

PART NUMBER DESCRIPTION

The MMB Series is an ideal solution that consists of Transfer, electromechanical coaxial switches designed to switch a microwave signals in a DPDT configuration. The characteristic impedance is 50 Ohms.

The MMB Series is designed to allow the remote operation of 1 to 4 Transfer switches. Remote operation is accomplished via TCP/IP commands to the Matrix's Ethernet interface. Switch control is also accessible via the USB virtual serial port, using the provided command set. Through these interfaces the Coax Switch can be switched to the desired position and its position can be read for verification. The default switch position at power up can be set by the user. The MMB will feature a graphical user interface (GUI), which will enable user to control switches through graphical icons and visuals.



ENVIRONMENTAL AND PHYSICAL CHARACTERISTICS

Operating Temperature	-40°C to 65°C
Standard Actuator Life	5,000,000 cycles
Connector Type	SMA
Weight Enclosure A	
1 Switch	22 oz. (624 g) (max.)
2 Switches	24 oz. (680 g) (max.)
Weight Enclosure B	
4 Switches	64 oz. (1814 g) (max.)

ELECTRICAL CHARACTERISTICS (SWITCHES ONLY)

Form Factor	DPDT, break before make
Frequency Range	DC-18GHz
Characteristic Impedance	50 Ohms
Operate Time	15 ms (max.)
Release Time	15 ms (max.)
Actuation Voltage	24 Vdc
Actuation Current, max. @ ambient	250mA/switch

PERFORMANCE LIMITS

Frequency	DC-6 GHz	6-12 GHz	12-18 GHz
Insertion Loss, dB, max.	0.20	0.40	0.50
Isolation, dB, min.	70	60	60
VSWR, max.	1.25:1	1.40:1	1.50:1

For additional RF performance data please refer to Coax Switch Part number list in Glossary (page 4)

ADDITIONAL INFORMATION

Interface	USB or TCP/IP
Host Operating System	Windows, MAC, Linux
Operating System	Embedded

INCLUDED ITEMS

• AC/DC Power Adapter	• USB Cable
• Power Cord	• Installation CD
• Ethernet Cable	

BUILD YOUR BOX

Number of Switches (Select One):

ENCLOSURE A	ENCLOSURE B
1	4
2	

Actuation Type (Select One):

Failsafe	Latching
----------	----------

Remote Control (Select One):

USB Only	USB & Ethernet
----------	----------------

Frequency Range (Select One):

DC-18GHz	DC-26.5GHz
----------	------------

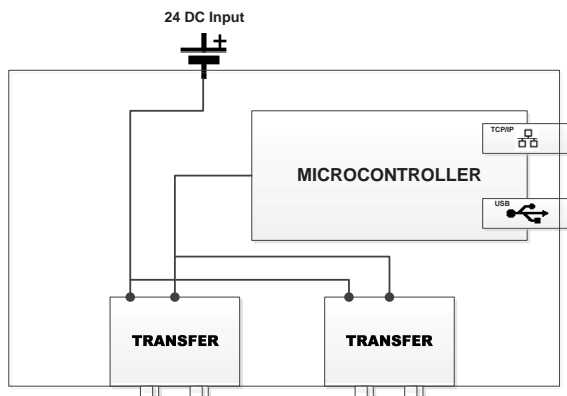
For additional options, please contact factory.

