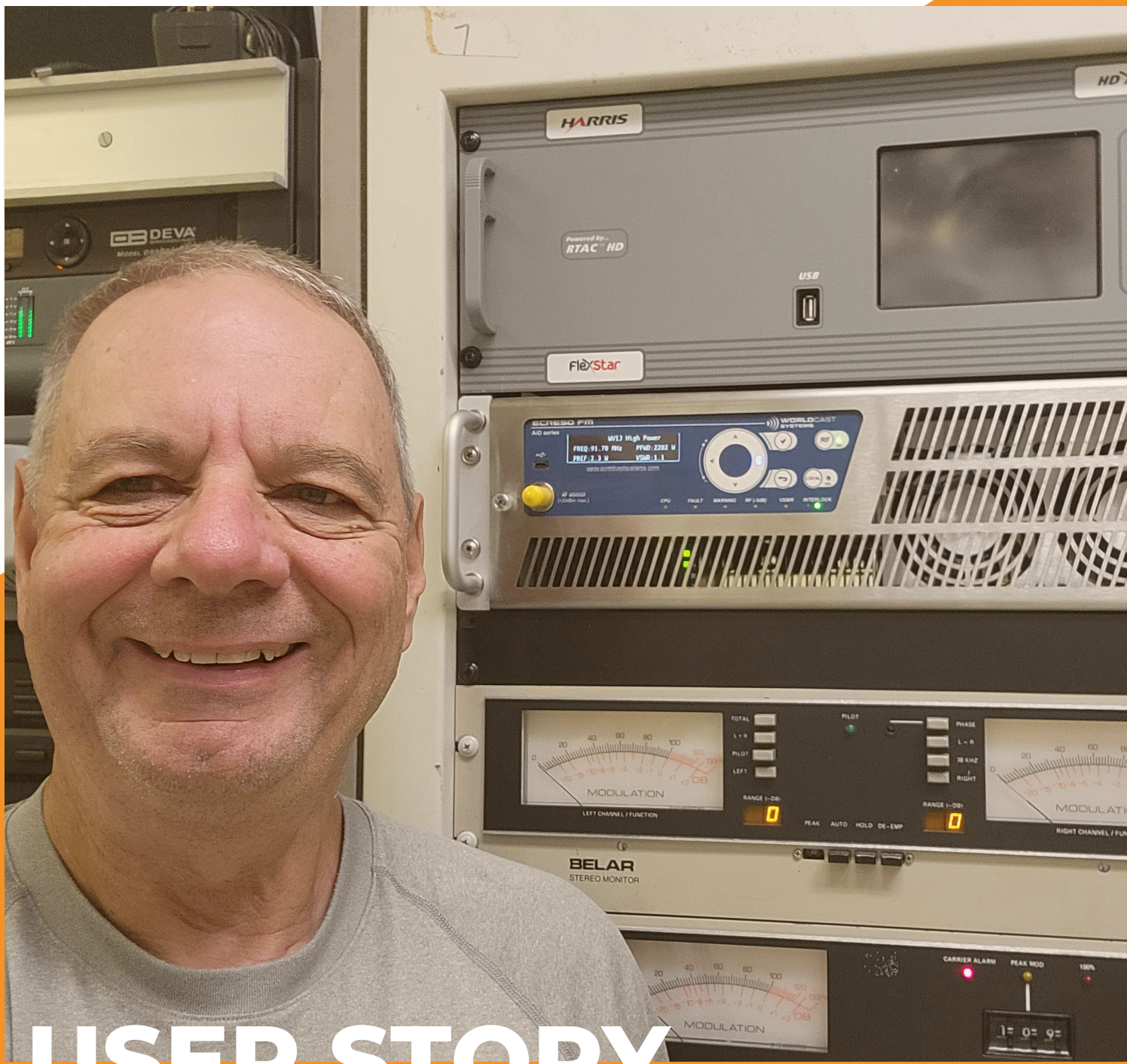
WORLDCAST SYSTEMS

LECOM Radio



USER STORY

Ecreso 2kW AiO Series Transmitter

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OVERVIEW

LECOM Radio recently purchased a new 2kW AiO Series Ecreso transmitter for WVIJ, Port Charlotte, which is part of a 5-station simulcast of WSRQ Sarasota in Southwest Florida. This is the fifth transmitter in the new line following the 100, 300, 600 and 1kW models. All offer an extremely feature-rich system with outstanding on-air sound quality. While many features are standard, others are enabled via software upgrade.

