

| PART NUMBER | DESCRIPTION |
|-------------|--|
| CCT-38S | Commercial Normally Open Multi-throw, DC-18GHz |
| CT-38S | Elite Normally Open Multi-throw, DC-22GHz |

The CCT-38S/CT-38S 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 impedance 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-38S/CT-38S comes with a normally open actuator. For the normally open actuator, all ports are terminated in 50 Ohms, except the common input port which is open when the switch is de-energized.

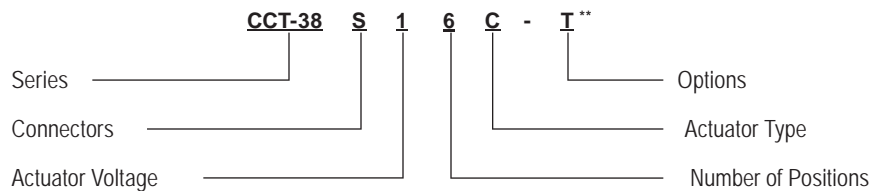


| ENVIRONMENTAL AND PHYSICAL CHARACTERISTICS | |
|--|-----------------------|
| Operating Temperature | |
| Commercial Model, CCT-38S | -25°C to 65°C |
| Elite Model, CT-38S | -55°C to 85°C |
| Vibration (MIL-STD-202 Method 214, Condition D, non-operating) | 10 g's RMS |
| Shock (MIL-STD-202 Method 213, Condition D, non-operating) | 500 g's |
| Standard Actuator Life | 5,000,000 cycles |
| Actuator Life w/ Additional Features | 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-38S | DC-18 GHz |
| CT-38S | DC-22 GHz |
| Characteristic Impedance | 50 Ohms |
| Terminations | 50Ω, 2 Watts CW max. |
| Operate Time | 15 ms (max.) |
| Release Time | 15 ms (max.) |
| Actuation Voltage Available | 12 15 24 28 V |
| Actuation Current, max. @ ambient | 420 350 250 200 mA |

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

PART NUMBERING SYSTEM



| CONNECTOR | ACTUATOR VOLTAGE | NUMBER OF POSITIONS | ACTUATOR TYPE | OPTIONS |
|---------------|-------------------------|---------------------|--------------------------|--|
| S: SMA FEMALE | 1: 28 VDC NORMALLY OPEN | 3: SP3T | 0: NO INDICATOR CONTACTS | T: TTL DRIVERS WITH DIODES |
| | 2: 15 VDC NORMALLY OPEN | 4: SP4T | C: INDICATOR CONTACTS | D: COIL TRANSIENT SUPPRESSION DIODES |
| | 3: 12 VDC NORMALLY OPEN | 5: SP5T | | R: POSITIVE + COMMON |
| | 4: 24 VDC NORMALLY OPEN | 6: SP6T | | TD: DECODERS AND TTL DRIVERS WITH DIODES |
| | | | | M: MOISTURE SEAL |
| | | | | S: D-SUB CONNECTOR* |

** SEE PARTS LIST ON PAGE 12-14
***Indicator Contacts Operating Temperature
-50°C to 85°C (Elite Model Only)

For additional options, please contact factory.

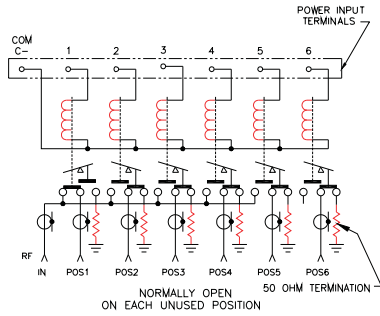
* D-Sub Connector may be 9 or 15 pin depending on number of throws. (See Connector Pinout page)

Series CCT-38S/CT-38S

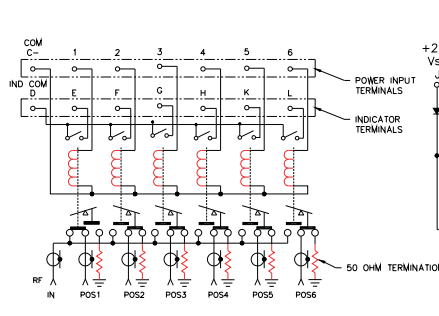
Multi-Throw DC-18 GHz/DC-22 GHz
Normally Open Coaxial Switch



