

CROWN BROADCAST CLASSIC LINE FM30, FM150, FM300 AND FM600

- 5-Year Warranty
- Best-in-Class Reliability and Efficiency
- 24 hour Service and Support
- Optional Built-in Audio Processor for Transmitter Applications
- Optional Built-in DSP Based Receiver for Translator 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 allowing it to operate as a “suitcase” transmitter in a box. The R model is the original “Translator” with a very high quality DSP-based AM/FM receiver built in for all translator applications.

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. A robust Toroidal power supply (on FM30,150 and 300) offer superior operation in areas with marginal power and the FM600 offers a very high quality switching power supply for superior higher power operation.

Classic FM30, 150, 300 and 600 watt

Frequency Range	87 to 108mHz (Japanese frequency available 74 to 90mHz)
Frequency Setting.....	Front Panel
RF-Output.....	50 Ohms unbalanced
VSWR.....	2.0:1 Maximum with automatic fold-back at higher VSWR
Frequency Stability.....	Better than +/- 2kHz over operating range
Modulation Type.....	Direct frequency modulation of carrier (typical +/-200Hz)
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.....	100 to 120 or 220 to 240 AC +/-10%, 50 to 60Hz
Power Factor.....	Greater than 97% (lagging)
DC power.....	36 to 72VDC (FM30/48VDC, 150/60VDC, 300/72VDC)
Power consumption 30, 150, 300 and 600.....	100VA, 420Va, 700VA and 1.6KVA
Regulatory Notification for FCC part 73 and 74.....	Meets FCC Requirements
RF output connector.....	Standard type N, 50 Ohm
Chassis Dimensions FM30,150 and 300.....	25 x 16.5 x 17.5 inches (13.4 x 41.9 x 44.5 cm)
Chassis Dimensions FM600.....	7 x 16.5 x 17.5 inches (17.8 x 41.9 x 44.5 cm)
Weight FM30, 150, 300 and FM600.....	25lbs, 29lbs, 33lbs and 38lbs
Heat output FM30, 150, 300 and 600.....	100 BTU, 200 BTU, 400 BTU and 975 BTU
Warranty.....	5-Year

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

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

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