

Features:

- Broadband: DC - 18 GHz
- Extended Life: 5 million cycles
- Excellent Repeatability
- Low Insertion Loss
- High Isolation



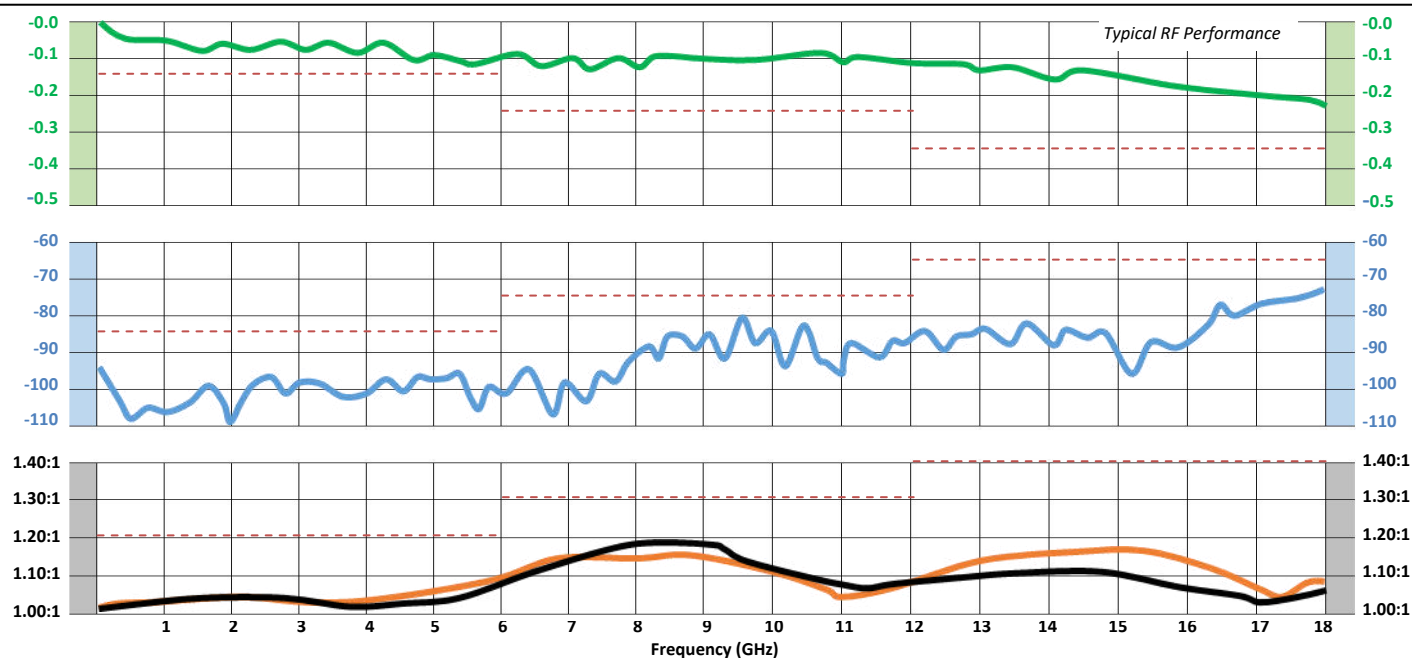
RF Specification:

Frequency, (GHz)	DC-6	6-12	12-18
Ins. Loss dB (max)	0.15	0.25	0.35
Isolation dB (min)	80	75	65
VSWR (max)	1.20:1	1.30:1	1.40:1
Switching Time	20 mS (max)		
Switching Action	Break-Before-Make		
Impedance	50 Ω		

Description:

High reliability and low loss performance makes these switches ideal for testing and end product applications requiring energy conservation. A wide selection of connectors and other features is available to meet most requirements. Capable of handling low to medium RF power, higher power solutions available. **Applications:** test stations, stand-by switch, Tx/Rx antenna switch, distribution switch.

Markets: defense, telecom, aerospace, enterprise, consumer and IoT.



Specifications

Oper Temp	-25° C to +65° C
Oper Temp	-54° C to +85° C (M version)
Storage Temp	-55° C to +100° C
Humidity	Moisture resistant or immersion sealing available
Shock	MIL-STD-202 Method 213, Condition D, 500G (non oper)
Vibration	MIL-STD-202 Method 214, Condition D, 10G RMS (non oper)
Cycle Life	5M cycles (may vary based on selected options)

Voltages and Current

Nominal Voltage, Vdc	5	12	15	24	28
Voltage Range, Vdc	4.5-6	11-13	14-16	22-26	26-30
Current (mA)*	250	200	160	110	65