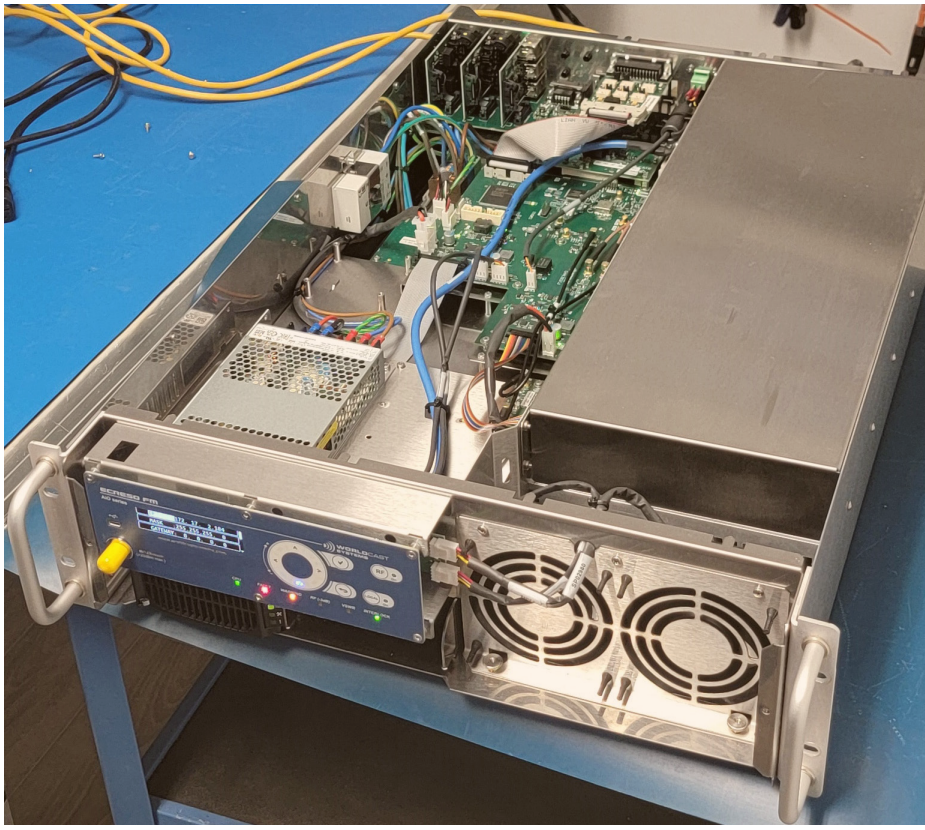
Ecreso now packages AiO products into three major bundles called Essentials (most basic), Perform and Extreme (all features enabled including 10-year warranty). If you purchase a lower-level package and decide later to upgrade, simply request a license code through your favorite dealer, pay an upgrade fee and install the new code via the GUI. Our transmitter package is the Extreme, including, among other things, the **5-Band processor, AoIP decoder with APTmpX compatibility (as well as PCM uncompressed), AES 192 MPX inputs, full RDS/RBDS encoder, surge protector, stereo generator** and many other items.

The different option packages are on the WorldCast website for comparison.

We ordered this 2kW transmitter nearly a year ago, telling WorldCast we would wait for the AiO version. The first manufacturing run was to a customer for a nationwide rollout; we received the first transmitter from the second run which turned out beneficially as Ecreso made a few improvements. I picked up the transmitter personally at the WorldCast office in Miami after Julian Gomez, their tech support guru, had fired it up, set up our licenses for the Extreme package and test-ran the unit. **This is the first 2kW AiO on the air in the Americas.**

This transmitter replaced a 2005 second-generation solid-state transmitter of the same power level at a fraction of the size and cost yet offers far more features plus a web GUI. Replacement of components (typically a circuit board) inside the Ecreso chassis is quite direct with good access once the top cover is removed. Easy replacement is provided for the two fans and PA power supply from the front panel.

