TELEDYNE COAX SWITCHES
Everywhereyoulook™

Series CCT-59S/CT-59S

Multi-Throw DC-26.5 GHz Latching Coaxial Switch

PART NUMBER	DESCRIPTION
CCT-59S	Commercial Latching Multi-throw, DC-26.5GHz
CT-59S	Elite Latching Multi-throw, DC-26.5GHz

The CCT-59S/CT-59S is an Internally Terminated broadband, multi-throw, electromechanical coaxial switch designed to switch a microwave signal from a common input to any of 3, 4, 5, or 6 outputs. The characteristic impedance is 50 Ohms. Internal terminations provide an impedence match for the unselected ports. The switches are small using the popular connector spacing on a 1.062" dia. circle. Each position has an individual actuator mechanism allowing random position selection. This also minimizes switching time.
The CCT-59S/CT-59S comes with a latching actuator. The latching switch remains in the last position selected when the switch is de-energized. STD dual command requires a reset pulse before a new selected position. A separate reset circuit allows all positions to be set to an open position. User must provide both reset (clear) and set (select new position) commands.

RoHS Compliant

Available with USB & Ethernet Control!

ENVIRONMENTAL AND PHYSICAL CHARACTERISTICS

Operating Temperature Commercial Model, CCT-59S Elite Model, CT-59S	 –25°C to 65°C –55°C to 85°C
Vibration (MIL-STD-202 Method 214, Condition D, non-operating)	10 g's RMS
Shock (MIL-STD-202 Method 213, Condition D, non-operating)	500 g's
Standard Actuator Life Actuator Life w/ Additional Features	5,000,000 cycles 1,000,000 cycles
Connector Type	SMA
Humidity (Moisture Seal)	Available
Weight	6 oz. (170.1g) (max.)

ELECTRICAL CHARACTERISTICS

Form Factor		Multi-Throw, break before make				
Frequency Range CCT-59S CT-59S		 DC–26.5 GHz DC–26.5 GHz				
Characteristic Impedance		50 Ohms				
Operate Time		20 ms (max.)				
Actuation Voltage Available		12	15	24	28	V
Actuation Current		255	205	130	90	mA
Reset Current (# of Positions)	3	765	615	390	270	mA
	4	1020	820	520	360	mA
	5	1275	1025	650	450	mA
	6	1530	1230	780	540	mA

TYPICAL PERFORMANCE CHARACTERISTICS

Frequency	DC–3 GHz	3–6 GHz	6–12 GHz	12–18 GHz	18-20 GHz	20-22 GHz	22-26.5 GHz
Insertion Loss, dB, max.	0.2	0.2	0.4	0.5	0.6	0.6	0.8
Isolation, dB, min.	70	70	60	60	50	50	50
VSWR , max.	1.25:1	1.25:1	1.4:1	1.5:1	1.8:1	1.8:1	1.8:1

For maximum limits, please see charts on pages 6-8

PART NUMBERING SYSTEM

CCT-59 S 6 6 C - T **

Series
Connectors
Actuator Voltage
Number of Positions
Actuator Type
Options

CONNECTOR	ACTUATOR VOLTAGE	NUMBER OF POSITIONS	ACTUATOR TYPE	OPTIONS
S: SMA FEMALE	6: 28 VDC LATCHING	3: SP3T	0: NO INDICATOR CONTACTS	T: TTL DRIVERS WITH DIODES
	7: 15 VDC LATCHING	4: SP4T	C: INDICATOR CONTACTS***	D: COIL TRANSIENT SUPPRESSION DIODES
	8: 12 VDC LATCHING	5: SP5T	D: SELF CUTOFF ONLY	R: POSITIVE + COMMON
	9: 24 VDC LATCHING	6: SP6T		TD: DECODERS AND TTL DRIVERS WITH DIODES
				M: MOISTURE SEAL
				S: D-SUB CONNECTOR*

**SEE PARTS LIST ON PAGE 11-13

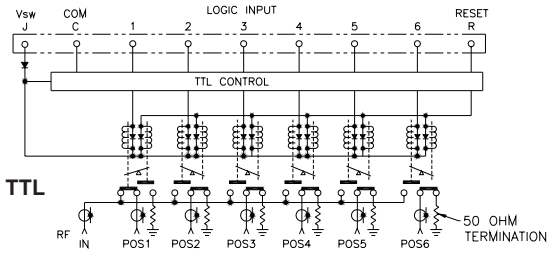
***Indicator Contacts Operating Temperature -50°C to 85°C (Elite Model Only)

For additional options, please contact factory.

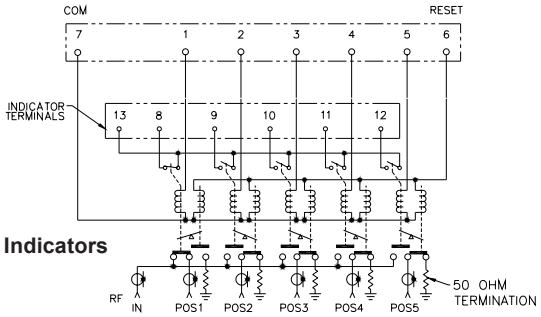
* D-Sub Connector may be 9 or 15 pin depending on number of throws. (See Connector Pinout page)

© 2019 TELEDYNE RELAYS

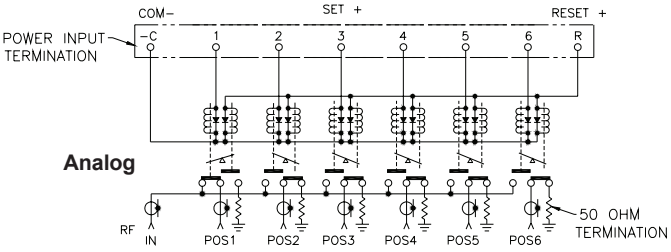
SCHEMATICS AND MECHANICAL OUTLINE



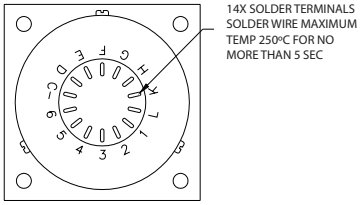
TTL

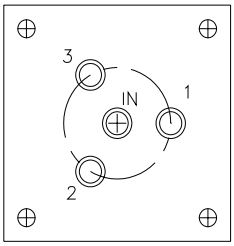


Indicators

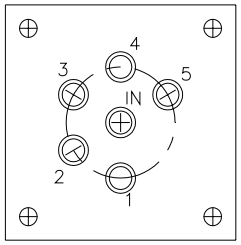


Analog

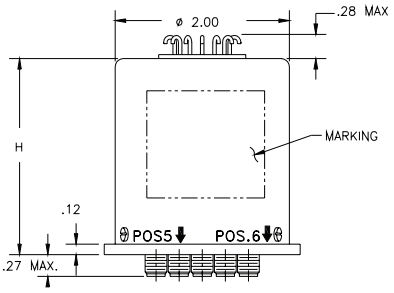




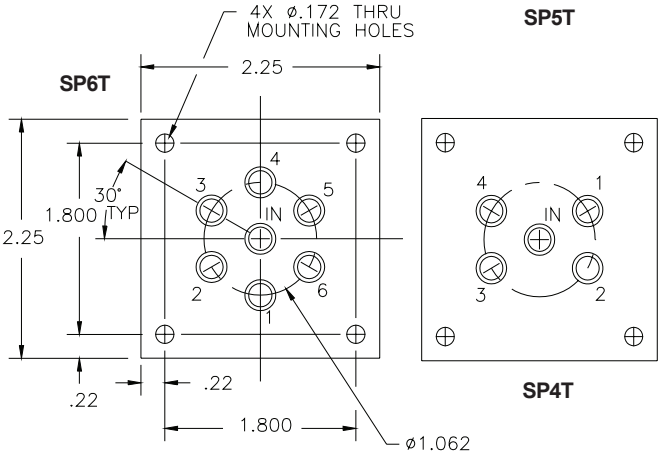
SP3T



SP5T



H = 2.25 STD & Indicator Models
H = 2.50 All OTHER Models



SP6T

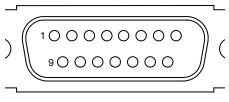
SP4T

"-S OPTION" 9-PIN D-SUB OR 15-PIN D-MICRO CONNECTOR (EXAMPLE: CCT-59S660-S)

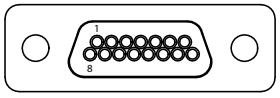
SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE
© 2019 TELEDYNE COAX SWITCHES

CONNECTOR PINOUT FOR LATCHING SP3T MULTI-THROW SWITCHES						
EXAMPLE	CT-59S130-S	CT-59S13C-S	CT-59S130-TS	CT-59S13C-TS	CT-59S130-TDS	CT-59S13C-TDS
PIN NO	2706650 9-PINS	2707572 15-PINS	2706650 9-PINS	2707572 15-PINS	2706650 9-PINS	2707572 15-PINS
INDICATOR		YES		YES		YES
TTL			YES	YES		
DECODERS & TTL					YES	YES
1	PORT 1	PORT 1	TTL 1	TTL 1	LOGIC 1	LOGIC 1
2	PORT 2	PORT 3	TTL 2	TTL 2	LOGIC 2	LOGIC 2
3	PORT 3	PORT 3	TTL 3	TTL 3	LOGIC 3	LOGIC 3
4						
5						
6						
7	COMMON	COMMON	COMMON	COMMON	COMMON	COMMON
8	RESET	RESET	RESET	RESET		
9		VSW	VSW	VSW	VSW	VSW
10		D INDICATOR (COM)		D INDICATOR (COM)		D INDICATOR (COM)
11		E INDICATOR		E INDICATOR		E INDICATOR
12		F INDICATOR		F INDICATOR		F INDICATOR
13		G INDICATOR		G INDICATOR		G INDICATOR
14						
15						

