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MODEL ME SERIES MODULATOR DRIVER

DESCRIPTION

The Model ME series Modulator Drivers include a crystal controlled RF oscillator, fast modulation circuit, and a broadband RF power amplifier in a housing with power supply, RFI line filter, and line switch. The standard crystal controlled oscillator has a calibration tolerance of 25 ppm. Crystals at other than the specified frequencies can be factory installed. The standard modulation input configuration is analog with a digital input option available. A CW RF output level is adjusted by the front panel level control which inserts a dc offset to the input of the modulation circuit with no modulation input voltage.

The class AB broadband amplifier has sufficient bandwidth for pulsed operation. RF output power capability can be up to 10 watts for some models. Configuration options include a front panel user accessible connection between the oscillator and modulation circuit (N option) so that an external source frequency can be used in place of the internal crystal oscillator. Also available is an optional front panel connection between the modulation circuit and the RF power amplifier (H option) to give the Model ME drivers capability to be used as a stand alone RF power amplifier. Drivers with option E provide a CW +10 dBm crystal oscillator reference output.



SPECIFICATIONS

Input Configuration	Analog (0-1 volt for 0-specified RF power)
RF Amplifier Operation	Class AB
Rise/Fall Time	30 nsec
Harmonics (at full power)	-20 dBc
Output Mismatch Tolerance	100 percent
Input / Output Impedance	50 ohms
Extinction Ratio (RF on / RF off)	40 dB
Line Voltage (standard)	115/230 Vac, 50-60 Hz
	100 Vac, 50-60 Hz (option J)
Size (inches)	3.5 H x 9.0 W x 13.5 D
(cm)	8.9 H x 22.9 W x 34.3 D

MODEL	<u>ME-402</u>	<u>ME-405</u>	<u>ME-4010</u>	<u>ME-802</u>	<u>ME-1102</u>	<u>ME-2001</u>
Oscillator Frequency ¹	40 MHz	40 MHz	40 MHz	80 MHz	110 MHz	200 MHz
RF Output Power ²	2 watts	5 watts	10 watts	2 watts	2 watts	1 watt

OPTIONS: D...Inverse digital, input<0.8 volts for RF/on, input>2 volts to 5 volts for RF off, 50 ohm input impedance.
E...Low level oscillator RF output, +10 dBm level. e.g., ME-402E
H...Front panel access between modulator circuit and RF power amplifier. e.g., ME-402H
J...100 Vac line voltage for Japan. e.g., ME-402J
N...Front panel access between oscillator and modulator circuit. e.g., ME-402N
P...Internal pulse generator for q-switch applications with triggered, gated, and free running capability.
T...Digital input, input<0.8 volts for RF/off, input>2 volts to 5 volts for RF/on, 50 ohm input impedance.
T7...Same as option T, but with 70 dB extinction ratio. e.g., ME-402T7
-6...Analog input plus option T (analog + digital), total extinction ratio is 70 dB. e.g., ME-402-6

