

Xtra Long Life 100 million cycles

USB RF-SPDT Switch Matrix

USB-8SPDT-A18

50Ω DC to 18 GHz

The Big Deal

- Capable of 100 million cycles
- Wide frequency (DC to 18 GHz)
- High power, 10W
- 8 SPDT electromechanical, absorptive, RF switches (Isolation 85 dB typ.) configurable into a SP9T switch
- USB HID device, includes control software with an API DLL com object compatible with 32/64 Bit operating systems



Case Style: LM1757



Installation CD



Product Overview

Mini-Circuits' USB-8SPDT-A18 is a general purpose USB controlled RF switch matrix containing eight electro-mechanical SPDT, absorptive fail-safe RF switches constructed in break-before-make configuration and powered by +24V_{DC} with a switching time of 25 mSec typical. The eight switches can be set as: eight independent SPDT switches, a 2 x 8 switch, a SP5T switch and a transfer switch, two transfer switches and many other configurations (see pages 5 - 15 for details). The RF switches can be operated in all these configurations remotely using the supplied GUI program, or programmed by the user using the included API DLL com object. The RF switches operate over a wide frequency band from DC to 18GHz, have low insertion loss (0.2 dB typical) and high isolation (85dB typical) making the switch matrix perfectly suitable for a wide variety of RF applications.

The USB-8SPDT-A18 is constructed in a metal case (size of 4.5" X 12.0" X 2.25") with 24 SMA(F) connectors (COM, 1, 2 for each switch), a 2.1mm DC socket, and a USB type B port. The model is supplied along with a CD containing a graphical user interface program featuring an API DLL com object. Also included is a 2.7 ft USB cable, a power adapter suitable for US, EU and other power systems. See page 16 for details. Longer USB cables, and a mounting bracket are available as additional accessories.

Key Features

Feature	Advantages
USB HID (Human Interface Device)	Plug-and-Play (no need to install a driver for the device).
RF SPDT Electromechanical switch	Wideband (DC to 18 GHz) with low insertion loss (0.2 dB typ.), very high isolation (85dB typ.), and high power rating (10W cold switching)
24V _{DC} Operating voltage	The USB-8SPDT-A18 requires 24V/2A to power the RF switches, supplied from the included power adapter.
32/64 Bit operating systems	Compatible with Windows® and Linux® operating systems using 32 and 64 bit architecture.
Software CD, USB cable, and 24V _{DC} Power adapter included	A CD containing a programing manual for Linux® and Windows® operating systems (32 and 64 bit systems) and a Windows® GUI program containing an API DLL com object is included with the USB-8SPDT-A18. A 2.7 ft USB cable, and a power adapter suitable for US, EU and other power systems are also included.



For detailed performance specs
& shopping online see web site

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine  Provides ACTUAL Data Instantly at minicircuits.com

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp. Page 1 of 16

Xtra Long Life 100 million cycles

USB RF-SPDT Switch Matrix

USB-8SPDT-A18

50Ω DC to 18 GHz

Features

- Capable of 100 million cycles
- Eight DC to 18 GHz SPDT absorptive fail-safe RF switches in break-before-make configuration
- Configurable into SP9T, 2x8 switch, two transfer switches or many other configurations
- Electromechanical switching (Isolation 85 dB typ.)
- High power handling, 10W
- Greatly simplifies complex switching and timing setups
- Easy installation and operation
- Compatible with 32/64-bit Windows® or Linux® systems
- ActiveX com object and .Net class library for use with other software: C++, C#, CVI®, Delphi®, LabVIEW® 8 or newer, MATLAB® 7 or newer, Python, Agilent VEE®, Visual Basic®, Visual Studio® 6 or newer, and more¹
- Mounting bracket (Optional)
- protected by US Patents 5,272,458; 6,414,577; 6,650,210; 7,633,361 and 7,843,289



Case Style: LM1757



Installation CD

Model No.	Description	Price	Qty.
USB-8SPDT-A18	USB RF SPDT Switch	\$2495.00 ea.	(1-9)
Included Accessories			
AC/DC-24-3W1	AC/DC 24V Adapter (see Ordering Information)		1
CBL-3W1-XX	AC Power Cord (see Ordering Information)		1
USB-CBL-AB-3+	2.7 ft USB cable		1
RFSW-CD	Installation CD		1

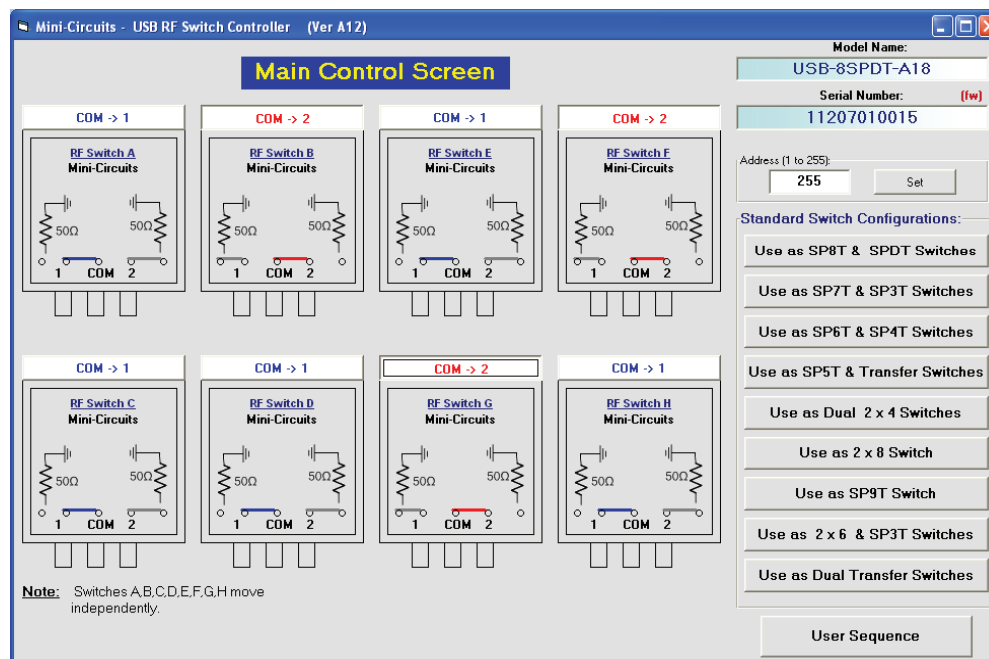
Applications

- Lab
- Test equipment
- Control systems
- Switching a device in and out of a signal path

RoHS Compliant

See our web site for RoHS Compliance methodologies and qualifications

Mini-Circuits RF Switch Control Program for USB RF Switch Matrix



¹ Windows, Visual Basic, and Visual Studio are registered trademarks of Microsoft Corporation in the United States and other countries. Linux is a registered trademark of Linus Torvalds. LabVIEW and CVI are registered trademarks of National Instruments Corp. Delphi is a registered trademark of Codegear LLC. MATLAB is a registered trademark of MathWorks, Inc. Agilent VEE is a registered trademark of Agilent Technologies, Inc. Neither Mini-Circuits nor the Mini-Circuits USB-8SPDT-A18 are affiliated with or endorsed by the owners of the above referenced trademarks.

Mini-Circuits and the Mini-Circuits logo are registered trademarks of Scientific Components Corporation.



P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine [minicircuits.com](http://www.minicircuits.com) Provides ACTUAL Data Instantly at minicircuits.com

IF/RF MICROWAVE COMPONENTS

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp.

For detailed performance specs & shopping online see web site

Rev. A
M139582
EDR-10893
USB-8SPDT-A18

RAV

130106

Page 2 of 16

Electrical Specifications

Parameter	Port	Conditions	Min.	Typ.	Max.	Units
Rated Voltage ²	24V _{DC} IN USB Port	provided via external power adapter –	23 –	24 5	25 –	V
Rated Current	24V _{DC} IN	All switches in COM -> 2 position	–	1500	2000	mA
		All switches in COM -> 1 position	–	130	170	
	USB Port	All switches in COM -> 2 position	–	90	120	
		All switches in COM -> 1 position	–	50	80	
Switching Time		–	–	25	–	ms
Life (per switch) ³		@ 100 mW (hot switching) ⁴	10	–	–	million switching cycles
		@ 1 W (hot switching) ⁴	–	3	–	
RF Power (cold switching) ⁵		–	–	–	10	W
RF Power (hot switching) ⁵		–	–	–	1	
RF VSWR		DC to 1 GHz	–	1.05	1.10	:1
		1 GHz to 8 GHz	–	1.20	1.30	
		8 GHz to 12 GHz	–	1.20	1.35	
		12 GHz to 18 GHz	–	1.25	1.40	
RF Insertion Loss (per switch)		DC to 1 GHz	–	0.10	0.15	dB
		1 GHz to 8 GHz	–	0.15	0.30	
		8 GHz to 12 GHz	–	0.25	0.40	
		12 GHz to 18 GHz	–	0.30	0.50	
RF Isolation (per switch)		DC to 1 GHz	85	100	–	dB
		1 GHz to 8 GHz	75	90	–	
		8 GHz to 12 GHz	70	80	–	
		12 GHz to 18 GHz	60	66	–	

² Power On Sequence: Connect the 24V power, followed by the USB control before turning on the Switch Matrix.

