

FMDM SERIES TYPICAL TEST DATA

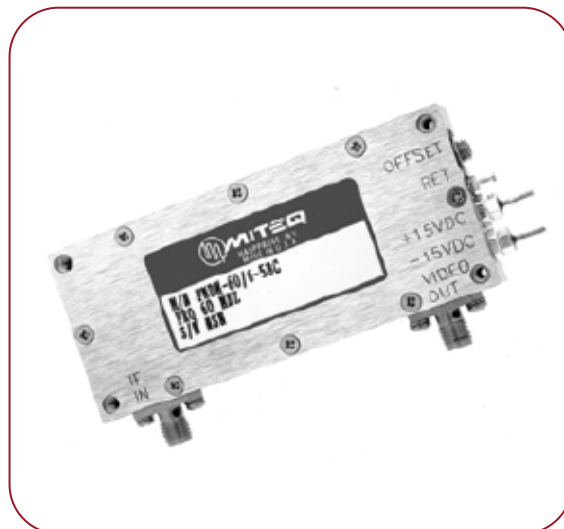
MODEL: FMDM SERIES

FEATURES

- Broadband frequency range
- Operating frequencies to 1000 MHz
- $\pm 1\%$ frequency linearity
- DC-coupled video
- Pulse response to 5 ns
- Wide temperature range

OPTIONS

- Customized center frequencies
- Custom packaging
- High-reliability screening
- Digital output of short pulses



MODEL NUMBER	CENTER FREQUENCY (MHz)	PEAK-TO-PEAK BANDWIDTH (MHz)	LINEAR BANDWIDTH (MHz)	SENSITIVITY (mV/MHz)	RISE TIME (ns)	FALL TIME (ns)
NARROW BANDWIDTH MODELS						
FMDM-21.4/4-2	21.4	8	4	1000	200	500
FMDM-30/6-3	30	10	6	1000	120	350
FMDM-60/16-4	60	20	16	250	90	250
FMDM-70/20-5	70	30	20	150	60	150
FMDM-140/25-10	140	50	25	100	50	150
FMDM-160/35-15	160	60	35	100	35	100
FMDM-450/50-20	450	100	50	100	20	60
FMDM-750/150-20	750	200	150	50	20	60
WIDE BANDWIDTH MODELS						
FMDM-30/16-6	30	25	16	100	100	350
FMDM-60/30-8	60	50	30	50	50	150
FMDM-70/36-10	70	60	36	50	50	150
FMDM-70/50-15	70	75	50	50	30	100
FMDM-160/50-15	160	75	50	50	30	100
FMDM-300/100-20	300	150	100	20	20	50
FMDM-750/250-25	750	350	250	20	15	50
FMDM-1000/300-40	1000	500	300	10	10	30

ADDITIONAL SPECIFICATIONS

Narrow bandwidth models are available in 'B, F and E' housings.

Wide bandwidth models are available in 'A and B' housings.

Linearity:

For narrow bandwidth models, error is typically better than $\pm 3\%$ over linear bandwidth at 25°C.

For wide bandwidth models, error is $\pm 5\%$ over linear bandwidth at 25°C.

Add $\pm 2\%$ over operating temperature of -40 to +85°C.

Rated input is 0 dBm.

Usable from -20 to 0 dBm (-10 to 0 dBm for wide bandwidth models).

Input impedance is 50 Ω (VSWR < 1.5:1 typical).

Video output is DC coupled and rated into 93 Ω .

Power: ± 12 VDC at 100 mA typical. For wide bandwidth models; +12 VDC at 270 mA typical and -12 VDC at 50 mA typical.

ORDER OPTIONS

For ± 15 VDC, add suffix "C".

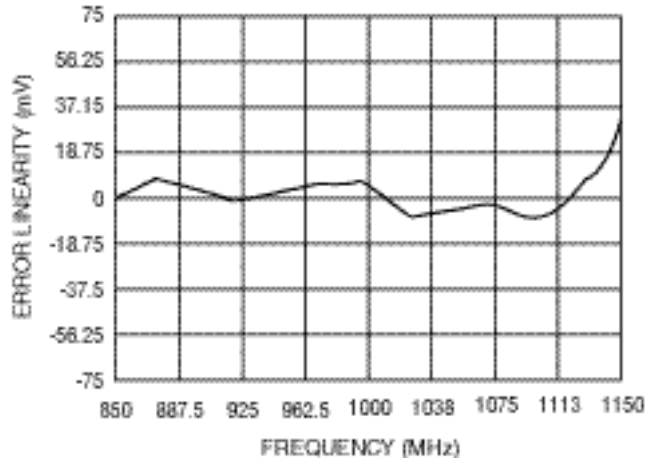
Typical part number: FMDM-160/35-15BC (for 'B' housing at ± 15 VDC).

