

Compact... Smart... Multipurpose !



2 or 4 mic/line inputs and 2 or 4 analog outputs over Dante™



AVDT-BOB by AuviTran

Smart Compact Dante™ BreakOut Box



Mic/line inputs and analog outputs with Remote-Controlled Digital Mixing

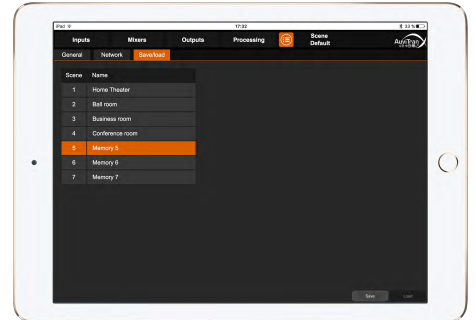
High pass filter and equalizations



Limiter Compressor Noise gate

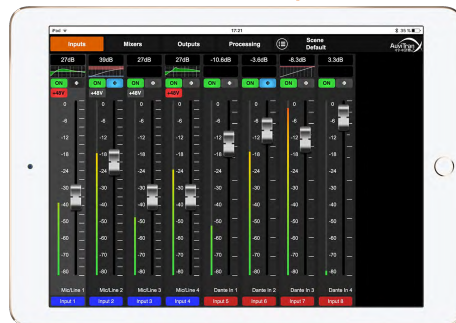


Scene Load/Save

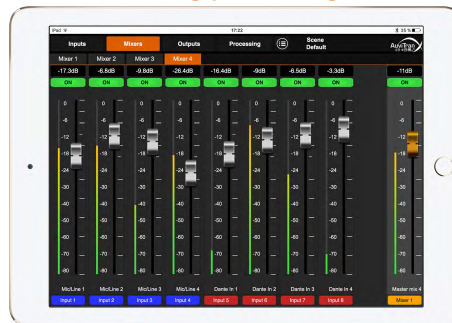


Embedded Mixing and Processing remotely controlled by any device: PC, Mac, Tablet or Smartphone 

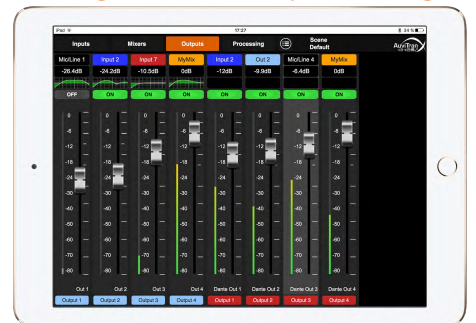
Mic/line and Dante input Control



Mixing processing



Analog and Dante Outputs Settings



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 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 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 -125dBu.

The AVDT-BOB has a DSP to process and mixed audio signal 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 multiplatform 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 driver's mic / line preamps, digital processing (DSP) and storages / reload of scenes.

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 guaranties a very low latency between the Dante chip and other Dante devices and allows to Daisy Chained the AVDT-BOB together with other Dante devices without necessarily requesting any external switch devices.



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 suppresses 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.

The First extension boards available are additional analog cards with 2x Mic/Line and 2x analog out on EuroBlock or on SubD connectors.

The hardware is ready for new interfaces such as digital audio AES/EBU and GPIOs.



The AVDT-BOB box is made of a very lightweight, robust and smart extruded aluminum.

This box was thought to bring to the user many mounting options, thanks to side rails that allows to attach any type of fixations.

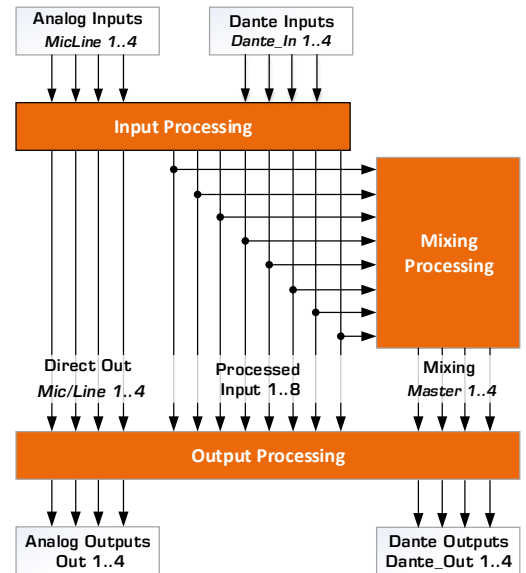
The AVDT-BOB is delivered with side ears that can be mounted in any positions.

