AxelTech
Playing it loud!

Oxygen 3000 Plus

Digital Broadcast Console

A full range of powerful features for Radio On-Air and Production available in 3 different formats and flexible configurations: 8, 12 and 16 faders with 1 or 2 Audio I/O Boards and 16+16 or 32+32 DanteTM I/O. Oxygen 3000 Plus is the best-equipped console of its category: Low Latency, Users Preset, Smart Keys, EQ, Compressors, Telephone Hybrid, HDMI Output, Analogue and Digital I/O, USB, Bluetooth, DanteTM AoIP, Telco, Presenter Talk Box, Streaming In/Out.

Oxygen Remoter Software, which enables up to 8 additional virtual faders for a full I/O control is available on Oxygen 3000 Plus as it is, for free, in any Oxygen Digital Console model.

>> Much more than a Digital Broadcast Mixer!

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Dante SPOKEN HERE Bluetooth

// Overview

Input & Output with 1 Audio I/O Board

- Up to 5 microphone inputs with Automix
- 2 stereo analogue inputs, up to 4 Stereo analogue inputs using other input sources
- 4 stereo analogue outputs
- 1 built-in telephone hybrid or 1 Telco with GPIO
- Up to 4 Telco using other input sources
- 1 Bluetooth audio interface or 1 stereo analogue input
- 1 digital In (AES/EBU) or 1 USB Input (play)
- 1 digital Out (AES/EBU)
- Up to 2 USB audio Input (play)
- 1 USB audio Output (rec)
- 1 Streaming In + 1 Streaming Out
- 16 inputs + 16 outputs or 32 inputs + 32 outputs via DanteTM (optional) configurable as mono/stereo/telco

Input & Output with 2 Audio I/O Boards

- Up to 10 microphone inputs with Automix
- 4 stereo analogue inputs, up to 8 Stereo analogue inputs using other input sources
- 8 stereo analogue outputs
- 1-2 built-in telephone hybrid or 1-2 Telco with GPIO
- Up to 8 Telco using other input sources
- 1-2 Bluetooth audio interface or 1-2 stereo analogue input
- 1-2 digital In (AES/EBU) or 1-2 USB Input (play)
- 2 digital Out (AES/EBU)
- Up to 4 USB audio Input (play)
- 2 USB audio Output (rec)
- 1 Streaming In + 1 Streaming Out
- 16 inputs + 16 outputs via DanteTM (optional) configurable as mono/stereo/telco

General

- Fully Digital Broadcast Console for Radio Broadcasting with 8, 12 or 16 faders
- Knob with A/B Fast source switch or source selection for each fader
- 4+1 busses (PGM, SUB, Aux1, Aux2, PFL)
- Near 0 latency (< 0,7 ms I/O)
- Digital Signals Routing 50×50 matrix with direct Input to Output
- Assignable Stereo N-1 on any output
- Complete Remote Control by means of an application replicating the surface
- Remote configuration and maintenance via Web Interface
- User-definable Presets & Snapshots
- 5 bands fully parametric Equalizer on each input
- Dynamic Processor with expander and compressor section on each microphone input
- Advanced and configurable Monitor Facilities for Control Room and Studio
- Customizable RGB colored buttons
- 7” TFT IPS Graphic Color Display for console configuration
- Four 2,2” TFT IPS displays for the output levels monitoring
- 2,2” TFT IPS displays on top of each fader displaying channel status, levels and source name
- HDMI Out for console status display
- 2 Timers (Ctrl-Room and Studio microphones on HDMI Monitor)
- START/ON Buttons for each fader
- 4 recall Snapshot buttons
- 4 direct Talkback buttons
- RGB led Bar for each fader
- Studio & Control Room Monitor Section
- 8 customizable Smartkey Buttons
- 2 customizable Function Keys for each fader
- TalkBox for guest and presenter (optional)
- Redundant PSU (optional)

Built In Decoder and Streamer

- Oxygen 3000 Plus, in addition to analog/digital/AoIP inputs and outputs, is open to integration with the IP world thanks to the ability to decode an audio streams (stereo or mono) as input and generate an output audio stream (stereo or mono).

Versions

- Oxygen 3000 Plus 8 Fader 1 Audio I/O Board
- Oxygen 3000 Plus 8 Fader 1 Audio I/O Board DanteTM 16
- Oxygen 3000 Plus 8 Fader 1 Audio I/O Board DanteTM 32
- Oxygen 3000 Plus 12 Fader 1 Audio I/O Board
- Oxygen 3000 Plus 12 Fader 1 Audio I/O Board DanteTM 16
- Oxygen 3000 Plus 12 Fader 1 Audio I/O Board DanteTM 32
- Oxygen 3000 Plus 12 Fader 2 Audio I/O Board
- Oxygen 3000 Plus 12 Fader 2 Audio I/O Board DanteTM 16
- Oxygen 3000 Plus 16 Fader 1 Audio I/O Board DanteTM 32
- Oxygen 3000 Plus 16 Fader 2 Audio I/O Board
- Oxygen 3000 Plus 16 Fader 2 Audio I/O Board DanteTM 16

Options

- Redundant power supply
- Talk Box
- DanteTM I/O board
- RJ45 adapters for:
- Mic
- Line In
- Line Out
- Telco
- GPIO

Oxygen Remoter

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For more information about Oxygen 3000 Plus, visit our website

// Specifications

Analog Balanced Microphone Inputs

Connector	RJ45 & XLR Balanced – EMI Suppressed
Input Impedance	2,4 KΩ
Nominal Input Level (sensitivity)	-9/-66 dBu
Max Input Level (clipping point)	+9 dBu
A/D conversion	24 bit / 48 Khz
Signal To Noise Ratio (referred to peak level)	>110 dB
THD+N	<0,01%
Analog Gain	Adjustable +0 ÷ +60 dB (3dB step)
Phantom Power	+48V