CONNECTOR PINOUT FOR LATCHING SP4T MULTI-THROW SWITCHES						
EXAMPLE	CT-59S140-S	CT-59S14C-S	CT-59S140-TS	CT-59S14C-TS	CT-59S140-TDS	CT-59S14C-TDS
PIN NO	2706650 9-PINS	2707572 15-PINS	2706650 9-PINS	2707572 15-PINS	2706650 9-PINS	2707572 15-PINS
INDICATOR		YES		YES		YES
TTL			YES	YES		
DECODERS & TTL					YES	YES
1	PORT 1	PORT 1	TTL 1	TTL 1	LOGIC 1	LOGIC 1
2	PORT 2	PORT 3	TTL 2	TTL 2	LOGIC 2	LOGIC 2
3	PORT 3	PORT 3	TTL 3	TTL 3	LOGIC 3	LOGIC 3
4	PORT 4	PORT 4	TTL 4	TTL 4		
5						
6						
7	COMMON	COMMON	COMMON	COMMON	COMMON	COMMON
8	RESET	RESET	RESET	RESET		
9			VSW	VSW	VSW	VSW
10		D INDICATOR (COM)		D INDICATOR (COM)		D INDICATOR (COM)
11		E INDICATOR		E INDICATOR		E INDICATOR
12		F INDICATOR		F INDICATOR		F INDICATOR
13		G INDICATOR		G INDICATOR		G INDICATOR
14		H INDICATOR		H INDICATOR		H INDICATOR
15						

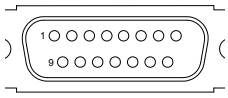


9-PIN D-SUB CONNECTOR

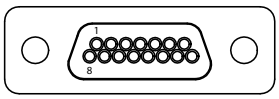


15-PIN D-MICRO CONNECTOR

CONNECTOR PINOUT FOR LATCHING SP5T MULTI-THROW SWITCHES						
EXAMPLE	CT-59S150-S	CT-59S15C-S	CT-59S150-TS	CT-59S15C-TS	CT-59S150-TDS	CT-59S15C-TDS
PIN NO	2706650 9-PINS	2707572 15-PINS	2706650 9-PINS	2707572 15-PINS	2706650 9-PINS	2707572 15-PINS
INDICATOR		YES		YES		YES
TTL			YES	YES		
DECODERS & TTL					YES	YES
1	PORT 1	PORT 1	TTL 1	TTL 1	LOGIC 1	LOGIC 1
2	PORT 2	PORT 3	TTL 2	TTL 2	LOGIC 2	LOGIC 2
3	PORT 3	PORT 3	TTL 3	TTL 3	LOGIC 3	LOGIC 3
4	PORT 4	PORT 4	TTL 4	TTL 4		
5	PORT 5	PORT 5	TTL 5	TTL 5		
6						
7	COMMON	COMMON	COMMON	COMMON	COMMON	COMMON
8	RESET	RESET	RESET	RESET		
9			V_{SW}	V_{SW}	V_{SW}	V_{SW}
10		D INDICATOR (COM)		D INDICATOR (COM)		D INDICATOR (COM)
11		E INDICATOR		E INDICATOR		E INDICATOR
12		F INDICATOR		F INDICATOR		F INDICATOR
13		G INDICATOR		G INDICATOR		G INDICATOR
14		H INDICATOR		H INDICATOR		H INDICATOR
15		K INDICATOR		K INDICATOR		K INDICATOR



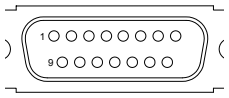
9-PIN D-SUB CONNECTOR



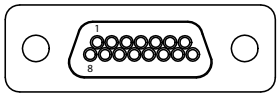
15-PIN D-MICRO CONNECTOR

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE © 2019 TELEDYNE COAX SWITCHES

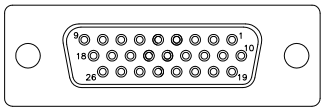
CONNECTOR PINOUT FOR LATCHING SP6T MULTI-THROW SWITCHES						
EXAMPLE	CR-59S160-S	CR-59S16C-S	CR-59S160-TS	CR-59S16C-TS	CR-59S160-TDS	CR-59S16C-TDS
PIN NO	2706650 9-PINS	2707572 15-PINS	2706650 9-PINS	C00-166-1 26-PINS	2706650 9-PINS	2707572 15-PINS
INDICATOR		YES		YES		YES
TTL			YES	YES		
DECODERS & TTL					YES	YES
1	PORT 1	PORT 1	TTL 1	TTL 1	LOGIC 1	LOGIC 1
2	PORT 2	PORT 3	TTL 2	TTL 2	LOGIC 2	LOGIC 2
3	PORT 3	PORT 3	TTL 3	TTL 3	LOGIC 3	LOGIC 3
4	PORT 4	PORT 4	TTL 4	TTL 4		
5	PORT 5	PORT 5	TTL 5	TTL 5		
6	PORT 6	PORT 6	TTL 6	TTL 6		
7	COMMON	COMMON	COMMON	COMMON	COMMON	COMMON
8	RESET	RESET	RESET	RESET		
9		D INDICATOR (COM)	Vsw	Vsw	Vsw	D INDICATOR (COM)
10		E INDICATOR				E INDICATOR
11		F INDICATOR				F INDICATOR
12		G INDICATOR				G INDICATOR
13		H INDICATOR				H INDICATOR
14		K INDICATOR				K INDICATOR
15		L INDICATOR		D INDICATOR (COM)		L INDICATOR
16				E INDICATOR		
17				F INDICATOR		
18				G INDICATOR		
19				H INDICATOR		
20				K INDICATOR		
21				L INDICATOR		
22						
23						
24						
25						
26						



9-PIN D-SUB CONNECTOR



15-PIN D-MICRO CONNECTOR



26-PIN D-SUB CONNECTOR

CONNECTOR PINOUT FOR LATCHING SP7T MULTI-THROW SWITCHES						
EXAMPLE	CT-59S170-S	CT-59S17C-S	CT-59S170-TS	CT-59S17C-TS	CT-59S170-TDS	CT-59S17C-TDS
PIN NO	2707572 15-PINS	25-PINS	2707572 15-PINS	25-PINS	2707572 15-PINS	25-PINS
INDICATOR		YES		YES		YES
TTL			YES	YES		
DECODERS & TTL					YES	YES
1	PORT 1	PORT 1	TTL 1	TTL 1	LOGIC 1	LOGIC 1
2	PORT 2	PORT 3	TTL 2	TTL 2	LOGIC 2	LOGIC 2
3	PORT 3	PORT 3	TTL 3	TTL 3	LOGIC 3	LOGIC 3
4	PORT 4	PORT 4	TTL 4	TTL 4		
5	PORT 5	PORT 5	TTL 5	TTL 5		
6	PORT 6	PORT 6	TTL 6	TTL 6		
7	PORT 7	PORT 7	TTL 7	TTL 7		
8						
9						
10						
11			Vsw	Vsw	Vsw	Vsw
12	RESET	RESET	RESET	RESET		
13	COMMON	COMMON	COMMON	COMMON	COMMON	COMMON
14						
15		D INDICATOR (COM)		D INDICATOR (COM)		D INDICATOR (COM)
16		E INDICATOR		E INDICATOR		E INDICATOR
17		F INDICATOR		F INDICATOR		F INDICATOR
18		G INDICATOR		G INDICATOR		G INDICATOR
19		H INDICATOR		H INDICATOR		H INDICATOR
20		K INDICATOR		K INDICATOR		K INDICATOR
21		L INDICATOR		L INDICATOR		L INDICATOR
22		M INDICATOR		M INDICATOR		M INDICATOR
23						
24						
25						

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE © 2019 TELEDYNE COAX SWITCHES

CONNECTOR PINOUT FOR LATCHING SP8T MULTI-THROW SWITCHES						
EXAMPLE	CT-59S180-S	CT-59S18C-S	CT-59S180-TS	CT-59S18C-TS	CT-59S180-TDS	CT-59S18C-TDS
PIN NO	2707572 15-PINS	25-PINS	2707572 15-PINS	25-PINS	2707572 15-PINS	25-PINS
INDICATOR		YES		YES		YES
TTL			YES	YES		
DECODERS & TTL					YES	YES
1	PORT 1	PORT 1	TTL 1	TTL 1	LOGIC 1	LOGIC 1
2	PORT 2	PORT 3	TTL 2	TTL 2	LOGIC 2	LOGIC 2
3	PORT 3	PORT 3	TTL 3	TTL 3	LOGIC 3	LOGIC 3
4	PORT 4	PORT 4	TTL 4	TTL 4	LOGIC 4	LOGIC 4
5	PORT 5	PORT 5	TTL 5	TTL 5		
6	PORT 6	PORT 6	TTL 6	TTL 6		
7	PORT 7	PORT 7	TTL 7	TTL 7		
8	PORT 8	PORT 8	TTL 8	TTL 8		
9						
10						
11			Vsw	Vsw	Vsw	Vsw
12	RESET	RESET	RESET	RESET		
13	COMMON	COMMON	COMMON	COMMON	COMMON	COMMON
14						
15		D INDICATOR (COM)		D INDICATOR (COM)		D INDICATOR (COM)
16		E INDICATOR		E INDICATOR		E INDICATOR
17		F INDICATOR		F INDICATOR		F INDICATOR
18		G INDICATOR		G INDICATOR		G INDICATOR
19		H INDICATOR		H INDICATOR		H INDICATOR
20		K INDICATOR		K INDICATOR		K INDICATOR
21		L INDICATOR		L INDICATOR		L INDICATOR
22		M INDICATOR		M INDICATOR		M INDICATOR
23		N INDICATOR		N INDICATOR		N INDICATOR
24						
25						

