



PART NUMBER	DESCRIPTION
	The MMC Series is an ideal solution that consists of multi-throw, electromechanical coaxial switches designed to switch a microwave signal from a common input to any of 3, 4, 5, 6, 7 or 8 outputs. The characteristic impedance is 50 Ohms. With the normally open actuator, all paths are open when the switch is de-energized.
	The MMC Series is designed to allow the remote operation of 1 to 2 Single Pole Multi Throw 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 MMC 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, 2.9mm
Weight Non-Terminated	
1 Switch	26 oz. (737 g) (max.)
2 Switches	32 oz. (907 g) (max.)
Weight Terminated	
1 Switch	54 oz. (1531 g) (max.)
2 Switches	60 oz. (1701 g) (max.)

ELECTRICAL CHARACTERISTICS (SWITCHES ONLY)	
Form Factor	Multi-Throw, break before make
Frequency Range	Up to DC-40 GHz
Characteristic Impedance	50 Ohms
Operate Time	15 ms (max.)
Release Time	15 ms (max.)
Actuation Voltage Available	24 Vdc
Actuation Current, max. @ ambient	170mA/switch

TYPICAL RF CHARACTERISTICS						
Frequency	DC-6 GHz	6-12 GHz	12-18 GHz	18-26.5 GHz	26.5-34 GHz* (40 Option)	34-40 GHz* (40 Option)
Insertion Loss, dB, typ.	0.20	0.40	0.50	0.90	1.00	1.50
Isolation, dB, typ..	70	60	60	50	50	50
VSWR , typ.	1.25:1	1.40:1	1.50:1	1.80:1	1.90:1	2.00:1

For specific RF performance data please refer to Coax Switch Part number list in Glossary (page 5)

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):

Non-Terminated (Enclosure A)		Terminated (Enclosure B)	
1 (Enclosure A)		1 (Enclosure B)	
2 (Enclosure A)		2 (Enclosure B)	

Number of Throws (Select One):

SP3T	SP5T
SP4T	SP6T
SP7T*	SP8T*

Frequency Range (Select One):

DC-18GHz	DC-26.5GHz
DC-40GHz	

Remote Control (Select One):

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

Actuation Type (Select One):

Normally Open	Latching**
---------------	------------

* Only available in Normally Open Models, up to 18GHz
See Page 5, for Part Number List for switches used

** Only available in Enclosure B

For additional options, please contact factory.

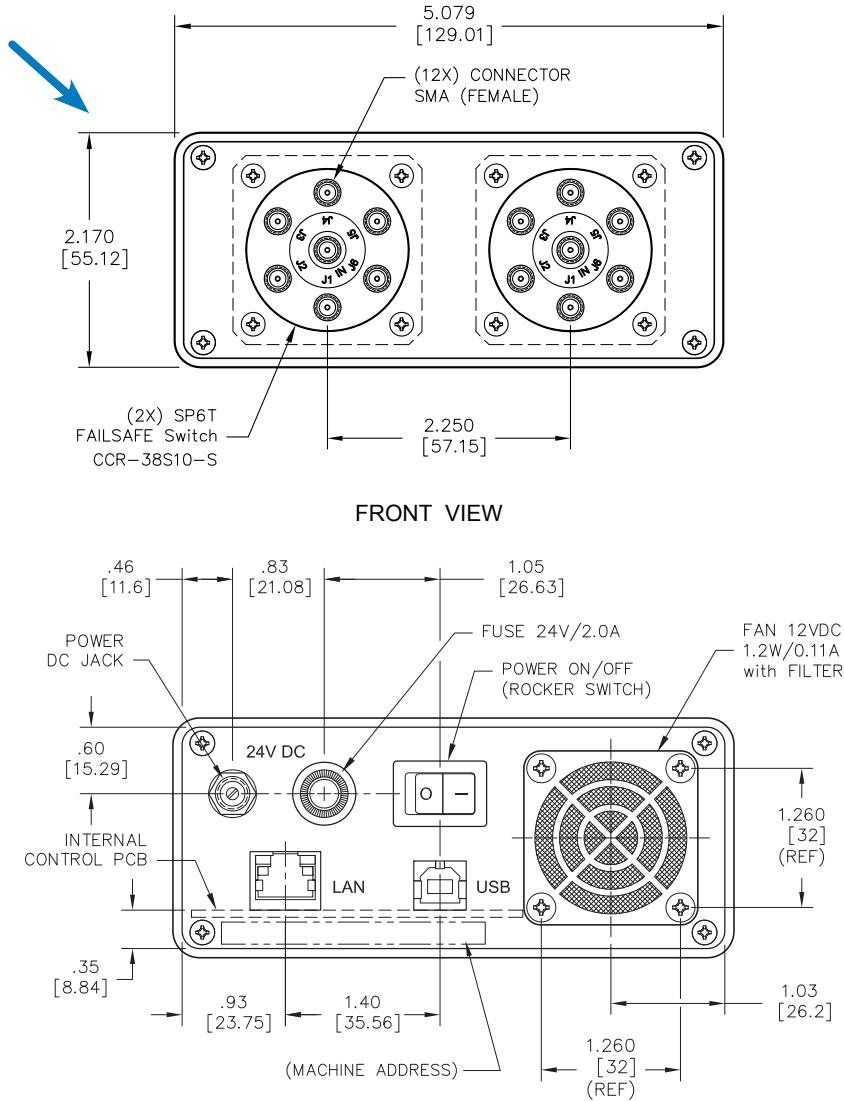
Miniature Matrix: MMC Series Controlled with USB or Ethernet



