

- Key Features -

- 10MHz to 30GHz
- Low insertion-loss
- Up to 2 watts
- Non-reflective
- USB powered
- 50-ohm matched
- USB Programmable
- Solid-state reliability
- Extremely affordable
- Manual controls
- Ethernet port

SW-Series

Solid-State Wideband Microwave Switches



Absorptive RF Switches

Designed for general purpose low power, reliable RF switching, the 2-way and 4-way SW-Series from DS Instruments is useful in many RF projects and automated test environments.

The active port can be set manually with front control button, from the USB connection, or via Ethernet connection. USB conveniently powers the device, so no additional lab supply or wiring are needed. All ports are DC-blocking for user convenience.

Remote Operation

Industry standard SCPI commands allow the SW-Series switches to be controlled by any host system with minimal effort.

The USB port is configured as a virtual COM port allowing user software to change settings on the switch easily and without additional drivers.

MADE IN



U. S. A.

Switch Matrix Applications

- Automated testing environments
- Satellite communications
- General RF lab use
- Production verification
- Aerospace / defense research
- Antenna research



DS Instruments

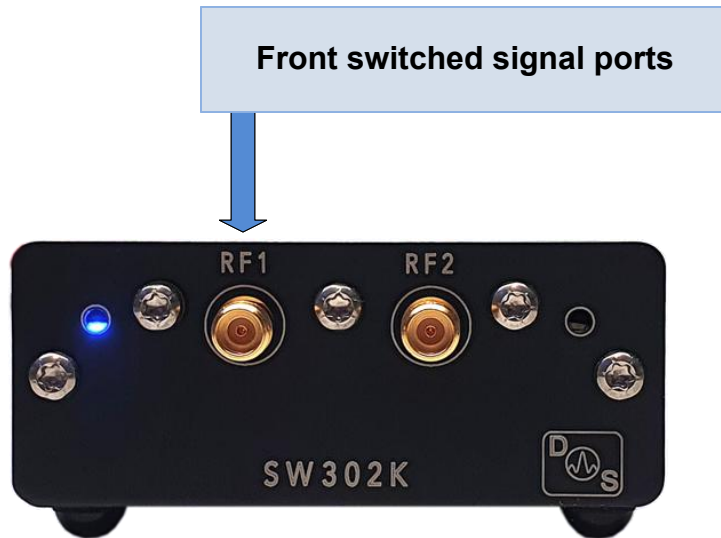
SW-Series Microwave Switches

Model Comparison

	SW1204	SW264K	SW302K	SW402KA	SW6004
Frequency Coverage	10M - 12G	1G - 26G	1G - 30G	1G - 40G	10M - 6G
Switched Ports	4	4	2	2	4
RF Connectors	SMA	SMA	2.92mm	2.4mm	SMA
Insertion Loss (dBm)	2 - 5	5 - 7	3 - 5		1 - 3
Max Power (through-path) dBm	+33	+25	+25	+25	+33
Max Power (terminated) dBm	+27	+25	+25	+24	+24
Isolation (dBm typical)	25-50	35-45	30		30-60
Non-reflective Topology	X	X	X	X	X
USB Power Connector	Type-C	Type-C	Type-C	Type-C	Micro
Ethernet Port Standard		X	X	X	

