



M Series



RF/Microwave Amplifiers

MAIN FEATURES

- Simple to Use
- High reliability LDMOS Design
- Modular Design Construction
- Rugged Construction & High Reliability
- 3 Year Warranty

Favouring a simple on/off switch, no interface or built in directional coupler the Instruments for Industry M, Basic Series solid state amplifiers provide outstanding RF performance. Operating over the frequency range from 10 KHz to 220 MHz and can be supplied at power levels up to 200 watts. From the ground up, the M Series amplifiers are built to withstand rugged handling, whether it's being shipped to you or hauled around from site to site.

IFI RF amplifiers are very conservatively designed to operate below maximum ratings for ruggedness and long-term reliability. Sixth generation LDMOS transistors provide reliable brute power performance at frequencies up to 220 MHz.

Our RF power amplifiers feature individually shielded assemblies for the module level. This concept of shielded modular design minimises internally produced EMI signal leakage and provides easy access for field service and rapid turnaround at depot level repair facilities.

From the ground up, the M Basic Series products are structurally engineered to withstand operation in mechanically hostile environments. Ruggedized versions are available for applications that will be exposed to very harsh environments

Models & General Specifications

| Model Number | Frequency Range | Rated Power | P1dB Power | Gain | Mains Power | Weight | Size |
|--------------|---------------------|-------------|------------|-------|-------------|--------|------------------------------------|
| M100 | 10 kHz - 220 MHz | 100 W | 80 W | 50 dB | 1 kVA | 20 kg | 19 inch, 3U Rack Case, 680 mm Deep |
| M150 | | 150 W | 100 W | 52 dB | 1.5 kVA | 22 kg | |
| M200 | | 200 W | 150 W | 53 dB | 2 kVA | 27 kg | |
| M25 | | 25 W | 20 W | 44 dB | 0.15 kVA | 12 kg | |
| M50 | | 50 W | 40 W | 47 dB | 0.5 kVA | 15 kg | |
| M75 | | 75 W | 65 W | 48 dB | 0.8 kVA | 18 kg | |



RF Specifications

| | |
|----------------------------|--|
| Gain Variation (max) \pm | +/- 3.0 dB |
| Harmonics @ P1dB | -20 dBc |
| Spurious (min.) | -60 dBc |
| Modulation Formats | AM, FM, Pulse |
| Output VSWR Tolerance | Infinite any phase (< 4:1 no foldback, > 4:1 gradual foldback) |
| Stability | Unconditional |
| Output Impedance | 50 Ohm |
| Input VSWR | 2:1 (max) |
| Output VSWR | 2.5:1 (max) |
| Spurious | -70 dBc |

General Specifications

| | |
|---------------------|---|
| Safety Interlock | Via rear panel mounted BNC-female |
| Supply Voltage | < 3KVA Single Phase 90 to 264 VAC > 3KVA Three Phase, 5 Wire STAR, 380 to 415 VAC / 4 Wire Delta, 208 to 240 VAC |
| Supply Frequency | 47 to 63 Hz |
| RF Input Connector | Type N female |
| RF Output Connector | Type N Female |
| Cooling System | Air Cooled, Self-contained |

Available Models

| Product | Description |
|---------|--|
| M100 | 10 KHz to 220 MHz 100W Broadband Power Amplifier |
| M150 | 10 KHz to 220 MHz 150W Broadband Power Amplifier |
| M200 | 10 KHz to 220 MHz 200W Broadband Power Amplifier |
| M25 | 10 KHz to 220 MHz 25W Broadband Power Amplifier |
| M50 | 10 KHz to 220 MHz 50W Broadband Power Amplifier |
| M75 | 10 KHz to 220 MHz 75W Broadband Power Amplifier |