CONNECTOR PINOUT FOR LATCHING SP9T MULTI-THROW SWITCHES						
EXAMPLE	CT-59S190-S	CT-59S19C-S	CT-59S190-TS	CT-59S19C-TS	CT-59S190-TDS	CT-59S19C-TDS
PIN NO	2707572 15-PINS	25-PINS	2707572 15-PINS	25-PINS	2707572 15-PINS	25-PINS
INDICATOR		YES		YES		YES
TTL			YES	YES		
DECODERS & TTL					YES	YES
1	PORT 1	PORT 1	TTL 1	TTL 1	LOGIC 1	LOGIC 1
2	PORT 2	PORT 3	TTL 2	TTL 2	LOGIC 2	LOGIC 2
3	PORT 3	PORT 3	TTL 3	TTL 3	LOGIC 3	LOGIC 3
4	PORT 4	PORT 4	TTL 4	TTL 4	LOGIC 4	LOGIC 4
5	PORT 5	PORT 5	TTL 5	TTL 5		
6	PORT 6	PORT 6	TTL 6	TTL 6		
7	PORT 7	PORT 7	TTL 7	TTL 7		
8	PORT 8	PORT 8	TTL 8	TTL 8		
9	PORT 9	PORT 9	TTL 9	TTL 9		
10						
11			V_{SW}	V_{SW}	V_{SW}	V_{SW}
12	RESET	RESET	RESET	RESET		
13	COMMON	COMMON	COMMON	COMMON	COMMON	COMMON
14						
15		D INDICATOR (COM)		D INDICATOR (COM)		D INDICATOR (COM)
16		E INDICATOR		E INDICATOR		E INDICATOR
17		F INDICATOR		F INDICATOR		F INDICATOR
18		G INDICATOR		G INDICATOR		G INDICATOR
19		H INDICATOR		H INDICATOR		H INDICATOR
20		K INDICATOR		K INDICATOR		K INDICATOR
21		L INDICATOR		L INDICATOR		L INDICATOR
22		M INDICATOR		M INDICATOR		M INDICATOR
23		N INDICATOR		N INDICATOR		N INDICATOR
24		P INDICATOR		P INDICATOR		P INDICATOR
25						

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE © 2019 TELEDYNE COAX SWITCHES

CONNECTOR PINOUT FOR LATCHING SP10T MULTI-THROW SWITCHES						
EXAMPLE	CT-59S100-S	CT-59S10C-S	CT-59S100-TS	CT-59S10C-TS	CT-59S100-TDS	CT-59S10C-TDS
PIN NO	2707572 15-PINS	25-PINS	2707572 15-PINS	25-PINS	2707572 15-PINS	25-PINS
INDICATOR		YES		YES		YES
TTL			YES	YES		
DECODERS & TTL					YES	YES
1	PORT 1	PORT 1	TTL 1	TTL 1	LOGIC 1	LOGIC 1
2	PORT 2	PORT 3	TTL 2	TTL 2	LOGIC 2	LOGIC 2
3	PORT 3	PORT 3	TTL 3	TTL 3	LOGIC 3	LOGIC 3
4	PORT 4	PORT 4	TTL 4	TTL 4	LOGIC 4	LOGIC 4
5	PORT 5	PORT 5	TTL 5	TTL 5		
6	PORT 6	PORT 6	TTL 6	TTL 6		
7	PORT 7	PORT 7	TTL 7	TTL 7		
8	PORT 8	PORT 8	TTL 8	TTL 8		
9	PORT 9	PORT 9	TTL 9	TTL 9		
10	PORT 10	PORT 10	TTL 10	TTL 10		
11			Vsw	Vsw	Vsw	Vsw
12	RESET	RESET	RESET	RESET		
13	COMMON	COMMON	COMMON	COMMON	COMMON	COMMON
14						
15		D INDICATOR (COM)		D INDICATOR (COM)		D INDICATOR (COM)
16		E INDICATOR		E INDICATOR		E INDICATOR
17		F INDICATOR		F INDICATOR		F INDICATOR
18		G INDICATOR		G INDICATOR		G INDICATOR
19		H INDICATOR		H INDICATOR		H INDICATOR
20		K INDICATOR		K INDICATOR		K INDICATOR
21		L INDICATOR		L INDICATOR		L INDICATOR
22		M INDICATOR		M INDICATOR		M INDICATOR
23		N INDICATOR		N INDICATOR		N INDICATOR
24		P INDICATOR		P INDICATOR		P INDICATOR
25		T INDICATOR		T INDICATOR		T INDICATOR

TRUTH TABLE Latching
CCT-59SX3C-T

Logic Input				RF Path				Indicator Switches		
1	2	3	R	J1	J2	J3	Reset	E	F	G
1	0	0	0	On	Off	Off	Off	C	0	0
0	1	0	0	Off	On	Off	Off	0	C	0
0	0	1	0	Off	Off	On	Off	0	0	C

TRUTH TABLE Latching
CCT-59SX3C-TD

Logic Input			RF Path				Indicator Switches		
1	2	3	J1	J2	J3	Reset	E	F	G
0	0	0	On	Off	Off	Off	C	0	0
1	0	0	Off	On	Off	Off	0	C	0
0	1	0	Off	Off	On	Off	0	0	C
0	1	1	Off	Off	Off	Reset	0	0	0
1	1	1	COIL OFF				0	0	0

TRUTH TABLE Latching
CCT-59SX4C-T

Logic Input					RF Path					Indicator Switches			
1	2	3	4	R	J1	J2	J3	J4	Reset	E	F	G	H
1	0	0	0	0	On	Off	Off	Off	Off	C	0	0	0
0	1	0	0	0	Off	On	Off	Off	Off	0	C	0	0
0	0	1	0	0	Off	Off	On	Off	Off	0	0	C	0
0	0	0	1	0	Off	Off	Off	On	Off	0	0	0	C

TRUTH TABLE Latching
CCT-59SX4C-TD

Logic Input			RF Path					Indicator Switches			
1	2	3	J1	J2	J3	J4	Reset	E	F	G	H
0	0	0	On	Off	Off	Off	Off	C	0	0	0
1	0	0	Off	On	Off	Off	Off	0	C	0	0
0	1	0	Off	Off	On	Off	Off	0	0	C	0
1	1	0	Off	Off	Off	On	Off	0	0	0	C
0	1	1	Off	Off	Off	Off	Reset	0	0	0	0
1	1	1	COIL OFF					0	0	0	0

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE
© 2019 TELEDYNE COAX SWITCHES

TRUTH TABLE Latching
CCT-59SX5C-T

Logic Input						RF Path						Indicator Switches				
1	2	3	4	5	R	J1	J2	J3	J4	J5	Reset	E	F	G	H	K
1	0	0	0	0	0	On	Off	Off	Off	Off	Off	C	0	0	0	0
0	1	0	0	0	0	Off	On	Off	Off	Off	Off	0	C	0	0	0
0	0	1	0	0	0	Off	Off	On	Off	Off	Off	0	0	C	0	0
0	0	0	1	0	0	Off	Off	Off	On	Off	Off	0	0	0	C	0
0	0	0	0	1	0	Off	Off	Off	Off	On	Off	0	0	0	0	C

TRUTH TABLE Latching
CCT-59SX5C-TD

Logic Input			RF Path						Indicator Switches				
1	2	3	J1	J2	J3	J4	J5	Reset	E	F	G	H	K
0	0	0	On	Off	Off	Off	Off	Off	C	0	0	0	0
1	0	0	Off	On	Off	Off	Off	Off	0	C	0	0	0
0	1	0	Off	Off	On	Off	Off	Off	0	0	C	0	0
1	1	0	Off	Off	Off	On	Off	Off	0	0	0	C	0
0	0	1	Off	Off	Off	Off	On	Off	0	0	0	0	C
0	1	1	Off	Off	Off	Off	Off	Reset	0	0	0	0	0
1	1	1	COIL OFF						0	0	0	0	0

