



Ecreso FM AiO Series 5kW

High Power FM. Compact by Design.

The Ecreso FM AiO Series 5kW delivers high-power FM in a compact, highly serviceable transmitter designed to reduce costs and keep broadcasters on air.

Combining up to 76% efficiency, easy field maintenance, and advanced software integration within a fully modular

architecture, it is designed to lower Total Cost of Ownership throughout the transmitter lifecycle.

From fast, tool-free maintenance to fewer external devices, every aspect of the AiO Series 5kW is engineered to simplify operations, reduce costs, and maximize on-air availability.



Digital Exciter



Choose Your Transmitter Pack

Available in Packs, you benefit from carefully designed bundles that address a variety of broadcast needs, while ensuring reliability, easy deployment, advanced features, and outstanding audio quality.

ESSENTIALS

**2 YEAR
WARRANTY**

- Digital FM exciter
- Audio & MPX inputs
- Audio & MPX over AES
- IceCast streaming input
- Audio backup & intelligent switching
- Web GUI & remote monitoring
- 1-year Kybio cloud monitoring
- SmartFM - 3 month trial

MOST POPULAR

PERFORM

**4 YEAR
WARRANTY**

- **Everything in ESSENTIALS**
- Surge protector
- Dynamic RDS encoder
- 5-band sound processor
- or
- APT IP Decoder (SureStream & APTmpX)

EXTREME

**10 YEAR
WARRANTY**

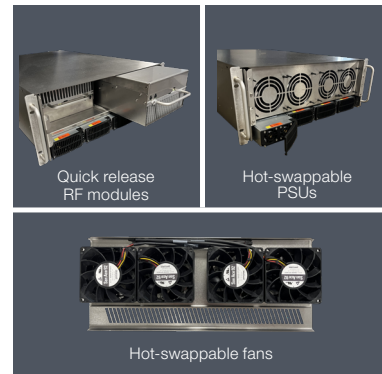
- **Everything in ESSENTIALS**
- Surge protector
- Full RDS (UECP)
- 5-band sound processor
- APT IP Decoder (SureStream & APTmpX)
- SmartFM license



Maintenance-First DESIGN

Maintenance should be fast, simple, and performed with minimal disruption to your broadcast. The AiO Series 5kW is built around a maintenance-first philosophy, with readily accessible, modular components designed for quick replacement in the field

- **QUICK-RELEASE RF AMPLIFIERS**
Tool-free removal for fast field servicing
- **HOT-SWAPPABLE FANS**
Fast replacement without complex disassembly on front panel
- **HOT-SWAPPABLE POWER SUPPLIES**
Up to three easily accessible PSU modules



Redundancy Keeps Your Radio ON-AIR

Multiple layers of redundancy and intelligent source management help broadcasters maintain continuous transmission and adapt the system to their network requirements.

- Multiple audio/MPX sources with silence detectors and automatic switching inputs
- **DUAL DRIVE** — Internal RF switching for enhanced modulator redundancy.
- **1+1 / N+1** — Flexible redundancy architectures to meet network availability



Outstanding SIGNAL QUALITY & FULL CONTROL

From input to RF output, the fully digital signal path gives broadcasters precise control, outstanding signal quality, and the flexibility to manage modern FM workflows directly from the transmitter.

DIGITAL STEREO | MPX OVER AES | BACKUP OF LOCAL FILES AND WEB STREAMING | SFN READY (Optional built-in GPS receiver, audio delay adjustment) | USER-FRIENDLY WEB INTERFACE | HTTPS | SNMP v3



Monitor your FM transmitters for **FREE** with **Kybio**



FREE during 1 year! Discover the benefits of monitoring your FM transmitter network with Kybio! From a single screen, visualize the status of your FM programs over the different transmission sites and optimize your services to maximize the ON-AIR time.



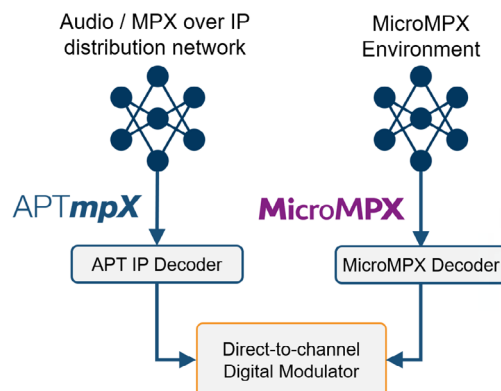
Built-In APT IP DECODER Move Your STL to IP

In line with the market transition to an all-IP broadcast chain, the AiO Series integrates IP Decoder that directly ingests audio / MPX over IP to the Direct-to-Channel Digital Modulator. Two different versions are available:

The Software APT IP DECODER offers full compatibility with APT and N/ACIP IP codecs. It comes with market-proof APT technologies:

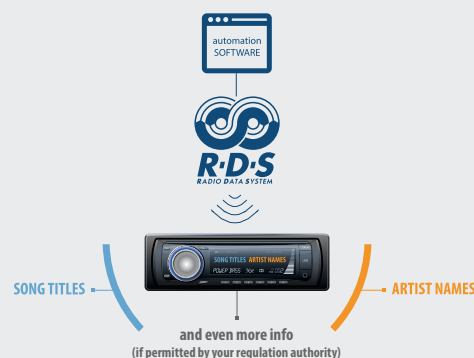
- SureStream, redundant & low-latency streaming solution over public IP links
- APTmpX, the highest quality MPX compression algorithm
- SynchroStream, the must-have solution for content time-synchronization over IP links

The MicroMPX DECODER enables to deploy the AiO Series into MicroMPX environment. It comes as a hardware option with dedicated network input.