Analog Balanced Stereo Inputs

Connector	XLR & RJ45 Balanced – EMI Suppressed
Input Impedance	10 KΩ
Nominal Input Level (sensitivity)	0 dBu
Max Input Level (clipping point)	+18 dBu
A/D conversion	24 bit / 48 Khz
Frequency response	+/-0,5 dB from 20 Hz to 20 kHz
Signal To Noise Ratio (referred to peak level)	>110 dB
Stereo Separation (referred to peak level)	>90 dB
THD+N	<0,002 %

Analog Balanced Telco Input

Connector	RJ45 Balanced – EMI Suppressed
Input Impedance	10 KΩ
Nominal Input Level (sensitivity)	0 dBu
Max Input Level (clipping point)	+18 dBu
A/D conversion	24 bit / 48 Khz
Signal To Noise Ratio (referred to peak level)	>110 dB
THD+N	<0,002%

Digital Input

Connector	Balanced on 1 XLR – EMI Suppressed
Input Impedance	110Ω
Standard	AES3
Audio Sample Rate	32/44.1/48/96/192 KHz with SRC
Resolution	24 bit
Dynamic Range (Converter Values)	124dB

Analog Balanced Stereo Outputs

Connector	RJ45 Balanced – EMI Suppressed
Output Impedance	23 Ω, nominal 600 Ω
Nominal Output Level	0 dBu
Max Output Level (clipping point)	+18 dBu
D/A conversion	24 bit / 48 Khz
Signal To Noise Ratio (referred to peak level)	>110 dB
Stereo Separation (referred to peak level)	>90 dB
THD+N	<0,002 %

Dante I/O

Sample Rates (16x16 Versions)	44.1/48/88.2/96 kHz
Sample Rates (32x32 Versions)	44.1/48/88.2/96 kHz
Audio Flows In/Out	Up to 32x32 simultaneous streams
Digital Audio Formats	TDM, I2S
Audio Transport Formats	Dante Audio over IP, AES67 RTP, SMPTE ST2110-30 RTP (enrolled devices)
Sample Bit Depth	16, 24 or 32 bits per sample
Audio Buffering	Up to 2000 samples per channel
Clocking	Onboard word clock or external word clock
Form Factor	Card edge module. 4.5cm x 6cm (1.75” x 2.4”)
FPGA	High performance Xilinx Spartan6 FPGA
Microprocessor	Soft-core Microblaze processor
Clock	High quality, low jitter onboard SiLabs
Ethernet	Standard RGMII/MII interface for Ethernet PHY or switch chip
Power	3.3VDC @ 2W max
Physical Connector	Mini-PCI
Control Interfaces	SPI Master and Slave; GPIO; I2C
Network	RGMII/MII

// Specifications

USB Audio Digital I/O

Connector	USB Type B – EMI Suppressed
Playback And Recording Sample Rate	SRC 44.1-48 KHz
Resolution	16 bit
Available Stereo Channels	2 stereo USB - 2 Inputs & 1 Output on each Audio I/O Board

Analog Balanced Talkbox Outputs

Connector	RJ45 balanced – EMI Suppressed
Output Impedance	100ohm, nominal 600ohm
Nominal Output Level	0dBu
Max Output Level (clipping point)	+14dBu
D/A conversion	24 bit / 48 Khz
Signal To Noise Ratio (referred to peak level)	>110dB
Stereo Separation (referred to peak level)	>90dB
THD+N	<0,05%

Analog Balanced Telco Output

Connector	RJ45 Balanced – EMI Suppressed
Output Impedance	23 Ω, nominal 600 Ω
Nominal Output Level	0 dBu
Max Output Level (clipping point)	+18 dBu
D/A conversion	24 bit / 48 Khz
Signal To Noise Ratio (referred to peak level)	>110 dB
THD+N	<0,002 %

Digital Output

Connector	Balanced on 1 XLR – EMI Suppressed
Input Impedance	110 Ω
Standard	AES3
Audio Sample Rate	32/44.1/48/96/192 KHz
Resolution	24 bit
Dynamic Range (Converter Values)	124 dB

PSTN Interface

Connector	RJ11
Transhybrid loss	>20 dB

System

Audio Core	Analog Devices ADAU1452 32bit 294 MHz fixed point DSP
Audio CODECs	Cirrus CS42448 24 bit/192 kHz
LAN Connection	RJ45 - 1 Gbit
Nominal Delay (analog input to analog output)	0,7 ms
GPIO Inputs/Outputs	4 GPI/4 GPO on DB9; 4 GPI/2 GPO on Mic2 & Mic3 RJ45; 2 GPO on
Out3 & Out4 RJ45; 1 GPI/1 GPO on Telco RJ45	
Communication Port	2xUSB type-A, 2xUSB type-B , 1xLAN, 1xHDMI
Operating Temperature	0°C ÷ 40°C

Dimensions

8 Faders Dimensions (W; H; D)	584 mm; 113,5 mm; 495,5 mm
12 Faders Dimensions (W; H; D)	764 mm; 113,5 mm; 495,5 mm
16 Faders Dimensions (W; H; D)	944 mm; 113,5 mm; 495,5 mm
	Weight 15 to 25 Kg

PSU

Type	External Universal Switching Power Supply 12V with 4 poles XLR connections - Optional Redundant
Power Supply	90-264 VAC / 50-60 Hz / 120 W