



DIGITAL EXCITER



CONTROL



EFFICIENCY



RELIABILITY



SOUND PROCESSOR



FEATURES

FM Transmitters 750W to 2000W



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
- Expert Maintenance Reporting
- Advanced Metering Interface



POWERFUL SAVINGS

- Up to 72% 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)
- Expert Maintenance Reporting (EMR)
- Intuitive Web Interface
- Full SNMP Management



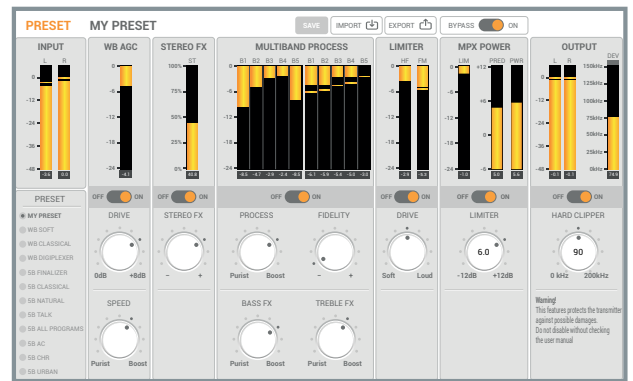
UP TO 72% EFFICIENCY

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

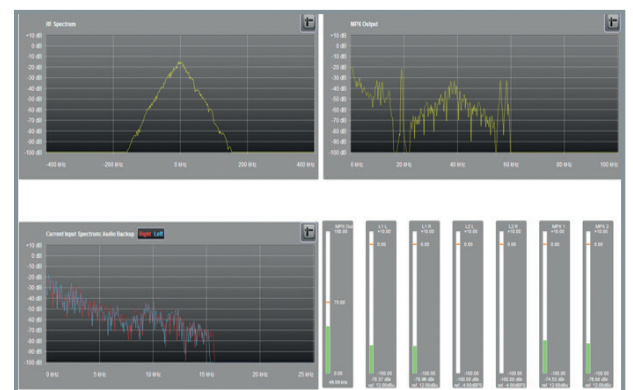


HIGHLY RELIABLE

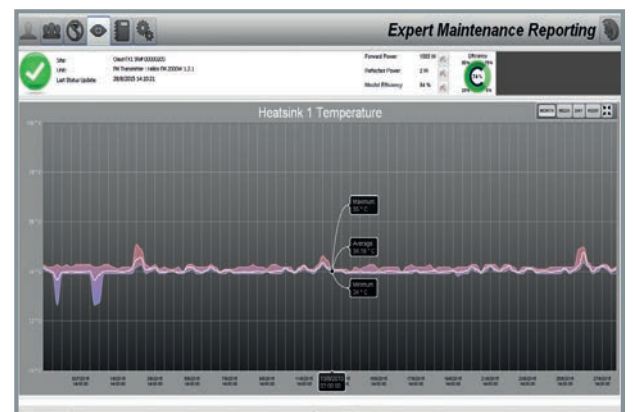
- Compact transmitter, modular design
- Protected against VSWR, temperature, overload...
- Switching power supplies with large voltage range
- Active surge current limiting
- Optional Surge Suppressor
- Automatic input switching and recovery (audio and MPX)
- Audio Backup (from μ SD card)
- Internal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



Sound Processor Interface



Advanced Measurement Interface (AMI)



Monthly history logs

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

Egreso offers a standard warranty of 3 years



on all our FM transmitters and up to 10 Years, yes **TEN YEARS** Warranty on our range of compact FM transmitters for a small additional charge. No other FM Transmitter Manufacturer even comes close to that commitment or confidence! We can offer the 10 Year Warranty with confidence thanks to:

- Our exceptional design quality
- The outstanding efficiency of our transmitters
- Advanced diagnostics capabilities

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

Expert Maintenance Reporting (EMR)



EMR is a proactive service which sends regular reports on the status of key parameters such as temperatures, currents and voltages, plus information on the performance and lifespan of components such as the fan and the power supply of the transmitter. Thanks to a powerful firewall-friendly Web protocol, EMR works securely over a regular Internet connection (ADSL, 3G, ...) even when the connection bandwidth is limited.

Technical Features

| | ECRESO FM 750W | ECRESO FM 1000W | ECRESO FM 1500W | ECRESO FM 2000W |
|---|---|--|---|---|
| Frequency range | 87.5 to 108 MHz by 10 kHz steps | | | |
| Frequency stability | < 10 ⁻⁶ per year | | | |
| HF output | 7/16 Type, 50 Ω | | | |
| Power range | Range: 50-750 W, Setting: 0-750 W | Range: 50-1000 W, Setting: 0-1000 W | Range: 150-1500 W, Setting: 0-1550 W | Range: 200-2000 W, Setting: 0-2050 W |
| VSWR | < 1.35, Optimal performance: < 1.1 | | | |
| Spurious and harmonic suppression | > 75 dBc | | | |
| Efficiency | up to 76% | up to 72% | up to 72% | up to 72% |
| Max consumption | 1150 W | 1550 W | 2300 W | 3050 W |
| Voltage | 184 VAC to 264 VAC, 47 Hz - 63 Hz | | | |
| Power factor | > 0.9 | | | |
| Fuses | 10 AT | | No fuses, circuit breaker | |
| 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 | 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 | < 0.1% (50 dB) RMS (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 | | | |
| Environmental / Physical specifications | | | | |
| Overall dimensions | Overall: 487.5 X 2U X 475 mm, Rack size: 437.7 X 82 X 443.8 mm (WxHxD) | | | |
| Enclosure depth required | 600 mm | | 700 mm | |
| Mounting | 19" enclosure, with 4 M6X12 screws | | | |
| Weight | ~13 kg / ~18 kg | | | |
| Operating temperature | 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 | 1 fan: ~30 l/s | | 2 fans: ~60 l/s | |
| 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 – 07/2017

Order information

| STANDARD VERSION | |
|------------------|--------------------------|
| REF | DESCRIPTION |
| TF00354-x | ECRESO FM 750W |
| TF00996-x | ECRESO FM 1000W |
| TF00366-x | ECRESO FM 1500W |
| TF00367-x | ECRESO FM 2000W |
| Software Options | |
| 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 |

| STANDARD VERSION | |
|---|------------------------------------|
| REF | DESCRIPTION |
| 10 Years Warranty | |
| EMR4 | 10 Year Warranty (Up to 750W) |
| EMR5 | 10 Year Warranty (1000W and 2000W) |
| Expert Maintenance Reporting | |
| EMR6 | Expert Maintenance Reporting |
| ON DEMAND SERVICES | |
| Redundancy solutions : 1+1, N+1 | |
| Dummy loads, adapters, cables | |
| Cavity filters, combiners and antenna systems | |
| Coverage Study | |
| Turnkey solutions for broadcasting site | |