m distance < 65 dBA measured in 1 m distance ELECTRICAL SPECIFICATION 190 to 240 VAC / 50 - 60 Hz, single phase Prime Power 190 to 240 VAC / 50 - 60 Hz, single phase Power Consumption < 2350 W max.	Main Power Inlet	AMP C 16-1 4 pol. P	AMP C 16-1 4 pol. P	
Cooling forced air min. 200 m³/h forced air min. 200 m³/h Noise Level (cooling fan) < 65 dBA measured in 1 m distance	Dimension	483 x 133 x 650 mm (3 RU)	294 x 233 x 649 mm	
Noise Level (cooling fan) < 65 dBA measured in 1 m distance < 65 dBA measured in 1 m distance ELECTRICAL SPECIFICATION Prime Power 190 to 240 VAC / 50 - 60 Hz, single phase Power Consumption < 2350 W max.	Weight	< 36 kg / 79 lbs	< 36 kg / 79 lbs	
ELECTRICAL SPECIFICATION Prime Power 190 to 240 VAC / 50 - 60 Hz, single phase Power Consumption < 2350 W max.	Cooling	forced air min. 200 m³/h	forced air min. 200 m ³ /h	
Prime Power 190 to 240 VAC / 50 - 60 Hz, single phase Power Consumption < 2350 W max.	Noise Level (cooling fan)	< 65 dBA measured in 1 m distance	< 65 dBA measured in 1 m distance	
Power Consumption < 2350 W max.	ELECTRICAL SPECIFICATION			
	Prime Power			
CE Directive 73/23/EEC and 92/31/EEC 89/336/EEC 1999/5/EC	•			
	CE Directive	73/23/EEC and 92/31/EEC 89/336/EEC 1999/5/EC		
ENVIRONMENTAL SPECIFICATION				
Operating Temperature Range-10°C to +50°C-40°C to +50°C				
Operating Humidity < 95% non-condensing at 40°C < 95% condensing at 40°C		v	Ŭ	
Shock and Vibration for normal commercial transport for normal commercial transport	Shock and Vibration	for normal commercial transport	for normal commercial transport	

CE

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