Technical Specifications

**General**
- Size: 144 mm x 102 mm x 42 mm – regular 1U, 1/3 of 19" rack
- Main Power Supply: PoE (12Vdc ±10%) / 12Vac via 4.4mm lockable DC Jack Plug
- Auxiliary Power Supply: +12Vdc ±10% / 1A max via 6.4mm lockable DC Jack Plug
- Storage: Temp / Humidity: -5°C to 70°C / 0% to 95% (non-condensing)
- Operating: Temp / Humidity: 0°C to 40°C / 5% to 95% (non-condensing)
- Connectors for version "AS-" and "AE-".

**Connectors for version "AB-" and "AD-"**
- 2x RJ45 Gigabit connectors "Aux" and "Main" with PoE capability on "Main" connector
- 1x SFP 25G connector for analog inputs and outputs with proprietary pin-out (AD- version only)
- 2x XLR Female + 2x XLR Male connectors for analog inputs and outputs on front face (AD- version only)

**Audio Inputs/Outputs**
- Number of Inputs: 2x to 4x analog mic/line or AES/EBU inputs and 4x digital inputs from Dante network
- Number of Outputs: 2x to 4x analog or AES/EBU outputs and 4x digital outputs to Dante network

**MIC / Line Audio Inputs Technical Specifications (All measures at fs=48kHz & 22kHz BW)**
- Sampling Frequency: 44.1 kHz / 48 kHz
- A/D resolution: 24 bits
- Input specification: Balanced MIC/Line inputs on Euroblock or SUBD connectors
- Input maximum level: +12 dBu
- Analog Gain Range: 0 to +60 dB (120 values, 3dB step)
- Input sensitivity: +12 dBu to -48 dBu
- Input Impedance: 3.5 kΩ (balanced)
- E.L.N. (gRs=150Ω) G=+60dB: -123 dBu
- Dynamic Range: > 97 dB A-weighted
- THD+N @1KHz, +6dBu, G=0dB: < 82 dB (0.0079%) -48 dBu
- Frequency response: 20Hz – 20kHz (+0 / -1 dB)
- Phantom Power: +48V (individually controllable for each channel)

**Line Audio Outputs Technical Specifications (All measures at fs=48kHz & 22kHz BW)**
- Sampling Frequency: 44.1 kHz / 48 kHz
- A/D resolution: 24 bits
- Output specification: Balanced analog outputs on Euroblock or SUBD connectors
- Output level at 0dBfs: +12dBu
- Frequency response: 20Hz – 20kHz (+0 / -1 dB)
- Dynamic Range: >100dB A-weighted
- THD+N @1KHz, -6dBFS, G=0dB: < -88 dB (0.004%) -48 dBu

**Remote Control Environment**
- OS Supported: Web 2.0 interface compatible HTML5, iOS, Android, Mac OS, Windows, Linux, …

**References / Part number**
- AVDT-BOB-AE4io: 2xRJ45 (4xPOE) and 2x Mic/Line Inputs + 2x Line Outputs on Euroblock
- AVDT-BOB-AE6io: 2xRJ45 (4xPOE) and 4x Mic/Line Inputs + 4x Line Outputs on Euroblock
- AVDT-BOB-ADE6io: 2xRJ45 (4xPOE) and 2x Mic/Line Inputs + 2x Line Outputs + 4x GPIO on Euroblock
- AVDT-BOB-AS8io: 1x Neutrik EtherCon (PoE) + 2x SFP cages and 4x Mic/Line Inputs + 4x Line Outputs on DBsub
- AVDT-BOB-AD8io: 1x Neutrik EtherCon (PoE) + 2x SFP cages and 1x stereo AES3 Input + 1x stereo AES3 Output + 4xGPIO on DBsub on rear side and 2x Mic/Line Inputs + 2x Line Outputs on XLR3 on front side

**Information, contact and support**
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**Compact... Smart... Multipurpose!**

**AVDT-BOB-AE4io**
**AVDT-BOB-AE6io**
**AVDT-BOB-AS8io**
**AVDT-BOB-AD8io (Front)**
**AVDT-BOB-AD8io (Rear)**

AVDT BOB by AuviTran
Smart Compact Dante™ BreakOut Box
MicLine/AES inputs and analog/AES outputs with Remote Digital Mixing

High pass filter and equalizations
Limiter Compressor Noise gate
Scene Load/Save

Embedded Mixing and Processing remotely controlled by any device: PC, Mac, Tablet or Smartphone
Mic/line and Dante input Control
Mixing processing
Analog and Dante Outputs Settings

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AVDT-BOB Overview

The AVDT-BOB is a compact multipurpose Dante™ break out box. The AVDT-BOB has, depending on the version, 2 or 4 mic / line and 2 or 4 analog outputs and 4 input channels and 4 output channels over Dante.

