

# KCC SERIES

## FM BII SOLID STATE COMPACT TRANSMITTER

### 500W - 1KW - 2KW

#### ELECTROLINK FM BII COMPACT TRANSMITTERS

KCC FM Transmitter Series belongs to Electrolink low power FM ultra-compact product family, that covers a power range from 500W to 2kW. Each transmitter includes the following components:

- FM Exciter
- Power Amplifiers
- Power combiner
- Power distribution
- Control unit (for local/remote control)
- Step-down transformers (complete protection).

KCC series has been created to answer the need of ultra-compact FM transmitter with outstanding technical parameters, optimum cost/benefit ratio, maximum reliability and ease of servicing. The outpower ranges from 500W (0.5KCC model) up to 1kW (1KCC model) and 2kW (2x1kCC). Thanks to the modular design, any combination is possible, such as:

- 500W FM Transmitter with one 0.5KCC power amplifier
- 1kw FM Transmitter with one 1KCC power amplifier
- 1kw FM Transmitter with two 0.5KCC power amplifiers
- 2kw FM Transmitter with two 1KCC power amplifier.

The power amplifier control logic unit can handle and display all the parameters and diagnostic about the equipment status, providing all control functions. All transmitter and amplifier parameters required for diagnostics can be retrieved locally or remotely via standard (IP) protocol and standard software (web browser and lab-view application). Each power amplifier is self-protected and self-controlled. Two step-down transformers are used to provide a total redundancy and protection.

#### KEY FEATURES

- Analog exciter
- "State of the Art" solid state technology
- MOSFET transistors
- 19" standard rack clearly arranged and easily accessible
- Ultra-high redundancy thanks to modular configuration
- Low junction temperatures of the RF power transistors
- Step-down transformers for complete protection
- Each final stage disposes of its own power supply unit
- Remote/local control
- Protective circuits for the RF power transistors
- High suppression of intermodulation products
- Efficient low noise forced air cooling



0.5KCC - 500W FM Solid State Transmitter  
1KCC - 1KW FM Solid State Transmitter



1KCC - 1KW FM Solid State Transmitter  
2KCC - 2KW FM Solid State Transmitter



Internal view of the power amplifier



**TECHNICAL DATA**

Frequency range	87.5 to 108 MHz
Output Power	500W - 1kW - 2kW
Homologation RF-AF performances	ETSI ETS 300 384
Homologation EMC standard	ETSI ETS 300 447
Homologation safety standard	UNI EN 60215
RF Output connector	7/8" EIA
Input/Output impedance	50Ω
Harmonic suppression	>80 dB
Intermodulation products	<1μW
Remote control	via serial interface RS232
Power Supply:	Single-phase 230 Vac ±15% with neutral 47 to 70 Hz
RF Input Connectors	N type
Input driver power	50W
Power consumption	850W (0.5KCC) 1,7kW (1KCC) 3,2kW (2KCC)
Power factor cos .	≥0.95
Harmonic and spurious suppression	meet or exceed all CCIR & FCC requirement
Dimensions with 12HE Rack (mm)	540 x 685 x 585(H)
Weight	55Kg
Ambient temperature	- 5 to +45°C
Storage temperature	-20 to +70°C
Humidity	95 % (non-condensing)
Installation height	up to 2.000 m (asl)

TRANSMITTER MODEL	OUTPUT POWER	NUMBER OF POWER AMPLIFIERS	NUMBER OF FINAL STAGES
0.5KCC	500W	1 (0.5KCC)	1 x 500W or 2 x 250W
1KCC	1KW	1 (1KCC)	2 x 500W
1KCC	1KW	2 (0.5KCC)	2 x 500W or 4 x 250W
2KCC	2KW	2 (1KCC)	4 x 500W

**EXCITER** High performance, compact, reliable and easy maintenance. Adjustable output power from 0W to maximum power with automatic APC control and protection. Safe operation in any working conditions. Completely microprocessor-controlled. It complies with all EC, FCC and CCIR standards. In addition to the analog exciters, Electrolink can also provide Digital FM exciters in order to avoid the needing for analog up-conversion, noise and filtering requirements, bringing up to digital quality standards at very low distortion.



**POWER AMPLIFIERS** KCC Transmitter line is equipped with fully solid state and fully broadband all over FM Band (from 87.5 up to 108MHz) power amplifier. For complete redundancy, each final stage has its own power supply. The outpower is displayed in the front panel by means of a multifunction display. Four redundant blowers ensure the complete cooling of each power amplifier.



**MAINS DISTRIBUTION** In order to ensure complete the power supply voltages, the transmitter is equipped with step-down isolation transformers with electrostatic shield that can guarantee 100% redundancy. In case of fault phase lack or transformers fault, the transmitter keeps on working automatically reducing the output power, but does not turn off at all. This allows continuous on-air working condition.