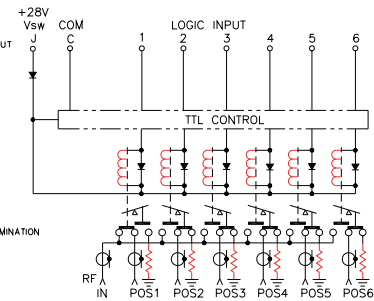
SCHEMATICS AND MECHANICAL OUTLINE



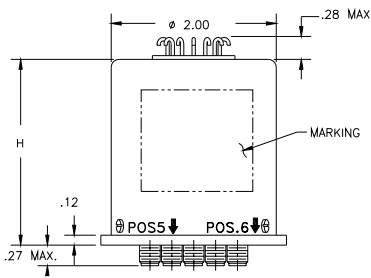
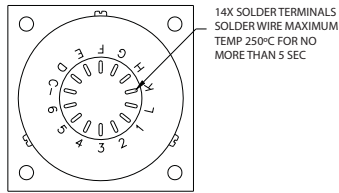
Analogue



Indicators

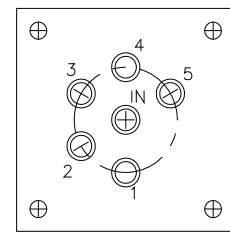
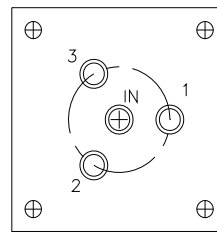


TTL



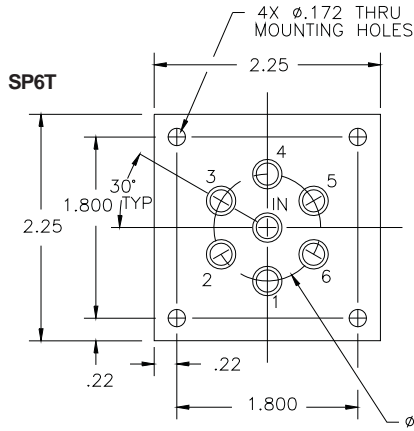
H = 1.85 STD Models (No Options)
H = 2.50 All OTHER Models

SP3T



SP5T

SP6T

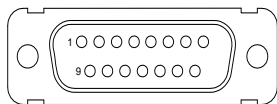


SP4T

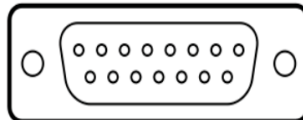
“-S OPTION” 9-PIN D-SUB OR 15-PIN D-SUB CONNECTOR (EXAMPLE: CCT-38S160-S)

| CONNECTOR PINOUT FOR NORMALLY OPEN SP3T MULTI-THROW SWITCHES | | | | | | |
|--|-------------|-------------------|--------------|-------------------|---------------|-------------------|
| EXAMPLE | CT-38S130-S | CT-38S13C-S | CT-38S130-TS | CT-38S13C-TS | CT-38S130-TDS | CT-38S13C-TDS |
| PIN NO | 9-PINS | 9-PINS | 9-PINS | 9-PINS | 9-PINS | 9-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 | | |
| 4 | | E INDICATOR | | E INDICATOR | | E INDICATOR |
| 5 | | F INDICATOR | | F INDICATOR | | F INDICATOR |
| 6 | | G INDICATOR | | G INDICATOR | | G INDICATOR |
| 7 | COMMON | COMMON | COMMON | COMMON | COMMON | COMMON |
| 8 | | | Vsw | Vsw | Vsw | Vsw |
| 9 | | D INDICATOR (COM) | | D INDICATOR (COM) | | D INDICATOR (COM) |

| CONNECTOR PINOUT FOR NORMALLY OPEN SP4T MULTI-THROW SWITCHES | | | | | | |
|--|-------------|-------------------|--------------|-------------------|---------------|-------------------|
| EXAMPLE | CT-38S140-S | CT-38S14C-S | CT-38S140-TS | CT-38S14C-TS | CT-38S140-TDS | CT-38S14C-TDS |
| PIN NO | 9-PINS | 15-PINS | 9-PINS | 15-PINS | 9-PINS | 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 | | | Vsw | Vsw | Vsw | Vsw |
| 9 | | D INDICATOR (COM) | | D INDICATOR (COM) | | D INDICATOR (COM) |
| 10 | | E INDICATOR | | E INDICATOR | | E INDICATOR |
| 11 | | F INDICATOR | | F INDICATOR | | F INDICATOR |
| 12 | | G INDICATOR | | G INDICATOR | | G INDICATOR |
| 13 | | H INDICATOR | | H INDICATOR | | H INDICATOR |
| 14 | | | | | | |
| 15 | | | | | | |



