IntraAction Corp.
QUALITY PRODUCTS FOR LASER TECHNOLOGY

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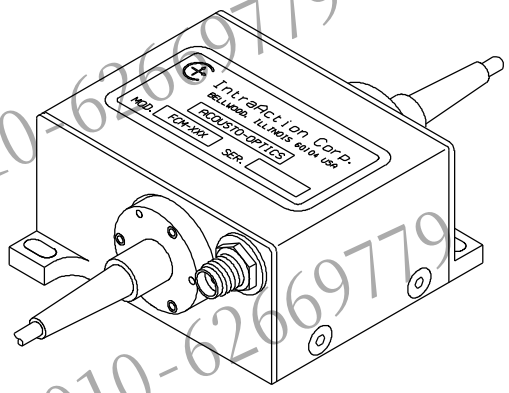
MODULATOR

MODEL FCM SERIES
FIBER PIGTAILED
ACOUSTO-OPTIC MODULATOR/ATTENUATOR

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



SPECIFICATIONS

Acousto-optic Material	AMTIR-1 Chalcogenide Glass
Optical Fiber[1]	Singlemode
Fiber Connector[1]	FC-PC
Optical Back Reflection[2]	-40 dB
Optical Polarization	any
Input Impedance / VSWR	50 Ohms / 1.2:1
Size	See outline drawing

MODEL (Modulator)[3]	**FCM-40.8E5C**	**FCM-40.8E6C**	**FCM-401E5C**	**FCM-401E6C**
Optical Wavelength	1.55 µm	1.3 µm	1.55 :m	1.3 :m
RF Frequency[4]	40 MHz	40 MHz	40 MHz	40 MHz
Optical Frequency Shift	+ 40 MHz	+ 40 MHz	+ 40 MHz	+ 40 MHz
RF Drive Power[5]	600 mwatts	500 mwatts	500 mwatts	400 mwatts
Insertion Loss (RF on)	< 3 dB	< 3 dB	< 2.4 dB	< 2.4 dB
Extinction Ratio (RF on/RF off)[5]	> 55 dB	> 55 dB	> 55 dB	> 55 dB
Modulation Bandwidth (-3 dB)	7.5 MHz	7.5 MHz	4 MHz	4 MHz
Optical Rise Time	60 nsec	60 nsec	120 nsec	120 nsec

MODEL (Attenuator)[3]	**FCM-40.8E5CA**	**FCM-40.8E6CA**	**FCM-401E5CA**	**FCM-401E6CA**
Optical Wavelength	1.55 µm	1.3 µm	1.55 :m	1.3 :m
RF Frequency[4]	40 MHz	40 MHz	40 MHz	40 MHz
RF Drive Power[5]	600 mwatts	500 mwatts	500 mwatts	400 mwatts
Insertion Loss (RF off)	< 1 dB	<1 dB	< 1 dB	< 1 dB
Extinction Ratio (RF off/RF on)	7 dB	7dB	7dB	7 dB
Modulation Bandwidth (-3 dB)	7.5 MHz	7.5 MHz	4 MHz	4 MHz
Optical Rise Time	60 nsec	60 nsec	120 nsec	120 nsec

[1] Other optical fiber such as polarization maintaining, and other connectors such as FC-APC are also available.
[2] Optical back reflection varies with fiber type and connectors.
[3] Modulator…first order diffracted beam is transmitted to output fiber, Attenuator…zero order beam is transmitted to output fiber.
[4] Operation at other RF frequencies is available. See Frequency Shifter/FCM Series product sheet.
[5] High extinction digital drivers are available. Laboratory and OEM drivers are available.