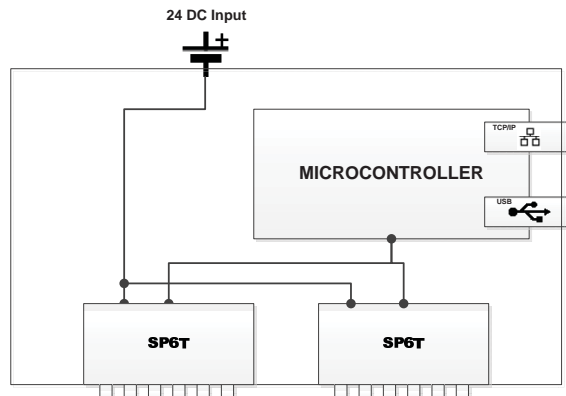
MECHANICAL OUTLINE FOR ENCLUSE A

Max. Length with Switches= 7.75 (196.85)

Enclosure A: UP TO 2 NON-TERMINATED SPMT SWITCHES

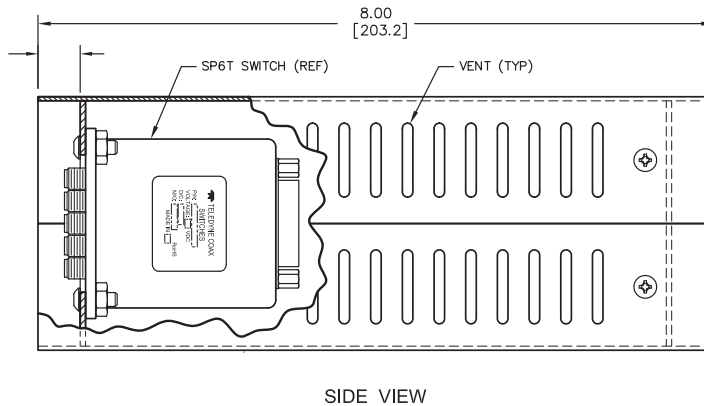
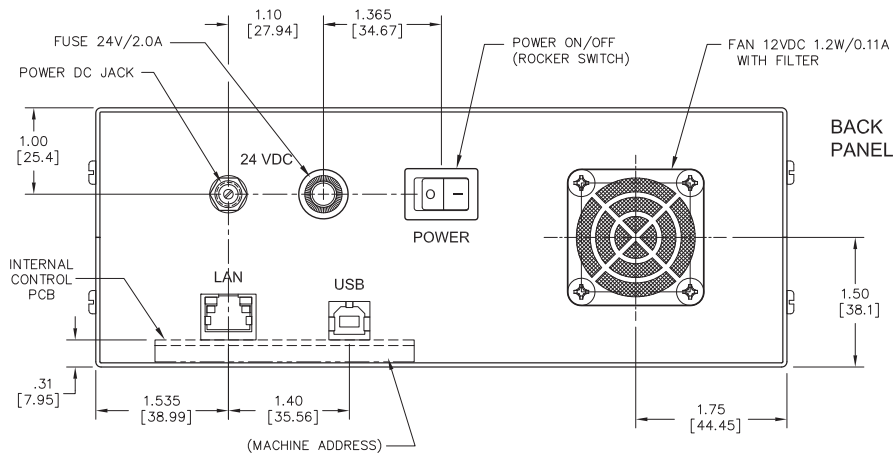
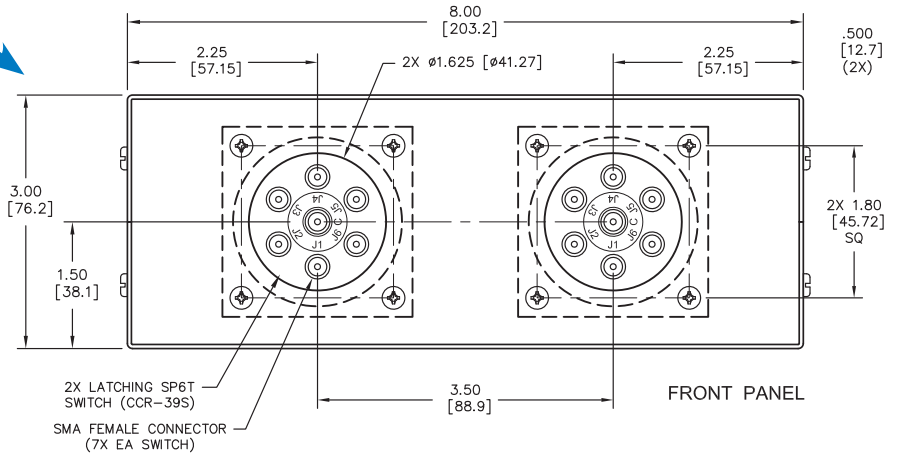


