



American Microwave  
Corporation

**SOLID STATE SWITCHES**

- DC to 40 GHz
- SPST to SP64T configurations

*Any design can be optimized for specific frequency range, power handling, Insertion loss, isolation, intercept points, switching speed and VSWR*

## New – High Power Switches



Operating at L-Band, this SP9T solid state switch offers 1.6dB Insertion Loss, >45dB Isolation, better than 1.5:1 VSWR, TTL control and handles up to 100 Watts CW. This part features a dual directional coupler on the input and each of the 9 outputs has a coupled port (26dB).



Model SWN-2DR- STD is a SPDT solid state reflective switch capable of operating from 8-18 GHz and can handle 40W of CW power. The switch has a maximum Insertion Loss of 2 dB, VSWR of 2.0:1 maximum and an isolation of >40 dB. It has a maximum switching speed of 150 nSec. Switching rate is 500 KHz max. Input and output connectors are SMA (F) and solder pins for TTL and power supplies. Size is 1.6"(L) X 1.72(W) X 0.62"(H).

## SOLID STATE SWITCHES

• DC to 40 GHz

• SPST to SP64T configurations

**Any design can be optimized for specific frequency range, power handling,  
Insertion loss, isolation, intercept points, switching speed and VSWR**

***This list features some of our more popular Switches. If you do not find what you are looking for please contact:***

[Sales@americanmic.com](mailto:Sales@americanmic.com)

SPST	Freq Range	Insertion Loss	Isolation	VSWR	Switching Speed	Power Input	DC Power	Control
<a href="#">SWCH1K-DC40-SK</a>	DC to 40 GHz	5.5 dB Typical, 6.8 dB Maximum	65 dB Typical, 55 dB Minimum	2.0:1 Typical, 2.2:1 Maximum	5 ns Typical, 6 ns Maximum	17 dBm Maximum	+8V to +15V @ 15 mA max -8V to -15V @ 40 mA max	TTL Logic "1"=on Standard
<a href="#">SWN-2184-1DR/DT</a>	.5-18	Reflective: 2.5dB Absortive: 3.5 dB	0.5 Ghz to 18 GHz: 60 dB	Reflective: In/Out: 2:0:1 Absorptive: In/Out: 2:0:1 Absorptive: Out/Off 2:0:1	Rise:15ns Max Fall:15 ns Max Delay:On 100 ns Max Delay:Off 100 ns Max	(CW)+20 dBm(Std) (High Speed ) +10 DBm	+5V@70 mA max -5V @ 50 mA max( Reflective100mA Max Absorptive/ non reflective	TTL Logic "0"=on "1"=off
<a href="#">SWNND-2184-1DT</a>	.5-20	3.0 db Max	65dB min	Absorptive In/Out: 2:0:1 Out/Off 2:0:1	Rise:10ns Max Fall:10 ns Max Delay:On 50 ns Max Delay:Off 50ns Max	(CW)+20 dBm(Std) (High Speed ) +10 DBm	5v @ 50 mA Maximum -5v @ 50 mA Maximum	TTL Logic "0"=on "1"=off
<a href="#">SWM-DJV-1DT-2ATT</a>	DC-20	4.5 dB	10 MHz to 12 GHz: 60 dB 12 GHz to 20 GHz: 70 dB	In/Out: 2.0:1 Out/Off: 2.0:1	Rise 1 nS Typical, 2 nS Maximum Fall 1 nS Typical, 2 nS Maximum Delay On 12 nS Typical, 15 nS Maximum Delay Off 12 nS	(CW) +20 dBm (Standard)	-5V @ 25 mA Maximum	TTL Logic "0"=On, "1"=Off

