

PDU-240 - PRECISION DIGITAL PULSE DISTRIBUTION



24 Output, 2 channel 1PPM - 10MPPS

Digital Pulse Distribution Unit



AS9100D Certificate Number : C0210021-AS3



PDU-240 - PRECISION DIGITAL PULSE DISTRIBUTION

Product Overview



The PDU-240 Pulse Distribution Unit is a high quality, precision digital pulse distribution amplifier platform offered with a number of functional variants. Applications for the PDU-240 include reliable digital time reference signal distribution for installations utilising 1PPS, IRIG DCLS or HaveQuick, such as satellite ground stations, secure military communications and test ranges.

The PDU-240 base unit model has twenty-four digital outputs available at the rear panel via BNC connectors in response to one (Ref A :- 24 Out) or optionally two (Ref A & Ref B :- 2 x 12 Out) signal source reference inputs feeding the transfer switch. When used in the 2 x 12 output dual input reference mode, the PDU-240 automatically detects a failure of an input reference, thereby facilitating either automatic or manual switchover to the other reference input.

A three-position front panel switch facilitates the manual selection of either reference A or reference B or an automatic selection mode. When the automatic AUTO mode is selected the AUTO indicator will be illuminated and Input A will be used by default if it is viable. Should Input A fail then Input B will be chosen automatically. Front panel indicators show the status of the inputs and which input has been selected along with a power status indication.

Each of the twenty-four outputs is continually monitored and should an output fail for any reason, then a group alarm Fault indicator will illuminate and trigger a rear panel discrete Fault alarm signal that may be used by external equipment to modify the reference and output signal routing and selection.

The PDU-240 is available in a number of pre-configured model variants to suit signal amplitude and splitting requirements.

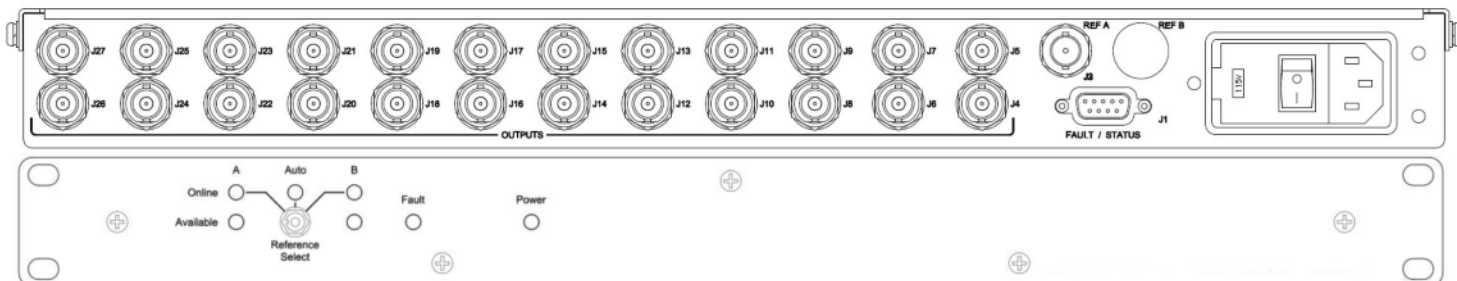
Key Feature Summary

Options & Features

- 24 fault protected, short rise time outputs - 10ns @ 3.3V.. 20ns @ 10V
- One or two digital reference signal inputs A or A & B in the range 1PPM to 10MPPS
- Output amplitude configurations : 3.3V, 5V and 10V user defined
- Automatic reference changeover with reference select input option
- Fault discrete inputs for external reference selection
- Compact 1U, 19" rack mount with front panel status indication
- Link selectable Input & Output Impedances - 50 Ohm or 1KOhm

Signals

- 24 discrete, fault tolerant and fully monitored digital outputs on BNC connectors
- Two independent reference signal inputs, A,B or both
- Fault status indication and fault driven reference changeover



PDU-240 - PRECISION DIGITAL PULSE DISTRIBUTION

Specifications

Specifications - PDU-240	
Reference Frequency Inputs	Details
Connectors	2 x Rear panel BNC
Amplitude	2.5V (Min) to 10V(Max)
Input Impedance	50 Ohms / 1000 Ohms Link Selectable
Digital Frequency	1 Pulse Per Minute through to 10M Pulses Per Second (1PPM - 10MPPS)
Fault Discrete Input	
Number of inputs	2
Connector	9 Way D Type Socket
Level	TTL
Active Level	Link selectable, high or low to force reference changeover
Digital Outputs	
Number of outputs / channels	24 Outputs from 1 reference channel or 2 x 12 Outputs from 2 reference channels
Connectors	BNC
Digital Frequency	Same as reference input
Level	Outputs may be pre-configured for 3.3V, 5V or 10V, determined by model type.
Rise Time (10-90%)	10ns @ 3.3V : 15ns @ 5V output : 20ns @ 10V output
Environmental	
Temperature	Instrument : -10°C + 50°C / Antenna -40°C to + 85°C
Humidity	95 % non condensing
Power	85VAC - 265VAC 50/60Hz
Power Options	18-36 VDC, 36-72 VDC, - 48VDC
Physical	19" Rack 1U 1.75" (H) x 7.5" (D) x 17" (W) [4.4 cm(H) x 19 cm (D) x 43.2 cm (W)] Weight : 3.5 lb (1.6 Kg)
Compliance	CE Approved - EMC Emissions to EN55022 as EN55024 - FCC Part 15B, Class A EMC Immunity to EN50082-1 as EN61000-4-2 ESD, IEC801-3 HF Field & IEC 801-4
Model Option Part Numbers	Unit Configuration
18000501	2 switched input 24 output 10V level
18000502	2 switched input 24 output 5V level
18000503	2 switched input 24 output 3.3V level
18000504	2 independent inputs / 2 x 12 outputs : Group 1 @ 10V Group 2 @ 10V
18000505	2 independent inputs / 2 x 12 outputs : Group 1 @ 10V Group 2 @ 5V
18000506	2 independent inputs / 2 x 12 outputs : Group 1 @ 10V Group 2 @ 3.3V
18000507	2 independent inputs / 2 x 12 outputs : Group 1 @ 5V Group 2 @ 5V
18000508	2 independent inputs / 2 x 12 outputs : Group 1 @ 5V Group 2 @ 3.3V
18000509	2 independent inputs / 2 x 12 outputs : Group 1 @ 3.3V Group 2 @ 3.3V
18001000	85 - 265 VAC 50/60 Hz Universal Power Supply
18001001	36 - 72 VDC Isolated Power Supply
18001002	18 - 36 VDC Isolated Power Supply
18001003	9 - 18 VDC Isolated Power Supply