BLOCK DIAGRAM EXAMPLE



MECHANICAL OUTLINE FOR ENCLUSE B

Enclosure B: UP TO 2 TERMINATED SP3T to SP6T SWITCHES

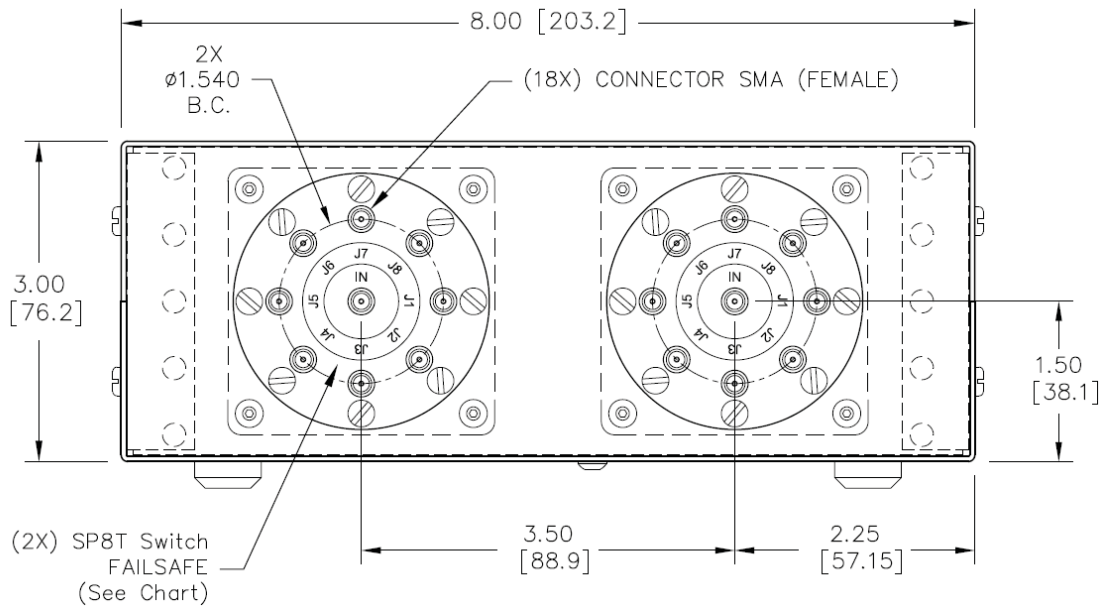


Miniature Matrix: MMC Series Controlled with USB or Ethernet

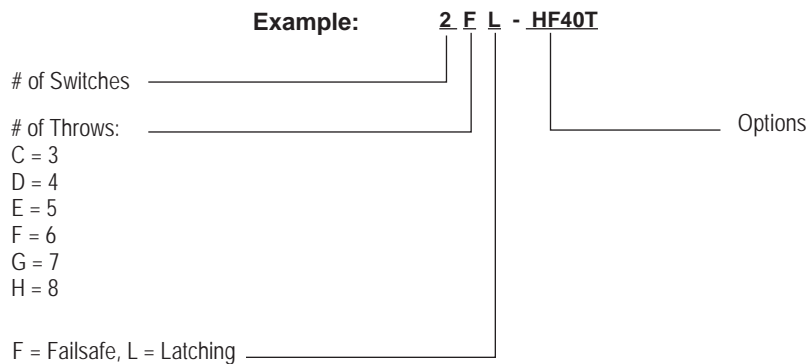


MECHANICAL OUTLINE FOR ENCLUSE B

Enclosure B: UP TO 2 TERMINATED SP7T to SP8T SWITCHES



ORDERING CODE



Options
 None = SMA DC-18GHz
 T = Terminated (can stack)
 HF26 = SMA DC-26.5GHz
 HP40 = 2.92 mm DC-40GHz