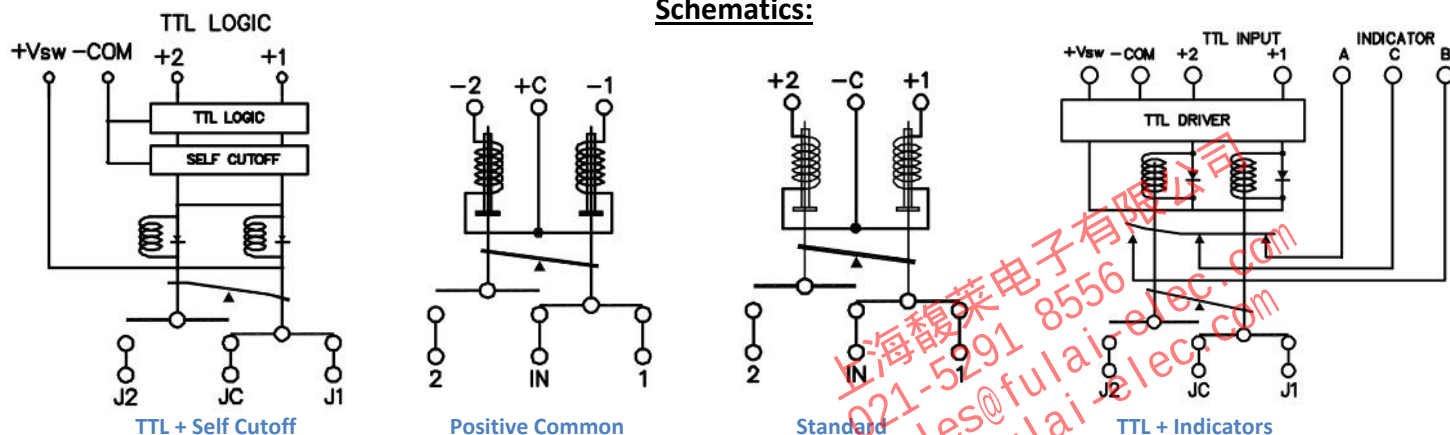
* at nominal voltage and +20°C

Popular Models

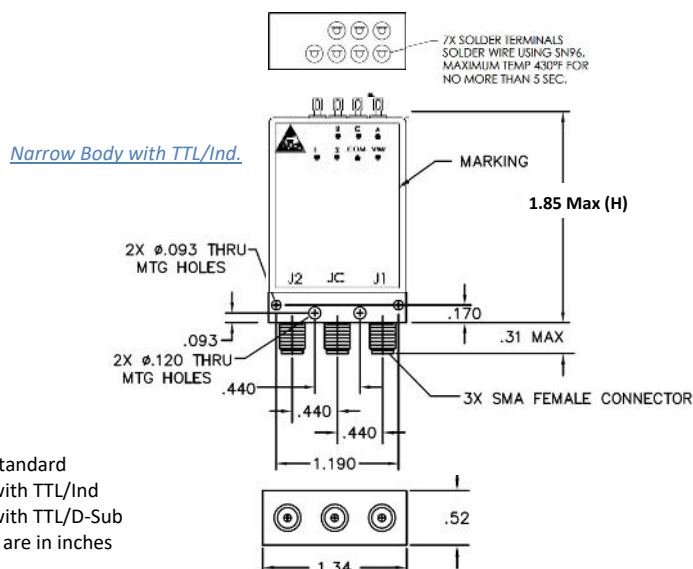
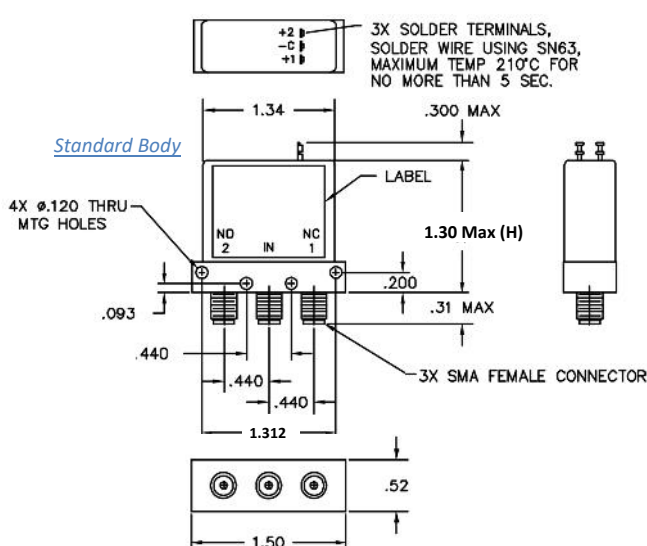
SPDT-0C-18A	SPDT, SMA, Latching, DC-18GHz, 12VDC
SPDT-0C-18A-D	SPDT, SMA, Latching, DC-18GHz, 12VDC, TTL
SPDT-0C-18D	SPDT, SMA, Failsafe, DC-18GHz, 24VDC
SPDT-0B-18B	SPDT, SMA, Failsafe, DC-18GHz, 15VDC, Indicator

- See backside for a full list of available features and options
- Contact us for high power and custom designs

Schematics:



Outline:



H = 1.30 max standard
H = 1.85 max with TTL/Ind
H = 2.05 max with TTL/D-Sub
All dimensions are in inches

Model Numbering System

Example: SPDT-0C-18A-D-S9

(SPDT, SMA Connector, Latching without indicator, DC-18GHz, 12VDC, TTL Driver, D-Sub Control)

Connector Type	
0: SMA	6: SMB
1: N	7: 7/16 DIN
2: TNC	8: BNC
3: RF PIN	9: K (2.92mm)
4: F (75Ω)	10: Mini DIN
5: SC	

Actuator Type
C: Latching without Indicator
D: Latching with Indicator

Frequency Range
03: DC-3GHz
08: DC-8GHz
12: DC-12GHz
18: DC-18GHz

Actuator Voltage	
A: 12VDC	E: 20VDC
B: 15VDC	F: 5VDC
C: 28VDC	G: 18VDC
D: 24VDC	H: 48VDC

Control Options
Default: Pin Terminal Control
S9: 9 Pins D-Sub
S15: 15 Pins D-Sub

Options
D: TTL Driver
E: Decoder
H: High Power
I: Suppression Diodes
N: Narrow Body
P: Positive + Common
S: Self Cutoff
Y: Moisture Seal
C: Custom



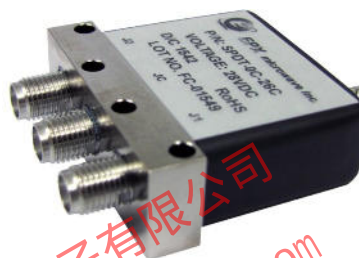
* Solder pins are standard for SPDT, no designation on model number needed

Features:

- Broadband: DC - 26.5 GHz
- Extended Life: 5 million cycles
- Excellent Repeatability
- Low Insertion Loss
- High Isolation

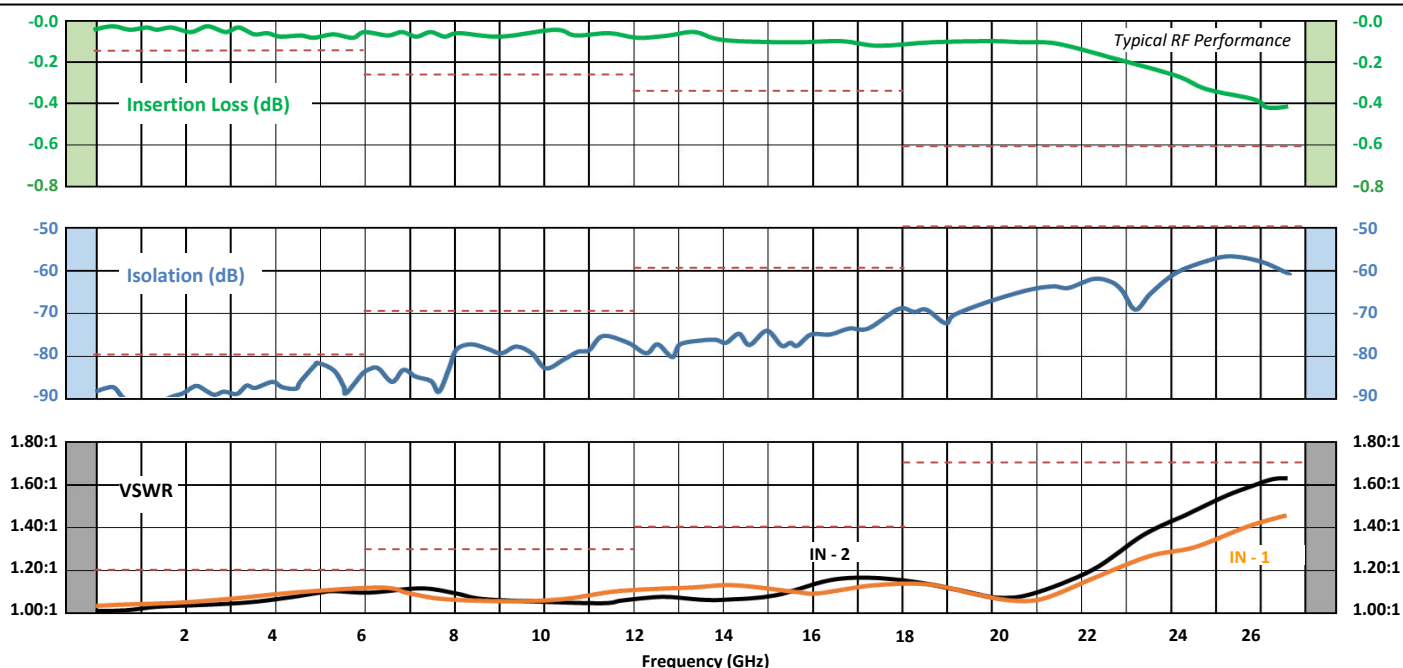
RF Specification:

Frequency, (GHz)	DC-6	6-12	12-18	18-26.5
Ins. Loss dB (max)	0.15	0.25	0.35	0.60
Isolation dB (min)	80	70	60	50
VSWR (max)	1.20:1	1.30:1	1.40:1	1.70:1
Switching Time	20 mS (max)			
Switching Action	Break-Before-Make			
Impedance	50 Ω			



Description:

High reliability and low loss performance makes these switches ideal for testing and end product applications requiring energy conservation. A wide selection of connectors and features is available to meet most requirements. Capable of handling low to medium RF power, higher power solutions available. **Applications:** test stations, stand-by switch, Tx/Rx antenna switch, distribution switch. **Markets:** defense, telecom, aerospace, enterprise, consumer and IoT.



