



DPA-10-20-H: 0 – 20 MHz Pulse/Frequency/Time Code Distribution Amplifier



Key Features

- 2 inputs: 1/12 or 2/6 input/output
- Input coupling selectable AC or DC coupled
- Free Windows Software
- Ultra-Low Allan Deviation
- Frequency: 0 Hz – 20 MHz (usable to 50 MHz)
- Pulse Frequency: 1PPS to 20 MPPS
- IRIG Time Codes either AM modulated or DC shift
- Ethernet Interface with Embedded Web Page
- Free Windows Control Software

General Description

The DPA-10-20-H is a universal distribution amplifier capable of distributing frequency, squarewave, pulses or time code signals all in one 19" rack mount 1U device. It has two inputs that can be configured as one input with twelve outputs or two inputs each with six outputs.

Full monitoring and control is achieved via an Ethernet interface. An embedded web page can be used to monitor and control the unit from anywhere in the world. Alternatively, free console software is supplied.

Options

Various options are available. If the option you require is not shown, just email us your requirements and we will advise whether it can be designed.

- Option 02: G703 compliant outputs. Outputs levels are -1.2V to +1.2V into a 75 Ω load.
- Option 03: Internal DDS, 0-80 MHz in 1 μ Hz steps. Adjusted by RS232. This option is usually fitted with option 02 to give 2.048 MHz G703 outputs from a 10 MHz input.

Miscellaneous Information

The DPA-10-20-H is a highly reliable unit with an MTBF of over 60 years. The DPA-10-20-H is housed in a fully screened 19" rack mount case and operates from a 100 - 240 VAC supply (usable 90 – 260 VAC) or external 12 V DC. The DPA-10-20-H is CE marked for sale within the EEC.

DPA-10-20-H SPECIFICATIONS

Specification Parameter	Specification	Comments
Frequency Input (Sinewave)		
Frequency Range	0 to 20 MHz	Usable to > 50 MHz
Frequency Response (DC – 20 MHz)	± 1 dB	Typically, ± 0.4 dB
Input Impedance (sinewave)	50 Ω or 600 Ω	Selectable using Ethernet Interface
Maximum Input Level (50 Ω)	+18 dBm	Damage Level +20 dBm
Frequency Output		
Frequency Range	0 to 20 MHz	Usable to > 50 MHz
Gain	Selectable -7 dB to +10 dB	Selectable using Ethernet Interface
Harmonics	-45 dBc	Typically, -50 dBc
Input Impedance (Standard unit)	50 Ω or 600 Ω	Selectable using Ethernet Interface
Phase Noise	-130 dBc @ 1 Hz offset	Typical
Allan Deviation	< 3 x 10 ⁻¹⁴ @ 1 second	< 3 x 10 ⁻¹⁶ @ 1000 sec
Pulse / DC IRIG Time Code Input		
Frequency	1PPS to 20 MPPS	
Level	0-5V p-p	
Duty Cycle	0 to 100%	
Input Impedance	50 Ω or 600 Ω	Selectable using Ethernet Interface
Pulse / DC IRIG Time Code Outputs		
Frequency	1PPS to 20 MPPS	
Duty Cycle	0 to 100%	
Rise / Fall Times	< 7 ns	
Output to Output Match	< 2.5 ns (joined mode 12 outputs) < 0.7 ns (separate mode 6 outputs)	Typically, < 2 ns Typically, < 0.55 ns
Input Impedance	50 Ω or 600 Ω	Selectable using Ethernet Interface
AM IRIG Time Code Input / Outputs		
Frequency	1 PPS to 10 MPPS	
Level	0-5 V p-p	
Modulation Frequency	Up to 1 MHz	
Code	Format: Any IRIG format, IEEE 1344, NASA 36, 2137, XR3	
Input Impedance	50 Ω or 600 Ω	Selectable using Ethernet Interface
General		
Power: AC / DC	100 - 240 VAC	30 Watts max / 1.0Amps with opt 03
Size and weight	483 x 300 x 44 mm and 4.6 kg	Width x Depth x Height
Ambient Operating Temperature	-10°C to +60 °C	

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Specifications subject to change without notice (141216)