³ Capable of up to 100 million cycles with proper maintenance, contact Mini-Circuits

⁴ Exceeding these limits will result in reduced life.

⁵ Power handling is specified with RF applied to the COM port and output load connected to either 1 or 2 of the respective switch.

Minimum System Requirements

Interface	USB HID
Host operating system	32 Bit operating system: Windows 98®, Windows XP®, Windows Vista®, Windows 7® 64 Bit operating system: Windows Vista®, Windows 7® Linux® support: 32/64 Bit operating system
Hardware	Pentium® II or better

Connections

24V _{DC} IN	(2.1 mm center positive DC Socket)
RF Switch A (1, COM, 2)	(SMA female)
RF Switch B (1, COM, 2)	(SMA female)
RF Switch C (1, COM, 2)	(SMA female)
RF Switch D (1, COM, 2)	(SMA female)
RF Switch E (1, COM, 2)	(SMA female)
RF Switch F (1, COM, 2)	(SMA female)
RF Switch G (1, COM, 2)	(SMA female)
RF Switch H (1, COM, 2)	(SMA female)
USB	(USB type B receptacle)

Absolute Maximum Ratings

Operating Temperature	0°C to 40°C
Storage Temperature	-15°C to 45°C
DC Voltage max.	26V
RF power (at COM port of any switch)	10W
RF power (at 1 and 2 of any switch)	1W

Permanent damage may occur if any of these limits are exceeded.



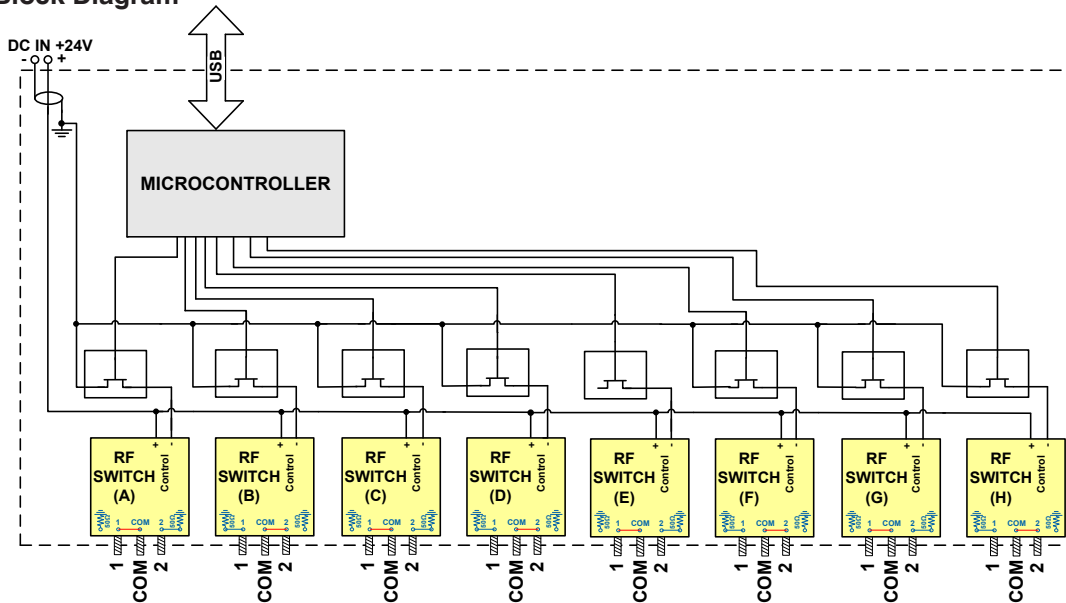
P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at minicircuits.com

IF/RF MICROWAVE COMPONENTS

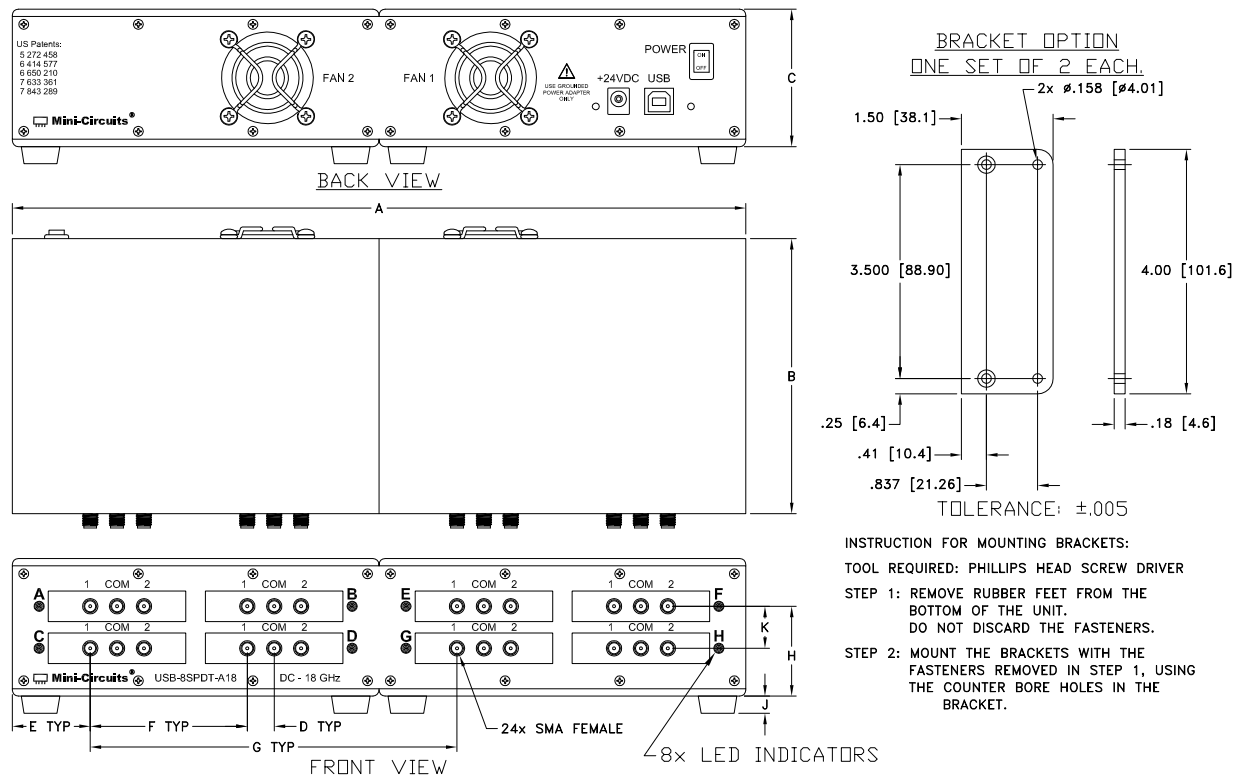
For detailed performance specs
& shopping online see web site

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp. Page 3 of 16

Block Diagram



Outline Drawing (LM1757)



Outline Dimensions (inch mm)

A	B	C	D	E	F	G	H	J	K	WT. GRAMS
12.00	4.50	2.25	.440	1.28	2.57	6.00	1.47	.28	.69	2290
304.8	114.3	57.2	11.18	32.5	65.28	152.4	37.34	7.11	17.53	