Embedded Ultimo Dante processor allows to receive from / send to up to 4 channels on a Dante Network. Its network connectivity allows to remotely control, monitor any Dante parameters and to be compatible with any Dante software and tools.

State-of-the-art analog microphone preamplifiers gives to the AVDT-BOB a very high audio dynamic and quality at a very contained price. These preamplifiers are coupled to high quality analog ladder-step gain controllers that allows to achieve a 60dB gain range, 3dB step, with an Equivalent Input Noise (EIN) as low as less than 125mV.

The AVDT-BOB has a DSP to process and mix audio signals at the source and at the output. A powerful embedded Digital Signal Processor gives to the user the power of high pass filters, parametric equalizations, dynamic compressions and fine-pitch digital gain adjustments. It also contains a digital mixing matrix that allows to mix analog and Dante channels and route them to any output.

The AVDT-BOB features a dual core ARM processor associated with a large amount of flash memory for a universal and multiprocessor remote control over IP (iOS, Android, Windows, Mac OS, Linux). This RISC processor ARM Cortex M4 M0 runs in the AVDT-BOB a Web 2.0 server for a remote control and monitoring efficient, customizable and user-friendly. The interface uses open standards HTML5 and JavaScript for Multi-OS compatibility. This universal interface drives micline preamps, digital processing (DSP) and storages / reload parameters and to be compatible with any Dante software and tools.

BOB Overview

The AVDT-BOB integrates an internal 5 ports Gigabit switch to ease the cabling, to increase the throughputs and to reduce the latencies. This gigabit switch links the external Gigabit ports (i.e. 2x RJ45 or 2x SFP modules and an EtherCon depending of part number) with the Dante Ultimo chip and the embedded double core ARM Cortex M4 M0 microcontroller. This switch guarantees a very low latency between the Dante chip and other Dante devices and allows to Daisy Chain the AVDT-BOB together with other Dante devices without necessarily requesting any external switch devices.

Power Over Ethernet

The AVDT-BOB embeds an internal PoE module for power and communication with a single Ethernet cable. This PoE module provides up to 12W power through the port Gigabit "Main" of AVDT-BOB suppressing the need of feeding locally external power supply and allows a single Ethernet cable for communication and power supply. The AVDT-BOB additionally incorporates a redundant power management and features a lockable 6.4mm Jack connector for a standard 12V DC external power supply.

Native extension connectors on the AVDT-BOB Mother Board allows to add various functionalities thanks to a panel of Daughter Boards. Extension boards are available to extend the AVDT-BOB capabilities. Existing extension cards are: 2x analog cards with 2x MicLine and 2x digital cards on AES/EBU inputs and any S/PDIF connectors and 2x digital cards with AES/EBU and GPIOs. The hardware is ready for quick design of new interfaces or for specific requests.

The AVDT-BOB DSP is divided in 3 main processing blocks interconnected:
- The Input processing block
- The Mixing processing block
- The Output Processing block

AVDT-BOB Digital Signal Processing Overview

The AVDT-BOB manages 2 kinds of inputs and 2 kinds of outputs:
- 2 to 4 inputs “Mic/Line” or “Digital” are coming from the Mic/Line In or AES/EBU connectors
- 4 Dante network inputs are available through the Gigabit Ethernet Main or Aux ports.
- 2 to 4 outputs “Analog” or “Digital” are sent to the Line Out or AES/EBU connectors.
- 4 Dante network outputs are sent through the Gigabit Ethernet Main or Aux ports.

The Input Processing block manages up to 4 Mic/Line or digital inputs and 4 Dante inputs. It delivers 4 Direct Out (just after preamp gain or phase inverter process) and 4 processed inputs that are sent to the Mixing Processing and to the Output Processing:
4x Equalizations plus Limiter Compressor plus Noise gate processing can be assigned to 4 inputs (i.e. Mic/Line or Dante inputs).
8x faders allow to manage the Mic/Line preamp gains or digital Dante input gains.
Each input can be enabled or muted and inverted.
48V Phantom power can be set individually to any Mic/Line input.

The Mixing Processing block manages 4 independent Master mixers that are sent to the Output Processing Block.
Each Master mixer can mix up to 8 inputs (i.e. the Mic/Line or Digital and the Dante processed inputs) via individual faders controlling the input mixing gains.
Each input of a Master mixer can be enabled or muted.
Each mixer has an Master fader controlling the Master mixer output level.

The Output Processing block manages up to 4 analog or digital outputs and the 4 Dante outputs.
The source of any output can be selected between one of the 4 DirectOut or the 4 processed inputs (Mic/Line, AES/EBU or Dante) or the 4 Master mixers.
4x Equalizations plus Limiter Compressor plus Noise gate processing are available on the 4 analog outputs.
8x faders allow to manage the output gains.
Each output can be enabled or muted.