Built-In RDS ENCODER Dynamic to Full RDS

Bring RDS generation directly into the transmitter. Choose Dynamic RDS for essential program data or Full RDS, powered by Audemat expertise, for advanced UECP-compatible RDS applications.



Ecreso transmitters are among the most cost-competitive on the market, and thanks to the worldwide patented SmartFM technology, broadcasters can tackle rising energy costs while meeting their sustainability goals:

- Reduces electricity costs by up to 40%
- Lowers carbon footprint of FM broadcast



Built-in 5-BAND SOUND PROCESSOR Craft Your Sonic Signature

Deliver consistent, high-quality audio directly from the transmitter with powerful DSP-based 5-band processing, factory presets, real-time metering, and intuitive control through the web interface.



Sound Processor Interface

10-Year Warranty



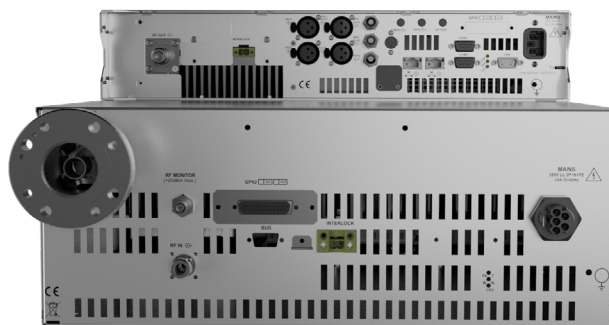
WorldCast Systems offers a warranty of up to 10 years on the AiO Series. No other FM transmitter manufacturer even comes close to that commitment or confidence! This 10-year warranty, unique on the market, is possible thanks to:

- Exceptional product design
- Outstanding transmitter efficiency
- Advanced diagnostic capabilities



ECRESO FM Aio 5kW		
HF output	EIA 1"5/8 type 50 Ω	
Power range	0,5 - 5,5kW	
Power settings	0 - 6kW	
Efficiency	up to 76%	
Voltage	Single phase 184VAC to 264VAC or 3 phase wye + neutral, 340-357 VAC 47Hz - 63Hz Hot swappable PSU	
Frequency range	87, to 108MHz in 10kHz steps	
Frequency stability	< 10° per year	
VSWR	< 1.35, optimal performance: <1.1, protection: >1.5	
Spurious and harmonic suppression	> 82dBc	
Analog input (L&R)	2x XLR connectors, balanced, > 10 kΩ (600 Ω jumpers selectable), software adjustable level (-18/+18dBu range)	
2 AES Inputs (Audio or MPX)	2x XLR connectors, balanced, > 110 Ω, software adjustable level (-20 to 0dBFS range), AES 16, 24, 32 bits, up to 192 kHz	
2 Composite (MPX/SCA/RDS) inputs	2x BNC type, unbalanced, > 5 kΩ, software adjustable level (-18/+18 dBu range)	
Composite operation		
Bandwidth	> 40 Hz to 53 kHz @ 0.1 dB, > 20 Hz to 60 kHz @ 0.2 dB, > 60 kHz to 80 kHz @ 0.4 dB	
Intermodulation distortion	< 0.05%	
FM S/N ratio	> 80 dB RMS @ 75 kHz deviation	
AM noise	> 55 dB, weighted/unweighted, sync/async, RMS/CCIR (20-20 000 Hz)	
Stereo operation		
Bandwidth	> 20Hz to 15kHz @ 0.1dB	
38 kHz discontinuance	> 50 dB	
Stereophonic crosstalk	> 50 dB	
Mono operation		
Bandwidth	> 40 Hz to 15 kHz @ 0.1 dB	
Out of band rejection	> 40 dB @ 19 kHz	
IP Streaming operation		
IP Interface	2x RJ45, 10/100/1000 BaseT/Tx	
Standard protocols	Ethernet IEEE 802.3x, IPv4, HTTPS, ICMP, SMTP, SNMP v1, v2c & v3, NTP, SMTP, RTP/UDP	
Audio algorithm	E-aptX 16/24bit, lin. PCM 16/24bit, MPEG2/4 AAC LC/ LD/ELD, HE-AACv1/2, MPEG1/2 L2/3, OPUS, AES67 (interoperable with proprietary audio networking protocols – Livewire, Dante, Ravenna)	
MPX algorithm	Linear MPX 16/24bit, APTmpX @300/400/600 & 900kbps, μMPX	
Streaming mode	UDP over RTP, Unicast & Multicast mode	
Physical & Environmental		
Overall dimensions	19" x 2U x 485mm	19" x 4U x 750mm
Weight	13 kg - 28.5lbs	48 kg - 105,8lbs (with PSUs) 41 kg - 90,3lbs (without PSU) 27kg - 59,5bs (without PSU & RF modules)
Operating temperature	Nominal: 5°C to 45°C, 41°F to 113°F - Maximum: 0°C to 50°C, 32°F to 122°F	
Humidity	5 - 95% non-condensing relative humidity	

Technical specifications are subject to change without prior notice - On a project, WorldCast Systems may offer distinct specifications. Specifications on the offer prevail those in this document.



Ecreso FM AiO Series 5kW - rear view

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