



Precision Test Systems



DPA-200-16: 200 MHz Pulse / Squarewave Distribution Amplifier



Key Features

- 1 input, AC or DC Coupled
- 16 outputs
- Output Rise Times < 1.0 ns
- Input, Pulse, Squarewave or Sinewave
- Frequency: 0 Hz – 100 MHz (usable to 200 MHz)
- Pulse Frequency: 1PPS to 100 MPPS
- Output to output skew < 100 ps
- Individual LEDS for each output
- Front Panel LEDS

General Description

The DPA-200-16 is a 16 channel squarewave distribution amplifier. Housed in a 19” rack mount 1U case. It has one input that can be AC or DC coupled. The input can be either a sinewave, pulse or squarewave. The output is identical to the input for pulse or squarewaves, or a squarewave for a sinewave input. Thus, sinewave inputs are converted to squarewave outputs.

Waveform Parameters

The output-to-output skew is < 100 ps (typically < 75 ps) between any two outputs with rise and fall times < 1 ns.

Miscellaneous Information

The DPA-200-16 is housed in a fully screened 19” rack mount case and operates from a 100 - 240 VAC supply (usable 90 – 260 VAC) or external 10-28 V DC with automatic switchover. The DPA-200-16 is CE marked for sale within the EEC.

Applications

The DPA-200-16 is ideal for distributing 1 pps signals from a GPS/GNSS frequency standard. With the very low output skew (<100 ps), many DPA-200-16 could be linked together and still give very consistent timing signals.

Another application is the conversion of a 10 MHz sinewave to a 10 MHz squarewave. Of course, any frequency from 0 to over 100 MHz can be converted in a similar manner.

DPA-200-16 SPECIFICATIONS

Specification Parameter	Specification	Comments
Frequency Input (Sinewave or Squarewave)		
Frequency Range	0 to > 100 MHz	Usable to > 200 MHz
Input Coupling	DC or AC	Rear Panel Switch
Input Impedance	Adjustable from 50 Ω to > 1 k Ω	Rear panel pot
Input Level: Sinewave AC coupling	-0 dBm to +20 dBm	Output converted to a square wave
Input Level: Squarewave, DC Coupling	0 - 400 mV to 0 to 5V	Adjustable trigger level
Maximum Input Level (50 Ω)	+5VDC or +18 dBm sinewave	Damage Level +20 dBm
Type of Input	Pulse, Squarewave or Sinewave	Sinewaves are converted to squarewaves
Squarewave Output		
Frequency	Same as input. Range 0 > 100 MHz	Usable to 200 MHz
Output Level	0V to > 3.6V	
Duty Cycle	50 %	Can be adjusted with rear panel pots
Output Rise and Fall Times	< 1.0 ns, into a 50-ohm load	Poor input rise times are improved to < 1 ns output risetime
Propagation Delay (Input to any output)	8 ns to 35 ns	Factory set to 10 ns with a 0-2.8V input
Output to Output Skew	< 100 ps Max (< 75 ps typical)	< 30 ps between adjacent sets of 4
Output to output isolation	> 50 dB > 100 dB	Adjacent Pairs Any non-adjacent pair
General		
Connectors	SMA Socket (female)	
Power: AC	100 - 240 VAC	30 Watts max / 1.0Amps with opt 03
Power DC:	10-28 VDC \pm 5% @ 0.5A max	
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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Full specifications available from www.ptsyst.com. Specifications and features subject to change without notice (101023)