



FM Transmitters

Up to 5 000W



POWERFUL PERFORMANCE

- Digital Modulator with Crystal Clear Signal
- 5-Band Sound Processor
- MPX over AES compatibility
- Highly Reliable



POWERFUL CONTROL

- TCP/IP, SNMP Management and Email Notifications
- Advanced Metering Interface
- 24h Graphical History Log



POWERFUL SAVINGS

- Up to 70% Efficiency
- Built-in Functionality
- Increased Life Span

Key Benefits



DIGITAL EXCITER

- Digital FM modulator « direct to channel»
- Highest signal quality
- Perfect audio fidelity
- Several built-in broadcast tools
- Control of all signal parameters



5 BAND SOUND PROCESSOR

- Hosted in direct to frequency Digital Modulator
- Highest quality processing from audio input to RF output
- Powerful DSP-based processing
- Complete 5-band architecture
- Factory presets for all formats
- Easy to fine tune through intuitive GUI
- Real-time meters at each stage
- No additional hardware: maximum reliability, no maintenance.



ADVANCED CONTROL

- Advanced Measurement Interface (AMI)
- Intuitive Web Interface
- Full SNMP Management



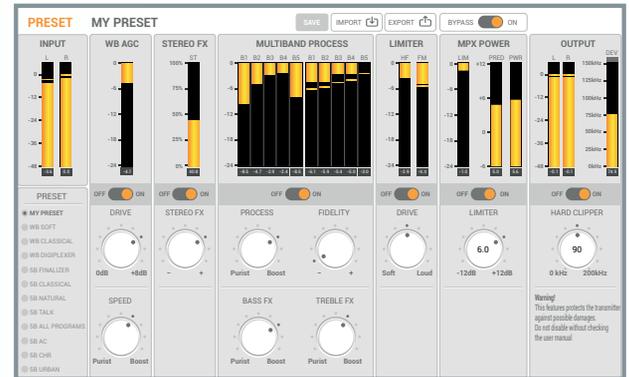
UP TO 70% EFFICIENCY

- 6th MOSFET generation (Worldcast Systems design)
- Reduced consumption and operational costs
- Reduced heat and cooling costs
- Longer component life span
- Reduced maintenance costs

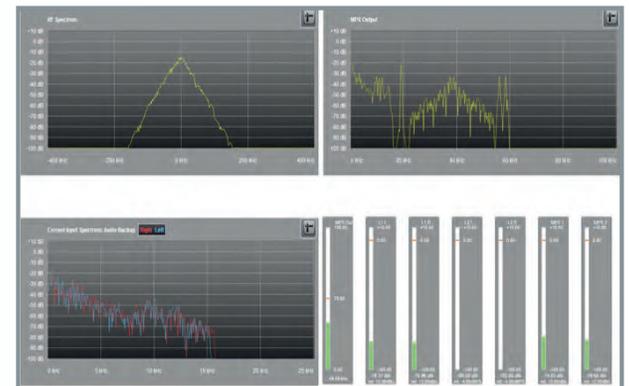


HIGHLY RELIABLE

- Compact transmitter, modular design
- Protected against VSWR, temperature, overload...
- Switching power supplies with large voltage range
- Active surge current limiting
- Optional Surge Suppressor
- Automatic input switching and recovery (audio and MPX)
- Audio Backup (from μ Sd card)
- Internal RDS Backup



Sound Processor Interface



Advanced Measurement Interface (AMI)

Ask us for **1+1** and **N+1**

Built-in Features

Advanced Communication Pack



- Intuitive and secured Web Interface (TCP/IP)
- Advanced Measurement Interface
- Full SNMP Management
- Audio Backup on μ SD card

Dynamic RDS Encoder



- Supports PI, PS, TP, TA, MS, PTY, PTYN, DI, CT, AF, RT
- Dynamic PS Scrolling
- Pure and stable signal thanks to Digital Modulator
- Delivers Audemat's expertise in RDS

