



Compatible
SMARTFM

Ecreso FM AiO Series

Compact. Redundant. Feature-packed.

The Ecreso FM AiO Series is a new-generation digital FM transmitter from WorldCast Systems. Belonging to the AiO Series portfolio, it leverages cutting-edge design with advanced functionality - offering the market's lowest Total Cost of Ownership.

Its 2U or 3U build is perfect for broadcasters who demand unparalleled reliability while benefiting from a compact size. Thanks to its enhanced redundancy features, you can count on consistent, high-quality performance at all times.

The Ecreso FM AiO Series is packed full of the software-driven features representative of the AiO Series transmitters. These include a built-in APT audio/MPX over IP decoder, a full RDS encoder, 5-band sound processor, and the patented SmartFM technology for energy savings of up to 40%.

Experience the AiO Series and transform your broadcasting capabilities with the perfect blend of innovation, reliability, efficiency, and broadcast quality.



Benefits



Best Total Cost of Ownership On The Market

The new AiO Series delivers the highest efficiency on the market: up to 74% before a SmartFM boost. With its extensive list of built-in features to reduce on-site equipment, this new range of FM transmitters is proof that aligning cutting-edge innovation with the best Total Cost of Ownership is possible. Broadcasters also benefit from a 4-year standard warranty and an unrivalled 10-year warranty in option.



Worry-Free Broadcasting – Top-Tier Redundancy for Absolute Reliability

With hot-swappable PSU & fans, optional dual-drive, and a planar design, it ensures uninterrupted operation. Market-proof RF pallets and a rock-solid build guarantee absolute dependability for seamless broadcasting.



Easy Migration To An All-IP Broadcast Chain

Enable a more seamless operation with less equipment: the AiO Series includes a 5-band sound processor, a stereo encoder, digital modulator, and a full RDS encoder with UECP capabilities from WorldCast's Audemat range. This unique set of features is complemented by a software-based APT IP decoder that directly ingests audio and MPX over IP to the direct-to-channel digital modulator, fully compatible with SureStream, APTmpX and SynchroStream.



Powerful Features

Designed to operate REMOTELY

The AiO Series provides advanced remote configuration and control. A user-friendly web and mobile GUI includes advanced troubleshooting tools:

- Functional diagrams
- Advanced Measurement interface
- Spectrum analyzers
- 7-day Graphical History with 20 different sensors

It also includes full SNMP management (v2c & v3) with 4 independent SNMP "manager" configurations and physical GPIO for local control on site.



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



TOP-TIER Redundancy



Up to 2 hot-swappable PSUs for AiO Series 1kW HR / 2kW
2 hot-swappable PSUs for AiO Series 3kW



2 hot-swappable fans



2 planar design RF pallets
each of 1.7 kW

OPTIONAL Redundancy

- Dual drive option with external exciter and automatic management
- N+1 system with program priorities and automatic switching
- 1+1 system



Dual drive option

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.

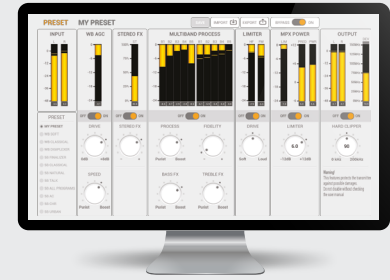


Built-in 5-Band SOUND PROCESSOR

Embedded into the FM digital modulator, the software sound processor offers outstanding reliability and the highest signal quality. You can choose from:

- A wide-band version to finalize the audio processed at your studio
- A multi-band version to achieve the level of processing required for your station

The processor is supplied with a full set of presets.

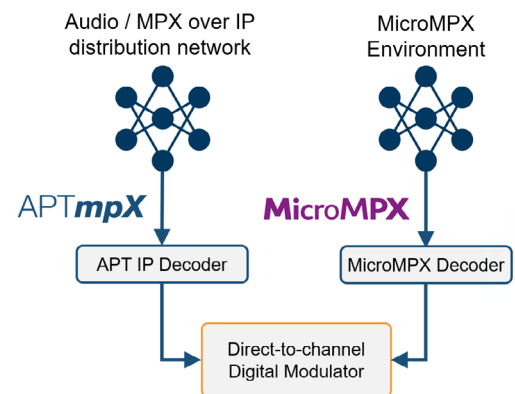


Built-In APT IP DECODER Move Your STL to IP

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

After the worldwide success of Audemat RDS Encoders, WorldCast Systems has integrated its RDS expertise into the AiO Series resulting in 2 RDS software options:

- The Dynamic RDS encoder equivalent to the previous Egreso transmitters range
- The Full RDS encoder by Audemat, a software version of the flagship Audemat Encoder



Highest AUDIO QUALITY

- Direct-to-channel digital modulator
- Digital stereo encoder
- Digital MPX over AES
- Silence detectors & automatic switching inputs
- Local files and web streaming as backup



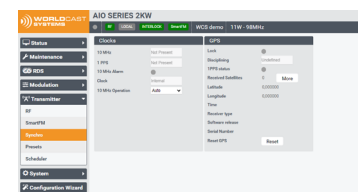
Fully CONTROLLED

- Scheduler & preset management
- Automation engine based on alarms detection
- Email notifications
- Event log



SFN COMPATIBILITY

- 10MHz & 1PPS inputs
- Built-in GPS Receiver
- RF carrier Synchronization
- Configurable audio fixed delay
- Dynamic audio delay with SynchroStream



SFN audio delay GPS receiver configuration

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 Series	100W	300W	600W	1kW	1kW HR	2kW	3kW
HF output	N type, 50 ohm		7/16 type, 50 ohm		7/16 type, 50 ohm		
Power range	5 - 100W	20 - 300W	50 - 600W	50 - 1000W	50 - 1000W	100 - 2000W	100 - 3000W
Power settings	0 - 110W	0 - 350W	0 - 700W	0 - 1100W	0 - 1100W	0 – 2200W	0-3000W
Efficiency	Up to 57%	Up to 70%	Up to 72%	Up to 76%	Up to 70%	Up to 74%	
Voltage	100VAC to 264VAC, 47Hz - 63Hz		184VAC to 264VAC, 47Hz - 63Hz Hot swappable PSU		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 ^s per year						
VSWR	< 1.35, optimal performance: <1.1, protection: >1.5						
Spurious and harmonic suppression	> 79dBc						
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 - 19in x 2U x 19in			19" x 3U x 700mm - 19in x 3U x 27,55in			
Weight	13 kg - 28.5lbs			23 kg - 50.7lbs (with PSUs), 21 kg - 46,2lbs (without PSUs)			
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 project, WorldCast Systems may offer distinct specifications. Specifications on the offer prevail those in this document.

Order Information

Essentials

•2-year warranty

•Standard features

AiO series 100W:
AiO-ESSENTIALS-100

AiO series 300W:
AiO-ESSENTIALS-300

AiO series 600W:
AiO-ESSENTIALS-600

AiO series 1kW:
AiO-ESSENTIALS-1K

AiO series 1kW HR:
AiO-ESSENTIALS-1kW-HR

AiO series 2kW:
AiO-ESSENTIALS-2K

AiO series 3kW:
AiO-ESSENTIALS-3K

Perform

•4-year warranty

•Standard features

•Surge protector

AiO series 100W:
AiO-PERFORM-100

AiO series 300W:
AiO-PERFORM-300

AiO series 600W:
AiO-PERFORM-600

AiO series 1kW:
AiO-PERFORM-1K

AiO series 1kW HR:
AiO-PERFORM-1kW-HR

AiO series 2kW:
AiO-PERFORM-2K

AiO series 3kW:
AiO-PERFORM-3K

MOST POPULAR!

Extreme

•10-year warranty

•Standard features

•Surge protector

•Full RDS

AiO series 100W:
AiO-EXTREME-100

AiO series 300W:
AiO-EXTREME-300

AiO series 600W:
AiO-EXTREME-600

AiO series 1kW:
AiO-EXTREME-1K

AiO series 1kW HR:
AiO-EXTREME-1kW-HR

AiO series 2kW:
AiO-EXTREME-2K

AiO series 3kW:
AiO-EXTREME-3K

•5-band sound processor

•APT IP Decoder

•SmartFM

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