

Compatible



## 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.



## 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



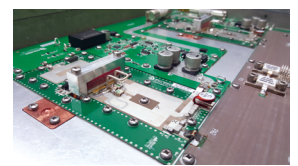
## TOP-TIER Redundancy



Up to 2 hot swappable 3.5kW PSUs



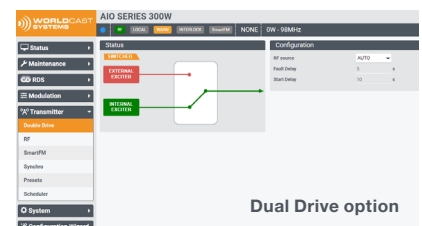
2 hot swappable Fans



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.



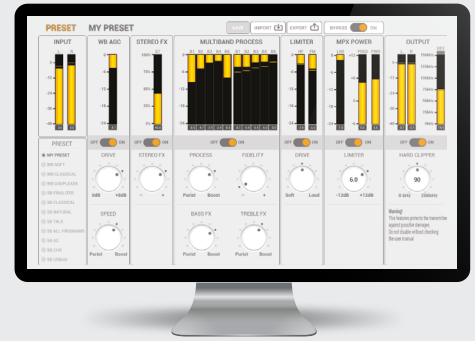
## Built-in 5-Band SOUND PROCESSOR

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

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



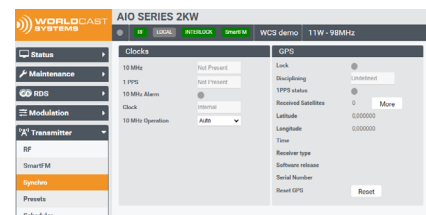
### Fully CONTROLLED

- 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



GPS receiver configuration

## 10-Year Warranty



WorldCast Systems offers a standard warranty of 4 years and 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	1kW HR	2kW
Frequency Range	87.5 to 108MHz in 10kHz steps	
Frequency Stability	< 10 <sup>6</sup> per year	
HF Output	7/16 type, 50 ohm	
Power range	5 - 100W	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)	
<b>Composite operation</b>		
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)	
<b>Stereo operation</b>		
Bandwidth	> 20Hz to 15kHz @ 0.1dB	
38 kHz discontinuance	> 50 dB	
Stereophonic crosstalk	> 50 dB	
<b>Mono operation</b>		
Bandwidth	> 40 Hz to 15 kHz @ 0.1 dB	
Out of band rejection	> 40 dB @ 19 kHz	
<b>IP Streaming operation</b>		
IP Interface	2x RJ45, 10/100/1000 BaseT/Tx	
Standard protocols	Ethernet IEEE 802.3x, IPv4, HTTPS, ICMP, SMTP, SNMP v1, v2c & v3, NTP, 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	
MPX algorithm	Linear MPX 16/24bit, APTmpX @300/400/600 & 900kbps	
Streaming mode	UDP over RTP, Unicast & Multicast mode	
<b>Physical &amp; Environmental</b>		
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, FCC, ICC, RED 2014/53/UE, EN 301 489-1, EN 60215, EN 301 489-11, EN 302 018-2, EN 50581, UECF & 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

PRODUCT	DESCRIPTION
TF01246-1K	AiO Series 1kW - High Redundancy
TF01246	AiO Series 2kW
HARDWARE	DESCRIPTION
SP01260-A0	Surge protector
ST01276	Standard GPIO
ST01615	Analog GPIO
SP02737	10MHz & 1PPS inputs
SP02963	SFN
SP03014	GPS Receiver
SP02957	Dual drive
AL00122	Optional 2nd Power supply

SOFTWARE	DESCRIPTION
CD01003	SmartFM – contact us for more info
CD01001	5-band sound processor
CD01041	APT IP Decoder with SureStream
LC00074	APTmpX compression algorithm
CD01018	SynchroStream
CD01004	Full RDS encoder
CD00106	Dynamic RDS Encoder
SERVICES	DESCRIPTION
WTY-1K	10-year warranty
SU-WCS-CPT	1 year support contract

### Headquarters

📍 20 avenue Neil Armstrong  
33700 Mérignac (Bordeaux) FRANCE  
☎ +33 (0)5 57 928 928

### US Subsidiary

📍 19595 NE 10<sup>th</sup> Avenue Suite A  
Miami, FL 33179 USA  
☎ +1 305 249 3110