P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at minicircuits.com

IF/RF MICROWAVE COMPONENTS

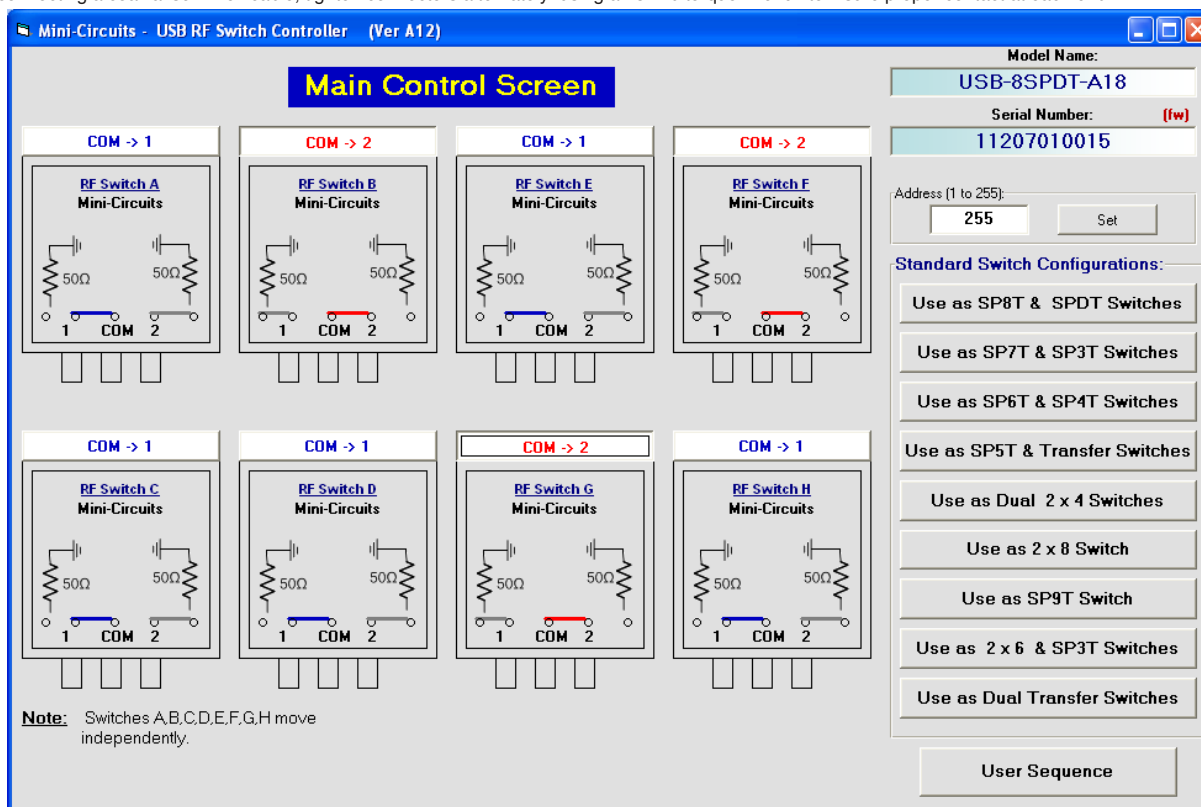
Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp.

For detailed performance specs
& shopping online see web site



Configuration A: 8 SPDT switches

- Power handling is specified with RF applied to the COM port and output load connected to either 1 or 2 of the respective switch.
- When connecting a coaxial semi flex cable, tighten connectors alternately using an 8in/lb torque wrench to insure proper contact at each end.



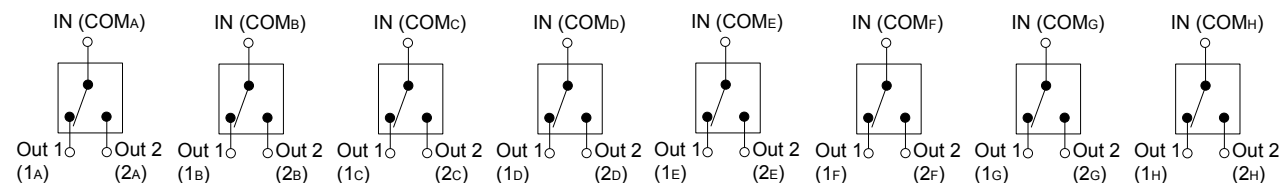
Config. A

SPDT: Any switch Logic

IN $\longleftrightarrow$ Out1 : 0

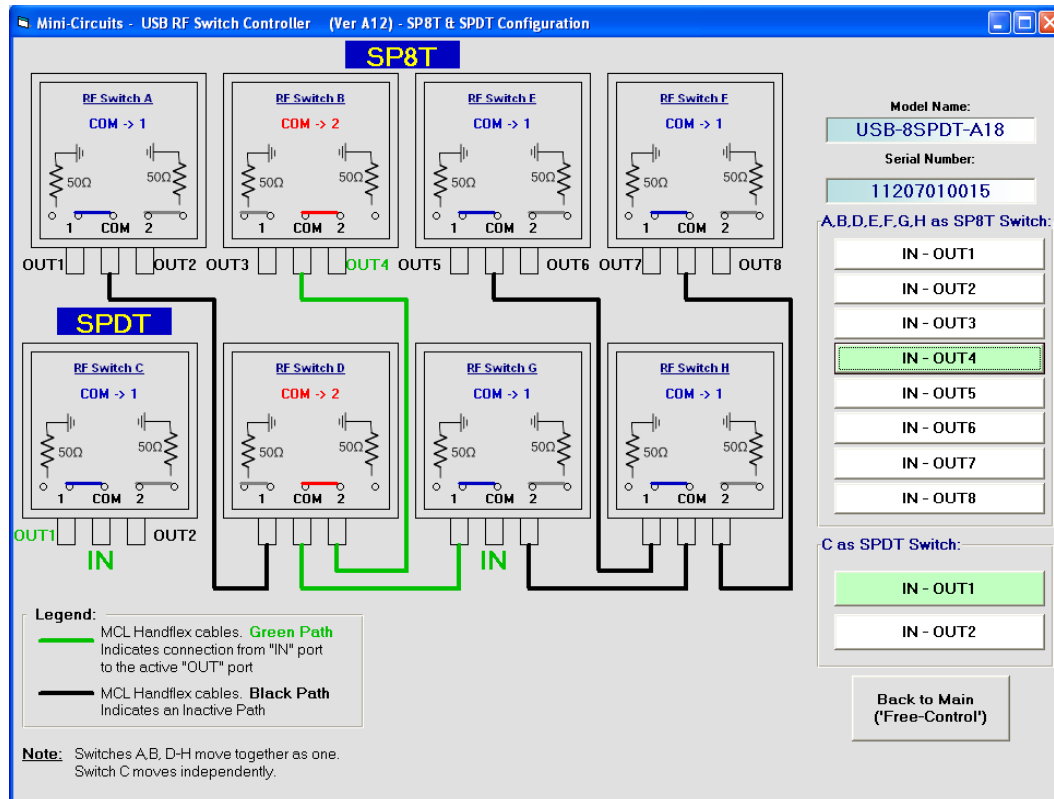
IN $\longleftrightarrow$ Out2 : 1

Switches move independently.

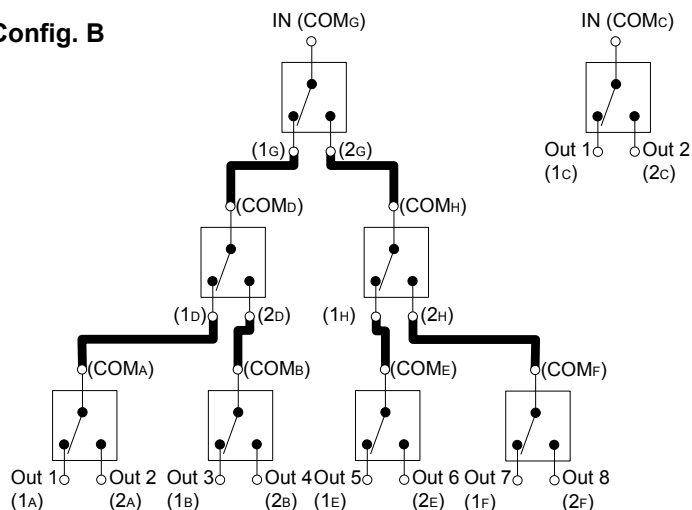


Configuration B: SP8T & SPDT switches

- Power handling is specified with RF applied to the COM port and output load connected to either 1 or 2 of the respective switch.
- When connecting a coaxial semi flex cable, tighten connectors alternately using an 8in/lb torque wrench to insure proper contact at each end.



