## IDX 100 Processor PDP-DSP



## OVERVIEW:

The PDP-DSP Public Address Processor offers 8 analog inputs and 8 analog outputs, a pre-configured signal path, CobraNet audio and a high bandwidth, fault tolerant digital audio bus.

This processor features CobraNet audio with primary and secondary ports for fault tolerance. Control is through a separate Ethernet port which allows CobraNet and control networks to be easily separated or mixed depending upon requirements.

The PDP-DSP features a low latency, fault tolerant digital audio bus of 256 channels which uses standard Category 5e cabling allowing a distance of 100 m between PDP-DSP Public Address Processor and PDP-BOB Output Expander devices.

Phantom Power, Sync, Signal Present and Clip information per channel is easily accessible, without the requirement for a PC, from clear front panel LED indication. A bi-directional locate function allows devices to be identified both from and within IDX 100 Designer.

12 Control Inputs and 6 Logic Outputs allow the PDP-DSP to be integrated with GPIO compatible devices.
A maximum of 2 PDP-DSP Public Address Processors can be used in an IDX 100 system to provide up to 96 output zones, where each PDP-DSP device provides processing for up to 48 output zones.

## KEY FEATURES:

- 8 Analog Inputs (with Phantom Power per Channel)
- 8 Analog Outputs
- Pre-Configured Signal Path
- 256 Channel, Low Latency, Fault Tolerant Digital Audio Bus
- Clear Front Panel LED Indication
- Bi-Directional Locate Functionality
- 12 Control Inputs and 6 Logic Outputs for GPIO Integration
- In IDX 100 System Up to 96 Output Zones Using 2 PDP-DSP Devices


## PDP-DSP IDX 100 Processor

TECHNICAL SPECIFICATIONS:

## Front Panel Led Indicators:

| Per Input: | Signal Present, CLIP, SYNC/48V, I/O card type (IN, OUT) |
| :---: | :---: |
| Other: | LCD Display, Conductor active, Network Link active, Data Activity |
| Analog Inputs: | 8 electronically balanced on Phoenix Combicon removable screw connectors |
| Mic/Line Inputs: | Nominal gain 0dB, electronically switchable up to +48 dB , in +6 dB steps |
| Input Impedance: | $3.5 \mathrm{k} \Omega$ |
| Maximum Input Level: | +20 dBu with 0 dB input gain, +8 dBu with 12 dB gain |
| CMRR: | $>75 \mathrm{~dB}$ at 1 KHz |
| Input Noise (E.I.N.): | <-128dBu typical with $150 \Omega$ source |
| Phantom Power: | 48 V nominal, selectable per input |
| A/D Latency: | 38.7/Fs |
| Analog Outputs: | 8 electronically balanced on Phoenix/Combicon removable screw connectors |
| Maximum Output Level: +19 dBu |  |
| Frequency Response: | $20 \mathrm{~Hz}-20 \mathrm{KHz}(+0.5 \mathrm{~dB} /-1 \mathrm{~dB})$ |
| THD: | $<0.01 \% 20 \mathrm{~Hz}$ to $20 \mathrm{KHz},+10 \mathrm{dBu}$ output |
| Dynamic Range: | 108 dB typical, $22 \mathrm{~Hz}-22 \mathrm{KHz}$ unweighted |
| Crosstalk: | $<-75 \mathrm{~dB}$ |
| D/A Latency: | 28/Fs |
| Control Ports: | 12 inputs and 6 outputs |
| Control Input Voltage: | 0 to 4.5 v |
| Control Input Impedance: $4.7 \mathrm{k} \Omega$ to +5 V ( 2 -wire mode), $>1 \mathrm{M} \Omega$ (3-wire mode) |  |
| Logic Output Voltage: 0 or +5 V unloaded |  |
| Logic Output Impedance: $440 \Omega \mathrm{~s}$ |  |
| Logic Output Current: | 10 mA source, 60 mA sink |
| Watchdog Output: | Phoenix/Combicon connector for failsafe control |
| Opto Output Current: | 14 mA maximum |
| Withstanding Voltage: | 80 V maximum (Off) |
| Series Impedance: | $220 \Omega$ (isolated) |
| Control Network: |  |
| Connectors: | RJ45 Ethernet connector |
| Maximum Cable Length: 100m/300ft on Category 5 cable between device and Ethernet switch |  |
| Digital Audio Bus: |  |
| Connectors: | $2 \times \mathrm{RJ} 45$ Ethernet connectors |
| Maximum Cable Length: $100 \mathrm{~m} / 300 \mathrm{ft}$ on Category 5e cable between devices |  |
| Maximum Number of Nodes: 60 |  |
| Latency Per Node: | 4(+/-1)Fs |
| CobraNet ${ }^{\text {TM }}$ Audio Network: |  |
| Connectors: | $2 \times$ RJ45 connectors |
| Maximum Cable Length: $100 \mathrm{~m} / 300 \mathrm{ft}$ on Category 5 cable between device and Ethernet switch |  |
| Power and Dimensions: |  |
| Mains Voltage: | 100-240V AC, 50/60Hz |
| Power Consumption: | <35VA |
| BTU Rating: | <188 BTU/hr |
| Operating Temperature Range: 5 (41) to 35 (95) degrees C (degrees F) |  |
| Dimensions (H(U) x W x D): $1.75^{\prime \prime}(1 \mathrm{U}) \times 19^{\prime \prime} \times 12.5^{\prime \prime}(45 \mathrm{~mm} \times 483 \mathrm{~mm} \times 318 \mathrm{~mm})$ |  |
| Weight: | $9 \mathrm{lbs} / 4.1 \mathrm{kgs}$ (estimated) |

