

OXYGEN 3000 PLUS | Digital Broadcast Consoles



>> Much more than a Digital Broadcast Mixer!

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 Dante™ 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, Dante™ 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.



// 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 50x50 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

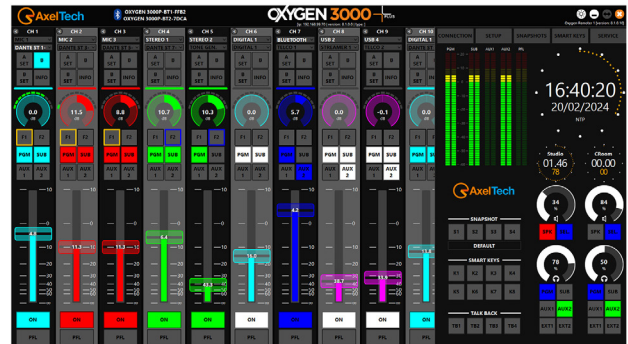
- Oxygen 3000 Plus, in addition to analog/digital/AoIP inputs and outputs, is open to integration with the IP world thanks to the ability to decode an audio streams (stereo or mono) as input and generate an output audio stream (stereo or mono).

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



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 K Ω |
| 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 K Ω |
| 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 K Ω |
| 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 | 110 Ω |
| 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

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|------------------------------------|--|
| 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 |