TRUTH TABLE Latching
CCT-59SX6C-T

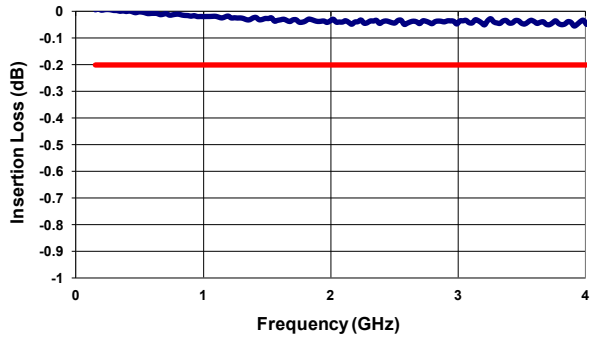
Logic Input							RF Path							Indicator Switches					
1	2	3	4	5	6	R	J1	J2	J3	J4	J5	J6	Reset	E	F	G	H	K	L
1	0	0	0	0	0	0	On	Off	Off	Off	Off	Off	Off	C	0	0	0	0	0
0	1	0	0	0	0	0	Off	On	Off	Off	Off	Off	Off	0	C	0	0	0	0
0	0	1	0	0	0	0	Off	Off	On	Off	Off	Off	Off	0	0	C	0	0	0
0	0	0	1	0	0	0	Off	Off	Off	On	Off	Off	Off	0	0	0	C	0	0
0	0	0	0	1	0	0	Off	Off	Off	Off	On	Off	Off	0	0	0	0	C	0
0	0	0	0	0	1	0	Off	Off	Off	Off	Off	On	Off	0	0	0	0	0	C

TRUTH TABLE Latching
CCT-59SX6C-TD

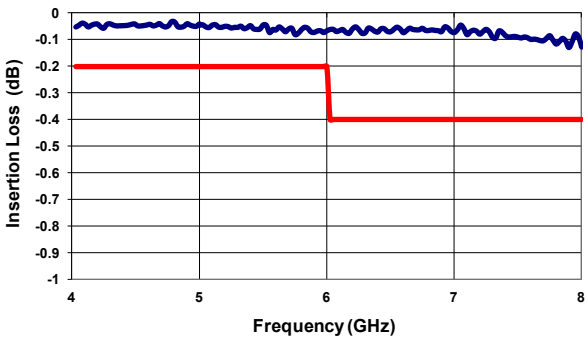
Logic Input			RF Path							Indicator Switches					
1	2	3	J1	J2	J3	J4	J5	J6	Reset	E	F	G	H	K	L
0	0	0	On	Off	Off	Off	Off	Off	Off	C	0	0	0	0	0
1	0	0	Off	On	Off	Off	Off	Off	Off	0	C	0	0	0	0
0	1	0	Off	Off	On	Off	Off	Off	Off	0	0	C	0	0	0
1	1	0	Off	Off	Off	On	Off	Off	Off	0	0	0	C	0	0
0	0	1	Off	Off	Off	Off	On	Off	Off	0	0	0	0	C	0
1	0	1	Off	Off	Off	Off	Off	On	Off	0	0	0	0	0	C
0	1	1	Off	Off	Off	Off	Off	Off	Reset	0	0	0	0	0	0
1	1	1	COIL OFF							0	0	0	0	0	0

TYPICAL NARROWBAND RF INSERTION LOSS PERFORMANCE CURVES

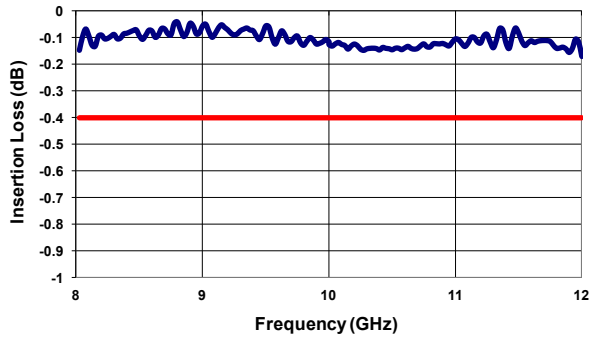
Insertion Loss (DC-4 GHz)



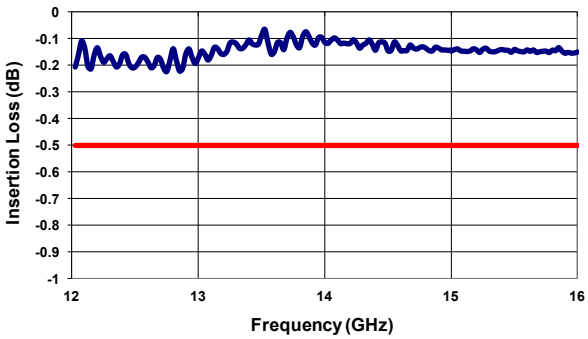
Insertion Loss (4-8 GHz)



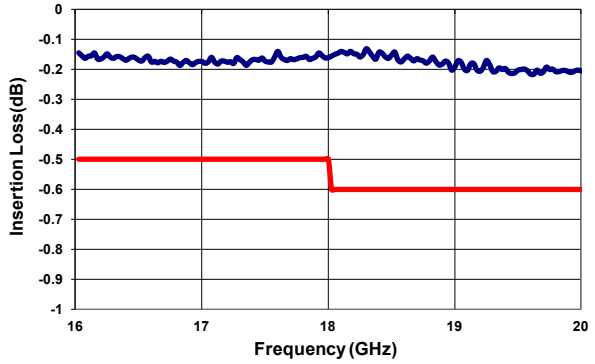
Insertion Loss (8-12 GHz)



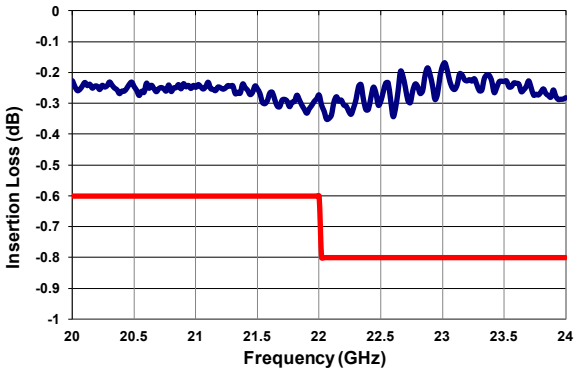
Insertion Loss (12-16 GHz)



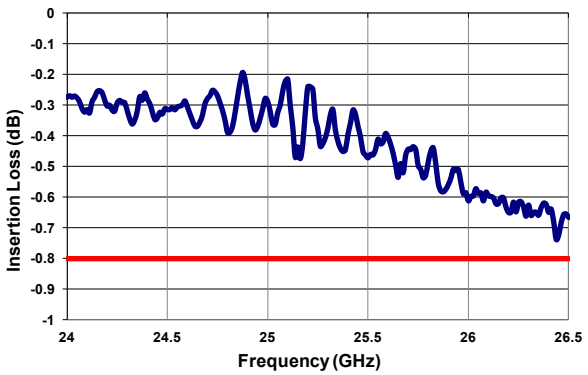
Insertion Loss (16-20 GHz)

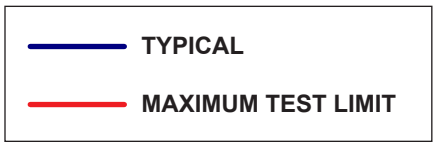


Insertion Loss (20-24 GHz)



Insertion Loss (24-26.5 GHz)

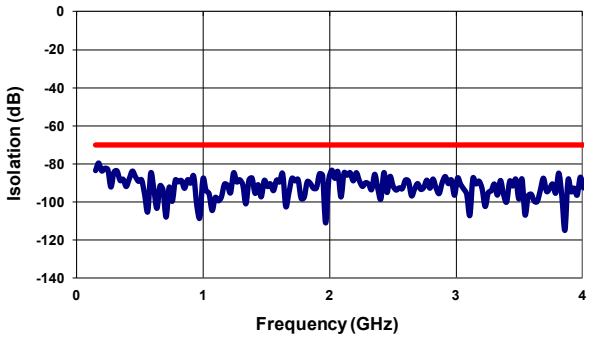




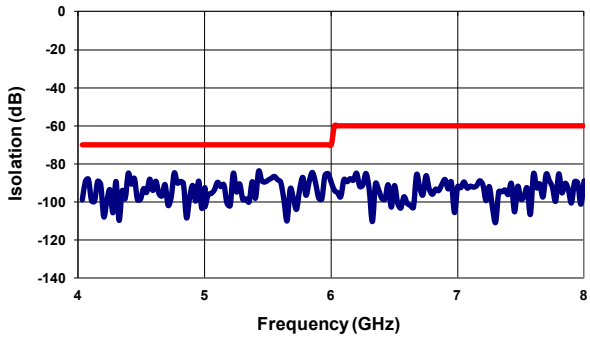
SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE © 2019 TELEDYNE COAX SWITCHES

TYPICAL NARROWBAND RF ISOLATION PERFORMANCE CURVES

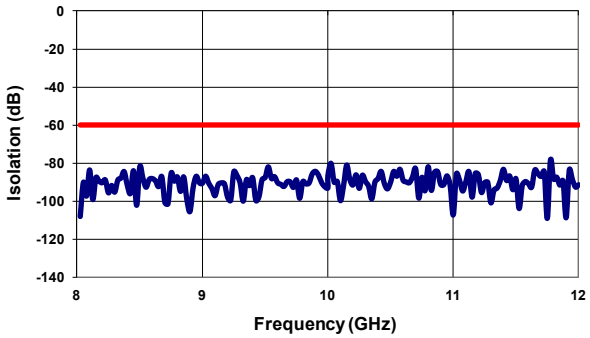
Isolation (DC-4 GHz)