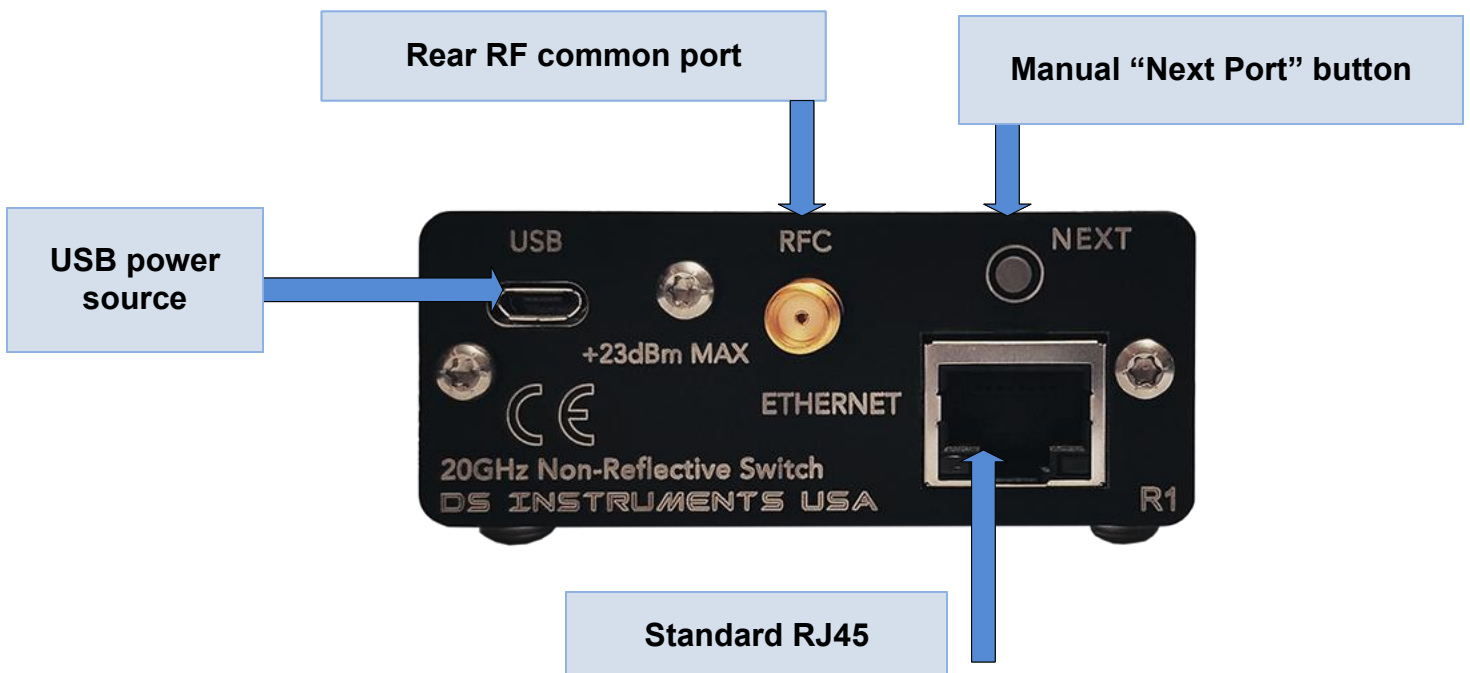
SW-Series Microwave Switches

Usage Notes



Notes

- Do not apply a signal over the maximum input power
- USB drivers are pre-installed in all modern operating systems
- Serial Settings: 115200bps, 8 bits, 1 Stop, no parity

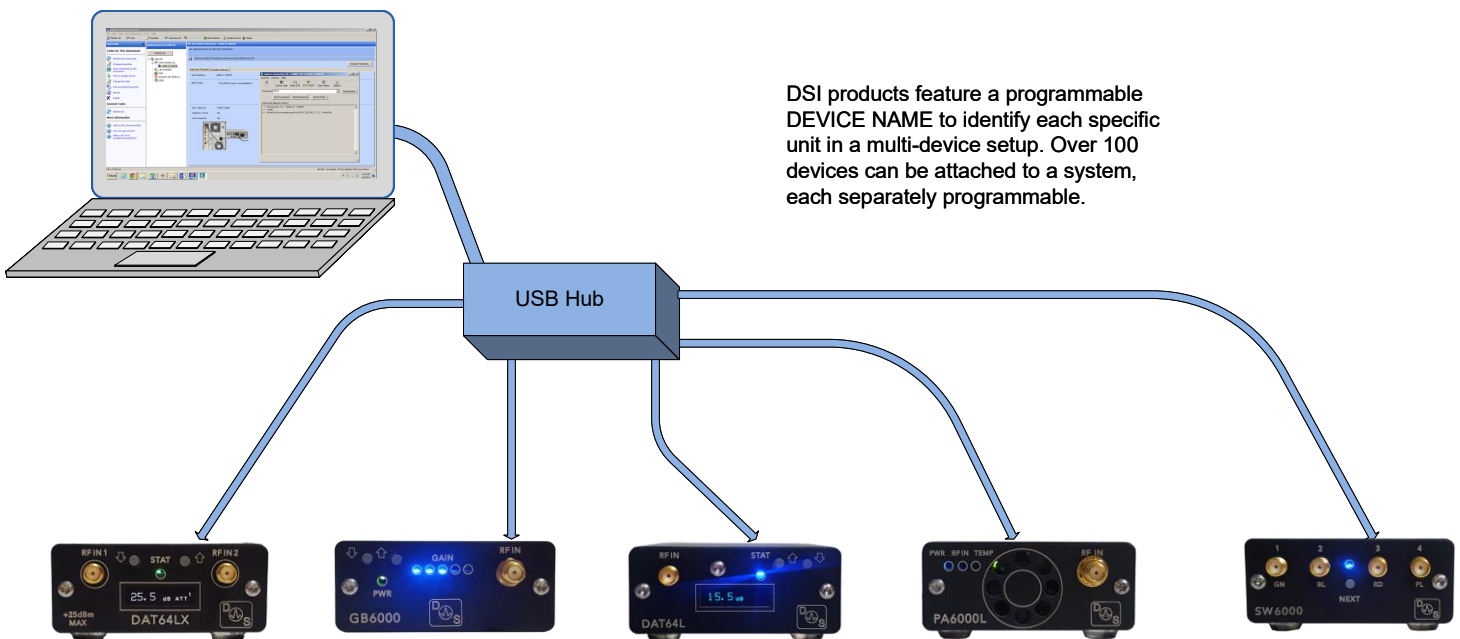


SW-Series Microwave Switches

Typical User connections for Remote Features



Multiple Equipment Setup



DSI products feature a programmable **DEVICE NAME** to identify each specific unit in a multi-device setup. Over 100 devices can be attached to a system, each separately programmable.