Config. B



SPDT: Switch C Logic

IN ↔ Out1 : 0
IN ↔ Out2 : 1

SP8T:

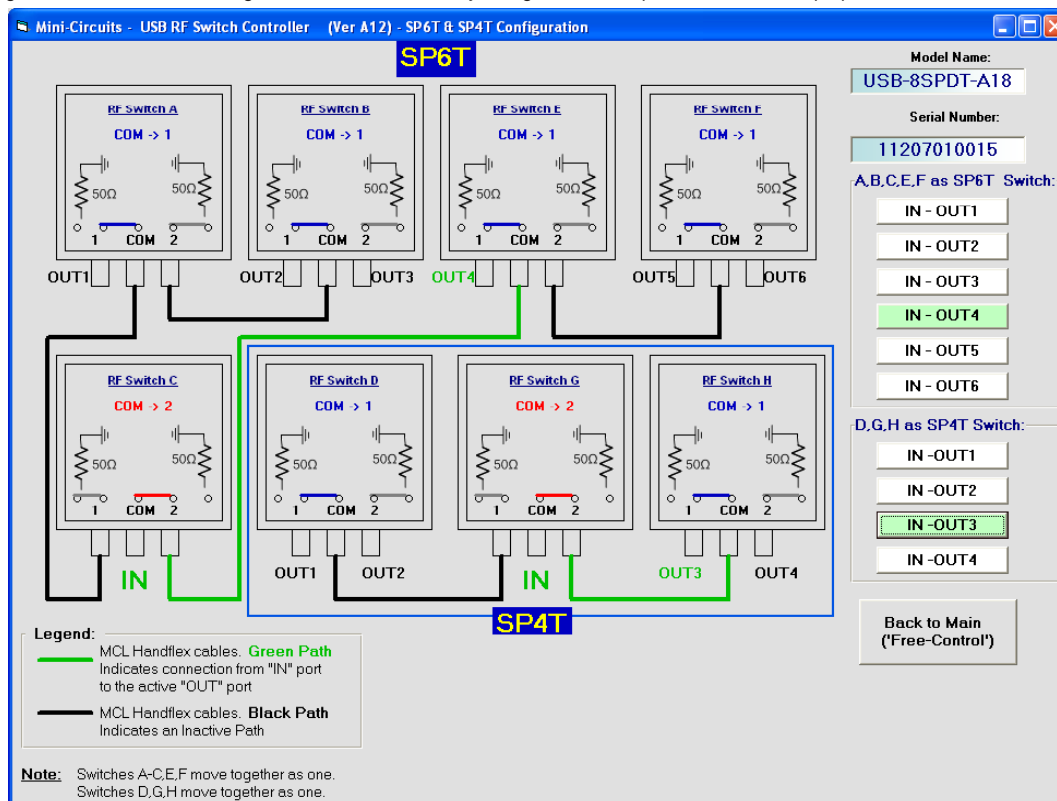
Switch A, B, & D - H Logic

	A	B	D	E	F	G	H
IN ↔ Out1 :	0	0	0	0	0	0	0
IN ↔ Out2 :	1	0	0	0	0	0	0
IN ↔ Out3 :	0	0	1	0	0	0	0
IN ↔ Out4 :	0	1	1	0	0	0	0
IN ↔ Out5 :	0	0	0	0	0	1	0
IN ↔ Out6 :	0	0	0	1	0	1	0
IN ↔ Out7 :	0	0	0	0	0	1	1
IN ↔ Out8 :	0	0	0	0	1	1	1

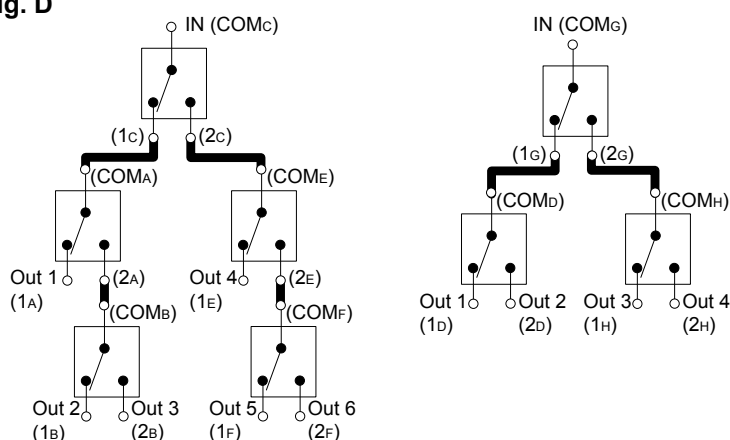
Switches A,B, D-H move together as one. Switch C moves independently

Configuration D: SP6T & SP4T switches

- Power handling is specified with RF applied to the COM port and output load connected to either 1 or 2 of the respective switch.
- When connecting a coaxial semi flex cable, tighten connectors alternately using an 8in/lb torque wrench to insure proper contact at each end.



Config. D



SP4T:

Switch D, G & H Logic

IN $\longleftrightarrow$ Out1 : 0, 0, $\emptyset$
 IN $\longleftrightarrow$ Out2 : 1, 0, $\emptyset$
 IN $\longleftrightarrow$ Out3 : $\emptyset$, 1, 0
 IN $\longleftrightarrow$ Out4 : $\emptyset$, 1, 1

SP6T:

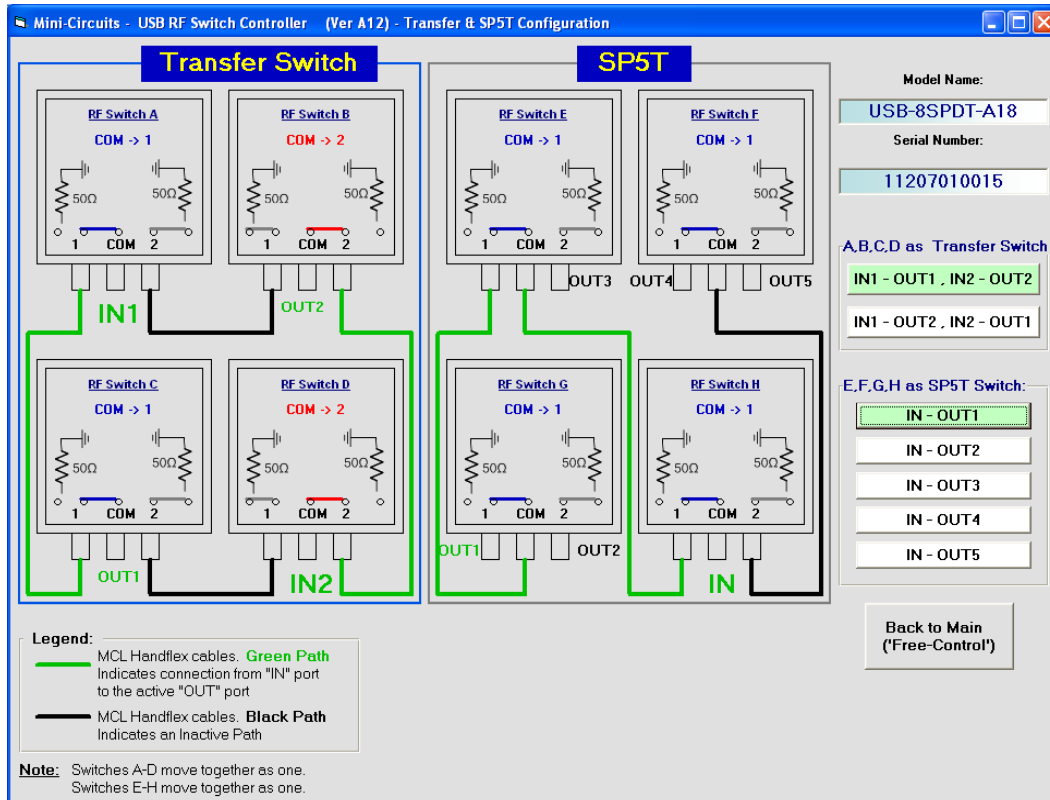
Switch A, B, C, E & F Logic

A B C E F
 IN $\longleftrightarrow$ Out1 : 0, $\emptyset$, 0, $\emptyset$, $\emptyset$
 IN $\longleftrightarrow$ Out2 : 1, 0, 0, $\emptyset$, $\emptyset$
 IN $\longleftrightarrow$ Out3 : 1, 1, 0, $\emptyset$, $\emptyset$
 IN $\longleftrightarrow$ Out4 : $\emptyset$, $\emptyset$, 1, 0, $\emptyset$
 IN $\longleftrightarrow$ Out5 : $\emptyset$, $\emptyset$, 1, 1, 0
 IN $\longleftrightarrow$ Out6 : $\emptyset$, $\emptyset$, 1, 1, 1

