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Data Sheet

August 13, 2026

IFI

IFI M406 RF Power Amplifier

IFI M406 1000 W Tetrode RF Power Amplifier The Instruments for Industry (IFI) M406 is a 10 kHz to 220 MHz tetrode-tube broadband RF amplifier rated 1000 W with 60 dB minimum gain (M/TCCX series table). It is intended for EMC radiated-susceptibility work (MIL-STD-461/462, RTCA/DO-160, SAE, Bellcore) and laboratory RF drive. The design operates without foldback into open or short; VSWR reflected-power protection allows any load phase. Internal preamplification reaches rated output from 0 dBm or less. Local and remote gain control, GPIB/RS-232 (Ethernet on later TCCX-class controls), forward/reflected metering, RF sample port, and a safety interlock are standard. Forced-air cooling is self-contained in a rack-integrated cabinet (rack type C). The Instruments for Industry (IFI) M406 is a 10 kHz to 220 MHz tetrode-tube broadband RF amplifier rated 1000 W with 60 dB minimum gain (M/TCCX series table). It is intended for EMC radiated-susceptibility work (MIL-STD-461/462, RTCA/DO-160, SAE, Bellcore) and laboratory RF drive. The design operates without foldback into open or short; VSWR reflected-power protection allows any load phase. Internal preamplification reaches rated output from 0 dBm or less. Local and remote gain control, GPIB/RS-232 (Ethernet on later TCCX-class controls), forward/reflected metering, RF sample port, and a safety interlock are standard. Forced-air cooling is self-co



MODEL	CALIBRATION
IFI M406	Available on request
CONDITION	STATUS
Used	In stock
RFQ / SKU	LISTING
M406	https://aumictechlabs.com/products/m406-2/

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The IFI M406 is a versatile media converter that facilitates seamless integration between different network types. Engineered for optimal performance, it ensures minimal latency and secure data transfer. Its compact design allows for easy installation in space-constrained environments, making it a practical solution for modern networking needs.

M406 Characteristics / Specifications

PARAMETER	VALUE
Model	M406
Manufacturer	Instruments for Industry (IFI / AMETEK CTS / Teseq)
Instrument Type	Broadband tetrode RF power amplifier
Family	IFI M / TCCX 10 kHz to 220 MHz
Alias	IFI M406; TCCX1000 class 1000 W
Frequency Range	0.01 MHz to 220 MHz (10 kHz to 220 MHz)
Rated Output Power	1000 W minimum
Rated Gain	60 dB minimum
TCCX1000 P1dB	800 W minimum (TCCX series table)
TCCX1000 Mains	8.0 kVA
TCCX1000 Weight Class	750 lb rack integrated
Rack Type	C (M series table)
Input Impedance	50 ohm
Output Impedance	50 ohm
Input VSWR	2.0:1
Output VSWR	2.5:1 (2.0:1 / 2.5:1 max depending on catalog revision)
RF Input Connector	TypeNfemale
RF Sample Connector	TypeNfemale unless specified
RF Output Connector	TypeNfemale (up to 1 kW class; SC or 7/16 available)
Drive Level	rated output with 0 dBm or less input (internal preamp)
Spurious Outputs	-40 dBc maximum (M series); less than -60 dBc nominal (TCCX)
Harmonics	-20 dBc nominal at linear power (TCCX)
Modulation	AM, FM, pulse
Cooling	forced air, self contained
Operating Temperature	0 C to 50 C (40 C at 10000 ft)

PARAMETER	VALUE
Nonoperating Temperature	-40 C to 70 C (TCCX); -20 C to 70 C (olderMseries)
Humidity	95 percent noncondensing
Operating Altitude	10000 ft
Nonoperating Altitude	50000 ft
Prime Power Single Phase	100/115/220/230 or 240 VAC plus/minus 10 percent, 50/60 Hz
Prime Power Three Phase	115/208 or 200/220/230/240 VAC plus/minus 10 percent, 50/60 Hz Wye or Delta; 400 Hz available
Remote Control	GPIB IEEE 488, RS232; optional RS422, RS485, TTL, Ethernet
Safety Design	IEC 348 and UL class laboratory amplifier construction
Protection	VSWR reflected power, open and short circuit, overcurrent, thermal, airflow
Status Indicators	power on, standby, operate, faults
Metering	forward RF, reflected RF, hours (total/operate)

General Specifications & Supplementary Characteristics

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Status Indicators	power on, standby, operate, faults
Metering	forward RF, reflected RF, hours (total/operate) Notes Rated power, gain, and 0.01-220 MHz span from the IFI M/TCCX series model table (M406 row). Environmental, VSWR, and connector rows are the published M/TCCX family characteristics. Confirm tube hours, interlock wiring, and whether the unit is M406 vs later TCCX1000 labeling. IFI M3100S was not written: no public OEM numeric table was found.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.