

50Ω DC to 12 GHz



## Product Overview

ZT-12SP6T-12R is a flexible switch rack, providing 12 independent mechanical SP6T switches on the rear panel. Each switch is of a high reliability, fail-safe design, operating from DC to 12 GHz with low loss and high isolation. The model is housed in a compact 4U height, 19-inch rack chassis with SMA RF connectors on the rear panel.

The system can be controlled via USB or Ethernet (supporting both HTTP and Telnet network protocols). Full software support is provided, including our user-friendly GUI application for Windows and a full API with programming instructions for Windows and Linux environments (both 32-bit and 64-bit systems).

The system also includes Mini-Circuits' novel SPI daisy-chaining interface which allows multiple rack systems to be cascaded together into a Master / Slave chain, with controlled through the single USB or Ethernet connection of the Master unit.

## Electrical Specifications at 25°C, per Switch

Parameter	Condition	Min.	Typ. (Note 1)	Max.	Unit
<b>Frequency Range</b>		DC	—	12	GHz
<b>Insertion Loss</b>	DC - 1 GHz	—	0.10	0.15	dB
	1 - 6	—	0.15	0.25	
	6 - 8	—	0.20	0.30	
	8 - 12	—	0.25	0.45	
<b>Isolation</b>	DC - 1 GHz	85	100	—	dB
	1 - 6	80	95	—	
	6 - 8	80	90	—	
	8 - 12	80	90	—	
<b>VSWR (Note 2,3)</b>	DC - 1 GHz	—	1.05	1.10	:1
	1 - 6	—	1.20	1.25	
	6 - 8	—	1.20	1.35	
	8 - 12	—	1.20	1.35	
<b>Switching Lifetime Hot Switching</b>	0.1W	10 million	—	—	cycles
	1.0W	—	1 million	—	
<b>RF Power Cold Switching</b>	—	—	—	20	W

Notes  
 1. The performance values represents a common value for the frequency range. For typical performance across the frequency band, see performance graphs in the next page.  
 2. All ports, all states  
 3. For port IN in Energized state only.  
 4. +24 Volt applied to energized port, COM is negative.

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