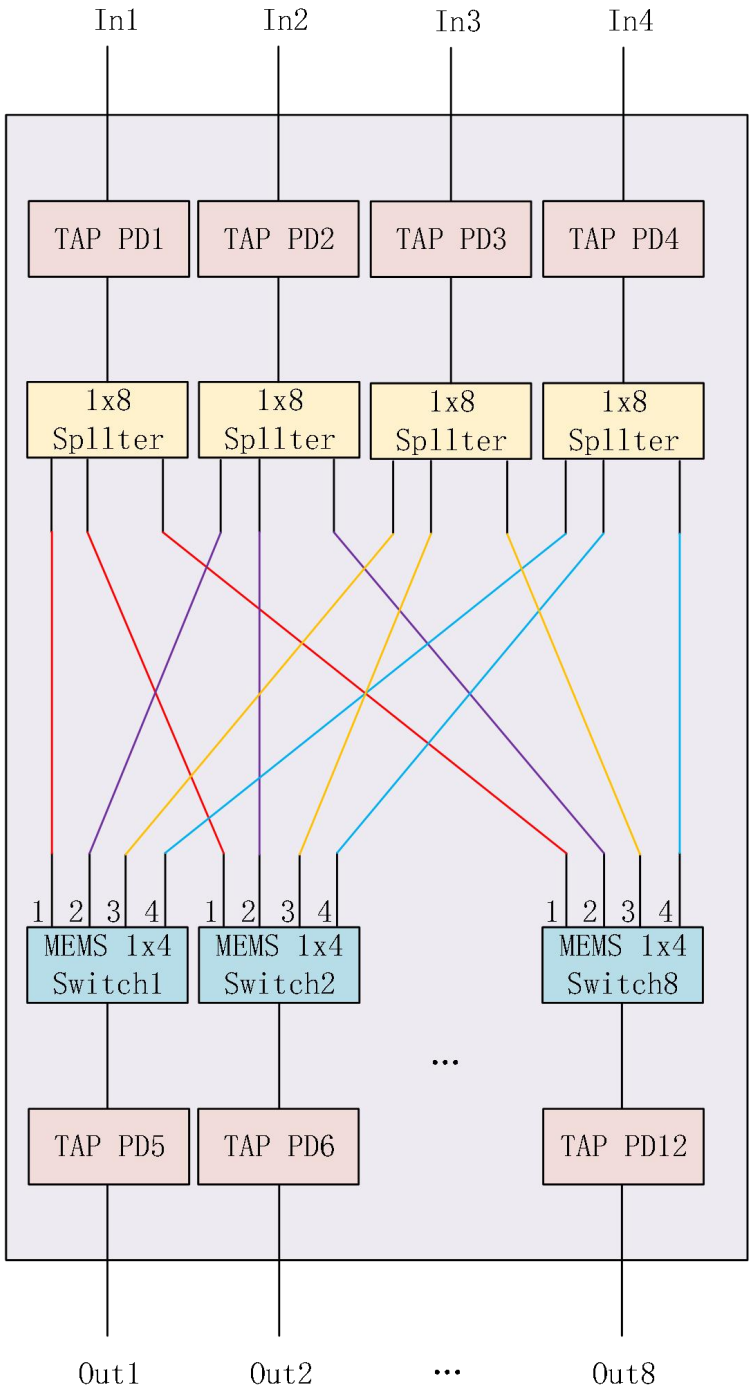
Block Diagram

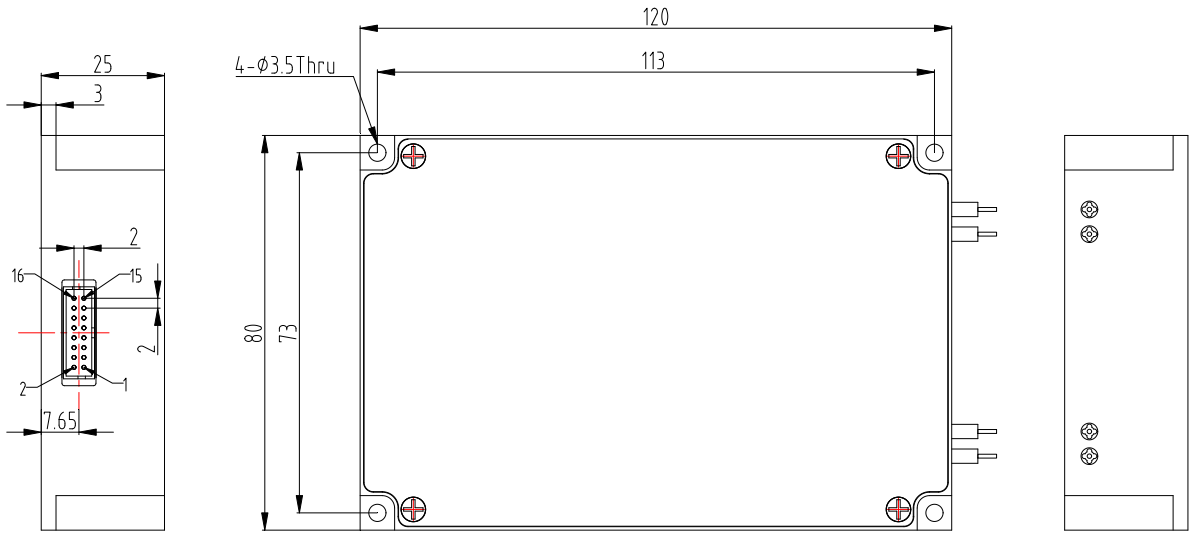


Specifications

Product Number	MEMS-4X8-MCS-M
Fiber Type	SM（9/125）
Operational Wavelength Range	C+L Band (1530nm-1565nm & 1565nm-1625nm)
Test wavelength	1550nm
Insertion Loss	≤11.6dB
Return Loss	≥45 dB
Crosstalk	≥50 dB
Repeatability	≤±0.1dB
Switching Time	≤15ms
Durability	≥10^9 cycles
Connector Type	LC/UPC
Pigtail Length	0.5m
Optical Power	≤500 mW
Power Supply	DC5V±10% / ≤1A
Working Temperature	-40 ~ 70 °C
Storage Temperature	-40 ~ 85 °C
Packaging Dimensions	120(L) x 80(W) x 25(H) ±0.2mm

.

Dimension(mm)



Electrical-pins definition

PIN	definition	Signal	Function
1	NC		No physical internal connection
2	NC		No physical internal connection
3	VCC	Power	Power supply, 5V/1A
4	NC		No physical internal connection
5	NC		No physical internal connection
6	GND	Power	GND
7	NC		No physical internal connection
8	NC		No physical internal connection
9	TXD	Output	Transmit Data（Rs232）
10	RXD	Input	Receive Data（Rs232）
11	NC		No physical internal connection
12	NC		No physical internal connection
13	NC		No physical internal connection
14	NC		No physical internal connection
15	NC		No physical internal connection
16	NC		No physical internal connection

Note: the electrical interface of the module uses Molex 87833-1620, and the customer's connector is recommended to use Molex 87568-1694.

Program Control Order

This module can receive control signals through UART interface to realize automatic measurement or real-time monitoring.

(1) This module can only execute one instruction at a time. Usually, the next instruction can be entered only after the program returns the corresponding value

(2) Please use capital letters.

(3) In actual operation, enter the sharp bracket "<" as the start character and the sharp bracket ">" as the end character

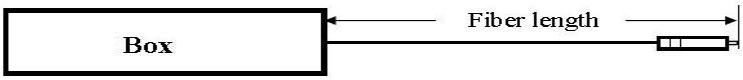
(4) Instruction error return < Er >.

Program control instruction set

Order	Describe	Example
<RESET>	Restart module	Successful return：<RESET_OK>