Specifications

Oper Temp	-25° C to +65° C
Oper Temp	-54° C to +85° C (M version)
Storage Temp	-55° C to +100° C
Humidity	Moisture resistant or immersion sealing available
Shock	MIL-STD-202 Method 213, Condition D, 500G (non oper)
Vibration	MIL-STD-202 Method 214, Condition D, 10G RMS (non oper)
Cycle Life	5M cycles (may vary based on selected options)

Voltages and Current

Nominal Voltage, Vdc	5	12	15	24	28
Voltage Range, Vdc	4.5-6	11-13	14-16	22-26	26-30
Current (mA)*	250	200	160	110	65

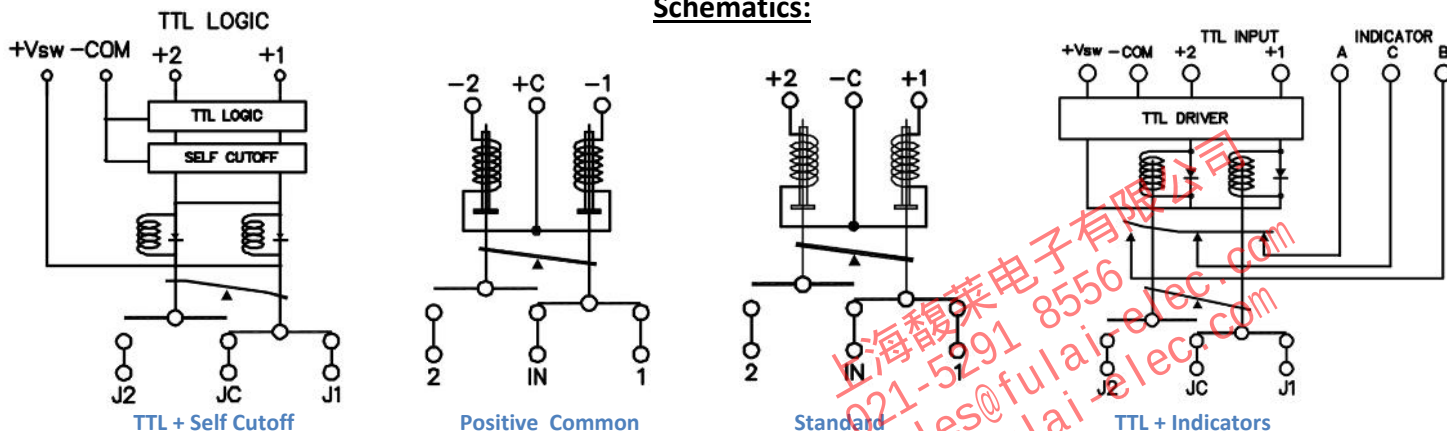
* at nominal voltage and +20°C

Popular Models

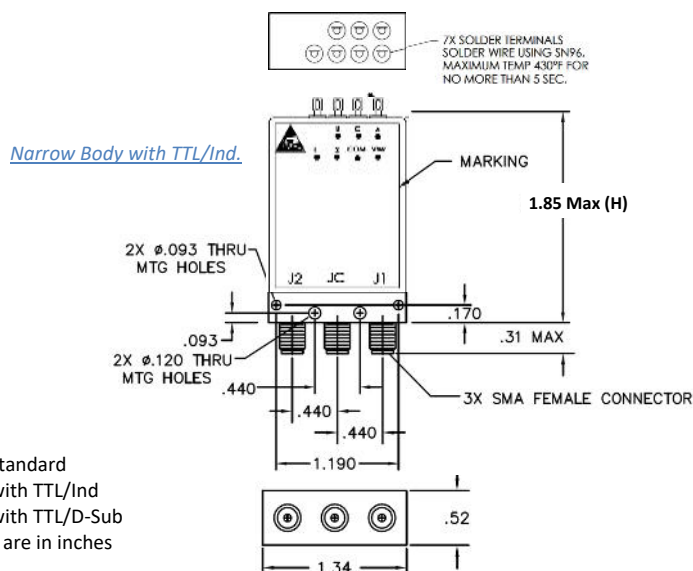
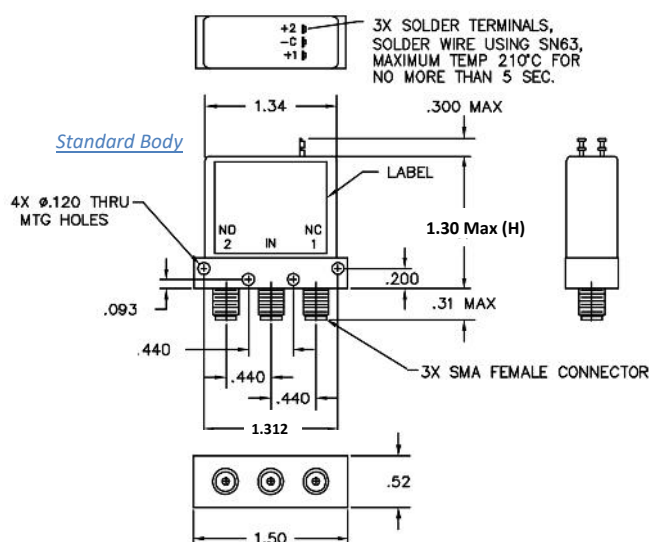
SPDT-0C-26A	SPDT, SMA, Latching, DC-26.5GHz, 12VDC
SPDT-0C-26A-D	SPDT, SMA, Latching, DC-26.5GHz, 12VDC, TTL
SPDT-0C-26D	SPDT, SMA, Failsafe, DC-26.5GHz, 24VDC
SPDT-0B-26B	SPDT, SMA, Failsafe, DC-26.5GHz, 15VDC, Indicator

- See backside for a full list of available features and options
- Contact us for high power and custom designs

Schematics:



Outline:

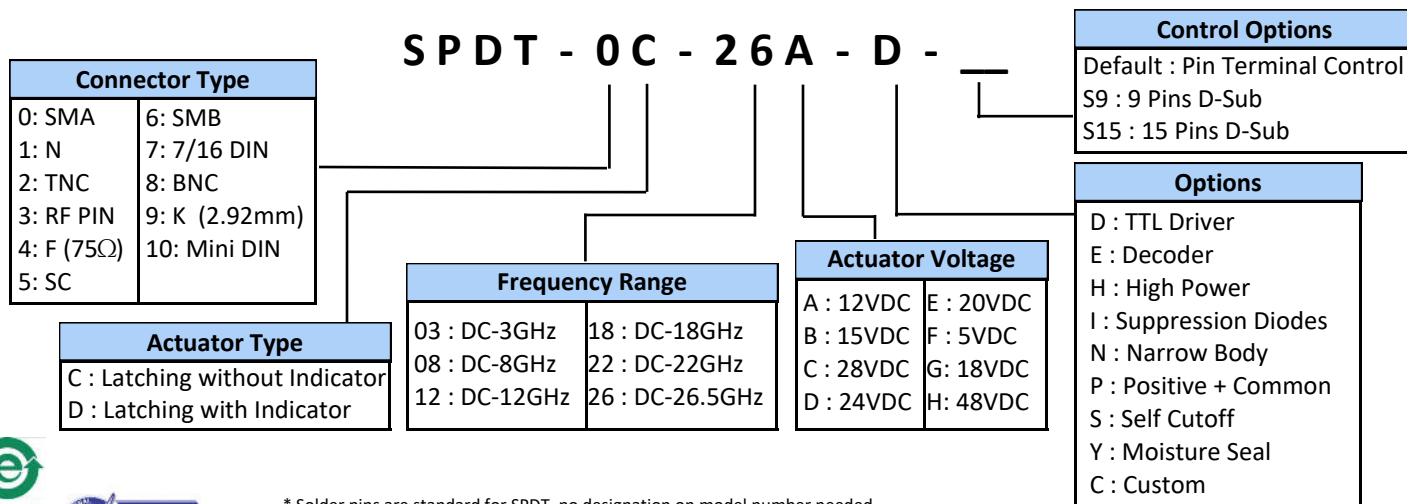


H = 1.30 max standard
H = 1.85 max with TTL/Ind
H = 2.05 max with TTL/D-Sub
All dimensions are in inches

Model Numbering System

Example: SPDT-0C-26A-D

(SPDT, SMA Connector, Latching without indicator, DC-26.5GHz, 12VDC, TTL Driver, Pin Terminal Control)



* Solder pins are standard for SPDT, no designation on model number needed

Features:

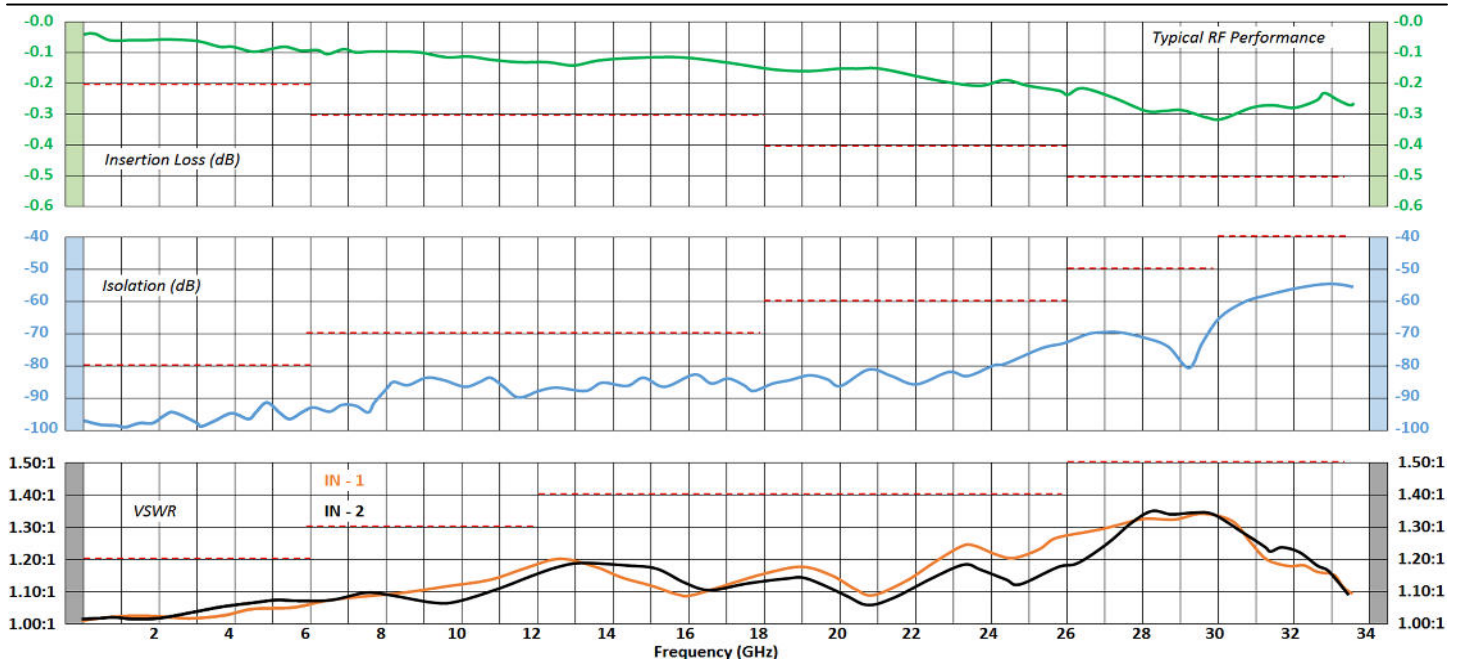
- Broadband: DC - 33.5 GHz
- Extended Life: 5 million cycles
- Excellent Repeatability
- Low Insertion Loss
- High Isolation



RF Specification:

Frequency, (GHz)	DC - 6	6 - 12	12 - 18	18 - 26	26 - 31	31 - 33.5	Operation	
Ins. Loss dB (max)	0.2	0.3	0.3	0.4	0.5	0.5	Switching Time	20 mS (max)
Isolation dB (min)	80	70	70	60	50	40	Switching Action	Break-Before-Make
VSWR (max)	1.20:1	1.30:1	1.40:1	1.40:1	1.50:1	1.50:1	Impedance	50 Ω

Description: High reliability and low loss performance makes these switches ideal for testing and end product applications requiring energy conservation. A wide selection of connectors and features is available to meet most requirements. Capable of handling low to medium RF power, higher power solutions available. **Applications:** test stations, stand-by switch, Tx/Rx antenna switch, distribution switch. **Markets:** defense, telecom, aerospace, enterprise, consumer and IoT.