SW-Series Microwave Switches

USB COM Port SCPI Commands

RFO 2	- Set port 2 as the active port
RFO?	- Return the active port number
*UNITNAME TomJ	- Set a custom nickname for this unit
*UNITNAME ?	- Return user set device nickname
*IDN?	- Return standard SCPI identification string
*RST	- Reset device
*REV?	- Return the hardware revision number
*PING?	- Identify an individual device with led flash and beep
*SAVSTATE	- Save current RF path setting to non-volatile memory
*SYSVOLTS?	- Return USB voltage level
*BUTTONS ON	- Re-enable the physical next port button
*BUZZER OFF	- Turn off the buzzer

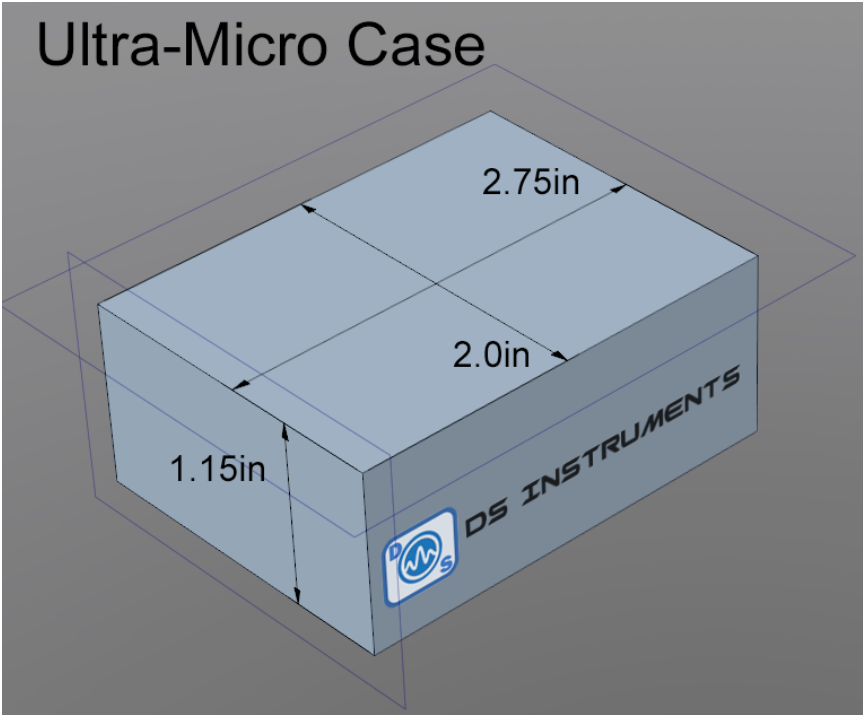
(115200 Baud)

Included Windows GUI



SW-Series Microwave Switches

MECHANICAL INFORMATION



SW-Series Microwave Switches

SHARED TECHNICAL SPECIFICATIONS

*Measurements taken at 25C unless otherwise noted

Parameter	Min	Max	Typ.	Units
Switching Time (Buzzer Off)			100	uS
Temperature Range	-30	65	25	C
DC Voltage Allowed on RF ports		+15		V
Port Impedance			50	Ohms
DC Current Requirement			150	mA
DC Current Requirement (with Ethernet)			350	mA
DC Voltage Range (USB)	4.50	5.30	5.0	V

Notes: RF performance specifications are listed on individual device info sheets

SW-Series Microwave Switches

Ordering Information (USA)

SW6004: 25MHz - 6GHz, SP4T RF Switch - USB	\$599
SW6004E: 25MHz - 6GHz, SP4T RF Switch – Ethernet	\$699
SW1204: 10MHz - 12GHz, SP4T RF Switch - USB	\$699
SW1204E: 10MHz - 12GHz, SP4T RF Switch – Ethernet	\$799
SW264K: 100M - 26GHz, SP4T Microwave Switch	\$1299
SW302K: 1.0G - 30GHz, SP2T Microwave Switch	\$1599
SW402KA: 1.0G - 40GHz, SP2T Microwave Switch	

Technical Support Contact Information

www.dsinstruments.com
support@dsinstruments.com

