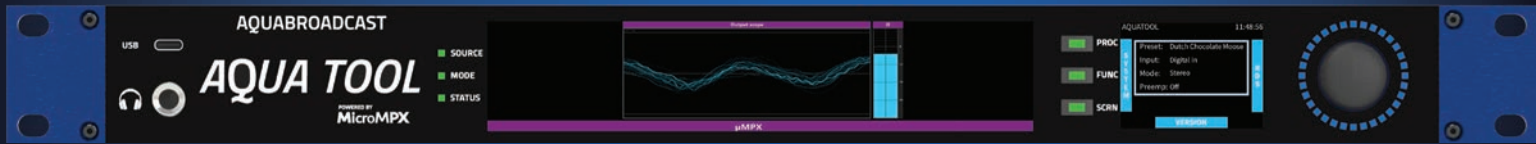


Made by engineers, for engineers



AQUA TOOL

POWERED BY
MicroMPX

MicroMPX Encoder or Decoder

Datasheet and Specifications

MICROMPX ENCODER OR DECODER

The Aqua Tool – Powered by MicroMPX from Aqua Broadcast brings together world-class hardware and the industry-leading MicroMPX technology from Thimeo Audio Technology.

Designed for modern FM stations that demand reliability, exceptional audio quality, and seamless integration, the Aqua Tool – Powered by MicroMPX is more than just an encoder, it's a complete professional FM broadcast solution.

Built on a rock-solid DSP platform and powered by a customised Linux operating system, the Aqua Tool – Powered by MicroMPX ensures stable, high-performance operation. It is ready to deliver pristine FM audio as a fully integrated MicroMPX encoder. With low bitrates, the Aqua Tool provides flexible, high-quality audio that connects effortlessly to any COBALT transmitter with a MicroMPX license installed.

ADVANCED SINGLE-FREQUENCY NETWORK (SFN) SUPPORT

Expand your broadcasting capabilities with the optional MicroMPX SFN license. Synchronize the Aqua Tool – Powered by MicroMPX with GPS to broadcast across multiple transmitters on the same frequency, creating a single-frequency network. This ensures seamless, high-quality coverage over wide areas and is perfect for networks seeking consistent FM performance without interference

PROFESSIONAL FEATURES FOR MODERN BROADCASTERS

- **Dual LAN Ports:** Redundant connectivity keeps your audio live even during network issues.
- **Full Remote Control:** Manage, monitor, and adjust your broadcast from the studio—or anywhere in the world.
- **Easy Integration:** Compatible with COBALT transmitters and other professional FM infrastructure.
- **User Friendly Operation:** Simple configuration and intuitive controls make it easily accessible.

Dual LAN ports provide redundant connectivity, keeping your station online at all times.

MODERN DESIGN, INTUITIVE OPERATION

The Aqua Tool – Powered by MicroMPX is designed to be as impressive in operation as it is in performance. It features a widescreen ultra-clear RGB main display, a secondary RGB status screen, and intuitive joystick controls with haptic feedback for precision adjustments. Durable silicon buttons ensure long-term reliability and quick access to key functions. This thoughtful design makes configuration and daily operation simple, fast, and accurate—whether you're a seasoned engineer or a first-time user. The modern interface not only looks great in your rack but also reduces setup time dramatically.

The Aqua Tool – Powered by MicroMPX combines cutting-edge DSP technology, integrated MicroMPX encoding or decoding, plus optional SFN capabilities in one compact, professional-grade unit. With redundant connectivity, comprehensive remote control, and professional-grade features, it ensures your station stays on-air with complete confidence. The Aqua Tool – Powered by MicroMPX isn't just an encoder—it's a reliable, versatile, and powerful partner for any FM broadcaster.

CONFIDENCE AUDIO MONITORING

Stream audio directly from the processor to any web-enabled device. Listen to:

- Processed audio before it goes to air
- Source feeds
- Test tones for quick troubleshooting

This feature gives engineers real-time confidence in audio quality and source integrity, wherever they are.

STREAMING FLEXIBILITY

As standard, the Aqua Tool supports Shoutcast and Icecast stream inputs, configurable as primary or backup sources.



