

## **CROWN BROADCAST CLASSIC LINE**

**FM2000 - FM4000**

- **5-Year Warranty**
- **Best-in-Class Reliability and Efficiency**
- **24 hour Service and Support**
- **Optional Built-in Audio Processor for Transmitter Applications**

The Crown Classic line is a very high quality, robust reliable FM transmitter system designed for years of 24/7 trouble-free operation for your broadcast facility.

The Classic Line is available in models from 30 watts to 600 watts in three basic configurations. The E model (suffix not to be confused with our newer E-Series) is the basic exciter only with composite input only. The T model includes a built-in audio processor and stereo generator.

Reliable operation is still the major design criterion in all Crown Broadcast products. With low-loss circuit boards and copper heat spreaders in the RF chain, the unit functions with less wear and improved life span. The FM2000 and FM4000 are capable of 2,200 watts and 4,400 watts respectively. Crown Classic 2kW and 4kW transmitters utilize the tried-and-true ultra-reliable method of utilizing a separate exciter, amplifier and power supply. Hot swappable 500 watt amplifier modules complete this system making it the benchmark for robust reliable operation.

The FM4000 is based on the FM2000 architecture utilizing two FM2000's combined with a controller. The FM4000 is ideal for locations needing the ultimate in redundancy and reliability.

# Classic FM2000/4000

Frequency Range .....	.87 to 108mHz (Japanese frequency available 74 to 90mHz)
RF Power .....	200 to 2.2kW with front panel adjustment 400 to 4.4kW on FM4000
Frequency Setting.....	Front Panel on exciter
RF-Output.....	50 Ohms unbalanced
VSWR.....	2.0:1 Maximum with automatic fold-back at higher VSWR
Frequency Stability.....	Better than +/- 2.0KHz over operating range (typical +/-200Hz)
Modulation Type.....	Direct frequency modulation of carrier
Modulation Indication.....	LED indicators with peak indicators
FM S/N Radio (FM noise).....	Better than 60dB (70 to 80 dB typical)
Asynchronous AM S/N Ratio.....	Better than 50dB referenced to 100 modulation @ 100Hz de-emphasis
Synchronous AM S/N ratio.....	Better than 50dB with 100% modulation (typical >60dB)
RF Harmonics/Spurious Products.....	Better than -70dB (-80dB typical)
RF bandwidth.....	+/-120 kHz, better than -25dB, +/-240 kHz better than -35dB
Temperature Range.....	0 to 50 degrees C
Humidity Range.....	0 to 80% @ 20 degrees C (non condensing)
Maximum Altitude.....	10,000 ft (3,000m)
AC Power.....	220 to 240 AC +/-10%, 50 to 60Hz
Power Factor.....	Greater than 97% (lagging)
Power consumption.....	2.8kW at 2,000 watts RF output
Regulatory Notification for FCC part 73 and 74.....	Meets FCC Requirements
RF output connector.....	7/8th EIA Flange (7-16 DIN optional)
Chassis Dimensions (for 2kW for 4kW add control module) x 2	
Amplifier.....	7 x 17.25 x 23" (17.7 x 43.8 x 58.4cm) Wt 66lbs
Power Supply.....	5.25 x 17.25 x 23" (13.3 x 43.8 x 58.4) Wt 46lbs
Heat output 2K and 4K.....	3375 BTU and 6650 BTU
Warranty.....	5-Year

---

## Below Specification is when used with Crown Classic Exciter

### Monaural operation w/ built in Audio Processor

- Audio Input impedance.....50 Kohms bridging, balanced
- Audio Input level.....3.8 Vp-p for +/-75KHz deviation
- Audio Frequency response...Conforms to 75uS pre-emphasis curve for +/-0.25 dB from 50Hz to 15KHz
- Pre-emphasis.....Selectable 50, 75 uS or flat

### Wide Band composite operation

- Composite Inputs.....1
- Composite Input level.....3.8 Vp-p for +/-75KHz deviation
- Composite total harmonic.....< 0.05% from 50Hz to 15 Hz distortion + noise (0.03 typical)
- Sub-carrier inputs.....3
- Sub-carrier input level.....3.8 Vp-p for +/-7.5KHz deviation
- Sub-carrier amplitude response...+/-0.3 dB from 40Hz to 100KHz

### Stereo Operation w/ built in Audio Processor and Stereo Generator

- Audio Input impedance.....50 Kohms bridging, balanced
- Audio Input level.....-10 dBm to +10 dBm selectable for 75KHz deviation @400Hz
- Frequency response.....+/-0.3 dB from 50Hz to 10KHz, +/-1.0dB from 10Hz to 15KHz
- Total Harmonic distortion + Noise.....0.4% or less @ 15KHz (0.2 typical)
- Stereo Separation.....Better than 40 dB from 50Hz to 15KHz
- Linear Cross Talk.....Main to sub and sub to main, -40 dB or better from 50 Hz to 15 KHz
- 38 KHz Sub-carrier suppression.....>60dB
- Pilot Stability.....+/- .5 Hz @ 9% modulation



Crown Broadcast IREC  
25166 Leer Drive  
Elkhart, IN 46514  
574-262-8900  
fmsales@irec1.com