«Efficiency on our unit is excellent – at 83% PA and 95% power supply.»



INSTALLATION

The transmitter was set in place by me and a helper. With two people it was not heavy at 50 pounds. The 3-RU chassis is fully self-contained.

It does require rear support (not supplied) so we fashioned something from old brackets from a UPS that was no longer in service. The AC power (184-264 v) is via a supplied power cord with an IEC C-19 connector to a standard 20-amp 240-volt circuit. A new feed from the breaker panel via existing conduit and box near the rack and a new 20-amp twist-lock connector was added for electrical power.

All connections for audio and RF are on the rear – XLR for analog L/R and two AES 3 inputs, BNCs for two analog baseband composite inputs, along with provisions for adding SFN with 10 MHz and 1 PPS inputs or built-in GPS receiver via SMA connectors. Also, you will probably want a 90-degree DIN 7-16 elbow to route the transmission line upward.

Our installation is fed by AES192 (via AES1 input) over the public internet with two ISP connections for redundancy.
Thus, processing and RBDS injection is at the studio.

Backup is via an uncompressed high quality PCM stream (decoded by the transmitter's own internal AoIP decoder) and then, as last resort, our web stream (as captured in a separate CODEC), fed into the analog L/R ports).

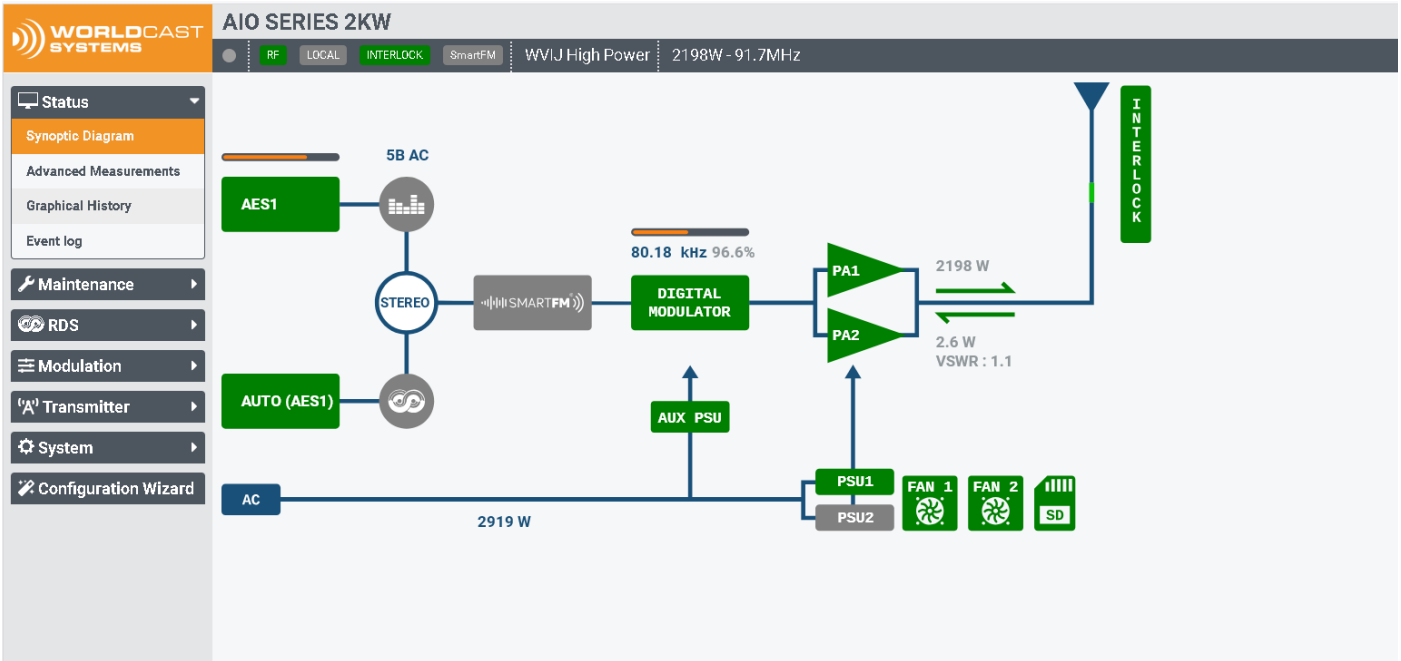
Ecreso's next software update will add Shoutcast/Icecast with HE-AAC (v1/v2) and AAC-LC to the MP3 capability of the internal player to eliminate the external CODEC. All of our backup modes utilize a static RBDS (generated internally by the transmitter) plus the 5-band built-in processor which sounds very good and nearly loudness-competitive with our high-end studio Optimod processor. The 5-band processor is automatically bypassed for the composite inputs and AES192.

