

# LEGEND

◆ 10,000C ◆

## 10KW SOLID STATE FM TRANSMITTER



### Features:

- ◆ TEN INDEPENDENT BROADBAND SOLID STATE AMPLIFIERS - NO TUNING REQUIRED
- ◆ MULTI-FUNCTION, HIGH PERFORMANCE STEALTH EXCITER
- ◆ INDEPENDENT 300 WATT SOLID STATE IPA
- ◆ SIMPLE BUT RELIABLE CONTROL SYSTEM
- ◆ METERING OF EACH 300 WATT PALLET CURRENT AND VOLTAGE
- ◆ AUTOMATIC POWER OUTPUT AND VSWR FOLDBACK
- ◆ "BRUTE FORCE" POWER SUPPLY INSENSITIVE TO LINE VOLTAGE TRANSIENTS
- ◆ BROADBAND OUTPUT COMBINER
- ◆ FULL ACCESSIBILITY WITH SLIDE OUT DRAWERS
- ◆ FULL FILTERING OF ALL COOLING SYSTEMS



## ENERGY-ONIX

*The Transmitter People*

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## Features/Benefits

**Tunes As Easily As Your Car Radio:** The broadband design of the Legend 10,000C makes it a perfect choice as a “Main Transmitter” or as a back up transmitter for multiple stations in a single market. Trailer mounted, it can serve as a portable emergency transmitter for group owners. Supplied with our Frequency Agile Exciters all that is needed to change frequency is to dial-in the desired frequency on the Exciter Front Panel.

**Built-In Redundancy:** “Hot-pluggable” 1000 watt drawers can be safely removed or inserted while the Legend is On The Air. The transmitter will continue to operate at reduced power even with a PA drawer removed.

**100% Energy-Onix:** During the past 11 years, Energy-Onix has prided itself in manufacturing our own excellent quality, highly reliable, solid state modules. This legacy continues in the Legend 10,000C. Our field proven design utilizes commonly available mosfets and is based on our years of field experience. You will benefit by owning an American made transmitter which will bring you years of “trouble free”, minimum maintenance service.

**Monitoring:** The Legend 10,000C has monitoring available of all transmitter parameters. Individual pallet current and combiner power output is available on each 1kw drawer. Overall transmitter readings for both incident and reflective power output are located on the front panel. Status of all fuses and thermostats are present on the front panels.

**VSWR Foldback/Temperature Protection:** Each mosfet utilized in the transmitter is protected by its own thermal protection circuitry. In addition each 1kW amplifier is also protected by a VSWR foldback circuit.

**Design Philosophy:** The Legend 10,000C is built utilizing a “building block approach”. The basic building block is a conservatively rated 1kW PA drawer. These PA’s are then combined together to achieve the rated transmitter power output.

Internally each PA contains four mosfets mounted on copper plates, which in turn are mounted on a massive heat sink. This system of heat dissipation along with our exhaust fans ensure cool operating temperatures for extended life.

16-18 watts of RF drive is required to achieve the 1kW PA output with each device output being combined by a 4:1 combiner.

**Air Circulation:** Cooling is achieved by having filtered air enter the cabinet through the front filtered door. This air is forced by independent muffin fans to pass through the fins of the heat sinks upon which the mosfets are mounted. This air is then forced out of the rear and exhausted out of the cabinet by a number of 4” fans located on the rear doors.

**Control System:** The Legend 10,000C has a straight forward, easy to use control system. It can be started by local or remote control. Simply initiate the start button and within seconds you will be on the air.

**Remote Control:** No special interface is required. Simply apply a momentary ground to start, stop and reset the equipment.

**Circuit Breaker & Fuse Protection:** Each PA contains a circuit breaker for the incoming DC power. Front panel indicator lights describe the status of all circuit breakers.

**Power Supply:** The Legend 10,000C is powered by a brute force power supply.

## TECHNICAL & MECHANICAL SPECIFICATIONS

<b>Frequency Range:</b>	87 to 108mHz (broadband - no tuning required when used with Energy-Onix Exciters)	<b>Cabinet Sizes:</b>	(2) 65 3/4" H x 23 1/4" W x 37 1/4" D
<b>RF Harmonics:</b>	At least 80db below carrier	<b>Cabinet 1 &amp; 2:</b>	Total Weight - 1500 lbs.
<b>AM Noise:</b>	At least 60db below carrier	<b>Power Consumption:</b>	14KW @ 10KW Output
<b>FM Noise:</b>	At least 80db below 100% mod. at 400 Hz	<b>Output Flange:</b>	1 5/8" or 3 1/8" EIA (Specify)
<b>Audio Performance:</b>	See Exciter Specifications	<b>Line Voltage:</b>	380/220 three phase (Specify)