

*Legend*  
Series "C"

## Medium Power Solid State FM Broadcast Transmitters

# 4000

### Features/Benefits

**Tunes As Easily As Your Car Radio:** The broadband design of the Legend Series "C" 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 drawer 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.

**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.

**Commonly Available Parts:** Built with your best interest in mind, the Legend Series "C", like all Energy-Onix Transmitters, is designed for years of reliable service and utilizes commonly available parts. On those rare occasions when parts replacement is necessary, you have control of where parts are purchased. This will allow you to shop local part suppliers for the best price. It also will speed replacement time putting you back at full power much sooner than you would be if you had to wait for high price, single source, proprietary items. Should you choose to purchase parts directly from us, we do offer next day delivery or next flight out service. Energy-Onix engineering department is available around the clock to assist with technical and parts support. The most important message to you is that our relationship will be a relationship you choose, not one forced on you.

**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 Series "C". Our field proven design utilizes Philips BLF278 mosfets (commonly available) 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.



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## ENERGY-ONIX

*The Transmitter People*

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**Support:** At Energy-Onix you are not a number, you are a valued customer. As such, we have our engineering staff on call 24 hours a day, 7 days a week to assist with technical questions or situations which might occur.

**Design Philosophy:** The Legend Series “C” 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 BLF278 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 cabinet front. 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 of the chassis and then exhausted out of the cabinet by fans located on the rear door.

**Power Supply:** The Legend Series “C” is powered by a power supply located on the cabinet base. The output of this supply is fed through independent circuit breakers to each PM.

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

**Circuit Breaker & Fuse Protection:** Each Legend System contains a circuit breaker panel for the incoming AC power as well as independent breakers for the independent power supplies. Front panel indicator lights describe the status of all fuses.

**Monitoring:** The Legend Series “C” 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 “Combiner/Controller” drawer. Status of all fuses are present on the front panels of all power supplies.

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

## TECHNICAL & MECHANICAL SPECIFICATIONS

<b>Frequency Range:</b>	87 to 108mHz (broadband - no tuning required when used with Energy-Onix Exciters)	<b>Audio Performance:</b>	See Exciter Specifications
<b>RF Harmonics:</b>	At least 80db below carrier	<b>Cabinet Size:</b>	66 “ H x 24“ W x 36” D
<b>AM Noise:</b>	At least 60db below carrier	<b>Cabinet Weight:</b>	700 lb.
<b>FM Noise:</b>	At least 80db below 100% mod. at 400 Hz	<b>Vault Size:</b>	36” H x 24” W x 36” D
		<b>Vault Weight:</b>	500 lb.
		<b>Power Consumption:</b>	5.5KW @ 4KW Output
		<b>Line Voltage:</b>	380/220 V, 50/60 hz, 1 or 3 phase (specify)
		<b>Output Flange:</b>	1 5/8“ EIA