The built-in GPIO interface is connected to our Burk Remote Control.
RF on/off functions, eight operational presets plus full metering and numerous status functions are monitored.
The transmitter also supports full SNMP monitoring and control, with a download of the MIB files directly from the transmitter. Ninety-five percent of the transmitter setup is via the GUI (or front panel controls). There were a couple of functions on the GPIO board we needed to set with Telnet via IP (PuTTy works well). The next software revision will move all configurations to the GUI.

The 5-band audio processor comes with a good number of presets for various formats with full control to modify and save settings as desired. In addition, the GUI supports alarm setup for both warnings and faults for a large number of functions (email/text and/or SNMP). Alarms may be sent to multiple users with current email security protocols fully supported. Having installed several lower power AiO transmitters in the past, plus the earlier FM series (which we are using at one of our translators), configuring everything via the GUI was quite intuitive. There is also a GUI setup wizard to have you up and running in short order and you can go back and take care of details later.

Also, all settings (including processing) may be saved to the transmitter's SD card or a PC. Synoptic diagrams give an immediate view of transmitter operations and audio paths. There are two Ethernet ports, either or both can be used. A second ISP connection to the second port permits access to the GUI regardless of ISP failure, something that most of the competition does not have. It also permits the player to seek a web stream via either port in case of ISP failure. The player may output audio stored on the internal SD card (up to 10 GB).

«Configuring everything via the GUI was quite intuitive.»



TECHNICAL SUPPORT

In spite of a very detailed instruction manual, I did have a few questions during my set-up phase and it's good to know that Julian Gomez in Miami is ready for phone calls and emails and is very responsive. Not only does he provide support, he is also the repairman and can repair a PA module or fix an entire transmitter if it's shipped to him.

Of course, they stock power supplies, modules and parts in the Miami facility for quick shipments as needed, although from my experience with a good number of Ecreso low power transmitters, they rarely fail. Standard 48-volt telecommunications PA power supplies are utilized, swappable from the front panel. As an option, a second PA supply may be added.

«I believe we will have many years of excellent service from this new 2kW AiO series transmitter.»

WorldCast recently relocated to a new office and warehouse in Miami with considerable stock on hand.

KEY TAKEAWAYS

- Feature-Rich Integration: The Ecreso FM AiO Series 2kW combines multiple broadcast functions—such as a 5-band sound processor, APTmpX-compatible AoIP decoder, and full RDS/RBDS encoder—into one compact 3U chassis, minimizing external equipment needs.
- High Efficiency & Reliability: With up to 76% efficiency (AC to RF), the transmitter delivers excellent energy performance and long-term reliability with easily replaceable front-access components.
- User-Friendly Design: Configuration and monitoring are intuitive through the web-based GUI. The unit supports full SNMP monitoring as well as configurable GPIO for remote control
- Trusted Support & Longevity: Backed by responsive local support from WorldCast Systems in Miami and proven field reliability, the AiO Series 2kW is built for years of dependable service in demanding broadcast environments.