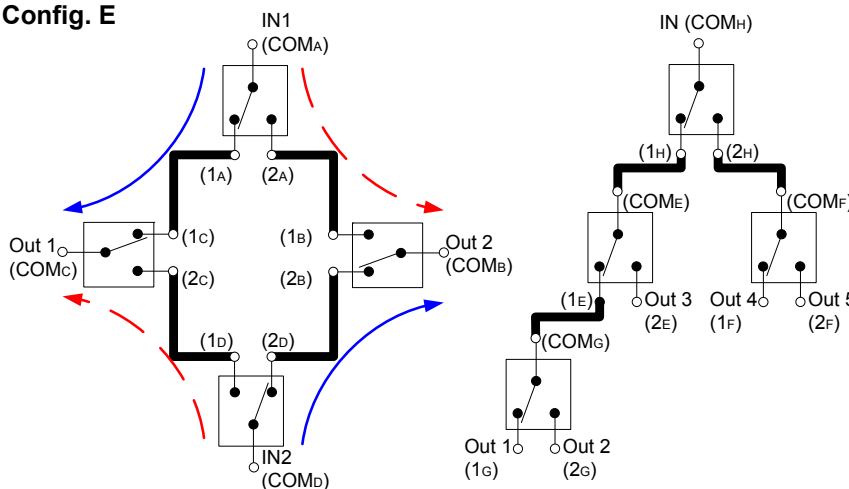
Switches A, B, C, E & F move together as one and switches D,G & H move together as one.

Configuration E: Transfer switch & SP5T switch

- Power handling is specified with RF applied to the COM port and output load connected to either 1 or 2 of the respective switch.
- When connecting a coaxial semi flex cable, tighten connectors alternately using an 8in/lb torque wrench to insure proper contact at each end.



Config. E



TRANSFER:

Switch A, B, C & D Logic

IN1 ↔ Out1, IN2 ↔ Out2 0, 1, 0, 1

IN1 ↔ Out2, IN2 ↔ Out1 1, 0, 1, 0

SP5T:

Switch E, F, G & H Logic

IN ↔ Out1 : 0, 0, 0, 0

IN ↔ Out2 : 0, 0, 1, 0

IN ↔ Out3 : 1, 0, 0, 0

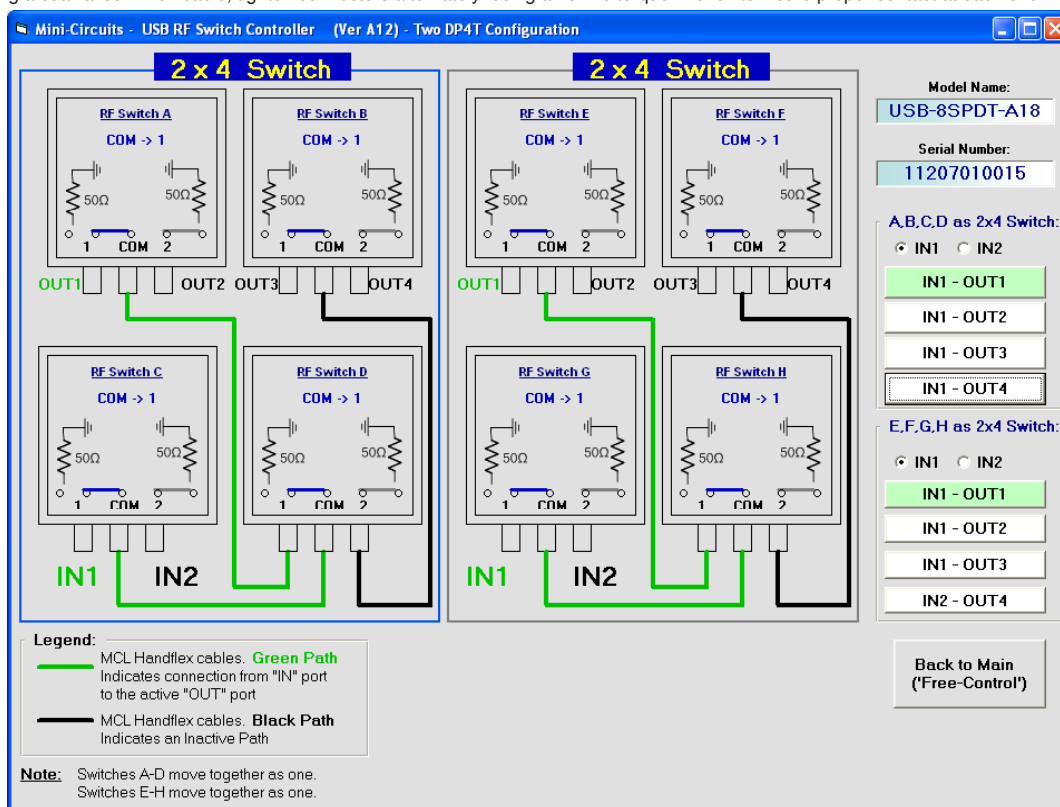
IN ↔ Out4 : 0, 0, 0, 1

IN ↔ Out5 : 0, 1, 0, 1

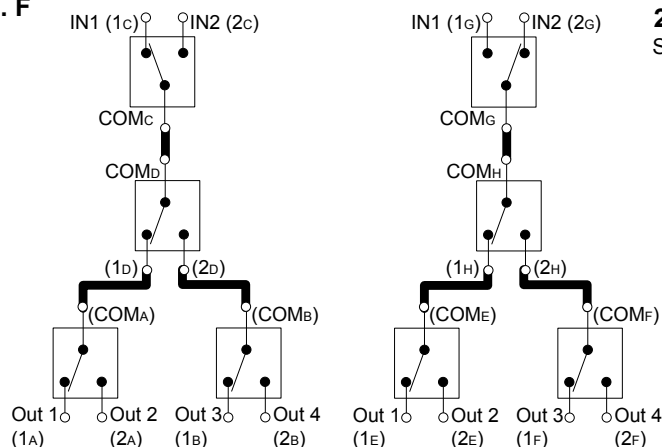
Switches A, B, C, & D move together as one and switches E, F, G, & H move together as one.

Configuration F: Dual 2x4 switches

- Power handling is specified with RF applied to the COM port and output load connected to either 1 or 2 of the respective switch.
- When connecting a coaxial semi flex cable, tighten connectors alternately using an 8in/lb torque wrench to insure proper contact at each end.



Config. F



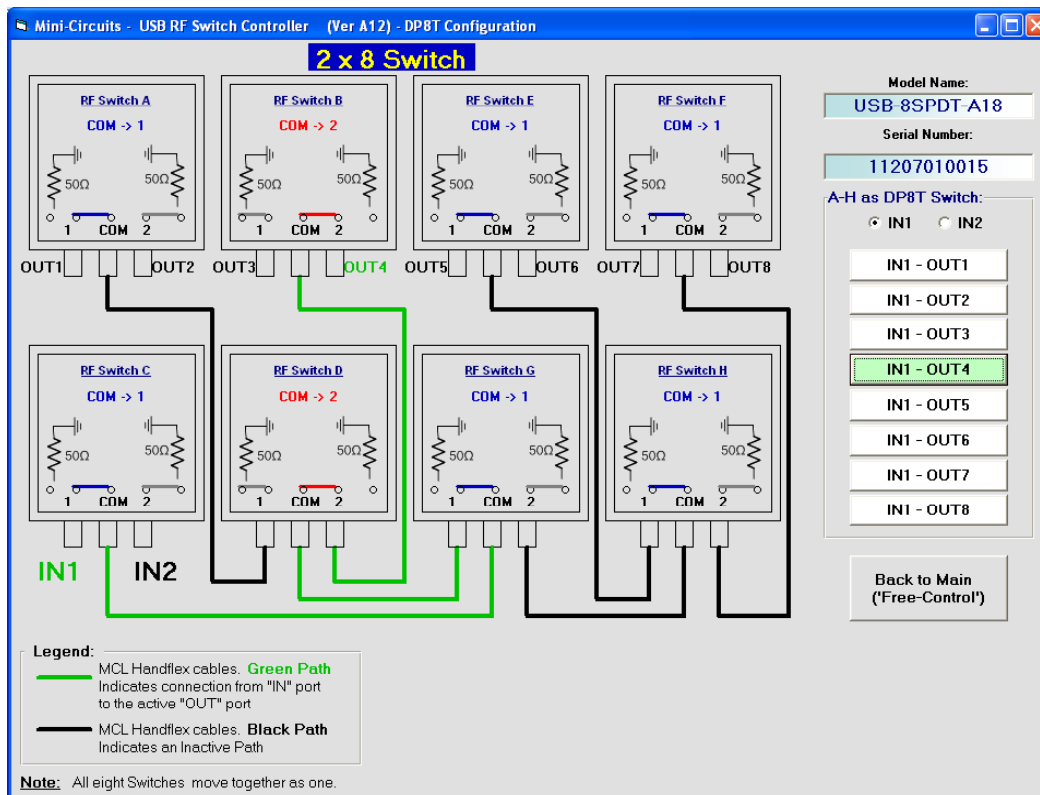
2x4 Switch:

Switch A, B, C & D or E, F, G & H Logic

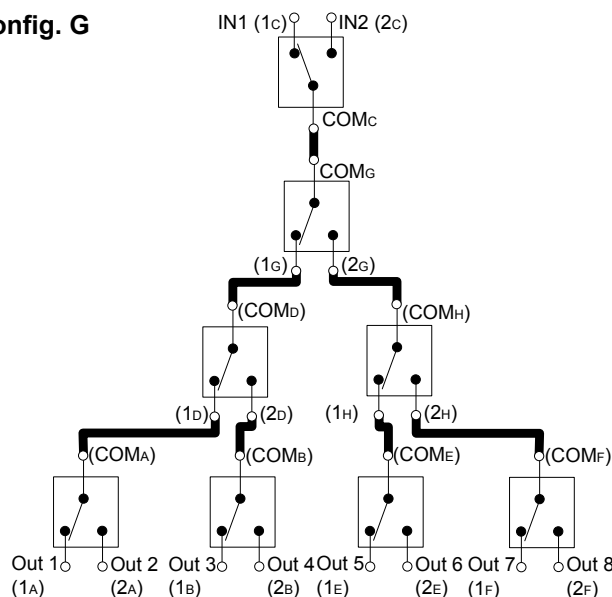
IN1 $\longleftrightarrow$ Out1, 0, 0, 0, 0
 IN1 $\longleftrightarrow$ Out2, 1, 0, 0, 0
 IN1 $\longleftrightarrow$ Out3, 0, 0, 0, 1
 IN1 $\longleftrightarrow$ Out4, 0, 1, 0, 1
 IN2 $\longleftrightarrow$ Out1, 0, 0, 1, 0
 IN2 $\longleftrightarrow$ Out2, 1, 0, 1, 0
 IN2 $\longleftrightarrow$ Out3, 0, 0, 1, 1
 IN2 $\longleftrightarrow$ Out4, 0, 1, 1, 1

Configuration G: 2x8 switch

- Power handling is specified with RF applied to the COM port and output load connected to either 1 or 2 of the respective switch.
- When connecting a coaxial semi flex cable, tighten connectors alternately using an 8in/lb torque wrench to insure proper contact at each end.



Config. G



2x8 Switch:

All Switches Logic

	A	B	C	D	E	F	G	H
IN1 ↔ Out1 :	0	0	0	0	0	0	0	0
IN1 ↔ Out2 :	1	0	0	0	0	0	0	0
IN1 ↔ Out3 :	0	0	0	1	0	0	0	0
IN1 ↔ Out4 :	0	1	0	1	0	0	0	0
IN1 ↔ Out5 :	0	0	0	0	0	0	1	0
IN1 ↔ Out6 :	0	0	0	0	1	0	1	0
IN1 ↔ Out7 :	0	0	0	0	0	0	1	1
IN1 ↔ Out8 :	0	0	0	0	0	1	1	1
IN2 ↔ Out1 :	0	0	1	0	0	0	0	0
IN2 ↔ Out2 :	1	0	1	0	0	0	0	0
IN2 ↔ Out3 :	0	0	1	1	0	0	0	0
IN2 ↔ Out4 :	0	1	1	1	0	0	0	0
IN2 ↔ Out5 :	0	0	1	0	0	0	1	0
IN2 ↔ Out6 :	0	0	1	0	1	0	1	0
IN2 ↔ Out7 :	0	0	1	0	0	0	1	1
IN2 ↔ Out8 :	0	0	1	0	0	1	1	1

All eight switches move together as one.

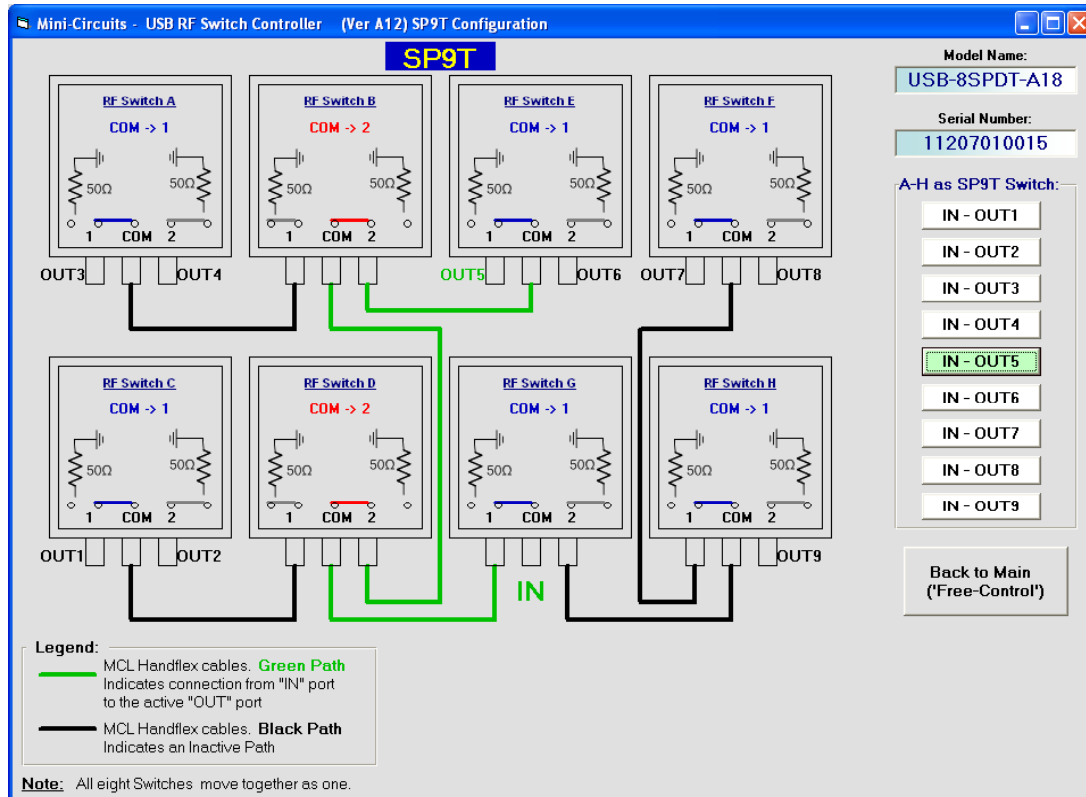


P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at minicircuits.com

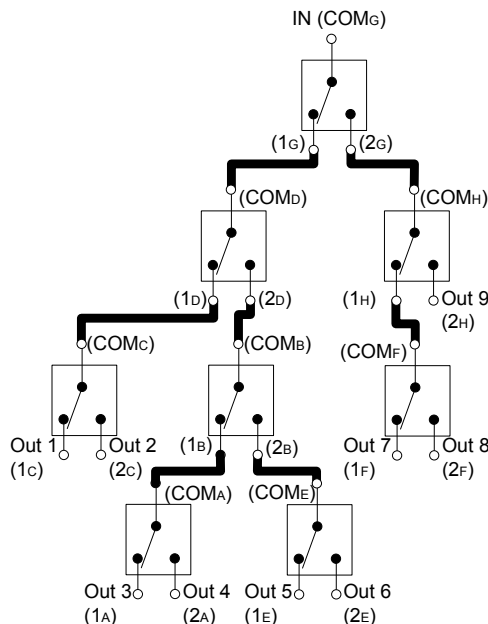
Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp.

Configuration H: SP9T switch

- Power handling is specified with RF applied to the COM port and output load connected to either 1 or 2 of the respective switch.
- When connecting a coaxial semi flex cable, tighten connectors alternately using an 8in/lb torque wrench to insure proper contact at each end.