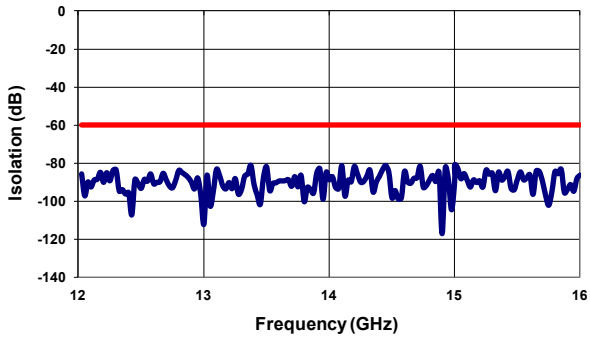
Isolation (4-8 GHz)



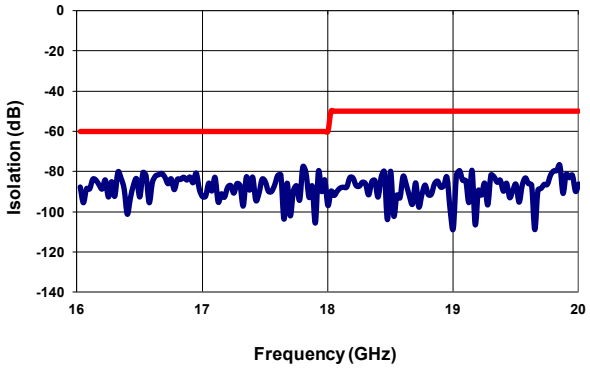
Isolation (8-12 GHz)



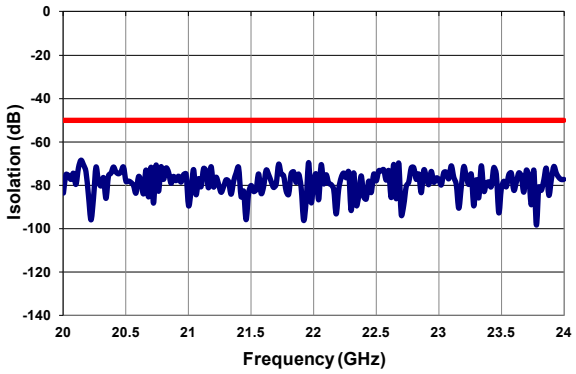
Isolation (12-16 GHz)



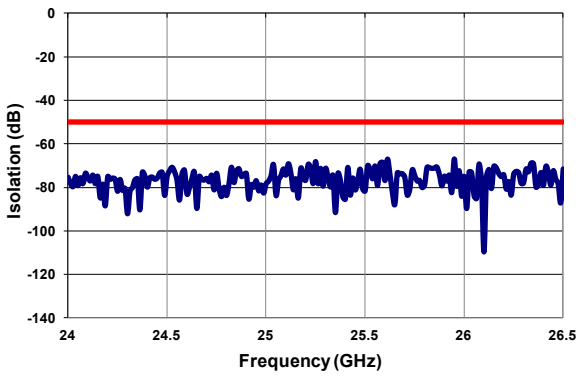
Isolation (16-20 GHz)

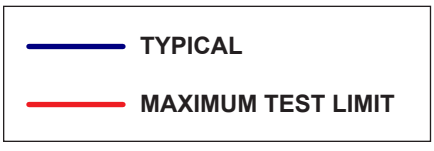


Isolation (20-24 GHz)



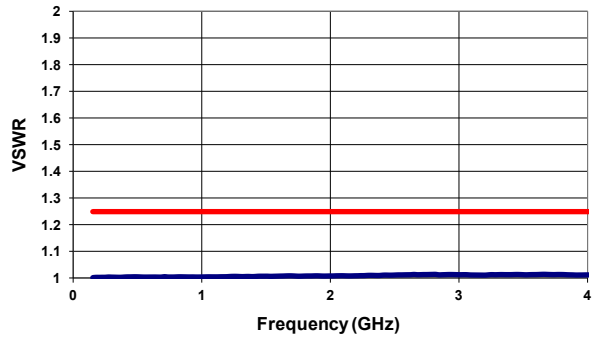
Isolation (24-26.5 GHz)



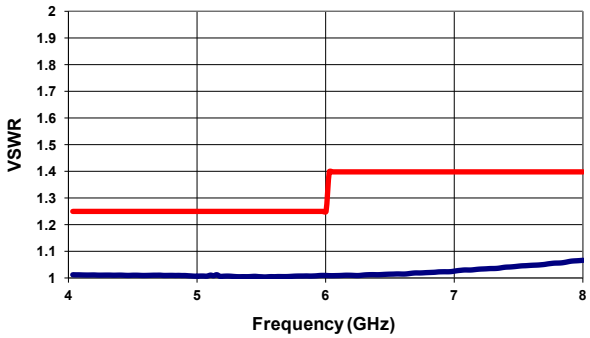


TYPICAL NARROWBAND RF VSWR PERFORMANCE CURVES

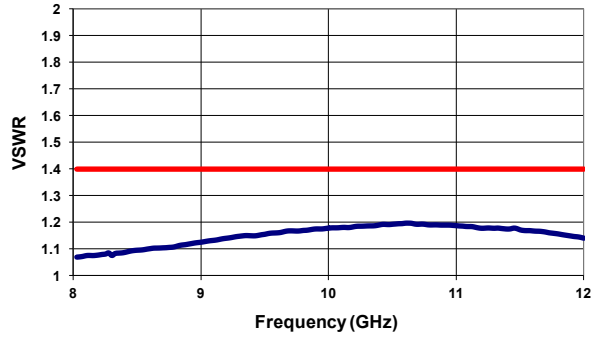
VSWR (DC-4 GHz)



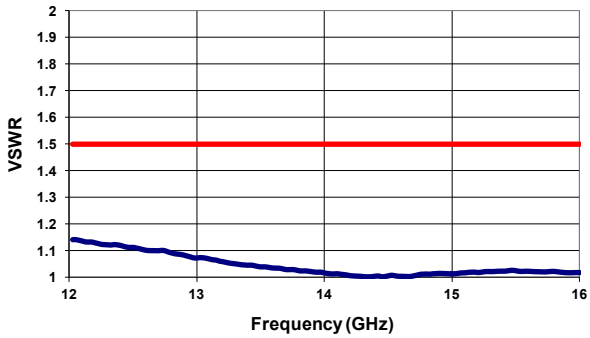
VSWR (4-8 GHz)



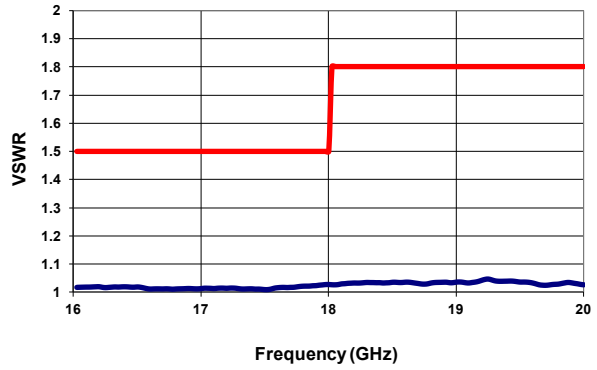
VSWR (8-12 GHz)



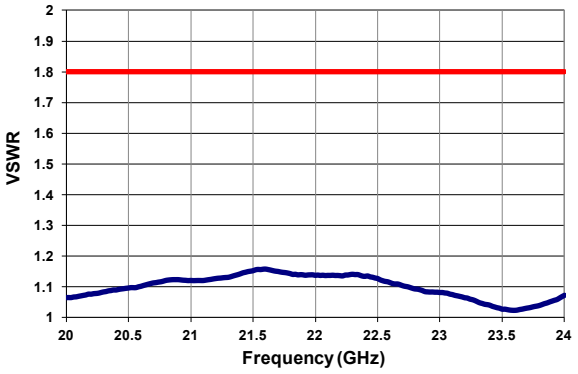
VSWR (12-16 GHz)



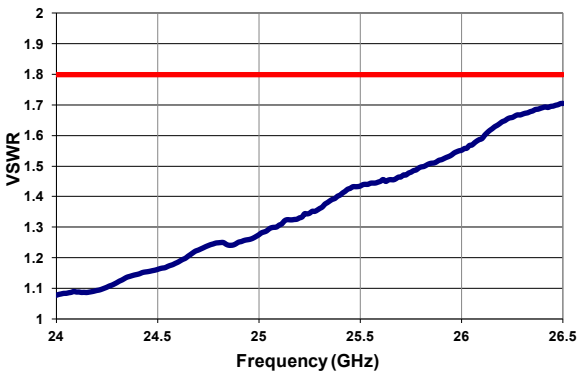
VSWR (16-20 GHz)

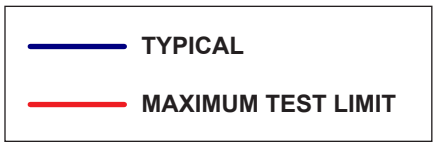


VSWR (20-24 GHz)



VSWR (24-26.5 GHz)

