

160MHz DIGITAL PHASE DETECTOR



Accurate Phase & Amplitude Measurement

8 bit Digital Output

75ns Pulse Capture

The Pascall Digital Phase Detector (DPD) performs high speed measurement of the absolute phase difference between the two input signals and presents the result as an 8-bit word for further digital processing.

The DPD comprises logarithmic detectors, constant transmission phase limiting amplifiers, a precision in-phase & quadrature detector and high speed analogue to digital conversion circuits.

Capable of capturing pulse widths down to 75ns and providing accurate amplitude measurements of both input signals over a dynamic range of -60 to 0dBm this unit is a highly integrated, multi-functional component.

Contained within a compact lightweight aluminium alloy housing, the DPD is robustly constructed and designed to withstand harsh mechanical environments.

Applications include interferometry systems, direction finding and instantaneous frequency measurements as well as test systems.

DIGITAL PHASE DETECTOR

Centre Frequency	160 MHz
Bandwidth	10 MHz
Input Impedance	50 Ohms
Pulse Width	75ns minimum
Input Level (SIG & REF)	-60 dBm min. 0dBm max.
Log-SIG & REF output at 0dBm input	1.0 volt typ. into 50 ohms
Log Slope	10mV / dB typical (50 ohms)
Log Linearity	± 1 dB typ.
I & Q outputs	0.2 volt min. 2.4 volts max.
Digital Resolution	8-bits (1.4° / count)
Digital Phase Range	0 to 255
Digital Phase Error	± 3 counts
Power Supplies	+15 volts at 75mA max +5 volts at 300mA max. -5 volts at 100mA max.
Temperature Range - Operating	-40 to +85°C
Storage	-55 to +100°C
Connectors - RF	SMA
Power in and Outputs	26 way high density "D" connector
Weight	193g
Size	