Config. H



SP9T:

All Switches Logic

	A	B	C	D	E	F	G	H
IN ↔ Out1 :	0	0	0	0	0	0	0	0
IN ↔ Out2 :	0	0	1	0	0	0	0	0
IN ↔ Out3 :	0	0	0	1	0	0	0	0
IN ↔ Out4 :	1	0	0	1	0	0	0	0
IN ↔ Out5 :	0	1	0	1	0	0	0	0
IN ↔ Out6 :	0	1	0	1	1	0	0	0
IN ↔ Out7 :	0	0	0	0	0	0	1	0
IN ↔ Out8 :	0	0	0	0	0	1	1	0
IN ↔ Out9 :	0	0	0	0	0	0	1	1

All Switches move together as one.

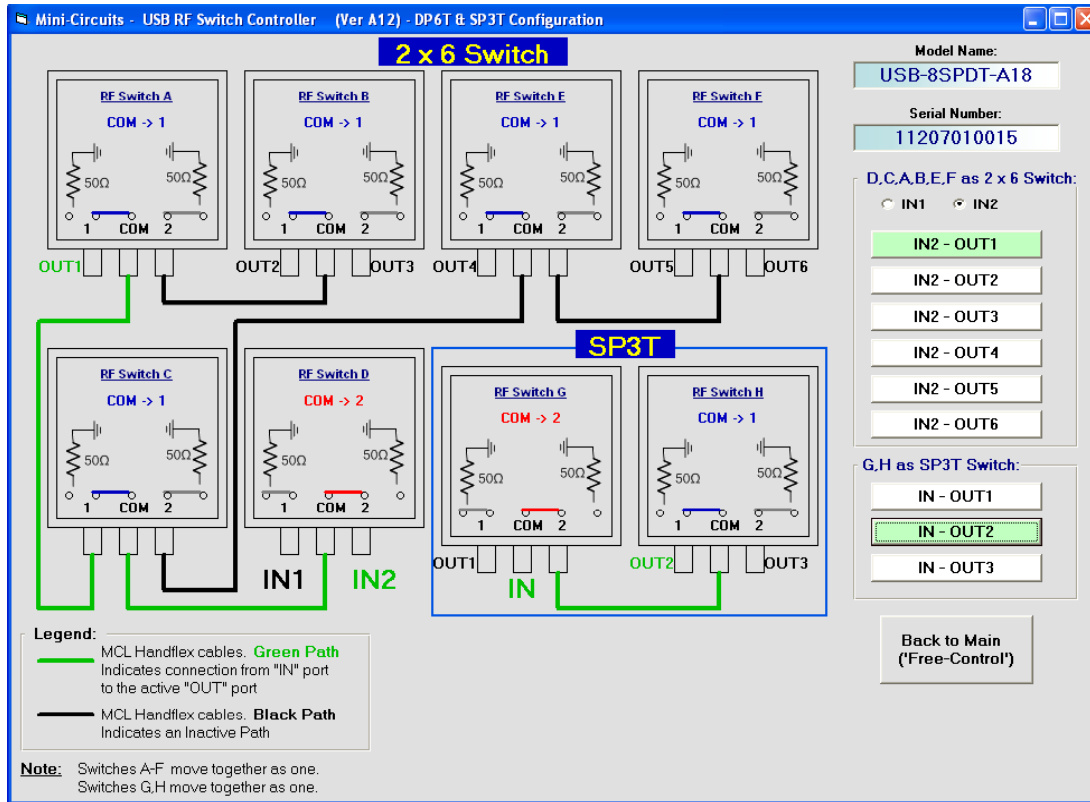


P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine [minicircuits.com](http://www.minicircuits.com) Provides ACTUAL Data Instantly at [minicircuits.com](http://www.minicircuits.com)

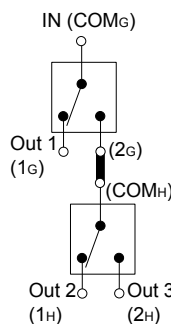
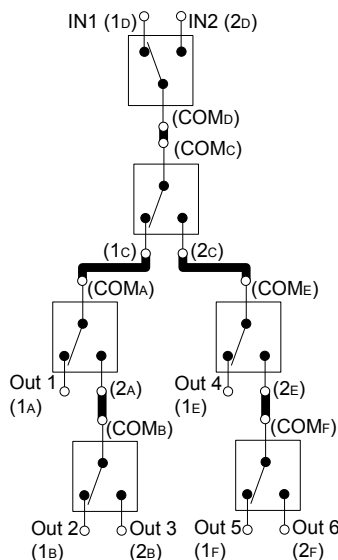
Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp.

Configuration J: 2x6 switch & SP3T switch

- Power handling is specified with RF applied to the COM port and output load connected to either 1 or 2 of the respective switch.
- When connecting a coaxial semi flex cable, tighten connectors alternately using an 8in/lb torque wrench to insure proper contact at each end.



Config. J



SP3T: Switch G & H Logic

IN ↔ Out1 : 0, Ø
IN ↔ Out2 : 1, 0
IN ↔ Out3 : 1, 1

2x6 Switch: Switch A - F Logic

	A	B	C	D	E	F
IN1 ↔ Out1 : 0, Ø, 0, 0, 0, Ø	0	Ø	0	0	0	Ø
IN1 ↔ Out2 : 1, 0, 0, 0, 0, Ø	1	0	0	0	0	Ø
IN1 ↔ Out3 : 1, 1, 0, 0, 0, Ø	1	1	0	0	0	Ø
IN1 ↔ Out4 : Ø, Ø, 1, 0, 0, Ø	Ø	Ø	1	0	0	Ø
IN1 ↔ Out5 : Ø, Ø, 1, 0, 1, 0	Ø	Ø	1	0	1	0
IN1 ↔ Out6 : Ø, Ø, 1, 0, 1, 1	Ø	Ø	1	0	1	1
IN2 ↔ Out1 : 0, Ø, 0, 1, Ø, Ø	0	Ø	0	1	Ø	Ø
IN2 ↔ Out2 : 1, 0, 0, 1, Ø, Ø	1	0	0	1	Ø	Ø
IN2 ↔ Out3 : 1, 1, 0, 1, Ø, Ø	1	1	0	1	Ø	Ø
IN2 ↔ Out4 : Ø, Ø, 1, 1, 0, Ø	Ø	Ø	1	1	0	Ø
IN2 ↔ Out5 : Ø, Ø, 1, 1, 1, 0	Ø	Ø	1	1	1	0
IN2 ↔ Out6 : Ø, Ø, 1, 1, 1, 1	Ø	Ø	1	1	1	1

Switches A, - F move together as one
and switches D& H move together as one.



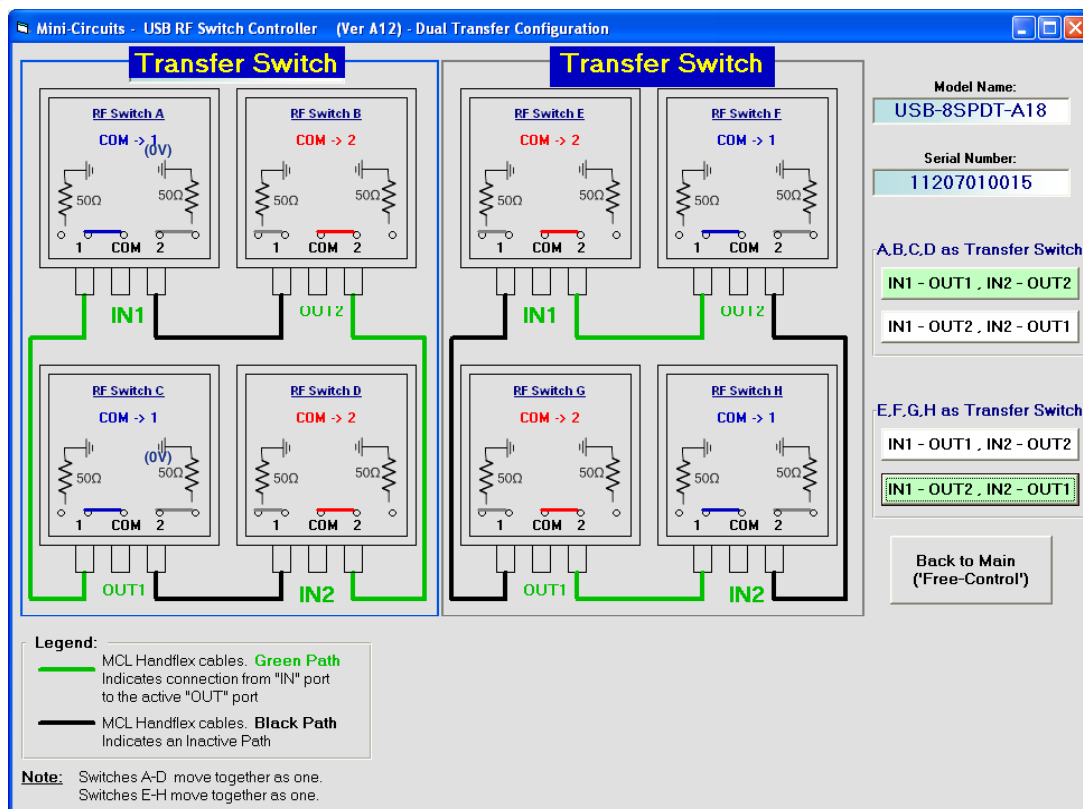
P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at minicircuits.com