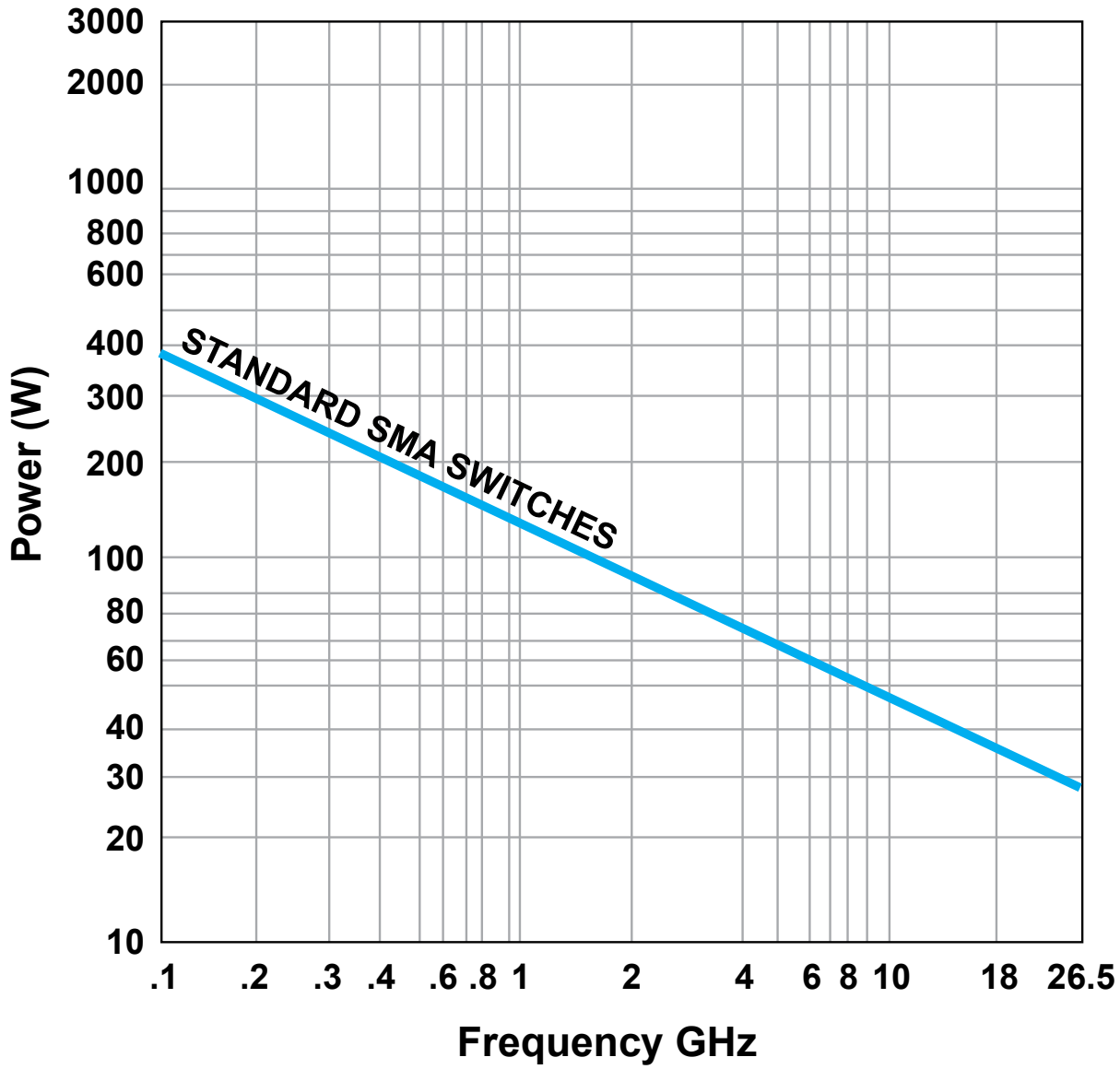




SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE © 2019 TELEDYNE COAX SWITCHES

TYPICAL POWER PERFORMANCE CURVE

Power Handling vs. Frequency



Estimates based on the following reference conditions:
- Ambient temperature of 40°C or less
- Sea level operation
- Load VSWR of 1.20:1 maximum
- No high-power (hot) switching

Please contact Teledyne Coax Switches for derating factors when applications do not meet the foregoing reference conditions.

© 2019 TELEDYNE RELAYS

GLOSSARY

Actuator
An actuator is the electromechanical mechanism that transfers the RF contacts from one position to another upon DC command.

Arc Suppression Diode
A diode is connected in parallel with the coil. This diode limits the "reverse EMF spike" generated when the coil de-energizes to 0.7 volts. The diode cathode is connected to the positive side of the coil and the anode is connected to the negative side.

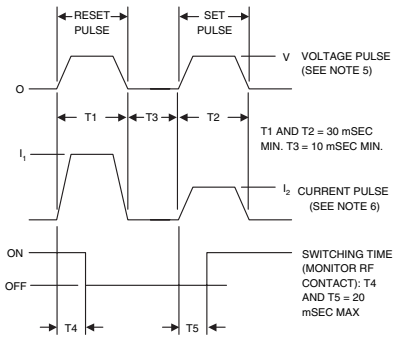
Date Code
All switches are marked with either a unique serial number or a date code. Date codes are in accordance with MIL-STD-1285 Paragraph 5.2.5 and consist of four digits. The first two digits define the year and the last two digits define the week of the year (YYWW). Thus, 1032 identifies switches that passed through final inspection during the 32nd week of 2010.

Indicator
Indicators tell the system which position the switch is in. Other names for indicators are telemetry contacts or tellback circuit. Indicators are usually a set of internally mounted DC contacts linked to the actuator. They can be wired to digital input lines, status lights, or interlocks. Unless otherwise specified, the maximum indicator contact rating is 30 Vdc, 50 mA, or 1.5 Watts into a resistive load.

Isolation
Isolation is the measure of the power level at the output connector of an unconnected RF channel as referenced to the power at the input connector. It is specified in dB below the input power level.

Multi-Throw Latching Switch
A multi-throw switch is a switch with one input and three or more output ports. The CCT-59 can switch a microwave signal to any of 2,3,4,5 or 6 output from a single common input.

DUAL PULSE SWITCHING COMMAND CHARACTERISTICS:
1. APPLIES FOR SINGLE-POLE MULTI-THROW LATCHING SWITCH ONLY.
2. MUST APPLY RESET PULSE FIRST (BREAK-BEFORE-MAKE).
3. RESET AND SET DEFINITIONS
   RESET: OPEN ALL RF PATHS (POSITIONS).
   SET: CLOSE THE SELECTED RF PATH (POSITION).
4. COMMAND PULSE TIMING:



5. COMMAND SWITCHING VOLTAGE:
   V = 26-32 VDC PULSE

6. SWITCHING CURRENT:

SWITCHING CURRENT AT 28 VDC AND 20°C		
NO. OF POS.	RESET (I_1)	SET (I_2)
3 POS.	270 mA	90 mA
4 POS.	360 mA	90 mA
5 POS.	450 mA	90 mA
6 POS.	540 mA	90 mA

Switching Time
Switching time is the total interval beginning with the arrival of the leading edge of the command pulse at the switch DC input and ending with the completion of the switch transfer, including contact bounce. It consists of three parts: (1) inductive delay in the coil, (2) transfer time of the physical movement of the contacts, and (3) the bounce time of the RF contacts.

TTL Switch Driver Option
As a special option, switch drivers can be provided for both failsafe and latching switches, which are compatible with industry-standard low-power Schottky TTL circuits.

TD-Option
This option includes a decoder. The 3-bit parallel command is decoded to internally select the appropriate position. See the logic tables. The TD-Option increases the Vsw supply current demand by 50mA max at 28Vdc and +20°C.

Performance Parameters vs Frequency
Generally speaking, the RF performance of coaxial switches is frequency dependent. With increasing frequency, VSWR and insertion loss increase while isolation decreases. All data sheets specify these three parameters as "worst case" at the highest operating frequency. If the switch is to be used over a narrow frequency band, better performance can be achieved.

Actuator Current vs Temperature
The resistance of the actuator coil varies as a function of temperature. There is an inverse relationship between the operating temperature of the switch and the actuator drive current. For switches operating at 28 VDC, the approximate actuator drive current at temperature, T, can be calculated using the equation:

$$I_T = \frac{I_A}{[1 + .00385\ (T\text{-}20)]}$$

Where:

I_T = Actuator current at temperature, T

I_A = Room temperature actuator current – see data sheet

T = Temperature of interest in °C

Magnetic Sensitivity
An electro-mechanical switch can be sensitive to ferrous materials and external magnetic fields. Neighboring ferrous materials should be permitted no closer than 0.5 inches and adjacent external magnetic fields should be limited to a flux density of less than 5

SPECIAL FEATURE

Switching High-Power or Highly Sensitive Signals

Ensure the most linear response with the best galvanically matched contact system in the industry. Extremely low passive intermodulation is standard on all of our switches.