Specifications

Oper Temp	-25° C to +65° C
Oper Temp	-54° C to +85° C (M version)
Storage Temp	-55° C to +100° C
Humidity	Moisture resistant or immersion sealing available
Shock	MIL-STD-202 Method 213, Condition D, 500G (non oper)
Vibration	MIL-STD-202 Method 214, Condition D, 10G RMS (non oper)
Cycle Life	5M cycles (may vary based on selected options)

Voltages and Current

Nominal Voltage, Vdc	5	12	15	24	28
Voltage Range, Vdc	4.5-6	11-13	14-16	22-26	26-30
Current (mA)*	250	200	160	110	65

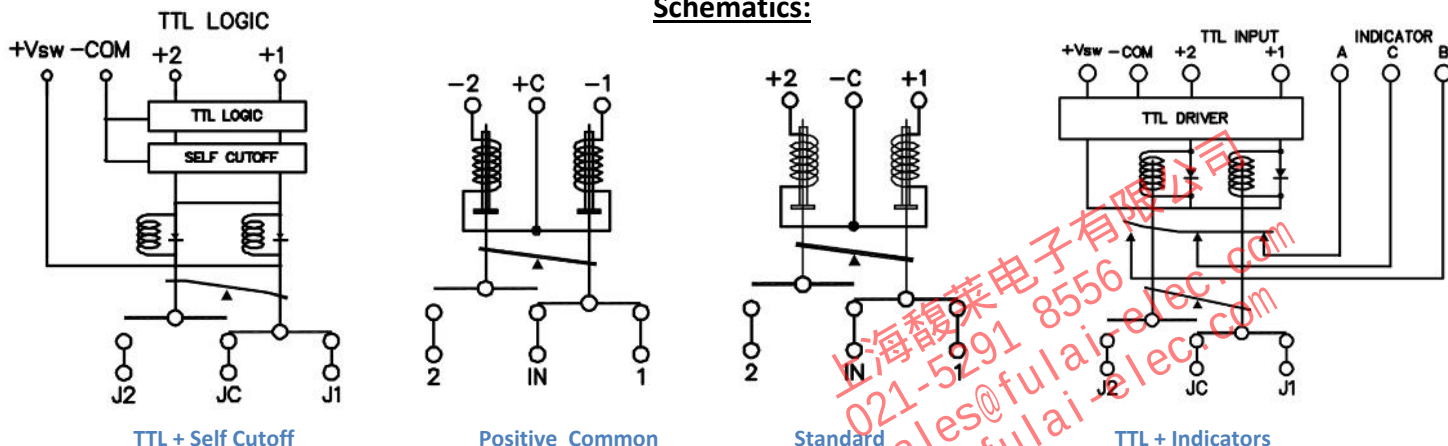
* at nominal voltage and +20°C

Popular Models

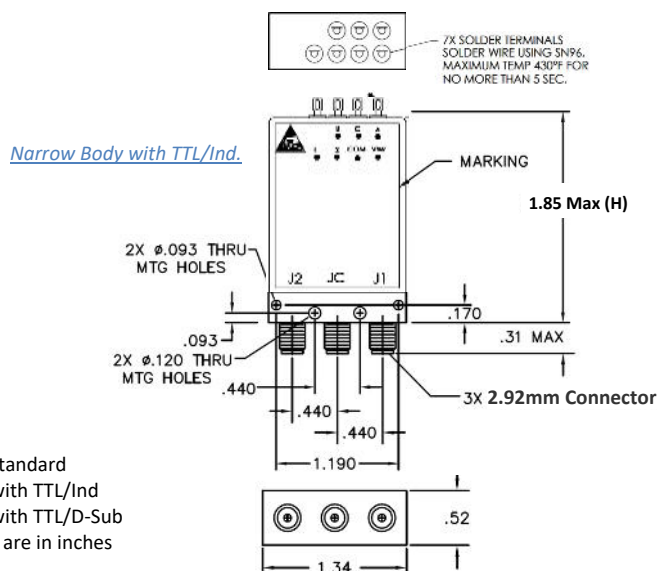
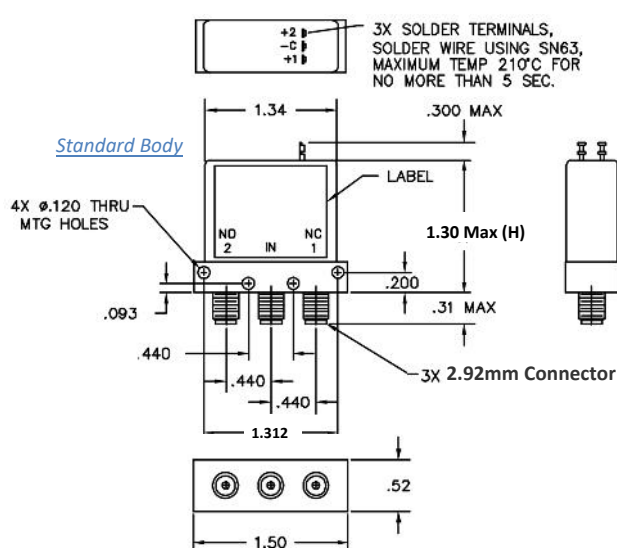
SPDT-9C-33A	SPDT, K connector, Latching, DC-33.5GHz, 12VDC
SPDT-9C-33A-D	SPDT, K connector, Latching, DC-33.5GHz, 12VDC, TTL
SPDT-9C-33B	SPDT, K connector, Latching, DC-33.5GHz, 15VDC
SPDT-9C-33C	SPDT, K connector, Latching, DC-33.5GHz, 28VDC

- See backside for a full list of available features and options
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Schematics:



Outline:

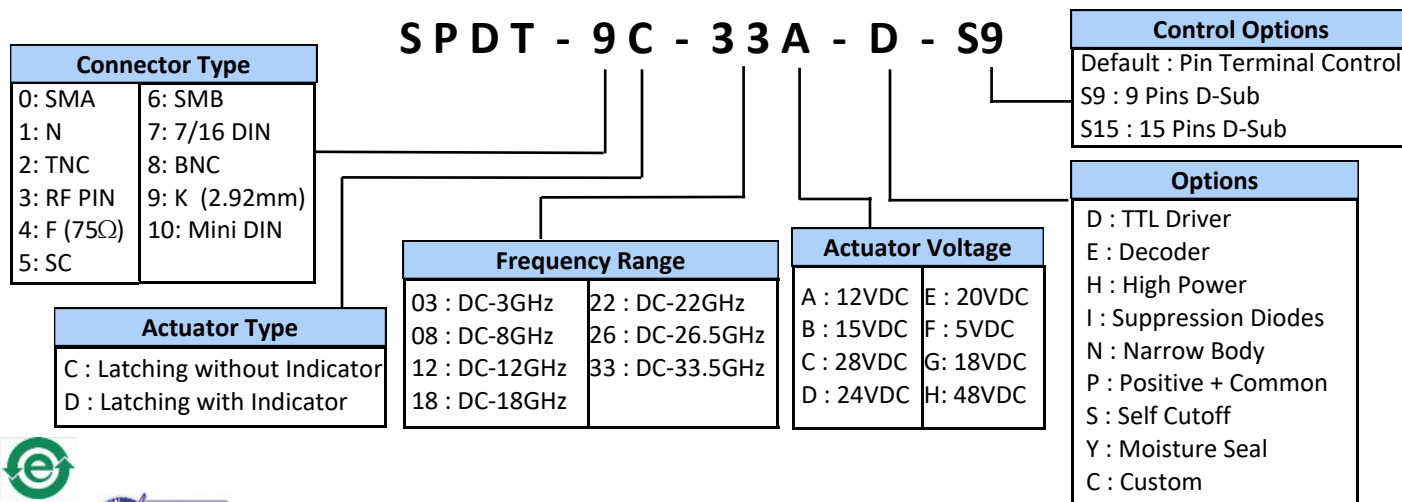


H = 1.30 max standard
H = 1.85 max with TTL/Ind
H = 2.05 max with TTL/D-Sub
All dimensions are in inches