9-PIN D-SUB CONNECTOR

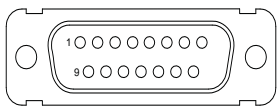


Series CCT-38S/CT-38S
Multi-Throw DC-18 GHz/DC-22 GHz
Normally Open Coaxial Switch

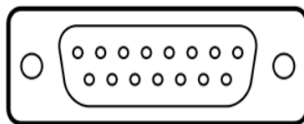


| CONNECTOR PINOUT FOR NORMALLY OPEN SP5T MULTI-THROW SWITCHES | | | | | | |
|--|-------------|-------------------|--------------|-------------------|---------------|-------------------|
| EXAMPLE | CT-38S150-S | CT-38S15C-S | CT-38S150-TS | CT-38S15C-TS | CT-38S150-TDS | CT-38S15C-TDS |
| PIN NO | 9-PINS | 15-PINS | 9-PINS | 15-PINS | 9-PINS | 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 | | | Vsw | Vsw | Vsw | Vsw |
| 9 | | D INDICATOR (COM) | | D INDICATOR (COM) | | D INDICATOR (COM) |
| 10 | | E INDICATOR | | E INDICATOR | | E INDICATOR |
| 11 | | F INDICATOR | | F INDICATOR | | F INDICATOR |
| 12 | | G INDICATOR | | G INDICATOR | | G INDICATOR |
| 13 | | H INDICATOR | | H INDICATOR | | H INDICATOR |
| 14 | | K INDICATOR | | K INDICATOR | | K INDICATOR |
| 15 | | | | | | |

| CONNECTOR PINOUT FOR NORMALLY OPEN SP6T MULTI-THROW SWITCHES | | | | | | |
|--|-------------|-------------------|--------------|-------------------|---------------|-------------------|
| EXAMPLE | CT-38S160-S | CT-38S16C-S | CT-38S160-TS | CT-38S16C-TS | CT-38S160-TDS | CT-38S16C-TDS |
| PIN NO | 9-PINS | 15-PINS | 9-PINS | 15-PINS | 9-PINS | 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 | | | Vsw | Vsw | Vsw | Vsw |
| 9 | | D INDICATOR (COM) | | D INDICATOR (COM) | | D INDICATOR (COM) |
| 10 | | E INDICATOR | | E INDICATOR | | E INDICATOR |
| 11 | | F INDICATOR | | F INDICATOR | | F INDICATOR |
| 12 | | G INDICATOR | | G INDICATOR | | G INDICATOR |
| 13 | | H INDICATOR | | H INDICATOR | | H INDICATOR |
| 14 | | K INDICATOR | | K INDICATOR | | K INDICATOR |
| 15 | | L INDICATOR | | L INDICATOR | | L INDICATOR |



9-PIN D-SUB CONNECTOR



15-PIN D-SUB CONNECTOR

TRUTH TABLE Normally Open
CCT-38SX3C-T

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

TRUTH TABLE Normally Open
CCT-38SX3C-TD

| Logic Input | | RF Path | | | Indicator Switches | | |
|-------------|---|---------|-----|-----|--------------------|---|---|
| 1 | 2 | J1 | J2 | J3 | E | F | G |
| 0 | 0 | On | Off | Off | C | 0 | 0 |
| 1 | 0 | Off | On | Off | 0 | C | 0 |
| 0 | 1 | Off | Off | On | 0 | 0 | C |
| 1 | 1 | Off | Off | Off | 0 | 0 | 0 |

TRUTH TABLE Normally Open
CCT-38SX4C-T

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

TRUTH TABLE Normally Open
CCT-38SX4C-TD

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

Series CCT-38S/CT-38S
Multi-Throw DC–18 GHz/DC-22 GHz
Normally Open Coaxial Switch