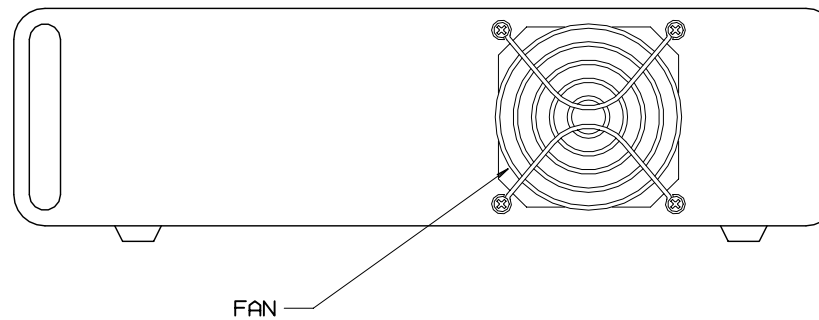
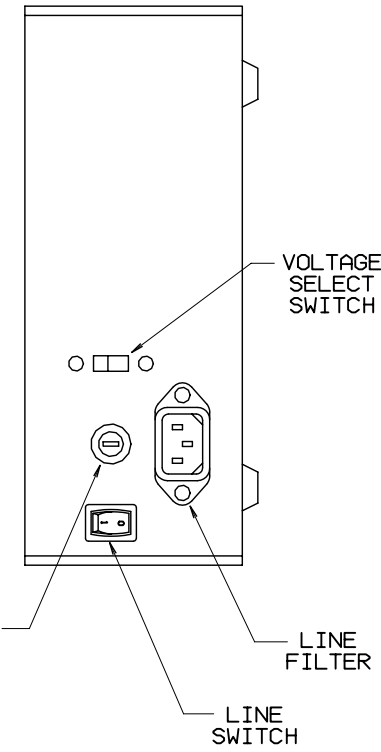
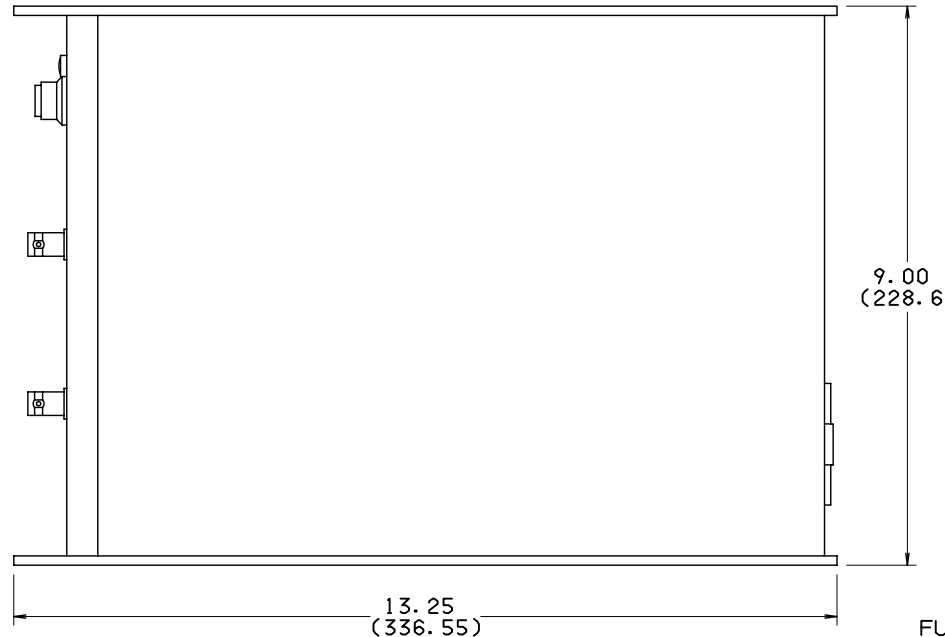
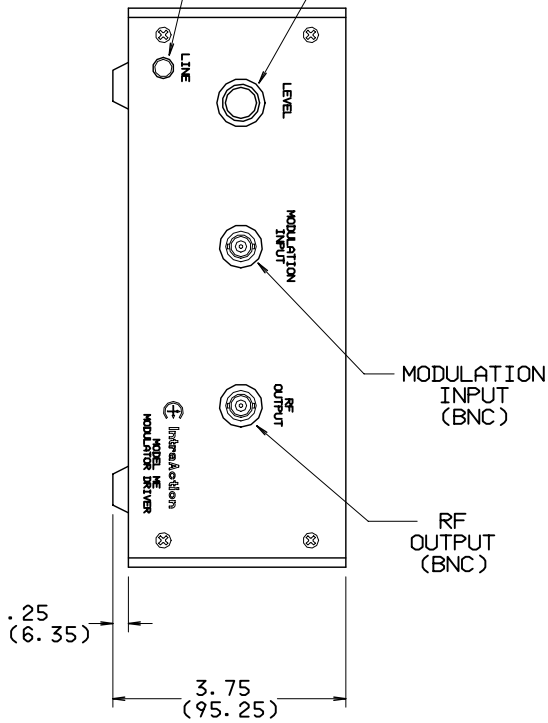
¹ Other frequencies available.

² Other RF output power levels available.

REVISIONS		
ISSUE	DESCRIPTION	APPD/DATE
A	ORIGINAL	GJK 08-31-01

ALL REVISIONS TO THIS DRAWING MUST BE MADE ON THE CAD SYSTEM

LINE INDICATOR (NEON LAMP)
LEVEL (POTENTIOMETER)



LINE VOLTAGE:
STANDARD: 115/230 VAC, 50-60 Hz.
OPTION J: 100 VAC, 50-60 Hz.

DWG NO ME OUTLINE SH 1

ENG3108

UNLESS OTHERWISE SPECIFIED TOLERANCES AND DIMENSIONS ARE IN INCHES LINEAR : / ANGULAR ± / DIAMETERS ± / LIMITS APPLY BEFORE FINISHING DO NOT SCALE THIS PRINT	APPROVED DATE	IntraAction Corp. 3719 WARREN AVE. PHONE (708) BELLWOOD, IL 60104 547-6644								
	CHECKED DATE									
MATERIAL	DRAWN DATE GJK 08-31-01	ME SERIES MODULATOR DRIVER								
MFG. INSTR.	FINISH									
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SIZE		ME OUTLINE	A							
	SCALE .5"=1"	UNIT WEIGHT	SHEET 1 OF 1							