Model Numbering System

Example: SPDT-9C-33A-D-S9

(SPDT, K Connector, Latching without indicator, DC-33.5GHz, 12VDC, TTL Driver, D-Sub Control)



* Solder pins are standard for SPDT, no designation on model number needed

Features:

- Broadband: DC - 12 GHz
- Extended Life: 5 million cycles
- High Power Handling: >1kW
- Low Insertion Loss
- High Isolation

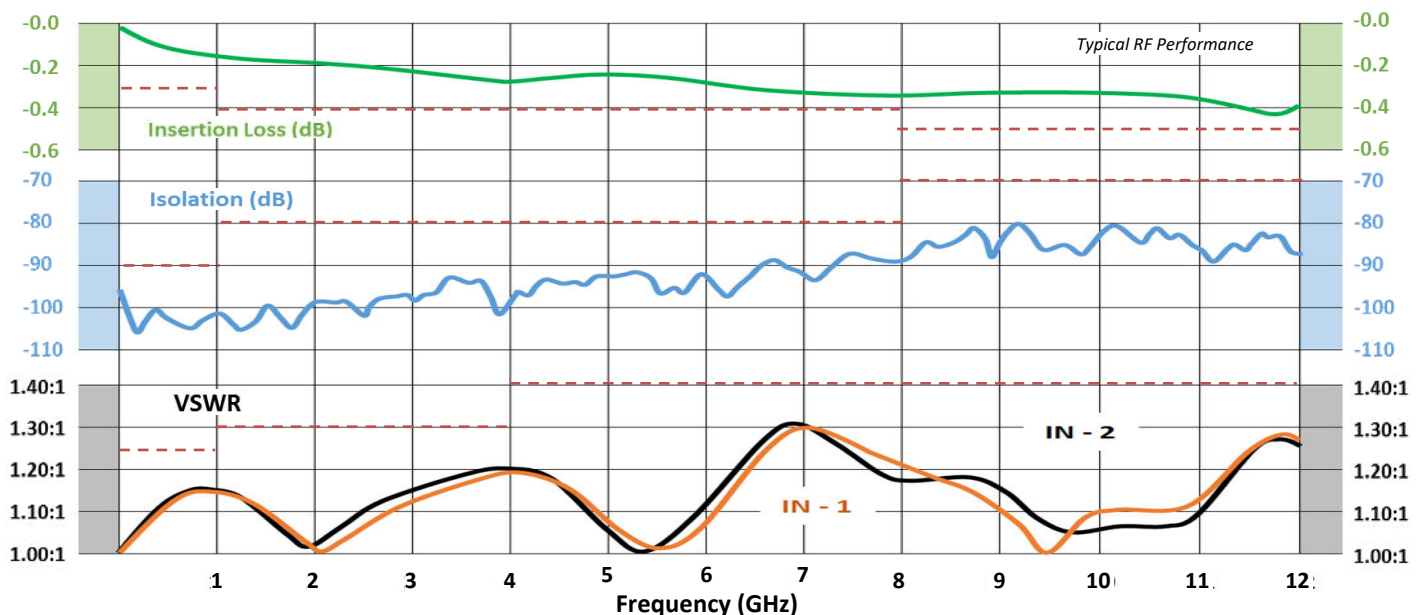
RF Specification:

Frequency, (GHz)	DC-1	1-4	4-8	8-12
Ins. Loss dB (max)	0.3	0.4	0.4	0.5
Isolation dB (min)	90	80	80	70
VSWR (max)	1.25:1	1.30:1	1.40:1	1.40:1
Switching Time	20 mS (max)			
Switching Action	Break-Before-Make			
Impedance	50 Ω			
RF Power Handling	>1kW CW designs available			

Description:

Excellent high RF power handling with reliability and low loss performance makes these switches ideal for testing and end product applications. A wide selection of connectors and other features is available to meet most requirements. Higher RF power designs available.

Applications: test stations, stand-by switch, Tx/Rx antenna switch, distribution switch. **Markets:** defense, telecom, aerospace, enterprise, consumer and IoT.



Specifications	
Oper Temp	-25° C to +65° C
Oper Temp	-54° C to +85° C (M version)
Storage Temp	-55° C to +100° C
Humidity	Moisture resistant or immersion sealing available
Shock	MIL-STD-202 Method 213, Condition D, 500G (non oper)
Vibration	MIL-STD-202 Method 214, Condition D, 10G RMS (non oper)
Cycle Life	5M cycles (may vary based on selected options)

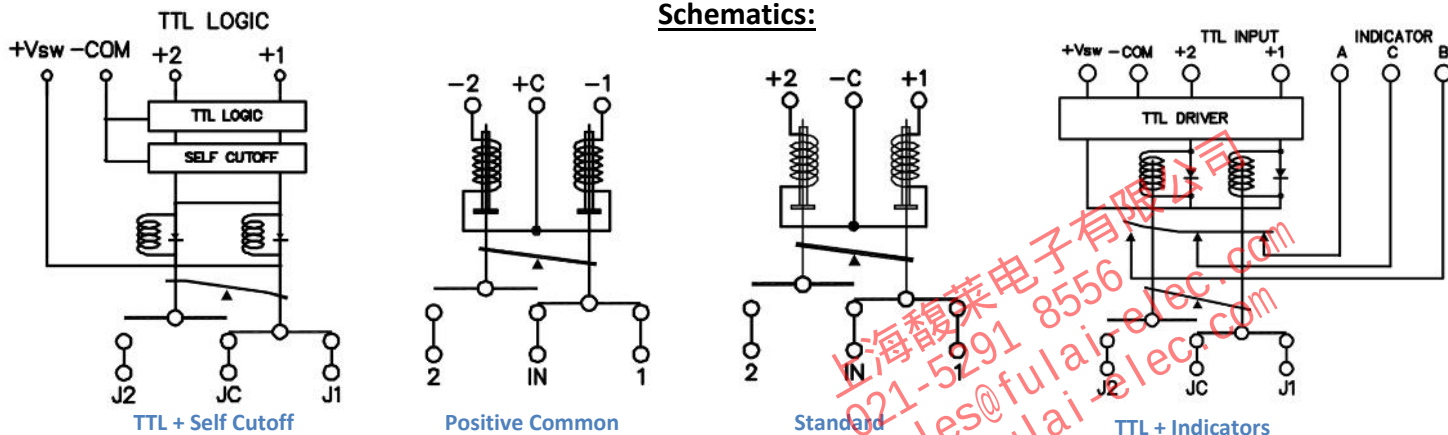
Voltages and Current				
Nominal Voltage, Vdc	12	15	24	28
Voltage Range, Vdc	11-13	14-16	22-26	24-30
Current (mA)*	200	160	150	160

* at nominal voltage and +20°C

Popular Models	
SPDT-1C-12A	SPDT, N, Latching, DC-12GHz, 12VDC
SPDT-1C-12A-D	SPDT, N, Latching, DC-12GHz, 12VDC, TTL
SPDT-1D-12A	SPDT, N, Latching, DC-12GHz, 12VDC, Indicator
SPDT-1D-12A-S9	SPDT, N, Latching, DC-12GHz, 12VDC, Indicator, D-Sub