See Page 4, for Part Number List for switches used

Miniature Matrix: MMB Series Controlled with USB or Ethernet

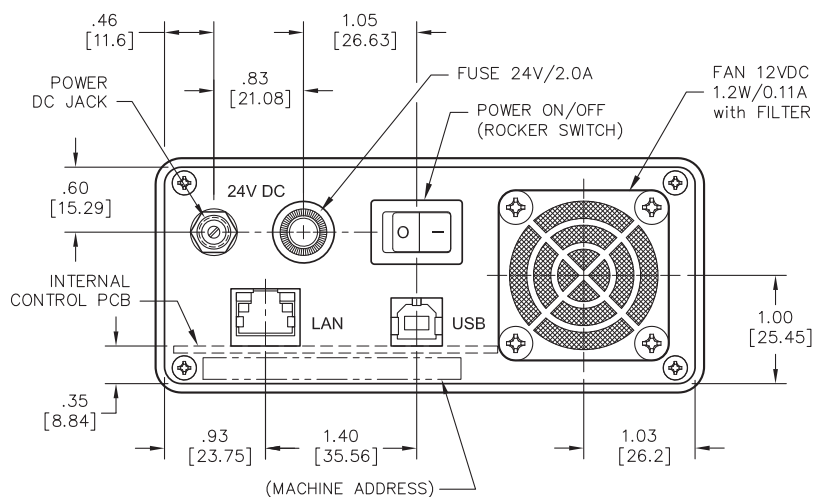


BLOCK DIAGRAM EXAMPLE

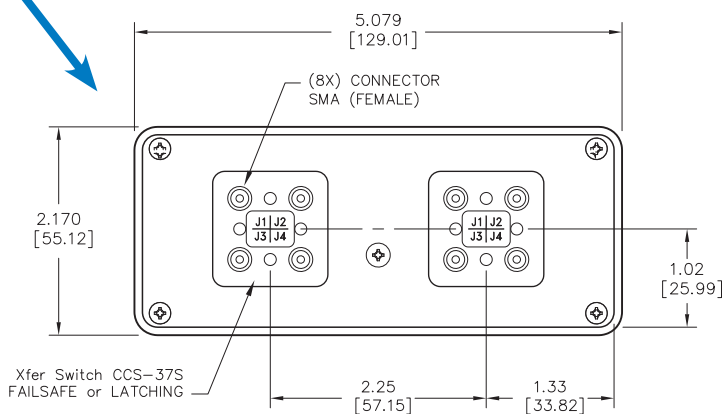


MECHANICAL OUTLINE FOR ENCLOSURE A

Max. Length with Switches= 7.75 (196.85)

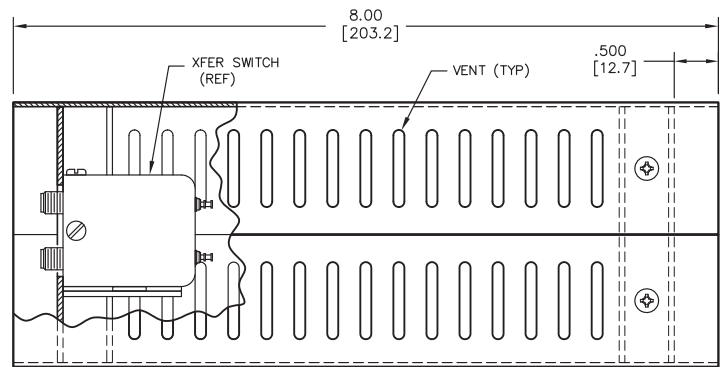
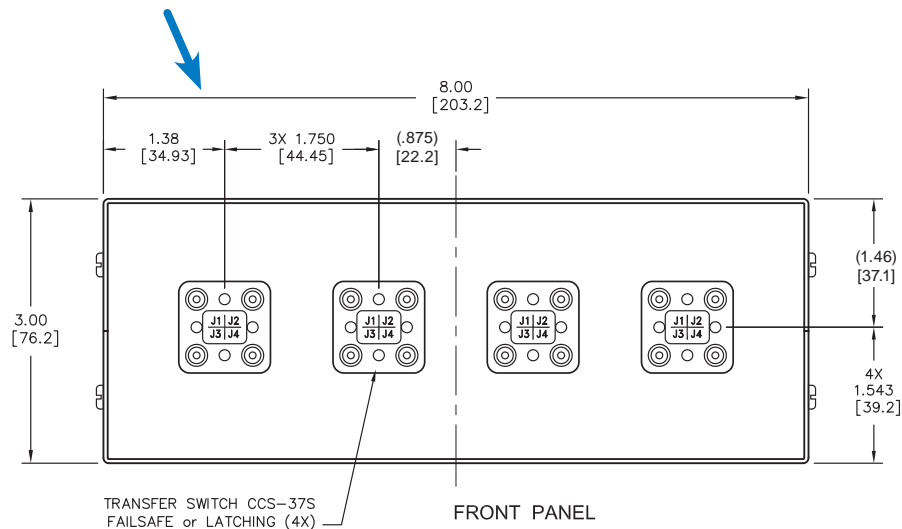


Enclosure A: UP TO 2 TRANSFER SWITCHES



MECHANICAL OUTLINE FOR ENCLOSURE B

Enclosure B: UP TO 4 TRANSFER SWITCHES



SIDE VIEW