Carrier Frequency 1	Carrier Frequency 2	PIM 3rd Order Frequency	PIM 5th Order Frequency
870 MHz	893 MHz	847 MHz	824 MHz

	3rd Order Intermodulation	5th Order Intermodulation
Multiple Positions	–96 dBm	–115 dBm
	–139 dBc	–158 dBc

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE
© 2019 TELEDYNE COAX SWITCHES

LATCHING CCT-59S/CT-59S PART NUMBER LIST

	Part No.		Part No.		Part No.		Part No.
1	CCT-59SX3C	43	CCT-59SX3O-TMS	85	CCT-59SX4O-DM	127	CCT-59SX5C-DS
2	CCT-59SX3C-D	44	CCT-59SX3O-TS	86	CCT-59SX4O-DR	128	CCT-59SX5C-M
3	CCT-59SX3C-DM	45	CCT-59SX3D	87	CCT-59SX4O-DRM	129	CCT-59SX5C-MS
4	CCT-59SX3C-DR	46	CCT-59SX3D-M	88	CCT-59SX4O-DRS	130	CCT-59SX5C-R
5	CCT-59SX3C-DRM	47	CCT-59SX3D-MS	89	CCT-59SX4O-DS	131	CCT-59SX5C-RM
6	CCT-59SX3C-DRS	48	CCT-59SX3D-R	90	CCT-59SX4O-M	132	CCT-59SX5C-RMS
7	CCT-59SX3C-DS	49	CCT-59SX3D-RM	91	CCT-59SX4O-MS	133	CCT-59SX5C-RS
8	CCT-59SX3C-M	50	CCT-59SX3D-RMS	92	CCT-59SX4O-R	134	CCT-59SX5C-S
9	CCT-59SX3C-MS	51	CCT-59SX3D-RS	93	CCT-59SX4O-RM	135	CCT-59SX5C-T
10	CCT-59SX3C-R	52	CCT-59SX3D-S	94	CCT-59SX4O-RMS	136	CCT-59SX5C-TD
11	CCT-59SX3C-RM	53	CCT-59SX3D-T	95	CCT-59SX4O-RS	137	CCT-59SX5C-TDM
12	CCT-59SX3C-RMS	54	CCT-59SX3D-TD	96	CCT-59SX4O-S	138	CCT-59SX5C-TDMS
13	CCT-59SX3C-RS	55	CCT-59SX3D-TDM	97	CCT-59SX4O-T	139	CCT-59SX5C-TDS
14	CCT-59SX3C-S	56	CCT-59SX3D-TDMS	98	CCT-59SX4O-TD	140	CCT-59SX5C-TM
15	CCT-59SX3C-T	57	CCT-59SX3D-TDS	99	CCT-59SX4O-TDM	141	CCT-59SX5C-TMS
16	CCT-59SX3C-TD	58	CCT-59SX3D-TM	100	CCT-59SX4O-TDMS	142	CCT-59SX5C-TS
17	CCT-59SX3C-TDM	59	CCT-59SX3D-TMS	101	CCT-59SX4O-TDS	143	CCT-59SX5O
18	CCT-59SX3C-TDMS	60	CCT-59SX3D-TS	102	CCT-59SX4O-TM	144	CCT-59SX5O-D
19	CCT-59SX3C-TDS	61	CCT-59SX4C	103	CCT-59SX4O-TMS	145	CCT-59SX5O-DM
20	CCT-59SX3C-TM	62	CCT-59SX4C-D	104	CCT-59SX4O-TS	146	CCT-59SX5O-DR
21	CCT-59SX3C-TMS	63	CCT-59SX4C-DM	105	CCT-59SX4D	147	CCT-59SX5O-DRM
22	CCT-59SX3C-TS	64	CCT-59SX4C-DR	106	CCT-59SX4D-M	148	CCT-59SX5O-DRS
23	CCT-59SX3O	65	CCT-59SX4C-DRM	107	CCT-59SX4D-MS	149	CCT-59SX5O-DS
24	CCT-59SX3O-D	66	CCT-59SX4C-DRS	108	CCT-59SX4D-R	150	CCT-59SX5O-M
25	CCT-59SX3O-DM	67	CCT-59SX4C-DS	109	CCT-59SX4D-RM	151	CCT-59SX5O-MS
26	CCT-59SX3O-DR	68	CCT-59SX4C-M	110	CCT-59SX4D-RMS	152	CCT-59SX5O-R
27	CCT-59SX3O-DRM	69	CCT-59SX4C-MS	111	CCT-59SX4D-RS	153	CCT-59SX5O-RM
28	CCT-59SX3O-DRS	70	CCT-59SX4C-R	112	CCT-59SX4D-S	154	CCT-59SX5O-RMS
29	CCT-59SX3O-DS	71	CCT-59SX4C-RM	113	CCT-59SX4D-T	155	CCT-59SX5O-RS
30	CCT-59SX3O-M	72	CCT-59SX4C-RMS	114	CCT-59SX4D-TD	156	CCT-59SX5O-S
31	CCT-59SX3O-MS	73	CCT-59SX4C-RS	115	CCT-59SX4D-TDM	157	CCT-59SX5O-T
32	CCT-59SX3O-R	74	CCT-59SX4C-S	116	CCT-59SX4D-TDMS	158	CCT-59SX5O-TD
33	CCT-59SX3O-RM	75	CCT-59SX4C-T	117	CCT-59SX4D-TDS	159	CCT-59SX5O-TDM
34	CCT-59SX3O-RMS	76	CCT-59SX4C-TD	118	CCT-59SX4D-TM	160	CCT-59SX5O-TDMS
35	CCT-59SX3O-RS	77	CCT-59SX4C-TDM	119	CCT-59SX4D-TMS	161	CCT-59SX5O-TDS
36	CCT-59SX3O-S	78	CCT-59SX4C-TDMS	120	CCT-59SX4D-TS	162	CCT-59SX5O-TM
37	CCT-59SX3O-T	79	CCT-59SX4C-TDS	121	CCT-59SX5C	163	CCT-59SX5O-TMS
38	CCT-59SX3O-TD	80	CCT-59SX4C-TM	122	CCT-59SX5C-D	164	CCT-59SX5O-TS
39	CCT-59SX3O-TDM	81	CCT-59SX4C-TMS	123	CCT-59SX5C-DM	165	CCT-59SX5D
40	CCT-59SX3O-TDMS	82	CCT-59SX4C-TS	124	CCT-59SX5C-DR	166	CCT-59SX5D-M
41	CCT-59SX3O-TDS	83	CCT-59SX4O	125	CCT-59SX5C-DRM	167	CCT-59SX5D-MS
42	CCT-59SX3O-TM	84	CCT-59SX4O-D	126	CCT-59SX5C-DRS	168	CCT-59SX5D-R

* X = 6 (28Vdc), 7 (15Vdc), 8 (12Vdc) and 9 (24Vdc)

