The Crown LA series power amplifiers provide linear amplification of RF power, between 87.9 and 108.1 MHz, with an instantaneous bandwidth (minimum) of 400KHz. This full line of amplifiers are designed to work with any other brand exciter and IBOC signal generator. These units are also built to work with the Fanfare TRO IBOC pass-through receiver to translate the full FM envelope from one frequency to another without taking the signal back to base band which means the end user will not need a site license for their translator sites.

Linear Amplifier available in the following sizes

- 75 watt digital only or 125 watts combined
- 300 watt digital only or 600 watts combined

FM-A Series Analog FM Amplifiers

Crown FM-A series amplifiers are based on our award winning low power designed and intended for customers already satisfied with their low power exciter. These units are broadband requiring no tuning in the United States or Japanese FM frequency range. The amplifiers are high gain requiring as little as 6 watts for rated output power.

Analog Amplifier available in the following sizes

- Up to 150 watt
- Up to 300 watt
- Up to 600 watt
- Up to 1kW
- Up to 2kW
- Up to 4kW
- Up to 10kW

All Crown Broadcast Amplifiers offer

- 24 Hour Support
- Highly Efficient
- Space Saving design
- Crown Reliability
Crown FM Amplifiers

Technical Specifications

FM-A General Specifications

RF-Output
FM-A150………….. 150 watts output………5 watts drive required
FM-A300…………. 300 watts output………7.5 watts drive required
FM-A600…………. 600 watts output………15 watts drive required
FM-A1000……….. 1,000 watts output……30 watts drive required
FM-A2000……….. 2,000 watts output……50 to 70 watts drive required
FM-A4000……….. 4,000 watts output……140 to 160 watts drive required
FM-A10K……….. 10,000 watts output……275 to 300 watts drive required

Technical Specifications

RF output impedance……………………………..50 ohms nominal
RF input connector type and impedance……..50 ohm BNC on FM-A150 thru FM-A600 and 50 ohm N for FM-A1000 thru FM10K
RF Load VSWR………………………………….1.7:1 Max with auto fold back
Frequency Range……………………………….87.5 to 108MHz
Asynchronous / Synchronous AM S/N ratio…….Meets FCC specifications
Spurious and Harmonic…………………………..Better than –75dB (-80dB) typical
AC Power ……………………………… ………..100 to 120 or 220 to 240 Volts AC (150 thru 60 0) 220 to 240 single phase @ 50 / 60Hz
DC Power (150 and 300 only)…………………36 to 48 volts VDC (FM-A150) 36 to 72 VDC (FM-A300)
Humidity………………………………………….0 to 80% @ 20 degrees C (non condensing)
Operating Environment…………………………...0 deg. C to 50 deg. C
Maximum Altitude………………………………..3,000 meters

FM-A Specifications

Nominal Input Power……………………….0 dBm with optional pre-amp –30dBm (50 ohm BNC connector)
Nominal Output Power (digital) ………….LA75 = 75w………….LA300 = 300w
Minimum Gain (ALC open)………………..LA75 = >60dB………….LA300 = >65dB
Gain Flatness (all units, ALC open)……..<0.5dB across any 500KHz bandwidth
Gain Flatness (all units, ALC closed)……..<1dB 88MHz to 108MHz

Linearity
AM to AM Compression………………LA75 = P1dB=/=250w……LA300 = P1dB=/=2000w
AM to AM flatness ( all units)……………<1dB over a 20dB dynamic range of up to 1 P dB
AM to PM low level phase advance (all)……<5 degrees
AM to PM high level phase delay (all)……<35 degrees
IMD Level………………………………..-35dBc (all units) Two-tone, third order IM products
IMD Flatness……………………………..<2dB 100KHz to 500KHz (all units)
IMD Level (No pre-correction)………….-35dBc (all units)

FM-A (Linear Amplifier) Specifications

FM-A Specifications

Nominal Input Power……………………….0 dBm with optional pre-amp –30dBm (50 ohm BNC connector)
Nominal Output Power (digital) ………….LA75 = 75w………….LA300 = 300w
Minimum Gain (ALC open)………………..LA75 = >60dB………….LA300 = >65dB
Gain Flatness (all units, ALC open)……..<0.5dB across any 500KHz bandwidth
Gain Flatness (all units, ALC closed)……..<1dB 88MHz to 108MHz

Linearity
AM to AM Compression………………LA75 = P1dB;/=250w……LA300 = P1dB;/=2000w
AM to AM flatness ( all units)……………<1dB over a 20dB dynamic range of up to 1 P dB
AM to PM low level phase advance (all)……<5 degrees
AM to PM high level phase delay (all)……<35 degrees
IMD Level………………………………..-35dBc (all units) Two-tone, third order IM products
IMD Flatness……………………………..<2dB 100KHz to 500KHz (all units)
IMD Level (No pre-correction)………….-35dBc (all units)

Opertational Specifications

Environment—0 deg C to 50 deg C.
Max Altitude—3000 meters
Humidity—0 to 80% @ 20 deg C
AC Power — 100 to 120 or 220 to 240V
AC Power (LA300) - 240 VAC
Connector—N type (LA75)
Connector—EIA 7/8 LA300

Weight and Dimension
LA75—7 x 16.5 x 17.5” and 53lbs
LA300—3 components
LA75—7 x 16.5 x 17.5” and 33lbs
LA300—3 components
LA75—7 x 16.5 x 17.5” and 53lbs
LA300—3 components
LA75—7 x 16.5 x 17.5” and 33lbs
LA300—3 components
LA75—7 x 16.5 x 17.5” and 53lbs
LA300—3 components

Dimensions
FM-A150—5.25 x 16.5 x 17.5” at 29lbs
FM-A300—5.25 x 16.5 x 17.5” at 33lbs
FM-A600—7 x 16.5 x 17.5” at 53lbs
FM-A1000—Three components
PA—7 x 17.25 x 23” and 45lbs
PS—5.25 x 17.25 x 23” and 46lbs
Driver—5.25 x 16.5 x 17.5 and 25lbs
FM2000—Three Components
PA—7 x 17.25 x 23” and 66lbs
PS—5.25 x 17.25 x 23” and 46lbs
Driver—5.25 x 16.5 x 17.5 and 29lbs
FM4000 45 x 24 x 28.5” in Cabinet and 550lbs
(FM4000 also available as separate modules for rack mounting)
FM10K 73 x 24 x 31.5” and 890lbs shipping weight

a  a  a  a
a division of International Radio and a division of International Radio and a division of International Radio and a division of International Radio and
Electronics Corp. Electronics Corp. Electronics Corp. Electronics Corp.
25166 Leer drive
Elkhart, Indiana 46514
866-262-8972 or fmsales@irec1.com

“Innovative Technology for Broadcast Confidence”