STANDARD FEATURES

- | | |
|---------------------------|----------------------------------|
| Linux OS | Ethernet Control with HTTPS |
| Dual RGB Screens | Advanced Automations |
| MicroMPX | Scheduler |
| Web Confidence monitoring | Failover and Silence Detection |
| Digital MPX (AES192) | Backup Audio player via USB |
| Dual LAN | Shoutcast / Icecast Stream input |
| SNMP v1, v2c, v3 | HDMI |

OPTIONS

- MicroMPX SFN Licence
- 48V DC power

HOW TO ORDER

Ordering is easy...
Select the Aqua Tool - Powered by MicroMPX Base Unit

then choose from either

MicroMPX Encoder Licence
or

MicroMPX decoder Licence

You can also add on the additonal MicroMPX SFN liscence if required.

GENERAL

Input ACV @ 50/60Hz	100-240VAC, 50/60HZ
Power Connector	IEC13 3A filtered
Optional DC power input	48V
Dimensions WxDxH (inch)	19x10.5 x 1RU (1.75")
Dimensions WxDxH (cm)	48.3 x 27 x 44
Weight	2.5kg / 5.51lb

ENVIRONMENTAL

Maximum operating Altitude	15,000 ft / 4,420m AMSL
Temperature range	0 to +45°C working. -10 to +50°C storage
Humidity	95% @ 35°C, non-condensing

CONNECTIVITY

2x 1Gbit Ethernet (1 per CM5)
2x 100Mbit Ethernet with POE+ (1 per CM5, 1 shared with AES67 module)
4x USB 3.0 (2 per CM5)
1x USB 2.0 on the front panel
1x USB UART for primary CM5
2x HDMI 2.0 (1 per CM5)
Optional 2.4 GHz, 5.0 GHz IEEE 802.11 b/g/n/ac wireless on CM5
Optional Bluetooth 5.0, BLE on CM5

USER INTERFACE

Primary display	TFT LCD 320x240 RGB
Secondary display	TFT LCD 1424x280 RGB
Control Inputs	Analogue joystick with 3 x silicone backlit buttons

ANALOG AUDIO INPUT

Stereo analogue audio input	2 x XLR female, 10kΩ impedance level adjustable 0-24dBu
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ANALOG AUDIO OUTPUT

Stereo analogue audio output	2 x XLR female, 10kΩ impedance level adjustable 0-24dBu Optional bypass relay module for power-off signal pass through
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DIGITAL AUDIO INPUTS

1 x AES/EBU Audio, RJ45 StudioHUB+, 48kHz, 24bits, 110Ω output impedance
1 x AES/EBU MPX, RJ45 StudioHUB+, 192kHz, 24bits, 110Ω output impedance

DIGITAL AUDIO OUTPUTS

1 x AES/EBU Audio, RJ45 StudioHUB+, 48kHz, 24bits, 110Ω output impedance
1 x AES/EBU MPX, RJ45 StudioHUB+, 192kHz, 24bits, 110Ω output impedance

ANALOG MPX OUTPUT

2 x BNC female, 10Ω output impedance, level adjustable 0-12dBu

ANALOG MPX INPUT

2 x BNC female, 10Ω output impedance, level adjustable 0-12dBu
Optional bypass relay module for power-off signal pass through

HEADPHONE OUTPUT

1/4" (6.3mm) female stereo socket
Software adjustable volume
Minimum load impedance 16Ω

AQUABROADCAST

Aqua Broadcast is shaping its own future, for you, our customers. Our transmitters and Audio products are equipped with cutting-edge network security features, offering broadcasters peace of mind in an increasingly connected world. As we continue to develop new solutions, we aim to anticipate the future of broadcasting and deliver products that exceed expectations—helping our customers not just meet their goals but shape the future of broadcasting itself.

At Aqua Broadcast, we live by the mantra: “Made by engineers, for engineers.” With a team of highly skilled engineers and industry professionals boasting over 100 years of cumulative experience, we understand the technical challenges and demands faced by broadcasters. Our staff is driven by a passion for engineering excellence and a deep understanding of the intricacies of broadcast technology. Every product we create is designed with the precision and quality that only seasoned engineers can deliver.

We are not just a product manufacturer; we are a trusted partner for broadcasters across the globe. Our commitment to supporting our clients goes beyond just selling a product. We take the time to understand each station’s unique needs, offering tailored solutions and providing ongoing support to help them achieve their goals. Whether it’s ensuring smooth broadcasts, optimizing performance, or delivering custom-built features, Aqua Broadcast is always there to ensure your success.

CONTACTS

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For more information on our products
and options, please call or email us

info@aquabroadcast.co.uk



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