					Typical, 15 nS Maximum			
<a href="#">SWNLC-DC20-1DT</a> low cost high speed	DC-20	3.0 dB @ 20 GHz	40 dB minimum	Absorptive In/Out: 2:0:1 Out/Off 2:0:1	Rise: 5nSec Max Fall: 5nSec Max Delay On:25nSec Max Delay Off:25nSec Max	(CW)=18 dBm (std )	-5v @ 50 mA Maximum	TTL Logic "0"=on "1"=off
<b>SP2D</b>	<b>Freq Range</b>	<b>Insertion Loss</b>	<b>Isolation</b>	<b>VSWR</b>	<b>Switching Speed</b>	<b>Power Input</b>	<b>DC Power</b>	<b>Control</b>
<a href="#">SWN-2DR/DT-Standard</a>	0.5-18	Reflective: 2.5dB Absorptive: 3.5 dB	0.5 Ghz to 18 GHz: 60 dB Min	Reflective: In/Out: 2:0:1 Absorptive: In/Out: 2:0:1 Absorptive: Out/Off 2:0:1	Rise:15ns Max Fall:15 ns Max Delay:On 100 ns Max Delay:Off 100ns Max	(CW)+20 dBm(Std) (High Speed ) +10 DBm	+5V@100 mA max -5V@ 75mA max( Reflective100mA Max Absorptive/ non reflective	TTL logic"0"=j1- j2 onTTL logic"1"=j1- j3 on
<b>SP3T</b>	<b>Freq Range</b>	<b>Insertion Loss</b>	<b>Isolation</b>	<b>VSWR</b>	<b>Switching Speed</b>	<b>Power Input</b>	<b>DC Power</b>	<b>Control</b>
<a href="#">SWN-1140-3DR/DT-STANDARD</a>	0.5-18	Reflective:2.75d B Absorptive3.75 db	0.5-18 Ghz: 60 db	Reflective: In/Out: 2:0:1 Absorptive: In/Out: 2:0:1 Absorptive: Out/Off 2:0:1	Rise:15ns Max Fall:15 ns Max Delay:On 100 ns Max Delay:Off 100ns Max	(CW)+20 dBm(Std) (High Speed ) +10 DBm	+5V@150 mA max -5V@ 75mA max( Reflective100mA Max Absorptive/ non reflective	TTL Logic "0"=On, "1"=Off
<a href="#">MSN-3DR/DT-05-STANDARD</a>	0.5-18	Reflective:2.75d B Absorptive 3.75 db	0.5-18 Ghz: 60 db	Reflective: In/Out: 2:0:1 Absorptive: In/Out: 2:0:1 Absorptive: Out/Off 2:0:1	Rise:15ns Max Fall:15 ns Max Delay:On 100 ns Max Delay:Off 100ns Max	(CW)+20 dBm(Std) (High Speed ) +10 DBm	+5V@150 mA max -5V@ 75mA max( Reflective100mA Max Absorptive/ non reflective	TTL Logic "0"=On, "1"=Off
<b>SP4T</b>	<b>Freq Range</b>	<b>Insertion Loss</b>	<b>Isolation</b>	<b>VSWR</b>	<b>Switching Speed</b>	<b>Power Input</b>	<b>DC Power</b>	<b>Control</b>
<a href="#">SWN-1140-4DR/DT-STANDARD</a>	0.5-18	Reflective:3.0d B Absorptive 3.75 db	0.5-18 Ghz: 60 db	Reflective: In/Out: 2:0:1 Absorptive: In/Out: 2:0:1 Absorptive: Out/Off 2:0:1	Rise:15ns Max Fall:15 ns Max Delay:On 100 ns Max Delay:Off 100ns Max	(CW)+20 dBm(Std) (High Speed ) +10 DBm	+5V@200 mA max -5V@ 75mA max( Reflective100mA Max Absorptive/ non reflective	TTL Logic "0"=On, "1"=Off
<a href="#">MSN-4DR/DT-05-STANDARD</a>	0.5-18	Reflective:3.0d B Absorptive 3.75 db	0.5-18 Ghz: 60 db	Reflective: In/Out: 2:0:1 Absorptive: In/Out: 2:0:1 Absorptive: Out/Off 2:0:1	Rise:15ns Max Fall:15 ns Max Delay:On 100 ns Max Delay:Off 100ns Max	(CW)+20 dBm(Std) (High Speed ) +10 DBm	+5V@200 mA max -5V@ 75mA max( Reflective100mA Max Absorptive/ non reflective	TTL Logic "0"=On, "1"=Off

