

M-SERIES M050-i



RF PEAK POWER UP TO 2 MW

MODULATOR PEAK POWER UP TO 4 MW

ScandiNova's smallest magnetron pulse modulator in a very compact enclosure with single-phase AC power requirements and air cooling. The modulator is designed for custom integration into your application and to handle magnetrons in the range 0.2 MW to 2 MW. We provide everything from a pure high-power pulse modulator to a turn-key RF station including the magnetron, control system and related components.

EXCELLENCE IN PULSED POWER

| SYSTEM SPECIFICATIONS | UNIT | DATA | NOTES |
|----------------------------------|------|--------|--|
| Magnetron RF Peak Power | MW | 0.2–2 | Depends on choice of magnetron |
| Magnetron RF Average Power | kW | 0.4 | Maximum |
| Modulator Peak Power | MW | 0.6–4 | Typical range |
| Modulator Average Power | kW | 1 | Maximum (see options) |
| Pulse Voltage | kV | 20–40 | Typical range |
| Pulse Current | A | 20–100 | Typical range |
| Pulse Repetition Frequency Range | Hz | 1–500 | Typical range. Depending on max average power (see options). |
| RF Pulse Length | µs | 0.1–4 | Typical range. Depending on max average power. |
| Modulator Voltage Stability, RMS | % | 0.4 | Verified on resistive load (see options) |
| Cooling | | Air | |

| INTERFACE | DEFAULT | OPTION |
|---------------------------|---------------------------|-------------|
| Mains Power, Single Phase | 230 VAC, 50/60 Hz | 115 VAC |
| Control Interface | ModBus TCP | |
| Trig Input | Electrical | |
| Diagnostics | Pulse Voltage and Current | See Options |

Standard Modulator Includes

Control System
Remote Control
Filament PS
Pulse Sensors
Internal Trig Generator

Additional System Components

Circulator & RF Loads
Directional Coupler
Magnet PS
Waveguide windows
Magnetron

Typical Magnetron Loads

| BVERI | E2V | NJRC |
|---------|---------|--------|
| VE2042B | MG5125 | MX7637 |
| VE2093 | L3 | MX7638 |
| CPI | PMX1100 | MX7639 |
| SFD303B | L-0123S | |
| SFD313 | L-0124S | |
| VMC1081 | L-0500C | |
| VMS1610 | L-0777C | |
| VMX3045 | L-0778C | |
| VMX3095 | L-6170 | |
| 5586 | | |
| 5657 | | |

Options

Pulse/RF diagnostics
Enhanced PRF Range (1000–2000 Hz)
Enhanced Stability (down to 0.1%)
Digitizer

Size and Weight

Weight approx. 49–59 kg

*Information contained in this document
is subject to change without notice.*