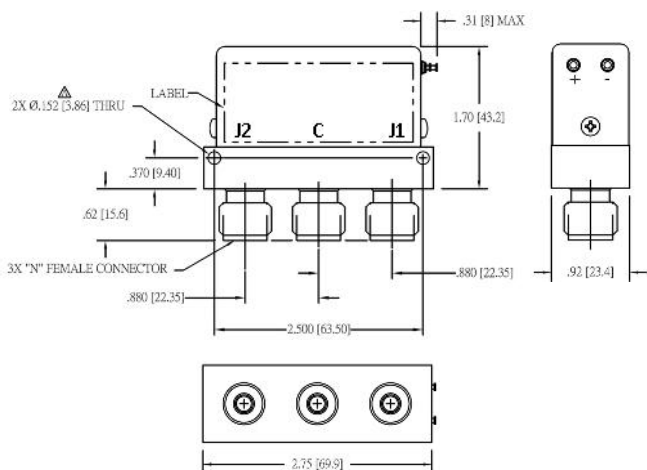
- See backside for a full list of available features and options
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Schematics:

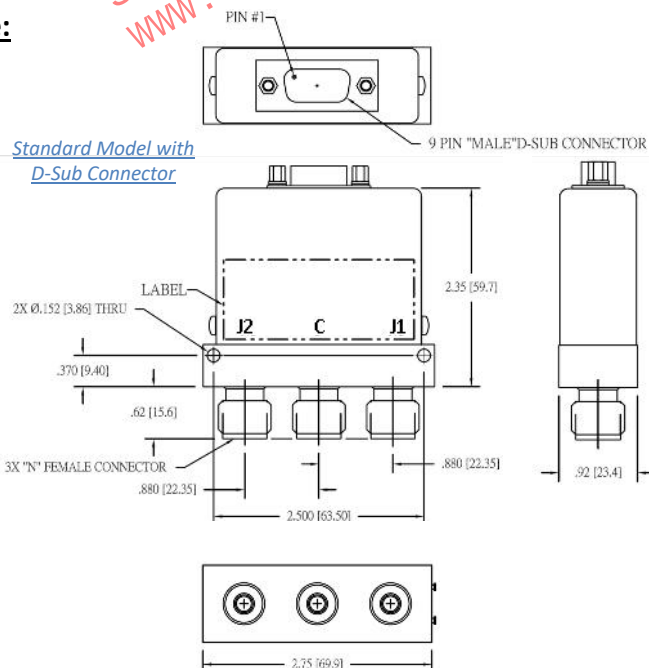


Outline:

Standard Model



Standard Model with D-Sub Connector



Model Numbering System

Example: SPDT-1C-12A-D-S9

(SPDT, N Connector, Latching without indicator, DC-12GHz, 12VDC, TTL Driver, D-Sub Control)

Connector Type	
0: SMA	6: SMB
1: N	7: 7/16 DIN
2: TNC	8: BNC
3: RF PIN	9: K (2.92mm)
4: F (75Ω)	10: Mini DIN
5: SC	

Actuator Type
C : Latching without Indicator
D : Latching with Indicator

SPDT - 1C - 12A - D - S9

Frequency Range
03 : DC-3GHz
08 : DC-8GHz
12 : DC-12GHz

Actuator Voltage	
A : 12VDC	E : 20VDC
B : 15VDC	F : 5VDC
C : 28VDC	G : 18VDC
D : 24VDC	H : 48VDC

Control Options
Default : Pin Terminal Control
S9 : 9 Pins D-Sub
S15 : 15 Pins D-Sub

Options
D : TTL Driver
E : Decoder
H : High Power
I : Suppression Diodes
P : Positive + Common
S : Self Cutoff
Y : Moisture Seal
C : Custom



* Solder pins are standard for SPDT, no designation on model number needed

Features:

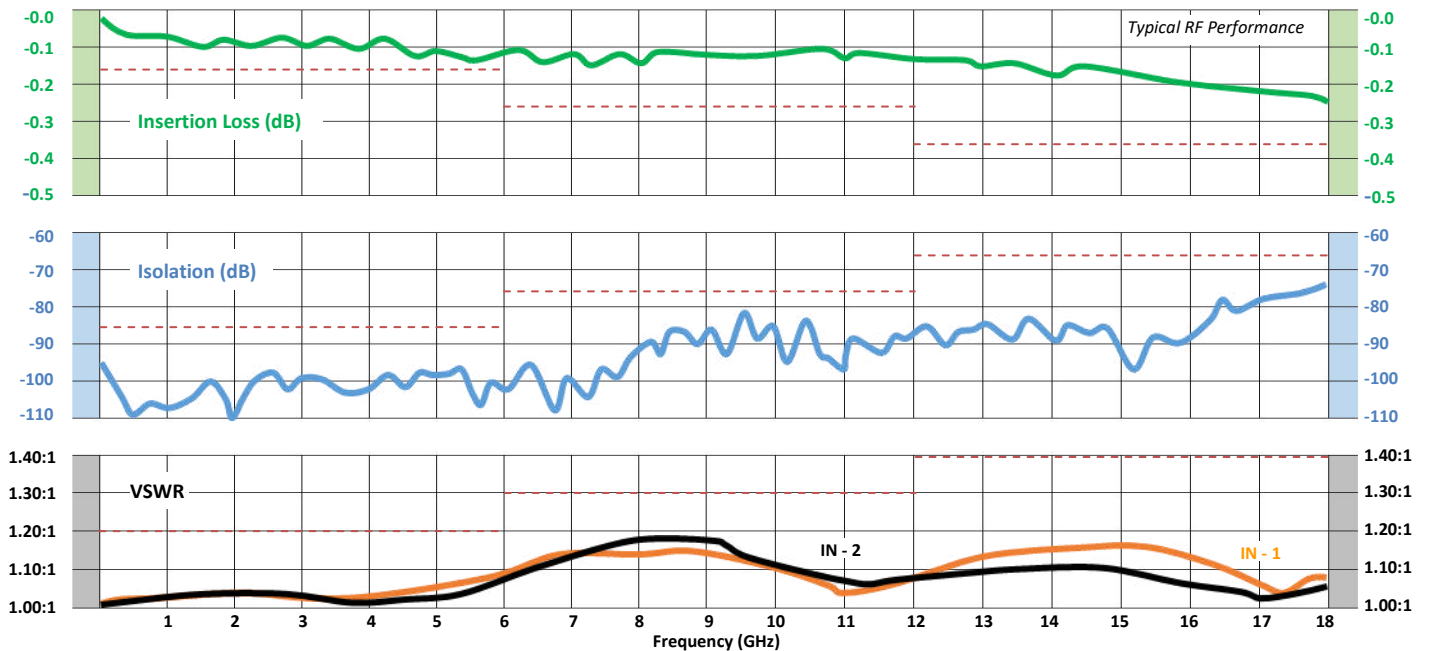
- Broadband: DC - 18 GHz
- Extended Life: 5 million cycles
- Excellent Repeatability
- Low Insertion Loss
- High Isolation
- Internal 50Ω Terminations

RF Specification:

Frequency, (GHz)	DC-6	6-12	12-18
Ins. Loss dB (max)	0.15	0.25	0.35
Isolation dB (min)	85	70	65
VSWR (max)	1.20:1	1.30:1	1.40:1
Switching Time	20 mS (max)		
Switching Action	Break-Before-Make		
Impedance	50 Ω		

Description:

The 50 Ω terminations of the switch in the "off" state ensures good isolation regardless of the match to which the switch is connected. This model provides energy conservation with RF paths held in place after voltage is removed. Combined with repeatability and low insertion loss makes these switches ideal for all testing applications. A wide selection of features are available to meet most requirements. **Applications:** Bench testing, ATE stations, broadband transceivers, antenna systems. **Markets:** government, telecom, aerospace, enterprise, consumer and IoT.