<b>SP5T</b>	<b>Freq Range</b>	<b>Insertion Loss</b>	<b>Isolation</b>	<b>VSWR</b>	<b>Switching Speed</b>	<b>Power Input</b>	<b>DC Power</b>	<b>Control</b>
<a href="#">SWN-1140-5DR/DT-STANDARD</a>	0.5-18	Reflective:3.25dB Absorptive 4.0 db	0.5-18 Ghz: 60 db	Reflective: In/Out: 2:0:1 Absorptive: In/Out: 2:0:1 Absorptive: Out/Off 2:0:1	Rise:15ns Max Fall:15 ns Max Delay:On 100 ns Max Delay:Off 100ns Max	(CW)+20 dBm(Std) (High Speed ) +10 DBm	+5V@250 mA max -5V@ 75mA max( Reflective100mA Max Absorptive/ non reflective	TTL Logic "0"=On, "1"=Off
<a href="#">MSN-6DR/DT-05-STANDARD</a>	0.5-18	Reflective:3.5dB Absorptive 4.25db	0.5-18 Ghz: 60 db	Reflective: In/Out: 2:0:1 Absorptive: In/Out: 2:0:1 Absorptive: Out/Off 2:0:1	Rise:15ns Max Fall:15 ns Max Delay:On 100 ns Max Delay:Off 100ns Max	(CW)+20 dBm(Std) (High Speed ) +10 DBm	+5V@250 mA max -5V@ 75mA max( Reflective100mA Max Absorptive/ non reflective	TTL Logic "0"=On, "1"=Off
<b>SP6T</b>	<b>Freq Range</b>	<b>Insertion Loss</b>	<b>Isolation</b>	<b>VSWR</b>	<b>Switching Speed</b>	<b>Power Input</b>	<b>DC Power</b>	<b>Control</b>
<a href="#">SWN-1140-6DR/DT-STANDARD</a>	0.5-18	Reflective:3.5dB Absorptive 4.25db	0.5-18 Ghz: 60 db	Reflective: In/Out: 2:0:1 Absorptive: In/Out: 2:0:1 Absorptive: Out/Off 2:0:1	Rise:15ns Max Fall:15 ns Max Delay:On 100 ns Max Delay:Off 100ns Max	(CW)+20 dBm(Std) (High Speed ) +10 DBm	+5V@300 mA max -5V@ 75mA max( Reflective100mA Max Absorptive/ non reflective	TTL Logic "0"=On, "1"=Off
<a href="#">MSN-6DR/DT-05-STANDARD</a>	0.5-18	Reflective:3.5dB Absorptive 4.25db	0.5-18 Ghz: 60 db	Reflective: In/Out: 2:0:1 Absorptive: In/Out: 2:0:1 Absorptive: Out/Off 2:0:1	Rise:15ns Max Fall:15 ns Max Delay:On 100 ns Max Delay:Off 100ns Max	(CW)+20 dBm(Std) (High Speed ) +10 DBm	+5V@300 mA max -5V@ 75mA max( Reflective100mA Max Absorptive/ non reflective	TTL Logic "0"=On, "1"=Off
<b>SP7T</b>	<b>Freq Range</b>	<b>Insertion Loss</b>	<b>Isolation</b>	<b>VSWR</b>	<b>Switching Speed</b>	<b>Power Input</b>	<b>DC Power</b>	<b>Control</b>
<a href="#">SWN-1140-7DR/DT-STANDARD</a>	0.5-18	Reflective:3.5dB Absorptive 4.25db	0.5-18 Ghz: 60 db	Reflective: In/Out: 2:0:1 Absorptive: In/Out: 2:0:1 Absorptive: Out/Off 2:0:1	Rise:15ns Max Fall:15 ns Max Delay:On 100 ns Max Delay:Off 100ns Max	(CW)+20 dBm(Std) (High Speed ) +10 DBm	+5V@350 mA max -5V@ 75mA max( Reflective100mA Max Absorptive/ non reflective	TTL Logic "0"=On, "1"=Off
<a href="#">MSN-7DR/DT-05-STANDARD</a>	0.5-18	Reflective:3.5dB Absorptive 4.25db	0.5-18 Ghz: 60 db	Reflective: In/Out: 2:0:1 Absorptive: In/Out: 2:0:1 Absorptive: Out/Off 2:0:1	Rise:15ns Max Fall:15 ns Max Delay:On 100 ns Max Delay:Off 100ns Max	(CW)+20 dBm(Std) (High Speed ) +10 DBm	+5V@350 mA max -5V@ 75mA max( Reflective100mA Max Absorptive/ non reflective	TTL Logic "0"=On, "1"=Off