TRUTH TABLE Normally Open
CCT-38SX5C-T

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

TRUTH TABLE Normally Open
CCT-38SX5C-TD

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

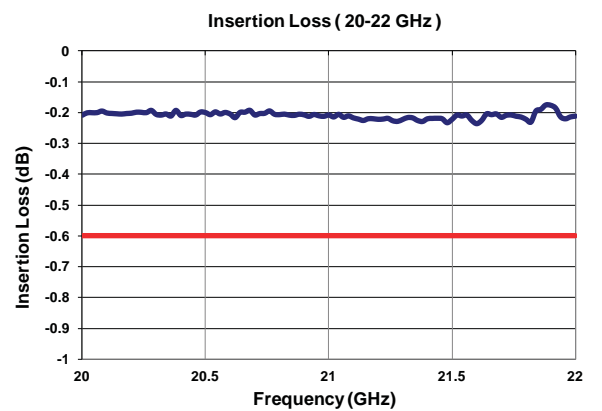
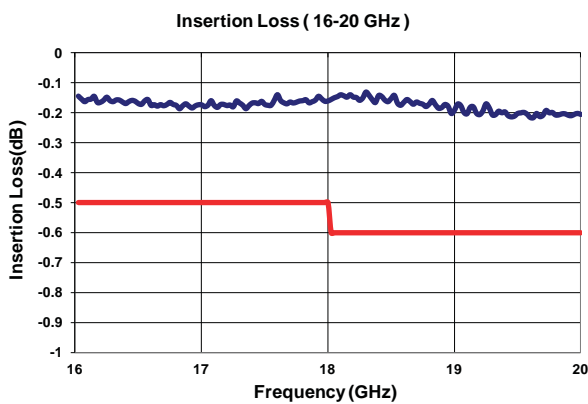
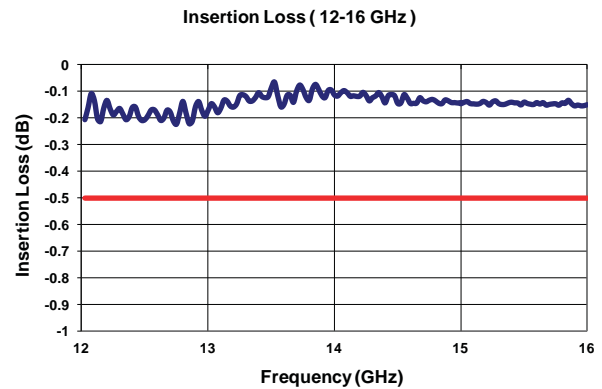
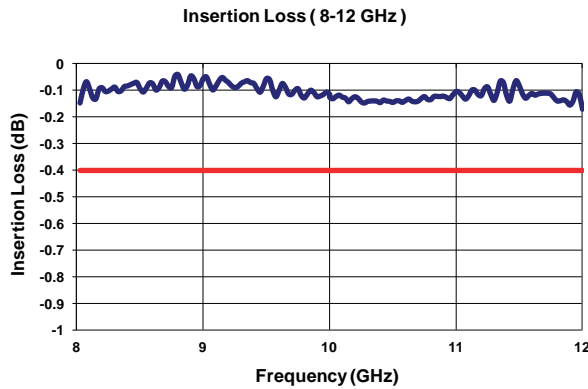
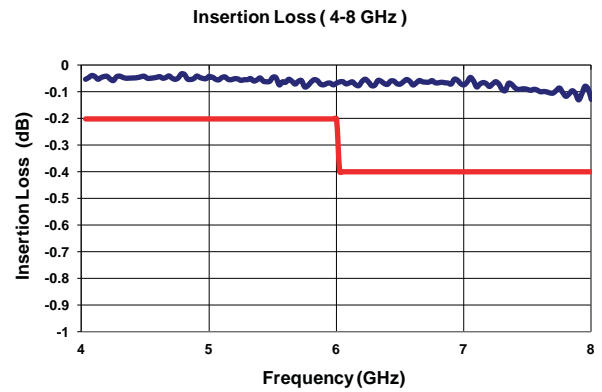
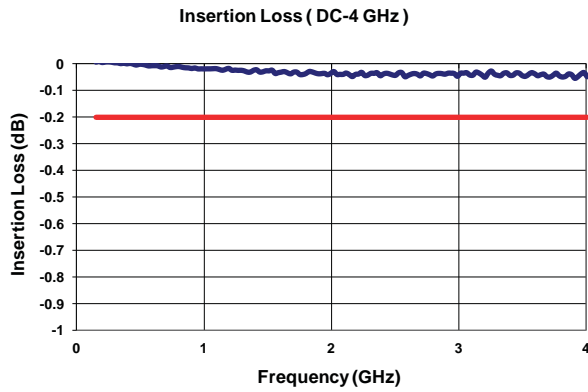
TRUTH TABLE Normally Open
CCT-38SX6C-T