NOTE: FOR MODIFICATION OF OUR STANDARD MODELS, PLEASE CONSULT FACTORY.

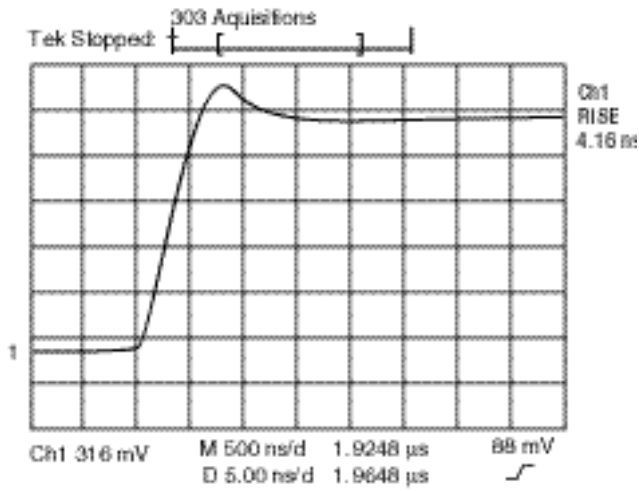


FMDM SERIES TYPICAL TEST DATA

**TYPICAL ERROR
LINEARITY VS. FREQUENCY**



**TYPICAL VIDEO
PULSE PERFORMANCE**



FREQUENCY DISCRIMINATORS

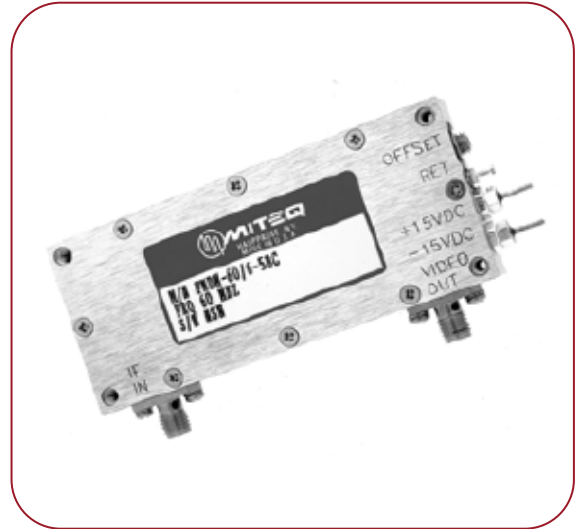
MODEL: FMDMW SERIES

FEATURES

- Ultra-wide linear bandwidth
- Extreme stability over input power
- DC-coupled video
- Pulse response to 3 ns
- Wide temperature range

OPTIONS

- Customized center frequencies
- Custom packaging
- High-reliability screening
- Digital output of short pulses



MODEL NUMBER	OPERATIONAL FREQUENCY RANGE (MHz)	LINEAR BANDWIDTH (MHz)	SENSITIVITY (\pm mV/MHz)	RISE TIME (ns)	VIDEO LINEARITY (\pm %)	BANDWIDTH (MHz)	OUTLINE
FMDMW-4/4-5	2 – 6	4000	1.2	5	3	60	A
FMDMW-5.5/9-10	0.8 – 10	9	32	10	5	30	A
FMDMW-2.75/4.5-10	0.4 – 5	4.5	16	10	5	30	A
FMDMW-1.4/2.25-10	0.2 – 2.5	2.25	8	10	5	30	A
FMDMW-650/1100-10	100 – 1200	1100	4	10	5	30	B
FMDMW-500/500-5	250 – 750	500	10	5	3	60	B
FMDMW-600/800-10	200 – 1000	800	5	10	4	30	B

ADDITIONAL SPECIFICATIONS

Input dynamic range is -10 to +5 dBm. Wider input power ranges available.

Output voltage swing (into 50 Ω) is \pm 2 V.

Slope variation over temperature is \pm 5%.

DC offset variation over temperature is \pm 50 mV.

Recovery time is 50 ns.

Input impedance is 50 Ω (VSWR < 2.0:1 typical).

Power: \pm 12 or \pm 15 VDC.

ORDER OPTIONS

For \pm 15 VDC, add suffix "C".

