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**MODEL FCM SERIES
FIBER COUPLED
ACOUSTO-OPTIC MODULATOR / FREQUENCY SHIFTER**

- NEAR IR WAVELENGTH RANGE
- OPTICAL FREQUENCY SHIFTING
- CHOICE OF FREQUENCY SHIFT³
- INTENSITY MODULATION
- LOW RF DRIVE POWER
- HIGH RELIABILITY



SPECIFICATIONS

Acousto-optic Material

AMTIR-1 Chalcogenide Glass

Optical Fiber¹

Singlemode

Fiber Connector¹

FC-PC

Modulation Bandwidth (-3dB)

4.0 MHz

Optical Rise Time

120 nsec

Insertion Loss²

< 2.0 dB

Extinction Ratio (On/Off)

> 55 dB

Optical Polarization

any

Input Impedance / VSWR

50 Ohms / 1.2:1

RF Input Connector

SMA

Size (less connectors)

1.10 H x 2.24 D x 2.29 W inches
28.0 H x 56.9 D x 58.2 W mm

MODEL

Optical Wavelength

RF Frequency³

Optical Frequency Shift^{3,4}

RF Drive Power⁵

FCM-401E6C

1.32 μ m

40 MHz

+ 40 MHz

500 mwatts

FCM-501E6C

1.32 μ m

50 MHz

+ 50 MHz

500 mwatts

FCM-801E6C

1.32 μ m

80 MHz

+ 80 MHz

700 mwatts

FCM-1001E6C

1.32 μ m

100 MHz

+100 MHz

1.0 watt

MODEL

Optical Wavelength

RF Frequency³

Optical Frequency Shift^{3,4}

RF Drive Power⁵

FCM-401E5C

1.55 μ m

40 MHz

+ 40 MHz

700 mwatts

FCM-501E5C

1.55 μ m

50 MHz

+ 50 MHz

700 mwatts

FCM-801E5C

1.55 μ m

80 MHz

+ 80 MHz

1.0 watt

FCM-1001E5C

1.55 μ m

100 MHz

+100 MHz

1.5 watts

¹ Other optical fiber such as polarization maintaining and other connectors such as FC-APC are also available.

² Does not include connector losses.

³ User defined frequencies available from 40 MHz to 250 MHz. Note: Specifications change with frequency.

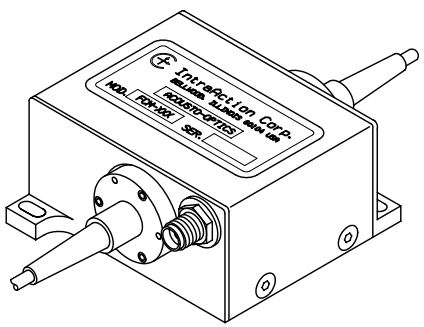
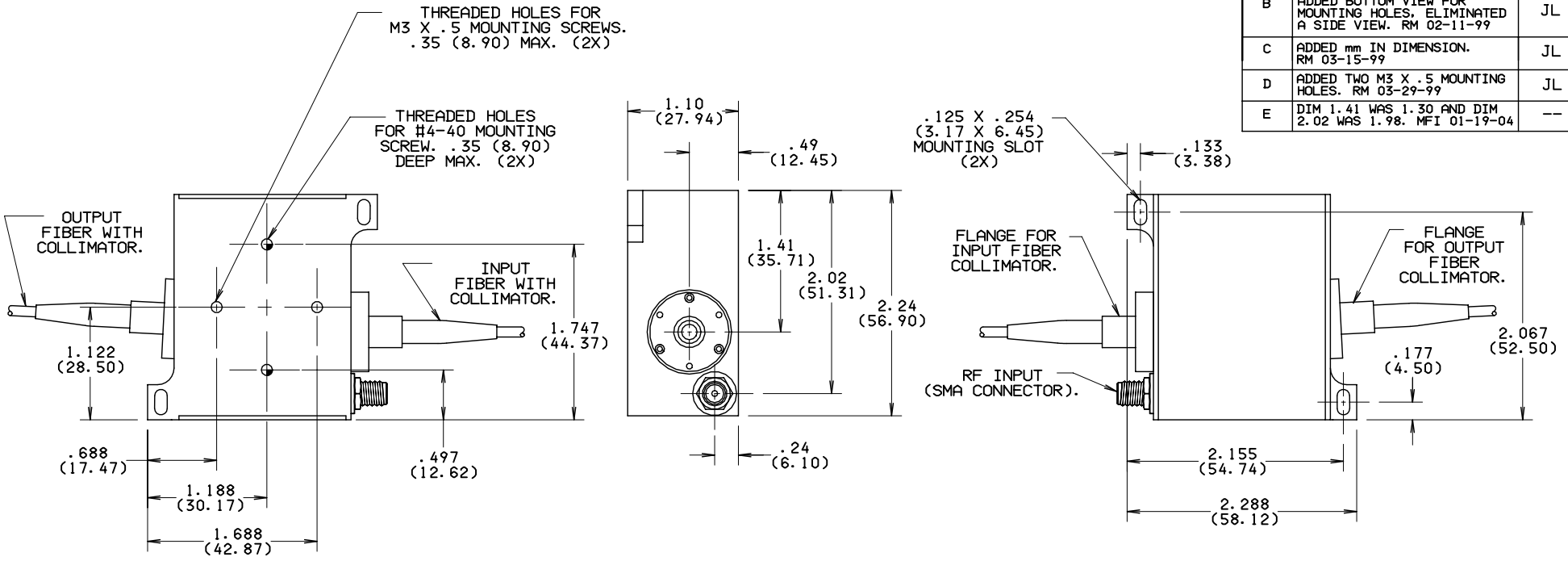
⁴ Negative frequency shift available. Specify when ordering.


⁵ Single frequency or phase locked dual frequency, laboratory, or OEM drivers are available. High extinction drivers also available. 02061

ENG210B

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

REVISIONS		
ISSUE	DESCRIPTION	APPD/DATE
	ORIGINAL RM 10-20-98	JL
A	ADDED FIBER AND COLLIMATOR. RM 12-17-98	JL
B	ADDED BOTTOM VIEW FOR MOUNTING HOLES, ELIMINATED A SIDE VIEW. RM 02-11-99	JL
C	ADDED mm IN DIMENSION. RM 03-15-99	JL
D	ADDED TWO M3 X .5 MOUNTING HOLES. RM 03-29-99	JL
E	DIM 1.41 WAS 1.30 AND DIM 2.02 WAS 1.98. MFI 01-19-04	--



UNLESS OTHERWISE SPECIFIED TOLERANCES AND DIMENSIONS ARE IN INCHES LINEAR : .XX ±.010 (XX.XX) = mm .XXX ±.005 ANGULAR ± DIAMETERS ± LIMITS APPLY BEFORE FINISHING DO NOT SCALE THIS PRINT	APPROVED DATE JL 10-21-98	 IntraAction Corp. 3719 WARREN AVE. BELLWOOD, IL 60104	PHONE (708) 547-6644
	CHECKED DATE JL 10-21-98		TITLE FCM SERIES FREQUENCY SHIFTER
MATERIAL	FINISH	FSCM NO.	ISSUE
MFG. INSTR.		B SIZE	FCM OUTLINE E
Q.C. INSTR.		SCALE FULL	SHEET 1 OF 1