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

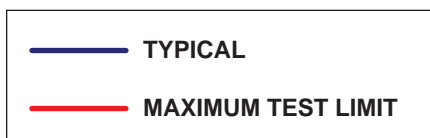
TRUTH TABLE Normally Open
CCT-38SX6C-TD

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

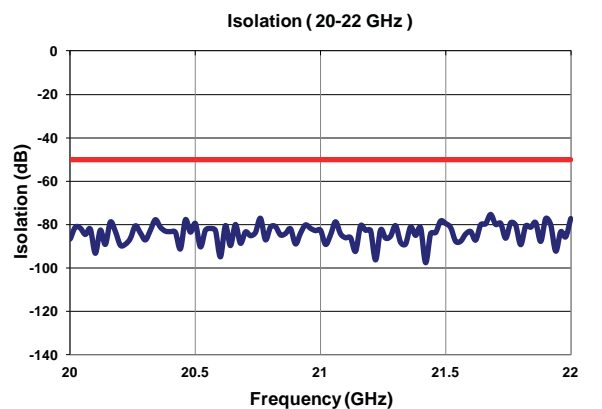
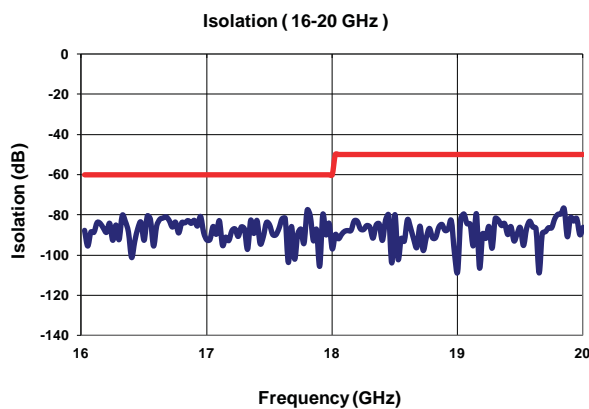
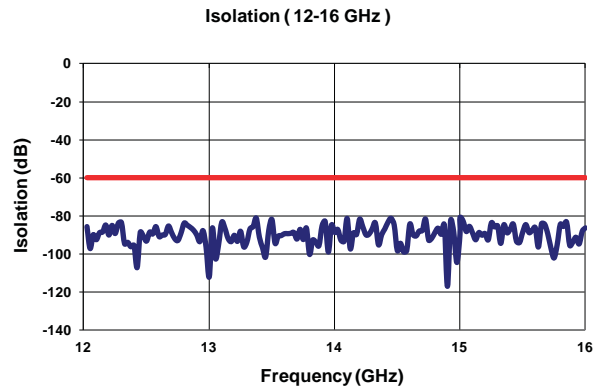
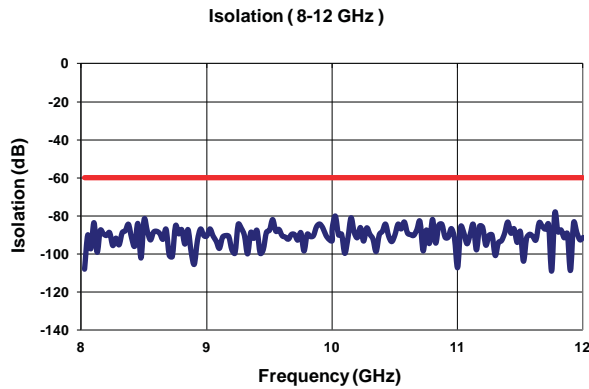
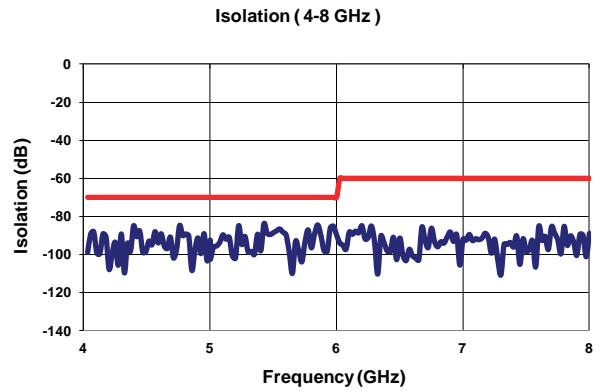
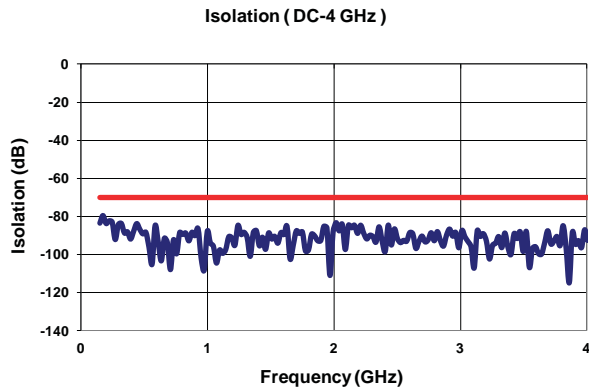
TYPICAL NARROWBAND RF INSERTION LOSS PERFORMANCE CURVES