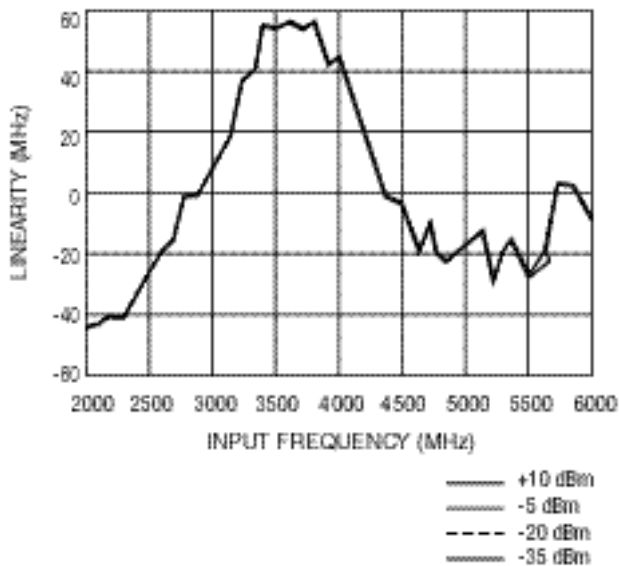
Typical part number: FMDMW-4/4-5C.

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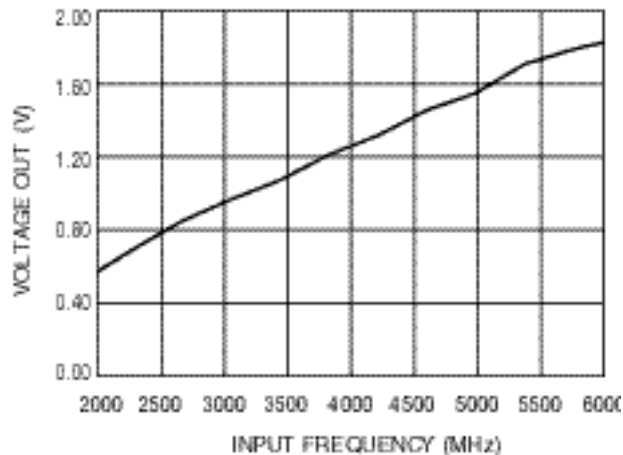


FMDMW SERIES TYPICAL TEST DATA

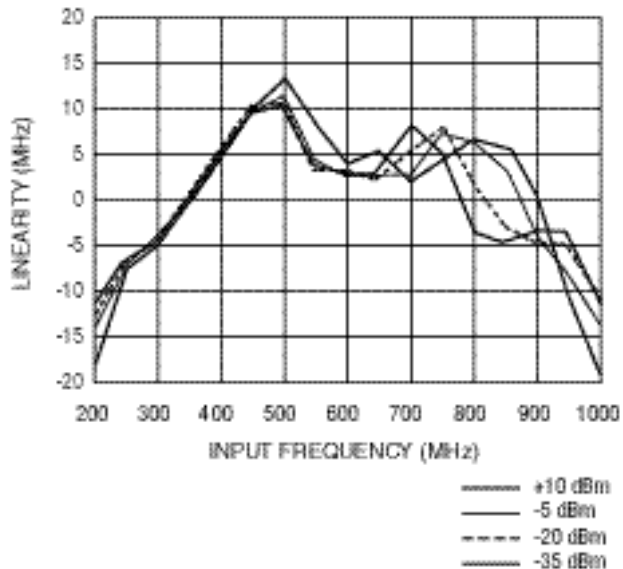
**LINEARITY (MHz) VS.
INPUT FREQUENCY (MHz)
OVER DIFFERENT POWER LEVELS
(FMDMW-4/4)**



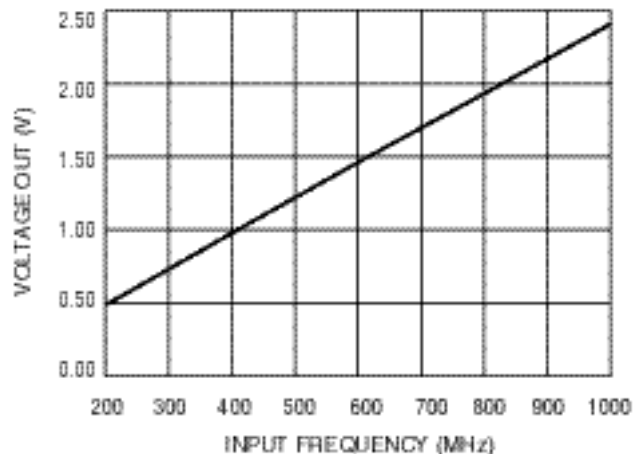
**Vout (V) VS.
INPUT FREQUENCY (MHz)
OVER DIFFERENT POWER LEVELS
(FMDMW-4/4)**



