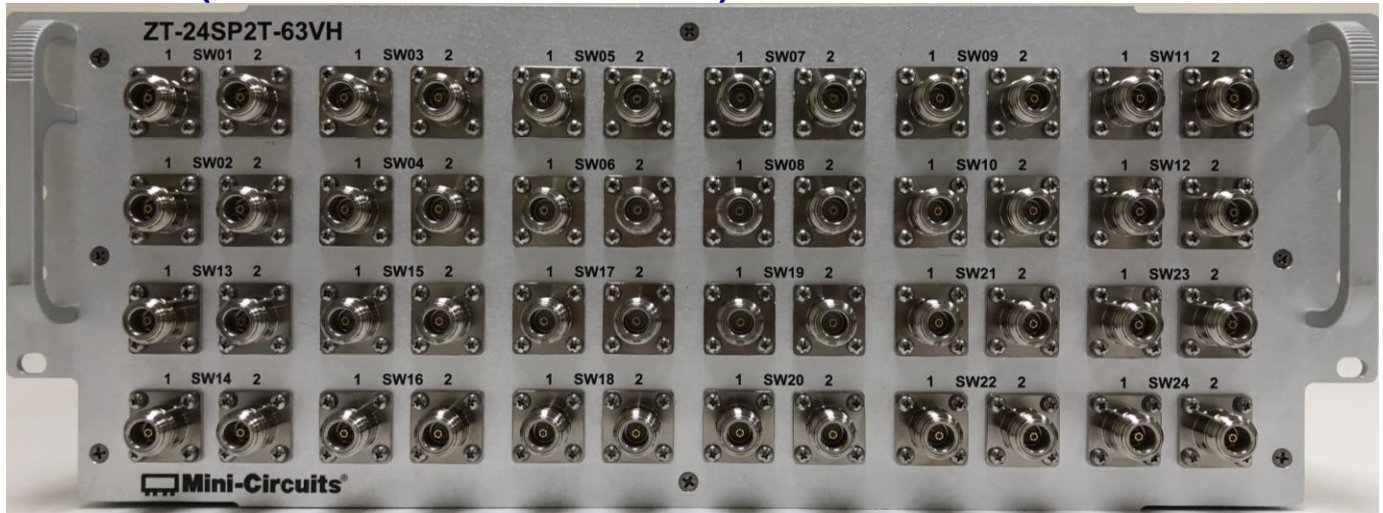| Model	ZT-24SP2T-63VH		
Application	24 x High Isolation SPDT Switch Rack (500-6000 MHz)		

Front Panel (J Ports of each SPDT Switch)

Rear Panel (COM Ports of each SPDT Switch)

Each USB-1SP2T-63VHX module (24 total) will be controlled as a single SPDT switch with 3 states:

State	Summary
0	All ports (COM, J1 & J2) terminated internally
1	COM connected to J1; J2 terminated internally
2	COM connected to J2; J1 terminated internally

RF Component List:

ID	Quantity	Model Name	Requirement
SW1-SW24	24	USB-1SP2T-63VHX	High Isolation / Power Solid-State SPDT