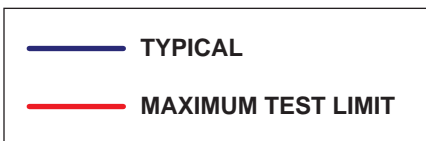
18GHz+ ELITE MODEL ONLY



TYPICAL NARROWBAND RF ISOLATION PERFORMANCE CURVES

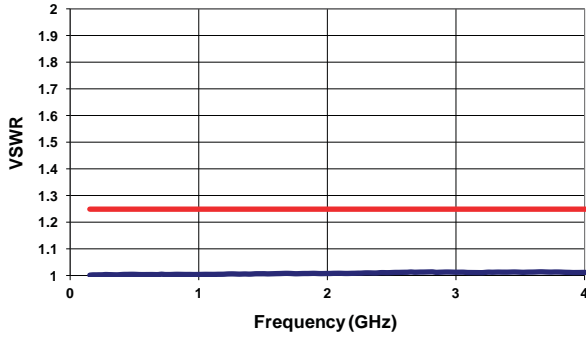


18GHz+ ELITE MODEL ONLY

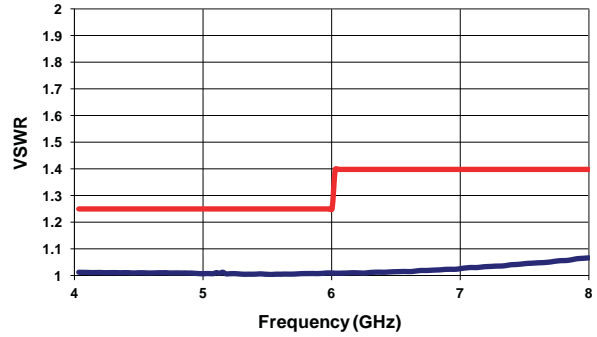


TYPICAL NARROWBAND RF VSWR PERFORMANCE CURVES

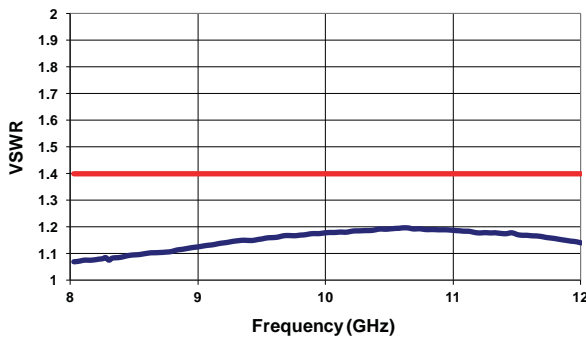
VSWR (DC-4 GHz)



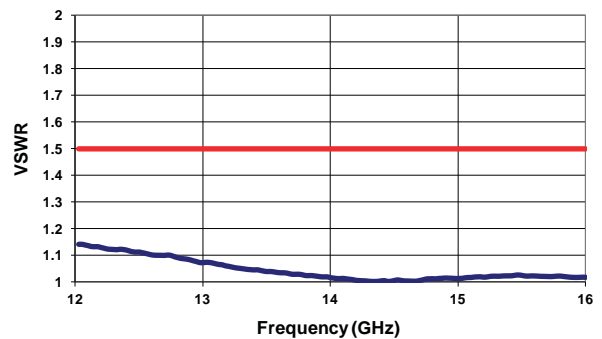
VSWR (4-8 GHz)



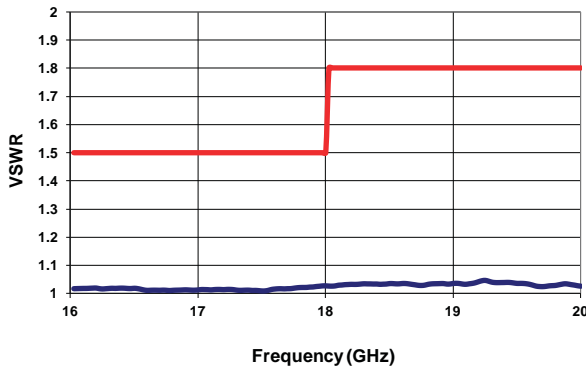
VSWR (8-12 GHz)



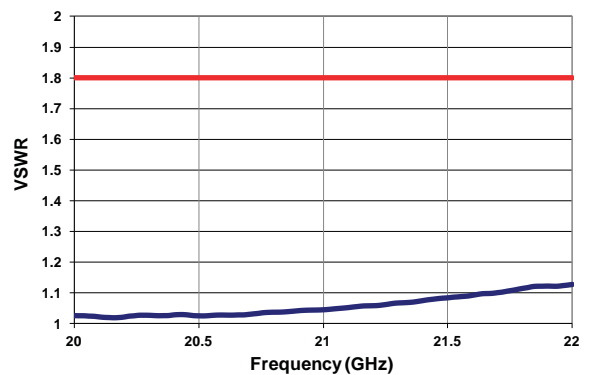
VSWR (12-16 GHz)



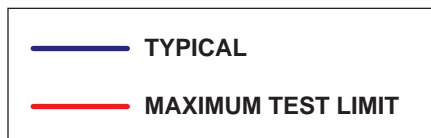
VSWR (16-20 GHz)



VSWR (20-22 GHz)