<b>SP8T</b>	<b>Freq Range</b>	<b>Insertion Loss</b>	<b>Isolation</b>	<b>VSWR</b>	<b>Switching Speed</b>	<b>Power Input</b>	<b>DC Power</b>	<b>Control</b>
<a href="#">MSN-8DR/DT-05-STANDARD</a>	0.5-18	Reflective:4.0dB Absorptive 4.5dB	0.5-18 Ghz: 60 db	Reflective: In/Out: 2:0:1 Absorptive: In/Out: 2:0:1 Absorptive: Out/Off 2:0:1	Rise:15ns Max Fall:15 ns Max Delay:On 100 ns Max Delay:Off 100ns Max	(CW)+20 dBm(Std) (High Speed ) +10 DBm	+5V@400 mA max -5V@ 75mA max( Reflective100mA Max Absorptive/ non reflective	TTL Logic "0"=On, "1"=Off
<b>SP10T</b>	<b>Freq Range</b>	<b>Insertion Loss</b>	<b>Isolation</b>	<b>VSWR</b>	<b>Switching Speed</b>	<b>Power Input</b>	<b>DC Power</b>	<b>Control</b>
<a href="#">MSN-10DR/DT-05-STANDARD</a>	0.5-18	Reflective:4.5dB Absorptive 5.0dB	0.5-18 Ghz: 60 db	Reflective: In/Out: 2:0:1 Absorptive: In/Out: 2:0:1 Absorptive: Out/Off 2:0:1	Rise:15ns Max Fall:15 ns Max Delay:On 100 ns Max Delay:Off 100ns Max	(CW)+20 dBm(Std) (High Speed ) +10 DBm	+5V@500 mA max -5V@ 75mA max( Reflective100mA Max Absorptive/ non reflective	TTL Logic "0"=On, "1"=Off
<a href="#">MSR-10DR-925T-28</a>	2-8	3.0 db max	50db min	2.0:1 max	Delay on:200 nsec max Delay off:200 nsec max	1W min ( CW)	+5V@500mA Max -5V@100 mA Max	TTL Logic "0"=On, "1"=Off
<b>SP12T</b>	<b>Freq Range</b>	<b>Insertion Loss</b>	<b>Isolation</b>	<b>VSWR</b>	<b>Switching Speed</b>	<b>Power Input</b>	<b>DC Power</b>	<b>Control</b>
<a href="#">MSN-12DR/DT-05-STANDARD</a>	0.5-18	Reflective:5.0dB max Absorptive 5.5dB max	0.5-18 Ghz: 60 db Min	Reflective: In/Out: 2:0:1 Absorptive: In/Out: 2:0:1 Absorptive: Out/Off 2:0:1	Rise:50ns Max Fall:50 ns Max Delay:On 150 ns Max Delay:Off 150ns Max	(CW)+20 dBm(Std) (High Speed ) +10 DBm	+5V@600 mA max -5V@ 150mA max( Reflective200mA Max Absorptive/ non reflective	TTL Logic "0"=On, "1"=Off
<b>SP16T</b>	<b>Freq Range</b>	<b>Insertion Loss</b>	<b>Isolation</b>	<b>VSWR</b>	<b>Switching Speed</b>	<b>Power Input</b>	<b>DC Power</b>	<b>Control</b>
<a href="#">MSN-16DR/DT-05-STANDARD</a>	0.5-18	Reflective:6.5dB max Absorptive 7.0dB max	0.5-18 Ghz: 60 db Min	Reflective: In/Out: 2:0:1 Absorptive: In/Out: 2:0:1 Absorptive: Out/Off 2:0:1	Rise:75ns Max Fall:75ns Max Delay:On 200 ns Max Delay:Off 200ns Max	(CW)+20 dBm	+5V@750mA Max -5V@200 mA Max	TTL Logic "0"=On, "1"=Off
<a href="#">MSN-16DR/DT-05-DEC-SP</a>	0.5-18	Reflective:6.5dB max Absorptive 7.0dB max	0.5-18 Ghz: 60 db Min	Reflective: In/Out: 2:0:1 Absorptive: In/Out: 2:0:1 Absorptive: Out/Off 2:0:1	Rise:75ns Max Fall:75ns Max Delay:On 200 ns Max Delay:Off 200ns Max	(CW)+20 dBm	+5V@750mA Max -5V@200 mA Max	TTL Logic "0"=On, "1"=Off
<a href="#">MSN-16DT-05-AKG-STANDARD</a>	0.1-20	9.5dB max	110 dB	Reflective:	Rise:500ns Max, 300ns	+30dB (1 Watt )	+5V@750mA Max	TTL Logic