IF/RF MICROWAVE COMPONENTS

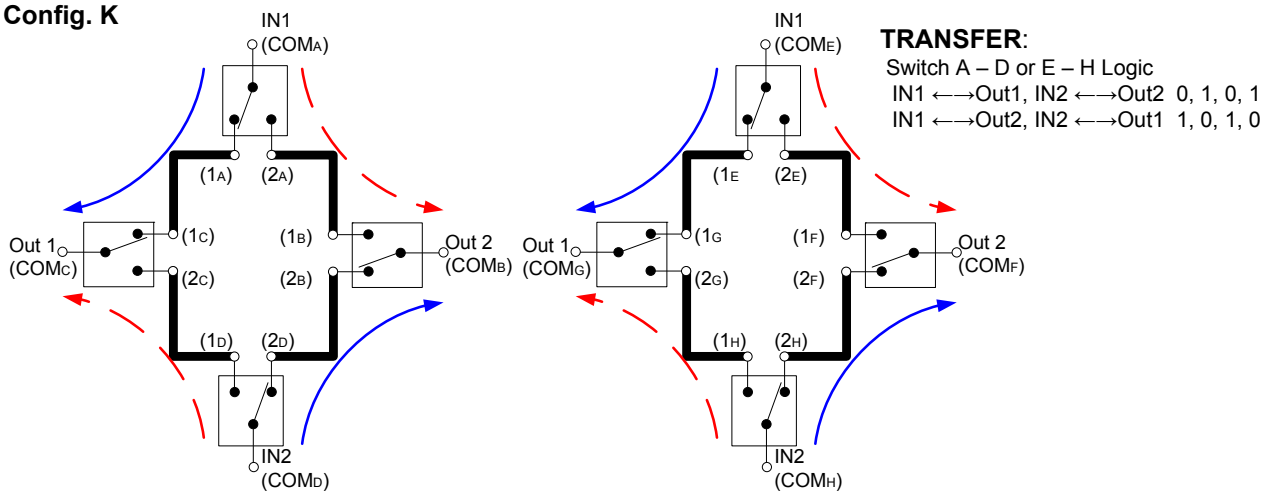
Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp.

Configuration K: Dual Transfer switches

- Power handling is specified with RF applied to the COM port and output load connected to either 1 or 2 of the respective switch.
- When connecting a coaxial semi flex cable, tighten connectors alternately using an 8in/lb torque wrench to insure proper contact at each end.



Config. K



User Switching Sequence - for setting any configuration or sequence needed

- Power handling is specified with RF applied to the COM port and output load connected to either 1 or 2 of the respective switch.
- When connecting a coaxial semi flex cable, tighten connectors alternately using an 8in/lb torque wrench to insure proper contact at each end.

Mini-Circuits - USB RF Switch Controller (Ver A12)

USER SWITCHING SEQUENCE

Model Name: **USB-8SPDT-A18** Serial Number: **11207010015**

Set Name: **Test1**

Step	SW A	SW B	SW C	SW D	SW E	SW F	SW G	SW H	dwll (mSec)	Exec Program
Step 1	COM->1	COM->1	COM->1	COM->1	COM->1	COM->1	COM->1	COM->1	1000	
Step 2	COM->2	COM->2	COM->1	COM->1	COM->1	COM->1	COM->1	COM->1	1000	
Step 3	COM->2	COM->2	COM->1	COM->1	COM->1	COM->1	COM->2	COM->1	1000	
Step 4	COM->2	COM->2	COM->1	COM->1	COM->2	COM->2	COM->2	COM->1	1000	

Buttons: Add, Insert, Remove

Run Sequence:

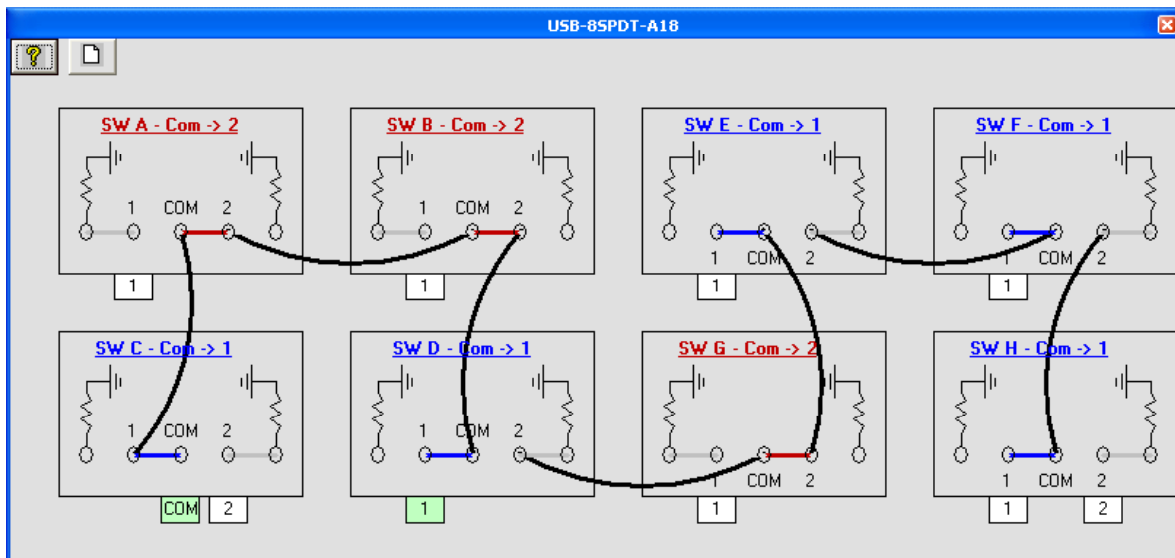
☒ Count Limit: **100** Counter: **2**

☐ Time Limit(min): **0.13** Elapsed (min): **0.13**

Buttons: Current Step, Continuously, Stop

☒ View Switches

Back to Main ("Free-Control")



Mini-Circuits®
ISO 9001 ISO 14001 AS 9100 CERTIFIED

For detailed performance specs
& shopping online see web site

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine **DesignEngine** Provides ACTUAL Data Instantly at minicircuits.com

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp.

Ordering, Pricing & Availability Information see our web site

Model	Description
USB-8SPDT-A18	USB RF SPDT Switch Matrix

Included Accessories	Description
AC/DC-24-3W1	AC/DC 24V Power Adapter
CBL-3W1-XX	AC Power Cord (<i>Select one power cord from below with each USB Switch Matrix box</i>)
RFSW-CD	Installation CD
USB-CBL-AB-3+	2.7 ft USB cable

AC Power Cords	Description
CBL-3W1-US	US Power Cord
CBL-3W1-EU	EU Power Cord
CBL-3W1-UK	UK Power Cord
CBL-3W1-AU	AU Power Cord
CBL-3W1-IL	IL Power Cord

Optional Accessories	Description
USB-CBL-AB-3+ (Spare)	2.7 ft (0.8 m) USB cable
USB-CBL-AB-7+	6.8 ft (2.1 m) USB cable
USB-CBL-AB-11+	11 ft (3.4 m) USB cable
BKT-272-08+	Bracket (One set of 2 each)



For detailed performance specs
& shopping online see web site

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine  Provides ACTUAL Data Instantly at minicircuits.com

IF/RF MICROWAVE COMPONENTS

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp.