Compatible
SMARTFM©

Ecreso FM AiO Series 2kW

Compact. Redundant. Feature-packed.

The Ecreso FM AiO Series 2kW 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 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 2kW 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%. A version of the transmitter as a 1kW HR (High Redundancy) is also available.

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

| up to **10** YEARS WARRANTY | **APT IP** DECODER inside | **Full RDS** | **5** band SOUND processor | **+60** YEARS OF FM RADIO expertise | **SFN** Ready | **WEB** RADIO streaming icecast shoutcast |

Benefits

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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.

www.worldcastsystems.com

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 independant SNMP "manager" configurations and physical GPIO for local control on site.

UP TO 40% ENERGY SAVINGS
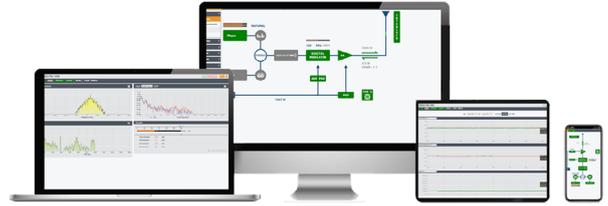
Ecreso transmitters are among the most cost-competitive on the market, and thanks to the worldwide patented SmartFM technology, broadcasters can tackle rising energy costs while meeting their sustainability goals:

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

TOP-TIER Redundancy

Up to 2 hot swappable 3.5kW PSUs

2 hot swappable fans

2 planar design RF pallets each of 1.25 kW

OPTIONAL Redundancy

- Dual Drive option with external exciter and automatic management
- N+1 System with program priorities and automatic switching
- 1+1 System
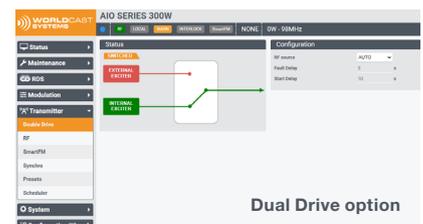
Dual Drive option

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

In line with the market transition to an all-IP broadcast chain, the embedded APT IP Decoder directly ingests audio / MPX over IP to the Direct-to-Channel Digital Modulator.

It supports:
• 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
This software feature helps broadcasters looking to modernize their network with a transition to all-IP broadcast chain!

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 Ecreso 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

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

Fully CONTROLLED
• Scheduler & preset management
• Automation engine based on alarms detection
• Email notifications
• Event log

SFN audio delay GPS receiver configuration

10-Year Warranty

up to **10** YEARS 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**

Technical Specifications

ECRESO FM AiO Series	1kW HR	2kW
Frequency Range	87.5 to 108MHz in 10kHz steps	
Frequency Stability	< 10^6 per year	
HF Output	7/16 type, 50 ohm	
Power range	50 - 1000W	100- 2000W
Power settings	0 - 1100W	0 – 2200W
VSWR	< 1.35, optimal performance: <1.1, protection: >1.5	
Spurious and harmonic suppression	> 79dBc	
Efficiency	Up to 70%	Up to 74%
Voltage	Single phase 184VAC to 264VAC, 47Hz - 63Hz Hot swappable PSU	
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	
Streaming mode	UDP over RTP, Unicast & Multicast mode	
Physical & Environmental		
Overall dimensions	19" x 3U x 700mm - 19in x 3U x 27,55in	
Weight	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	
Altitude	Up to 3900m - 12795ft	
Standards & markings	CE, RED 2014/53/UE, EN 301 489-1, EN 60215, EN 301 489-11, EN 302 018-2, EN 50581, UECP & IEC62106	

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 1kW HR:
AIO-ESSENTIALS-1kW-HR

AiO series 2kW:
AIO-ESSENTIALS-2K

Perform
MOST POPULAR!
- 4-year warranty
- Standard features
- Surge protector
- Dynamic RDS
- 5-band sound processor or APT IP Decoder

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

AiO series 2kW:
AIO-PERFORM-2K

Extreme
- 10-year warranty
- Standard features
- Surge protector
- Full RDS
- 5-band sound processor
- APT IP Decoder
- SmartFM

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

AiO series 2kW:
AIO-EXTREME-2K

REFERENCE	ADDITIONAL OPTIONS
WTY-2K	10-year warranty
CD01003	SmartFM
CD01001	5-band sound processor
CD01041	APT IP Decoder with SureStream
LC00074	APTmpX compression algorithm
CD01018	SynchroStream
CD00106	Dynamic RDS Encoder
CD01040	Full RDS encoder
ST01276/ST01615	Standard / Analog GPIO (hardware)
SP02737	10MHz & 1PPS input (hardware)
SP03014	Built-in GPS receiver (hardware)
SP02957	Dual Drive input (hardware)
AL00122	Optional 2nd Power Supply

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