Specifications	
Oper Temp	-25° C to +65° C
Oper Temp	-54° C to +85° C (M version)
Storage Temp	-55° C to +100° C
Humidity	Moisture resistant or immersion sealing available
Shock	MIL-STD-202 Method 213, Condition D, 500G (non oper)
Vibration	MIL-STD-202 Method 214, Condition D, 10G RMS (non oper)
Cycle Life	5M cycles (may vary based on selected options)

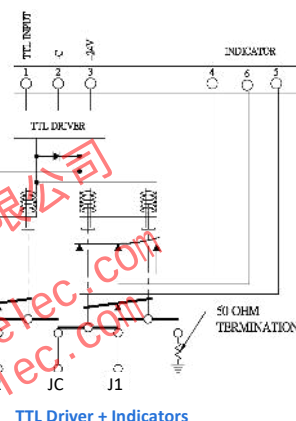
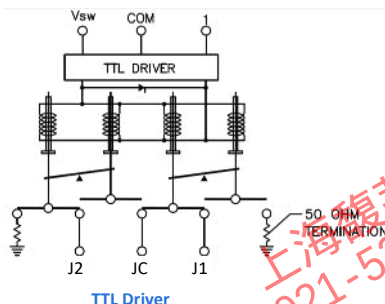
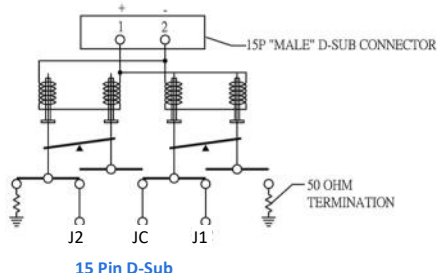
Voltages and Current					
Nominal Voltage, Vdc	5	12	15	24	28
Voltage Range, Vdc	4.5-6	11-13	14-16	22-26	26-30
Current (mA)*	250	200	160	110	65

* at nominal voltage and +20°C

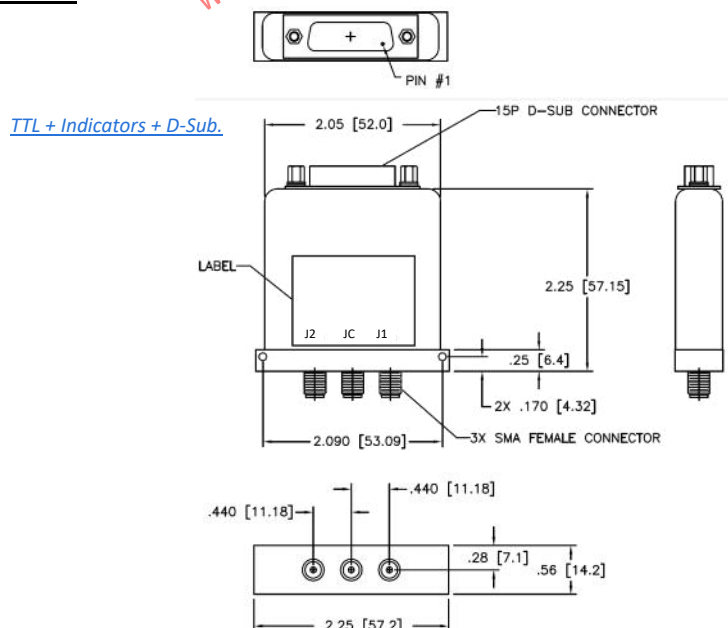
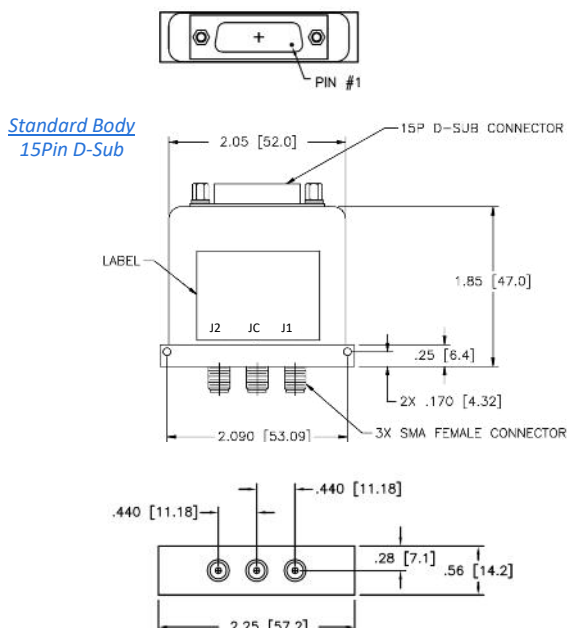
Popular Models	
SPDT-OC-18A-T	SPDT, SMA, Latching, DC-18GHz, 12VDC, Internal Termination
SPDT-OC-18A-TD	SPDT, SMA, Latching, DC-18GHz, 12VDC, Internal Termination, TTL
SPDT-OC-18A-T	SPDT, SMA, Latching, DC-18GHz, 12VDC, Indicator, Internal Termination
SPDT-OC-18A-TD	SPDT, SMA, Latching, DC-18GHz, 12VDC, Indicator, Internal Termination, TTL

- See backside for a full list of available features and options
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Schematics:



Outline:



Model Numbering System

Example: SPDT-0C-18A-T-S15

(SPDT, SMA Connector, Latching without indicator, DC-18GHz, 12VDC, Internal Termination, D-Sub Control)

Connector Type	
0: SMA	6: SMB
1: N	7: 7/16 DIN
2: TNC	8: BNC
3: RF PIN	9: K (2.92mm)
4: F (75Ω)	10: Mini DIN
5: SC	

Actuator Type
C : Latching without Indicator
D : Latching with Indicator

SPDT - 0C - 18A - T - S15

Frequency Range
03 : DC-3GHz
08 : DC-8GHz
12 : DC-12GHz
18 : DC-18GHz

Actuator Voltage	
A : 12VDC	E : 20VDC
B : 15VDC	F : 5VDC
C : 28VDC	G : 18VDC
D : 24VDC	H : 48VDC

Control Options
Default : Pin Terminal Control
S9 : 9 Pins D-Sub
S15 : 15 Pins D-Sub

Options
D : TTL Driver
E : Decoder
H : High Power
I : Suppression Diodes
N : Narrow Body
P : Positive + Common
S : Self Cutoff
Y : Moisture Seal
C : Custom



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