**LINEARITY (MHz) VS.
INPUT FREQUENCY (MHz)
OVER DIFFERENT POWER LEVELS
(FMDMW-600/800)**

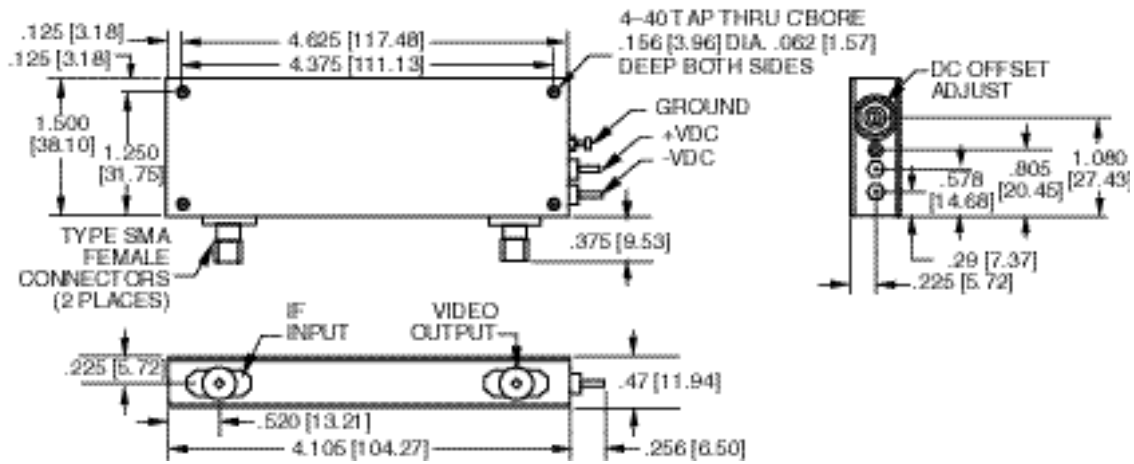


**Vout (V) VS.
INPUT FREQUENCY (MHz)
OVER DIFFERENT POWER LEVELS
(FMDMW-600/800)**

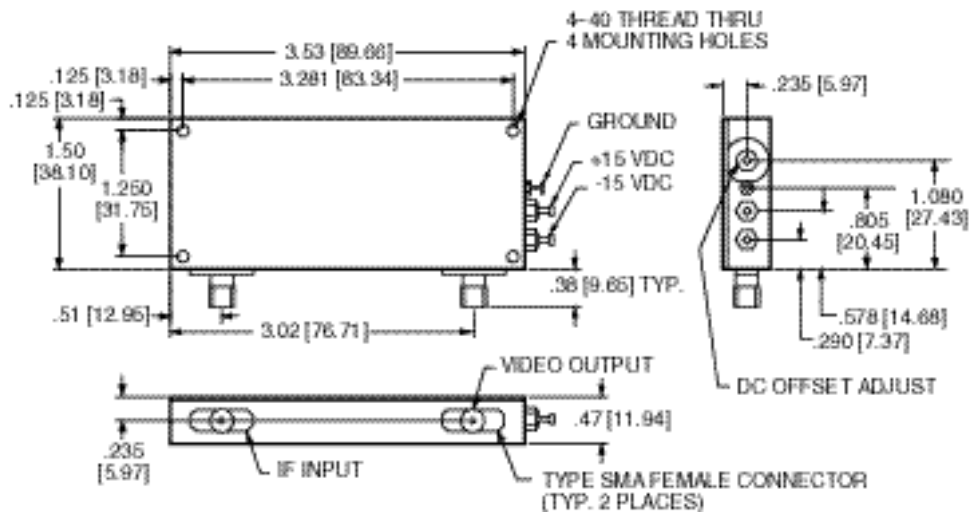


FMDM OUTLINE DRAWINGS

