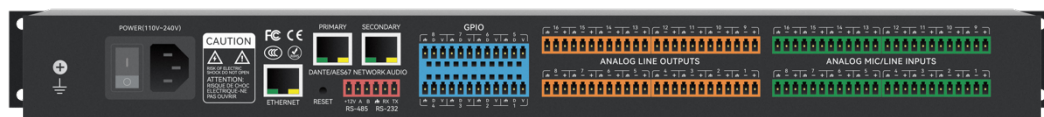


# iSound 1616D

16x16 Digital Sound Processor w/ Dante

*Datasheet V1.0*





## Introduction:

INFOBIT's DTX-1616D is a Dante enabled, digital audio DSP with Analog I/O. This fully networked professional audio product is ideal complement to INFOBIT's iSwitch Video over IP solutions for House of Worship, Bars and Restaurants, Conferencing, and Education markets. The iSound ecosystem of products are purpose built to deliver pristine audio throughout the network while significantly reducing traditional device count and cabling costs.

The iSound products use the industry-leading ADI 450Mhz SHARC 21489 chip and provides outstanding 24bit/48kHz audio quality. The series has the best 5A DSP algorithms in the industry including:

- AFC (Adaptive Feedback Control)
- AEC (Acoustic Echo Cancellation)
- ANS (Automatic Noise Suppression)
- ANC (Ambient Noise Compensation)
- AGC (Automatic Gain Control)
- Gain Sharing AutoMix

The iSound 1616D is power packed DSP which features 16x16 Dante along with 16x16 Analog I/O. It is perfect for medium to large applications where more analog I/O is needed.

- Applications include:
- Higher Education
- Bar or restaurant
- Large or complex conference rooms

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## Features

- ADI SHARC 21489 processor
- 16 balanced microphone or line level inputs on Terminal Block connectors



- 16 balanced line level outputs on Terminal Block connectors
- 2 Dante audio interfaces on RJ-45 connectors
- 8 GPI/O multi-function ports on Terminal Block connectors
- Dante audio channels up to 16×16
- Defnable GUI for managing and configuring multiple units
- All Inputs and Outputs support a full suite of audio shaping tools including graphic and parametric EQ, dynamics, ducker, delay and more
- 16 preset slots to store all configuration data for easy recall
- Built-in USB sound card for recording and playing digital audio
- DSP Configurator software tool for managing all audio operations
- Supports adaptive echo cancellation (AEC), adaptive feedback control (AFC), automatic gain control (AGC), automatic mixture control (AMC), automatic noise suppression (ANS)

## Spec

|                                     |   |
|-------------------------------------|---|
| <b>Model</b>                        | iSound 1616D                                  |
| <b>Name</b>                         | 16x16 Digital Sound Processor w/ Dante        |
| <b>Audio</b>                        |   |
| <b>ADSP</b>                         | ADI SHARC 21489 (×2)                          |
| <b>Audio Format</b>                 | 24 bits, 48 kHz sampling rates (uncompressed) |
| <b>System Latency</b>               | < 6 ms  |
| <b>Analog I/O Channels</b>          | 16×16   |
| <b>Dante I/O Channels</b>           | 16×16   |
| <b>Analog Input Gain</b>            | 0, 10, 20, 30, 40, 43 dB                      |
| <b>Analog Input Level</b>           | +24 dBu                                       |
| <b>Analog Output Level</b>          | +24 dBu                                       |
| <b>Frequency Response</b>           | ±0.2 dB (20 Hz to 20 kHz)                     |
| <b>THD+N</b>                        | < 0.003% (1 kHz, +4 dBu)                      |
| <b>Common Mode Rejection Ration</b> | 80 dB (60 Hz)                                 |
| <b>SNR</b>                          | 110 dB  |
| <b>Analog Dynamic Range</b>         | 113 dB  |
| <b>Dante Dynamic Range</b>          | 115 dB  |
| <b>Analog Background Noise</b>      | -89 dBu (A-weighted)                          |
| <b>Dante Background Noise</b>       | -91 dBu (A-weighted)                          |
| <b>Channel Isolation</b>            | 108 dB (1 kHz)                                |



|  |   |
|--|---|
| <b>Input Impedance</b>                         | 9 4k ohms (Balanced)                                |
| <b>Output Impedance</b>                        | 102 ohms (Balanced)                                 |
| <b>Phantom Power</b>                           | 48 V  |
| <b>Interface</b>                               |   |
| <b>Input Port</b>                              | 16 Analog Audio (Terminal Block)                    |
| <b>Output Port</b>                             | 16 Analog Audio (Terminal Block)                    |
| <b>Ethernet Port</b>                           | 2 Dante Audio (RJ-45) 1 LAN (RJ-45)                 |
| <b>USB Port</b>                                | 1 USB Audio (Type-A)                                |
| <b>Serial Port</b>                             | 1 RS-232 (Terminal Block) 1 RS-485 (Terminal Block) |
| <b>GPI/O Port</b>                              | 8 GPI/O (Terminal Block)                            |
| <b>Power</b>                                   |   |
| <b>AC Power</b>                                | 110 to 240 VAC at 50 or 60 Hz                       |
| <b>AC Adapter</b>                              | N/A   |
| <b>Power Consumption</b>                       | 35 W  |
| <b>Enclosure</b>                               |   |
| <b>Chassis Material</b>                        | Metal   |
| <b>Chassis Color</b>                           | Black   |
| <b>Chassis Dimensions (Height×Width×Depth)</b> | 45×482×260 mm                                       |
| <b>Chassis Weight</b>                          | 3 kg  |
| <b>Environment</b>                             |   |
| <b>Operating Temperature</b>                   | +32 to +104 °F (0 to +40 °C)                        |
| <b>Humidity</b>                                | 10% to 90% RH (non-condensing)                      |
| <b>Compliance</b>                              |   |
| <b>Regulatory Compliance</b>                   | FCC, CCC, CE, RoHS                                  |