Scheduler*



- Automatic change of preset
- RF Power scheduling and consumption saving
- Schedule any parameter of your ECRESO FM

* verify your version compatibility

Email Notifications



- Alarm sending by SMTP
- Easy configuration of each notification
- Same notifications can be sent by SNMP

Internal Surge Protector



- Powerful protection against lightning
- Visible status LED
- Easy to replace

Multiband Sound Processor*



- DSP based 5-band or wide-band processing
- Presets for all applications and formats
- Intuitive GUI to fine tune your sonic signature
- Low distortion Final Limiter
- MPX Power Limiter (ITU 412)

* verify your version compatibility

Single Frequency Network



- 10 MHz input for RF Carrier synchronization
- Adjustable program delay (on audio / MPX inputs)

Digital Stereo Encoder



- High speed DSP circuitry
- Subcarrier Perfect synchronization
- Amazing signal quality

MPX Over AES Input



- Improved MPX signal quality
- No hardware change
- Compatible with MPX over IP APT codecs

Technical Features

Technical specification

Specifications	ECRESO FM 3500W	ECRESO FM 5000W
Frequency Range	87.5 to 108 MHz in 10 kHz Steps	
Frequency Stability	< 10 ⁻⁶ per Year	
HF Output	7/8 Type, 50 Ω	1'5/8 Type, 50 Ω
Power range	400-3800 W	500-5500 W
VSWR	< 1.35, optimal performance: < 1.1 , protection : >1.5	
Spurious and harmonic suppression	> 75 dBc	
Efficiency	up to 70%	
Max consumption	better than 5500W	better than 7450W
Voltage	184 VAC to 264 VAC, 47 Hz - 63 Hz	
Power factor	> 0.9	
Fuses	10 AT (ECRESO FM 100W)	
Analog input (LINE1)	2 XLR connectors, balanced, >10 kΩ (600 Ω jumpers selectable), Software adjustable level (-18/+18 dBu range)	
AES Input (LINE2)	1 XLR connector, 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	2 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	> 20 Hz to 15 kHz @ 0.1 dB	
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	
Preemphasis	0 μs, 50 μs or 75 μs	
Environment / Physical specifications		
Overall dimensions	11U x 19"	14U x 19"
Enclosure depth required	800mm	
Weight	~23 kg	
Operating weight per module	Nominal: 5°C to 45°C, Maximum: 0°C to 50°C	
Warehousing temperature	-20°C to +70°C, <10 years	
Humidity	5 - 95 % non-condensing relative humidity	
Altitude	Up to 3900 m	
Cooling	Air cooled performed by each module from the front panel to the rear (other configurations on demand).	
Marking	CE, FCC, ICC	
Standards	1999/5/CE (R&TTE), ETS 302 018 (EMC), ETS 300 384 (Radio), NF EN 60215 (Safety)	

Technical specification are subject to change without prior notice – 02/2018

Order information

STANDARD VERSION	
REF	DESCRIPTION
TF00438-x	ECRESO FM 3500W
TF00415-x	ECRESO FM 5000W
Software Option	
SP01319	Communication Pack
CD00106	Basic RDS
CD01001	5 Band Sound Processor
Hardware Options	
SP01319	GPIO board
SP01615	Analog GPIO board
SP01322	RF metering board
ST01792	SFN Option
SP01260	Internal surge protector

ON DEMAND SERVICES

Redundancy solutions : Dual Drive, 1+1, N+1
Dummy loads, adapters, cables
Cavity filters, combiners and antenna systems
Coverage Study
Turnkey solutions for broadcasting site

Head Office

WorldCast Systems S.A.S

20 avenue Neil Armstrong
33700 Mérignac (Bordeaux Métropole) FRANCE

+33 (0)5 57 928 928

contact@worldcastsystems.com

US Office

WorldCast Systems Inc

19595 NE 10th Avenue Suite A
Miami, FL 33179 USA

+1 305 249 3110

ussales@worldcastsystems.com