© 2019 TELEDYNE RELAYS

LATCHING CCT-59S/CT-59S PART NUMBER LIST

	Part No.		Part No.		Part No.		Part No.
169	CCT-59SX5D-RM	**211**	CCT-59SX6O-MS	**253**	CT-59SX3C-RS	**295**	CT-59SX3D-TDM
170	CCT-59SX5D-RMS	**212**	CCT-59SX6O-R	**254**	CT-59SX3C-S	**296**	CT-59SX3D-TDMS
171	CCT-59SX5D-RS	**213**	CCT-59SX6O-RM	**255**	CT-59SX3C-T	**297**	CT-59SX3D-TDS
172	CCT-59SX5D-S	**214**	CCT-59SX6O-RMS	**256**	CT-59SX3C-TD	**298**	CT-59SX3D-TM
173	CCT-59SX5D-T	**215**	CCT-59SX6O-RS	**257**	CT-59SX3C-TDM	**299**	CT-59SX3D-TMS
174	CCT-59SX5D-TD	**216**	CCT-59SX6O-S	**258**	CT-59SX3C-TDMS	**300**	CT-59SX3D-TS
175	CCT-59SX5D-TDM	**217**	CCT-59SX6O-T	**259**	CT-59SX3C-TDS	**301**	CT-59SX4C
176	CCT-59SX5D-TDMS	**218**	CCT-59SX6O-TD	**260**	CT-59SX3C-TM	**302**	CT-59SX4C-D
177	CCT-59SX5D-TDS	**219**	CCT-59SX6O-TDM	**261**	CT-59SX3C-TMS	**303**	CT-59SX4C-DM
178	CCT-59SX5D-TM	**220**	CCT-59SX6O-TDMS	**262**	CT-59SX3C-TS	**304**	CT-59SX4C-DR
179	CCT-59SX5D-TMS	**221**	CCT-59SX6O-TDS	**263**	CT-59SX3O	**305**	CT-59SX4C-DRM
180	CCT-59SX5D-TS	**222**	CCT-59SX6O-TM	**264**	CT-59SX3O-D	**306**	CT-59SX4C-DRS
181	CCT-59SX6C	**223**	CCT-59SX6O-TMS	**265**	CT-59SX3O-DM	**307**	CT-59SX4C-DS
182	CCT-59SX6C-D	**224**	CCT-59SX6O-TS	**266**	CT-59SX3O-DR	**308**	CT-59SX4C-M
183	CCT-59SX6C-DM	**225**	CCT-59SX6D	**267**	CT-59SX3O-DRM	**309**	CT-59SX4C-MS
184	CCT-59SX6C-DR	**226**	CCT-59SX6D-M	**268**	CT-59SX3O-DRS	**310**	CT-59SX4C-R
185	CCT-59SX6C-DRM	**227**	CCT-59SX6D-MS	**269**	CT-59SX3O-DS	**311**	CT-59SX4C-RM
186	CCT-59SX6C-DRS	**228**	CCT-59SX6D-R	**270**	CT-59SX3O-M	**312**	CT-59SX4C-RMS
187	CCT-59SX6C-DS	**229**	CCT-59SX6D-RM	**271**	CT-59SX3O-MS	**313**	CT-59SX4C-RS
188	CCT-59SX6C-M	**230**	CCT-59SX6D-RMS	**272**	CT-59SX3O-R	**314**	CT-59SX4C-S
189	CCT-59SX6C-MS	**231**	CCT-59SX6D-RS	**273**	CT-59SX3O-RM	**315**	CT-59SX4C-T
190	CCT-59SX6C-R	**232**	CCT-59SX6D-S	**274**	CT-59SX3O-RMS	**316**	CT-59SX4C-TD
191	CCT-59SX6C-RM	**233**	CCT-59SX6D-T	**275**	CT-59SX3O-RS	**317**	CT-59SX4C-TDM
192	CCT-59SX6C-RMS	**234**	CCT-59SX6D-TD	**276**	CT-59SX3O-S	**318**	CT-59SX4C-TDMS
193	CCT-59SX6C-RS	**235**	CCT-59SX6D-TDM	**277**	CT-59SX3O-T	**319**	CT-59SX4C-TDS
194	CCT-59SX6C-S	**236**	CCT-59SX6D-TDMS	**278**	CT-59SX3O-TD	**320**	CT-59SX4C-TM
195	CCT-59SX6C-T	**237**	CCT-59SX6D-TDS	**279**	CT-59SX3O-TDM	**321**	CT-59SX4C-TMS
196	CCT-59SX6C-TD	**238**	CCT-59SX6D-TM	**280**	CT-59SX3O-TDMS	**322**	CT-59SX4C-TS
197	CCT-59SX6C-TDM	**239**	CCT-59SX6D-TMS	**281**	CT-59SX3O-TDS	**323**	CT-59SX4O
198	CCT-59SX6C-TDMS	**240**	CCT-59SX6D-TS	**282**	CT-59SX3O-TM	**324**	CT-59SX4O-D
199	CCT-59SX6C-TDS	**241**	CT-59SX3C	**283**	CT-59SX3O-TMS	**325**	CT-59SX4O-DM
200	CCT-59SX6C-TM	**242**	CT-59SX3C-D	**284**	CT-59SX3O-TS	**326**	CT-59SX4O-DR
201	CCT-59SX6C-TMS	**243**	CT-59SX3C-DM	**285**	CT-59SX3D	**327**	CT-59SX4O-DRM
202	CCT-59SX6C-TS	**244**	CT-59SX3C-DR	**286**	CT-59SX3D-M	**328**	CT-59SX4O-DRS
203	CCT-59SX6O	**245**	CT-59SX3C-DRM	**287**	CT-59SX3D-MS	**329**	CT-59SX4O-DS
204	CCT-59SX6O-D	**246**	CT-59SX3C-DRS	**288**	CT-59SX3D-R	**330**	CT-59SX4O-M
205	CCT-59SX6O-DM	**247**	CT-59SX3C-DS	**289**	CT-59SX3D-RM	**331**	CT-59SX4O-MS
206	CCT-59SX6O-DR	**248**	CT-59SX3C-M	**290**	CT-59SX3D-RMS	**332**	CT-59SX4O-R
207	CCT-59SX6O-DRM	**249**	CT-59SX3C-MS	**291**	CT-59SX3D-RS	**333**	CT-59SX4O-RM
208	CCT-59SX6O-DRS	**250**	CT-59SX3C-R	**292**	CT-59SX3D-S	**334**	CT-59SX4O-RMS
209	CCT-59SX6O-DS	**251**	CT-59SX3C-RM	**293**	CT-59SX3D-T	**335**	CT-59SX4O-RS
210	CCT-59SX6O-M	**252**	CT-59SX3C-RMS	**294**	CT-59SX3D-TD	**336**	CT-59SX4O-S

* X = 6 (28Vdc), 7 (15Vdc), 8 (12Vdc) and 9 (24Vdc)

© 2019 TELEDYNE COAX SWITCHES

LATCHING CCT-59S/CT-59S PART NUMBER LIST

	Part No.		Part No.		Part No.		Part No.
337	CT-59SX4O-T	**379**	CT-59SX5C-TDS	**421**	CT-59SX6C	**463**	CT-59SX6O-TMS
338	CT-59SX4O-TD	**380**	CT-59SX5C-TM	**422**	CT-59SX6C-D	**464**	CT-59SX6O-TS
339	CT-59SX4O-TDM	**381**	CT-59SX5C-TMS	**423**	CT-59SX6C-DM	**465**	CT-59SX6D
340	CT-59SX4O-TDMS	**382**	CT-59SX5C-TS	**424**	CT-59SX6C-DR	**466**	CT-59SX6D-M
341	CT-59SX4O-TDS	**383**	CT-59SX5O	**425**	CT-59SX6C-DRM	**467**	CT-59SX6D-MS
342	CT-59SX4O-TM	**384**	CT-59SX5O-D	**426**	CT-59SX6C-DRS	**468**	CT-59SX6D-R
343	CT-59SX4O-TMS	**385**	CT-59SX5O-DM	**427**	CT-59SX6C-DS	**469**	CT-59SX6D-RM
344	CT-59SX4O-TS	**386**	CT-59SX5O-DR	**428**	CT-59SX6C-M	**470**	CT-59SX6D-RMS
345	CT-59SX4D	**387**	CT-59SX5O-DRM	**429**	CT-59SX6C-MS	**471**	CT-59SX6D-RS
346	CT-59SX4D-M	**388**	CT-59SX5O-DRS	**430**	CT-59SX6C-R	**472**	CT-59SX6D-S
347	CT-59SX4D-MS	**389**	CT-59SX5O-DS	**431**	CT-59SX6C-RM	**473**	CT-59SX6D-T
348	CT-59SX4D-R	**390**	CT-59SX5O-M	**432**	CT-59SX6C-RMS	**474**	CT-59SX6D-TD
349	CT-59SX4D-RM	**391**	CT-59SX5O-MS	**433**	CT-59SX6C-RS	**475**	CT-59SX6D-TDM
350	CT-59SX4D-RMS	**392**	CT-59SX5O-R	**434**	CT-59SX6C-S	**476**	CT-59SX6D-TDMS
351	CT-59SX4D-RS	**393**	CT-59SX5O-RM	**435**	CT-59SX6C-T	**477**	CT-59SX6D-TDS
352	CT-59SX4D-S	**394**	CT-59SX5O-RMS	**436**	CT-59SX6C-TD	**478**	CT-59SX6D-TM
353	CT-59SX4D-T	**395**	CT-59SX5O-RS	**437**	CT-59SX6C-TDM	**479**	CT-59SX6D-TMS
354	CT-59SX4D-TD	**396**	CT-59SX5O-S	**438**	CT-59SX6C-TDMS	**480**	CT-59SX6D-TS
355	CT-59SX4D-TDM	**397**	CT-59SX5O-T	**439**	CT-59SX6C-TDS		
356	CT-59SX4D-TDMS	**398**	CT-59SX5O-TD	**440**	CT-59SX6C-TM		
357	CT-59SX4D-TDS	**399**	CT-59SX5O-TDM	**441**	CT-59SX6C-TMS		
358	CT-59SX4D-TM	**400**	CT-59SX5O-TDMS	**442**	CT-59SX6C-TS		
359	CT-59SX4D-TMS	**401**	CT-59SX5O-TDS	**443**	CT-59SX6O		
360	CT-59SX4D-TS	**402**	CT-59SX5O-TM	**444**	CT-59SX6O-D		
361	CT-59SX5C	**403**	CT-59SX5O-TMS	**445**	CT-59SX6O-DM		
362	CT-59SX5C-D	**404**	CT-59SX5O-TS	**446**	CT-59SX6O-DR		
363	CT-59SX5C-DM	**405**	CT-59SX5D	**447**	CT-59SX6O-DRM		
364	CT-59SX5C-DR	**406**	CT-59SX5D-M	**448**	CT-59SX6O-DRS		
365	CT-59SX5C-DRM	**407**	CT-59SX5D-MS	**449**	CT-59SX6O-DS		
366	CT-59SX5C-DRS	**408**	CT-59SX5D-R	**450**	CT-59SX6O-M		
367	CT-59SX5C-DS	**409**	CT-59SX5D-RM	**451**	CT-59SX6O-MS		
368	CT-59SX5C-M	**410**	CT-59SX5D-RMS	**452**	CT-59SX6O-R		
369	CT-59SX5C-MS	**411**	CT-59SX5D-RS	**453**	CT-59SX6O-RM		
370	CT-59SX5C-R	**412**	CT-59SX5D-S	**454**	CT-59SX6O-RMS		
371	CT-59SX5C-RM	**413**	CT-59SX5D-T	**455**	CT-59SX6O-RS		
372	CT-59SX5C-RMS	**414**	CT-59SX5D-TD	**456**	CT-59SX6O-S		
373	CT-59SX5C-RS	**415**	CT-59SX5D-TDM	**457**	CT-59SX6O-T		
374	CT-59SX5C-S	**416**	CT-59SX5D-TDMS	**458**	CT-59SX6O-TD		
375	CT-59SX5C-T	**417**	CT-59SX5D-TDS	**459**	CT-59SX6O-TDM		
376	CT-59SX5C-TD	**418**	CT-59SX5D-TM	**460**	CT-59SX6O-TDMS		
377	CT-59SX5C-TDM	**419**	CT-59SX5D-TMS	**461**	CT-59SX6O-TDS		
378	CT-59SX5C-TDMS	420	CT-59SX5D-TS	462	CT-59SX6O-TM		

* X = 6 (28Vdc), 7 (15Vdc), 8 (12Vdc) and 9 (24Vdc)

© 2019 TELEDYNE RELAYS