<a href="#">OPTION0120, B01MINUS12V</a>			min	In/Out: 2:0:1 Absorptive: In/Out: 2:0:1 Absorptive: Out/Off 2:0:1	typical Fall:500ns Max, 300ns typical		-12V@200 mA Max	"0"=On, "1"=Off
<a href="#">MSN-16DT-05-DEC-MP OPTION 30M18</a>	30MHz-18	8.5dB max	60 db Min	2.0:1 Max	Delay:On 300 ns Max Delay:Off 300ns Max	(CW)+20 dBm	+5V@800mA Max -5V@200 mA Max	See logic table
<b>SP22T</b>	<b>Freq Range</b>	<b>Insertion Loss</b>	<b>Isolation</b>	<b>VSWR</b>	<b>Switching Speed</b>	<b>Power Input</b>	<b>DC Power</b>	<b>Control</b>
<a href="#">MSR-22DR-925T-28</a>	8-18	8-12 Ghz: 4.0dB max 12-18Ghz: 4.5 Max	40dB min	2.0:1 max	Delay:On 200 ns Max Delay:Off 200ns Max	3 Watt min(CW), 10 Watt peak 1 us	+15V@800mA Max -15V@100 mA Max	TTL Logic "0"=On, "1"=Off
<b>SP32T</b>	<b>Freq Range</b>	<b>Insertion Loss</b>	<b>Isolation</b>	<b>VSWR</b>	<b>Switching Speed</b>	<b>Power Input</b>	<b>DC Power</b>	<b>Control</b>
<a href="#">MSN-32DR/DT-05-STANDARD</a>	.5-18	Reflective:7.0db max Absorptive 7.5db max	0.5-18: 60dB	Reflective: In/Out: 2:0:1 Absorptive: In/Out: 2:0:1 Absorptive: Out/Off 2:0:1	Rise:15ns Max Fall:15 ns Max Delay:On 150 ns Max Delay:Off 150ns Max	(CW)+20 dBm(Std) (High Speed ) +10 dBm	+5V@ 1.7 A max -5V@ 200mA max( Reflective200mA Max Absorptive/ non reflective	TTL Logic "0"=On, "1"=Off
<b>SP48T</b>	<b>Freq Range</b>	<b>Insertion Loss</b>	<b>Isolation</b>	<b>VSWR</b>	<b>Switching Speed</b>	<b>Power Input</b>	<b>DC Power</b>	<b>Control</b>
<a href="#">MSN-48DT-05-DEC-MP OPTION 182105,B02, HI80DB</a>	18-21.5	11.5 dB Max	80 dB min	2.2:1 Max	250 nSec Max	+20 dB (CW) Max	+5V@2.4 A Max -15V@250 mA Max	See logic table
<b>SP65T</b>	<b>Freq Range</b>	<b>Insertion Loss</b>	<b>Isolation</b>	<b>VSWR</b>	<b>Switching Speed</b>	<b>Power Input</b>	<b>DC Power</b>	<b>Control</b>
<a href="#">MSN-65DT-051-DEC-MP</a>	100Mhz – 4GHz							