OUTLINE A



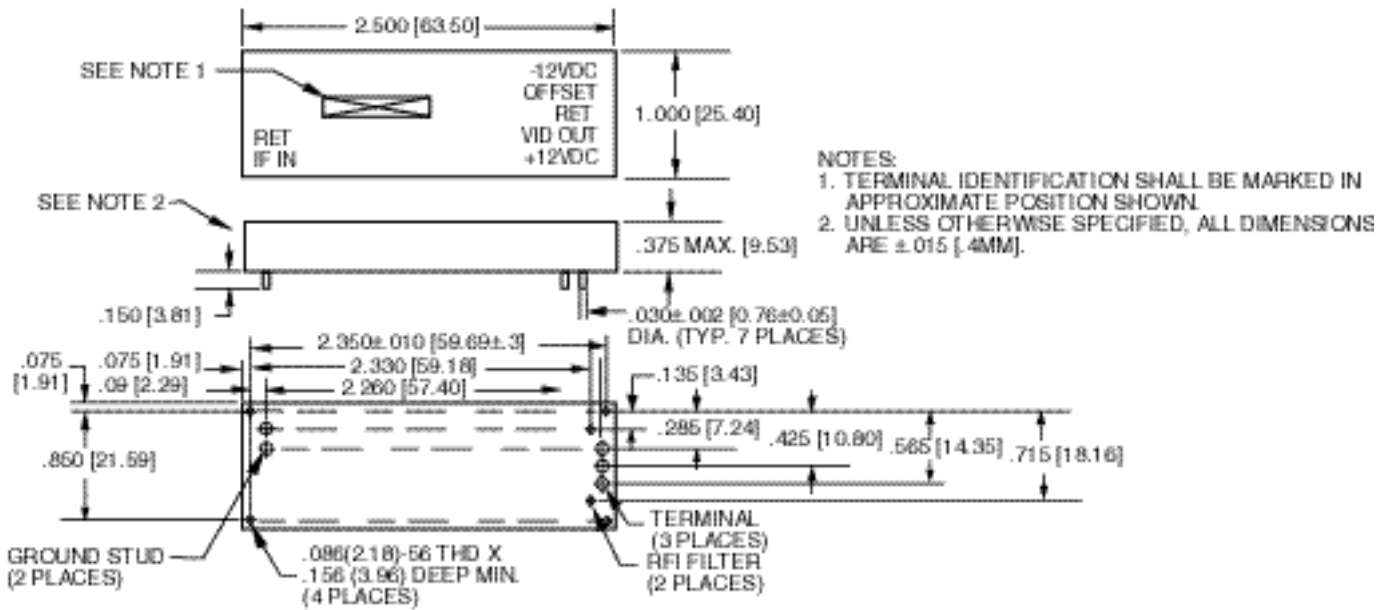
OUTLINE B



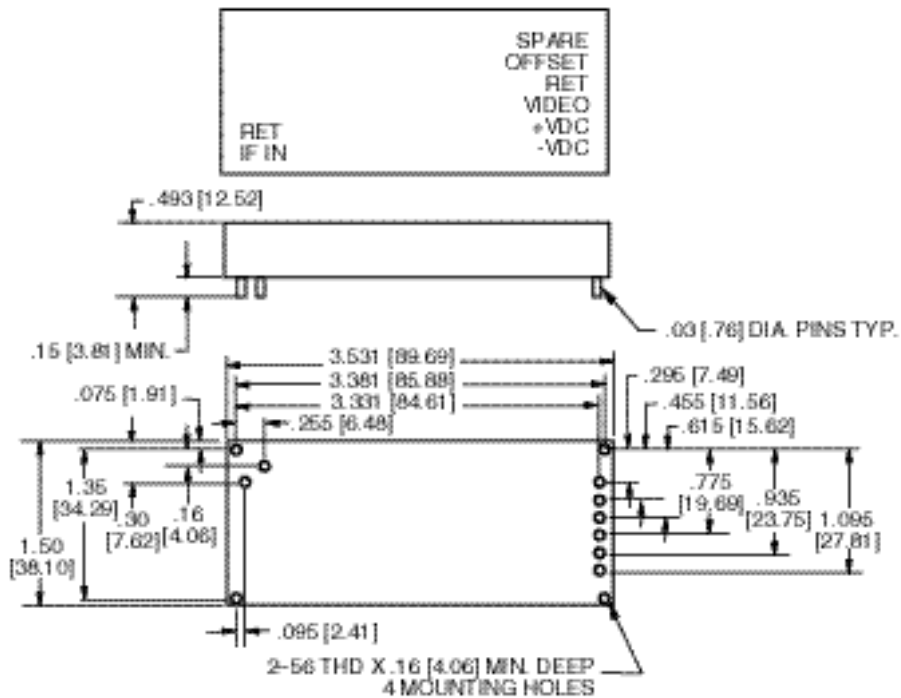
NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

FMDM OUTLINE DRAWINGS

OUTLINE E



OUTLINE F



NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