Daisy-Chained Control Connection

Multiple ZT-24SP2T-63VH racks (each with 24 x SPDT) can be daisy-chained together via their respective SPI Out & SPI In ports. Control for the full chain will be achieved via the single USB or Ethernet connection to the Master unit.
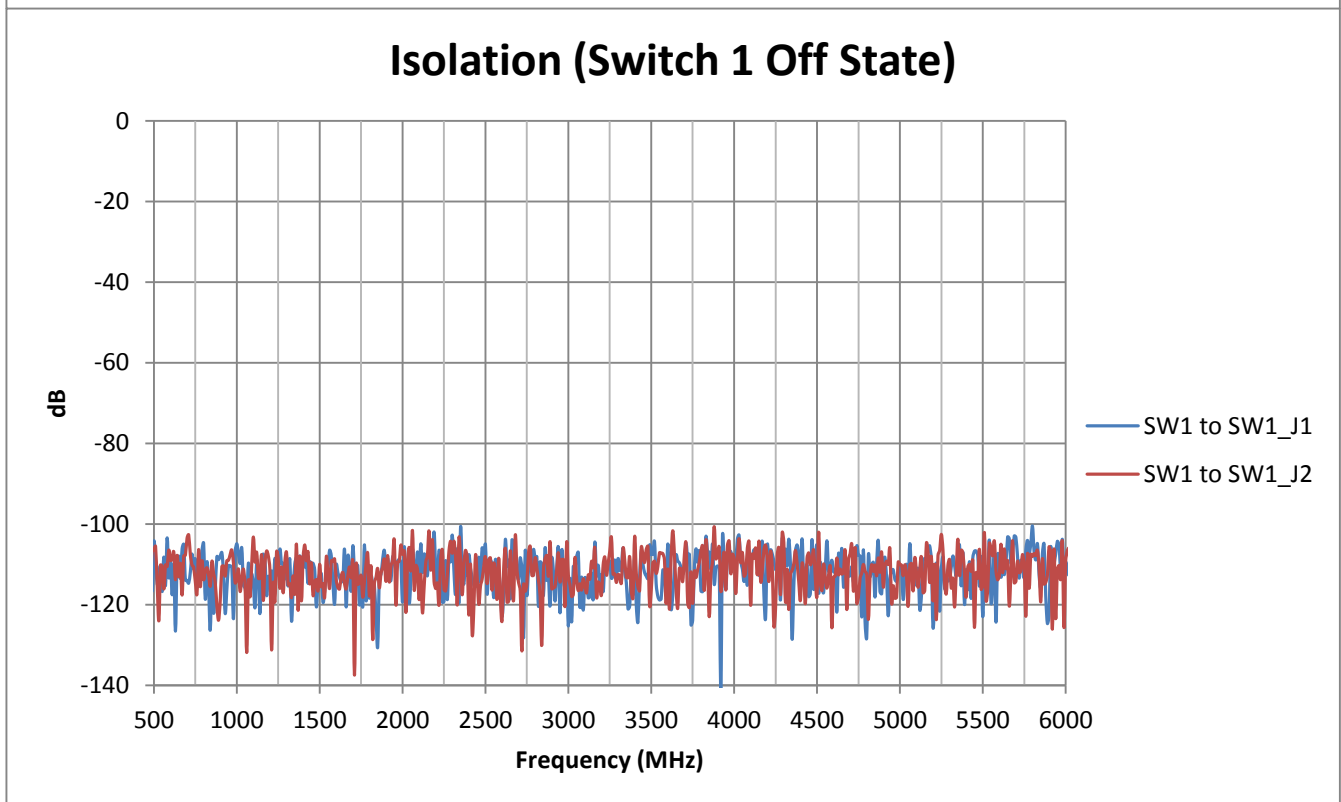
Mechanical Specifications: Outline Drawing 99-01-2580

Dimensions	19" (W) x 4U max (H) x 20" (D)
Case Material	Aluminum (with protective coatings to prevent corrosion)
Support	Rack-mounted slide rails; similar to ZT-20X6NB. See photo
RF Connectors	N-type (female)
Front Panel Marking	Line 1: Mini-Circuits part number Line 2: 24 x SPDT Switch Rack
Front panel	a) ON/OFF switch with indicator light b) Carry handles c) 48 x RF connections (RF1 and RF2 of each switch) - **N-type female**
Rear panel	a) 24 x RF connections (COM of each switch) - **N-type female** b) AC mains power supply input c) USB & RJ45 control connections d) Label with date code/serial number/MCL part# for traceability
Power supply	AC mains power supply (90-260 V, 47-63 Hz)
Control Interface	USB and Ethernet TCP/IP supporting HTTP and TELNET protocols
Software support	a) Mini-Circuits GUI for manual testing (Windows) b) ASCII / SCPI commands for automation through Ethernet c) ActiveX/.NET DLLs for USB automation in a Windows environment d) Interrupt codes for USB automation in a Linux environment
Operating temp	0° to +50° C

Electrical Specifications per Switch @ +25°C:

Parameter	Condition	Min	Typ	Max	Unit
Frequency		600		6000	MHz
Path Loss (COM to any J Port)	600 – 2500 MHz		4.0	5.5	dB
	2500 – 5000 MHz		4.5	6.0	
	5000 – 6000 MHz		5.0	6.5	
Isolation (Between J Ports)	600 – 2500 MHz	100	110		dB
	2500 – 5000 MHz	100	105		
	5000 – 6000 MHz	100	103		
Return Loss (All Ports)	600 – 6000 MHz		17.69		dB
Input Power (Through Path)	COM Port			2	W
	Per Port (J1 and J2)			2	W
Total Power Dissipation				4	W

Electrical Performance per Switch @ +25°C:

Insertion Loss (Switch 1)

Isolation (Switch 1 Off State)

Return Loss (Switch 1)