



GATES

The soundest sound in FM

fm
3G

3,000 watt FM transmitter

All New Gates FM-3G 3 KW Transmitter

Conservatively Rated at 3,000 Watts

Developed specifically for transmission of 3 kilowatts in both the horizontal and vertical plane under FCC rules for Class A stations, this superb new FM transmitter offers full power coverage for FM broadcasters.

LONG LIFE—Tops in conservative design and economical operation, the FM-3G uses the modern ceramic 4CX5000A power tube providing long-term useful life. This tube, now standard for 5 KW FM transmitters, coasts along in 3 KW service assuring long life and maintenance-free operation.

GREATER RELIABILITY—This 3000 watt transmitter—latest in the full line of Gates FM transmitters—incorporates solid-state rectifiers as standard equipment contributing directly to over-all greater reliability.

COMPACT—The FM-3G occupies only 42x32 $\frac{1}{4}$ inches of floor space (less than nine square feet) and is completely self-contained except for the top mounted tee notch and harmonic filter.

FULL COLOR PERFORMANCE—Assuring full color sound fidelity from 30 to 15,000 cps., the Gates FM-3G delivers a new world of performance and sound.

The Soundest Sound in FM Broadcasting can be yours with this, the newest 3 KW FM transmitter.

FURTHER INFORMATION—For further information on a full power Class A FM station with the new Gates FM-3G transmitter, contact your Gates sales engineer or Gates Radio Company, Quincy, Illinois.

Specifications:

POWER OUTPUT: 1 to 3 KW

FREQUENCY RANGE: 88-108 Mc.

RF OUTPUT IMPEDANCE: 50 ohms.

RF OUTPUT CONNECTOR: 3 $\frac{1}{8}$ " EIA flange.

FREQUENCY STABILITY: $\pm .001\%$.

TYPE OF MODULATION: Cascade with direct crystal control.

MODULATION CAPABILITY: ± 100 kc.

POWER INPUT: 208/240 volts, 3 Phase, 50/60 cycles.
Crystal oven requires 115 volts, 50/60 cycles, single phase.

INPUT AC POWER REQUIREMENT: 6.5 KW @ 240 V,
500 W @ 115 V.

TUBES: (Exciter section) (6) 6AU6, (3) 6J6, (3) 6201, (3) 7025,
(2) OA2 and (1 each) 12AX7, 6AQ5, 6080, 6360,
5AR4/GZ-34.
(Transmitter section) (1 each) 4CX250B, 4CX5000A.

POWER SUPPLY: Solid state.

MAXIMUM ALTITUDE: 7500 feet.

AMBIENT TEMPERATURE RANGE: -20°C to -45°C.

MAXIMUM VSWR: 1.7 to 1.

OVER-ALL CABINET SIZE: 42" wide, 78" high, 32 $\frac{3}{4}$ " deep.
(NOTE: 32 $\frac{3}{4}$ " is over-all depth dimension. With rear door and front door handles removed, minimum depth is 29 $\frac{3}{4}$ ".)

FRONT DOOR SWING: 21".

FINISH: Two-tone aqua mist, trimmed in black and brushed aluminum.

WEIGHT AND CUBAGE: Packed (domestic) 1425 lbs., (export) 1550 lbs., cubage 117.

FM-3G MONAURAL TRANSMITTER

AUDIO INPUT IMPEDANCE: 600 ohms.

FREQUENCY RESPONSE: ± 1 db. 50-15,000 cycles.
-2 db @ 30 cycles.

DISTORTION: 1% or less 30-15,000 cps, $\frac{1}{2}\%$ or less
100-10,000 cps.

NOISE: 65 db. below 100% FM modulation (FM).
50 db. below equivalent 100% (AM) modulation.

FMS-3G STEREO TRANSMITTER

AUDIO INPUT IMPEDANCE (left and right): 600 ohms.

AUDIO INPUT LEVEL (left and right): + 5 dbm.

DISTORTION: 1% or less, 50 to 15,000 cps.

FREQUENCY STABILITY (19 kc. pilot): ± 1 cps.

PILOT OSCILLATOR: Crystal controlled in 60° C oven.

NOISE: -60 db.

PERCENT MODULATION OF MAIN CARRIER BY PILOT:
8 to 10%

CROSSTALK (sub-channel to main channel): 40 db. or better.

STEREO SEPARATION: 30 db. typical.

CROSSTALK (main channel to sub channel): 40 db. or better.

SCA PROVISIONS: Space provided for 41 kc. and 67 kc. sub-channel generators.

ADDITIONAL TUBES: (2) 6201/12AT7; (5) 7025/12AX7;
(2) 6BY6; (1 each) 6AK5 & 6AK6.
Power supply is solid state.

ORDERING INFORMATION

FM-3G: 3 KW Transmitter, one set of tubes, crystal and oven, silicon rectifiers, tee notch and harmonic filters
994-6504-001

FMS-3G: 3 KW Transmitter, one set of tubes, one crystal with oven, silicon rectifiers, tee notch, harmonic filters and M-6146 stereo generator (state frequency) 994-6504-003

Spare 100% tube kit for FM-3G transmitter TK-408
S. C. A. sub-carrier generator 994-6160-001

**HARRIS
INTERTYPE
CORPORATION**

GATES

GATES RADIO COMPANY
A Subsidiary of
Harris-Intertype Corporation
QUINCY, ILLINOIS 62302

Offices: New York, Houston, Los Angeles, Washington, D. C.
Export: Rocke International Corporation, New York City
In Canada: Canadian Marconi Company, Montreal