An optional mounting kit allow to interconnect up to 3x AVDT-BOB devices and so to build a Dante unit with 12x Mic/Line inputs and 12 analog outputs in the only space of a 1U 19" rack.

AVDT-BOB Digital Signal Processing Overview

The AVDT-BOB manages 2 kinds of inputs and 2 kinds of outputs:

- 2 to 4 analog Mic/Line inputs named "Mic/Line1", "Mic/Line2"... are coming from the Mic/Line In connectors
- 4 Dante inputs named "Dante In1" up to "Dante In4" are coming from Dante network via the Gigabit Ethernet Main or Aux ports.
- 2 to 4 analog Line outputs named as "Out1", "Out2"... are connected to Line Out connectors.
- 4 Dante outputs named "Dante Out1" up to "Dante Out4" are sending to Dante network via the Gigabit Ethernet Main or Aux ports.



The AVDT-BOB DSP is divided in 3 main processing blocks interconnected:

- The Input processing block
- The Mixing processing block
- The Output Processing block



The Input Processing block manages up to 4 analog Mic/Line inputs and the 4 Dante inputs. It delivers 4 Mic/Line Direct Out (just after preamp gain and phase inverter process) and 8 processed inputs that are sent to Mixing Processing and to 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 gain and digital Dante input gain.

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 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 outputs and the 4 Dante outputs.

The source of any output can be selected between one of the 4 Mic/Line DirectOut or the 4 processed inputs (Mic/line and 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.



Technical Specifications

General	
Size	144 mm x 100 mm x 42 mm – regular 1U, 1/3 of 19" rack
Main Power Supply	PoE (12W) via "Main" Port
Auxiliary Power Supply	+12Vdc 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 50°C / 5% to 90% (non-condensing)
Connectors for version "-AE-"	4x 3pts Euroblock connectors (3.81mm pitch) for analog inputs and outputs 2x RJ45 Gigabit connectors "Aux" and "Main" with PoE capability on "Main" connector
Connectors for version "-AS-"	1x SUBD 25 point connector for analog inputs and outputs for external XLR cables 1x Neutrik EtherCon connector "Main" with PoE capability 2x SFP cages to plug up to 2x Gigabit Media convertors Optical Fibber or RJ45
Audio Inputs/Outputs	
Number of Inputs	2x to 4x analog mic or line inputs and 4x digital inputs from Dante network
Number of Outputs	2x to 4x analog outputs and 4x digital outputs to Dante network
MIC / Line Audio Inputs Technical Specifications	
Sampling Frequency	44.1 kHz / 48 kHz / 88.2 kHz / 96 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 (20 values, 3dB step)
Input sensibility	+12 dBu to -48 dBu
Input Impedance	3.5 kΩ (balanced)
E.I.N. @ (Rs=150Ω G=+60dB)	-124 dBu (fs=48KHz & BW 22KHz)
Dynamic Range	> 104 dB A-weighted (fs=48KHz & BW 22KHz)
THD+N (1KHz/G=0dB or G=+50dB)	< -95 dB (fs=48KHz & BW 22KHz)
Frequency response	20Hz – 20kHz (+0 / -0,5 dB)
Phantom Power	+48 V (individually controllable for each channel)
Line Audio Outputs Technical Specifications	
Sampling Frequency	44.1 kHz / 48 kHz / 88.2 kHz / 96 kHz
A/D resolution	24 bits
Frequency response	20Hz – 20kHz (+0 / -0,5 dB)
Dynamic Range	>104 dB A-weighted
THD+N (1KHz / BW 22KHz)	< -90 dB
Output specification	Balanced analog outputs on Euroblock or SUBD connectors with <100Ω impedance
Output level at 0dBfs	+12dBu
Remote Control Environment	
OS Supported	Web 2.0 Interface compatible HTML5 (iOS, Android, Mac OS, Windows, Linux, ...)

References / Part number

AVDT-BOB-AE4IO	Dante Breakout Box of 2x Mic/Line Inputs and 2x Line Outputs on Euroblock and 2x RJ45 connectors
AVDT-BOB-AE8IO	Dante Breakout Box of 4x Mic/Line Inputs and 4x Line Outputs on Euroblock and 2x RJ45 connectors
AVDT-BOB-AS8IO	Dante Breakout Box of 4x Mic/Line Inputs and 4x Line Outputs on SubD and a Ruggedized Lockable Neutrik EtherCon connector and 2x SFP cage for optical fiber extended connections

Distributors and resellers



Information, contact and support

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