<RESTORE>	Restore factory settings	Successful return：<RESET_OK>
<INFO_?>	Query module information	Successful return：<MEMS-4X8_VER1.00_ SN01234567890_C08.04.00051>
<BAUD_x>	Set or query serial port baud rate 1.x is 1~9，Baud rate 2400、4800、9600 、 14400 、 19200 、 38400 、 56000、57600、115200 Successful return: <BAUD _x	set：<BAUD_5> Successful return: <BAUD_5_OK> Set the baud rate of the serial port of the device to 19200

	OK> 2. Send < BAUD? > Query Baud Rate	After saving the configuration, restart it to take effect!
<OSW_SW_a_b_c_d> (a、b、c、d Value 01~08，The values cannot be the same)	**Channel switching** set：<OSW_SW_In1 Corresponding output channel_In2 Corresponding output channel_In3 Corresponding output channel_In4 Corresponding output channel>	set：<OSW_SW_01_02_03_04> Successful return： <OSW_SW_01_02_03_04_OK> The light path is set to: In1→Out1、In2→Out2、In3→Out3、In4→Out4；
<OSW_A_?>	**Query channel status** Successful return： <OSW_A_In1 Corresponding output channel_In2 Corresponding output channel_In3 Corresponding output channel_In4 Corresponding output channel>	Return： <OSW_A_01_02_03_04> The current light path is: In1→Out1、In2→Out2、In3→Out3、In4→Out4；
<OPM_A_?>	**Query port power value** Successful return： <OPM_A_In1 Port power value_In2 Port power value_In3 Port power value_In4 Port power value_Out1 Port power value_Out2 Port power value_Out3 Port power value_Out4 Port power value_Out5 Port power value_Out6 Port power value_Out7 Port power value_Out8 Port power value>	Return： <OPM_A_-01.00_+02.00_-03.00_-04.00_-05.00_-06.00_-07.00_-08.00_-09.00_-10.00_-11.00>
<SAVE_ALL>	Save configuration Successful return： <SAVE_ALL_OK>	Save the configuration, such as channel status。

Fiber Length and Boot Length definition



Note: including boot and connector length.

Factory default configuration

Item	Factory default configuration	Note
Serial baud rate	115200	8 data bits, 1 stop bit, no parity
Working channel	In1→Out1、In2→Out2 In3→Out3、In4→Out4	Keep the light path state when saving the configuration after powering down and then on the equipment