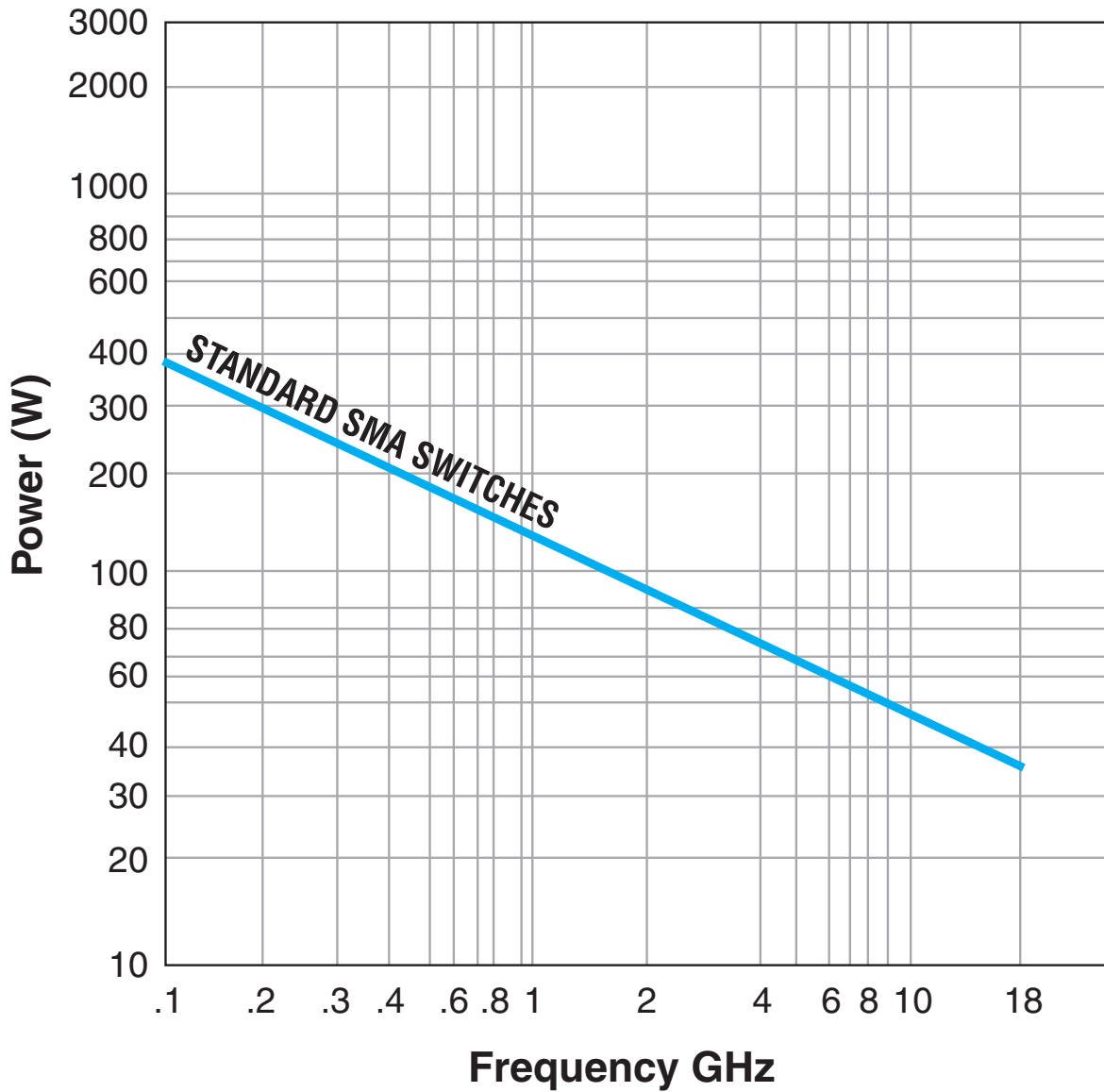


18GHz+ ELITE MODEL ONLY



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.

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.

Internal Termination

Unselected ports are internally terminated to a matched load. The load is 50Ω resistive device. The max RF power rating is 2 Watts CW. Without the internal termination option, the unselected ports are open circuits.

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 Switch

A multi-throw switch is a switch with one input and three or more output ports. The CCT-38 can switch a microwave signal to any of 2,3,4,5 or 6 output from a single common input.

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:

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

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 Gauss.

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 |

Series CCT-38S/CT-38S

Multi-Throw DC–18 GHz/DC-22 GHz

Normally Open Coaxial Switch



TELEDYNE
COAX SWITCHES
Everywhereyoulook™

NORMALLY OPEN CCT-38S/CT-38S PART NUMBER LIST

| | PART No. | | PART No. | | PART No. | | PART No. |
|----|-----------------|----|-----------------|-----|-----------------|-----|-----------------|
| 1 | CCT-38SX3C | 43 | CCT-38SX30-TMS | 85 | CCT-38SX40-TDS | 127 | CCT-38SX50-TDM |
| 2 | CCT-38SX3C-D | 44 | CCT-38SX30-TS | 86 | CCT-38SX40-TM | 128 | CCT-38SX50-TDMS |
| 3 | CCT-38SX3C-DM | 45 | CCT-38SX4C | 87 | CCT-38SX40-TMS | 129 | CCT-38SX50-TDS |
| 4 | CCT-38SX3C-DR | 46 | CCT-38SX4C-D | 88 | CCT-38SX40-TS | 130 | CCT-38SX50-TM |
| 5 | CCT-38SX3C-DRM | 47 | CCT-38SX4C-DM | 89 | CCT-38SX5C | 131 | CCT-38SX50-TMS |
| 6 | CCT-38SX3C-DRS | 48 | CCT-38SX4C-DR | 90 | CCT-38SX5C-D | 132 | CCT-38SX50-TS |
| 7 | CCT-38SX3C-DS | 49 | CCT-38SX4C-DRM | 91 | CCT-38SX5C-DM | 133 | CCT-38SX6C |
| 8 | CCT-38SX3C-M | 50 | CCT-38SX4C-DRS | 92 | CCT-38SX5C-DR | 134 | CCT-38SX6C-D |
| 9 | CCT-38SX3C-MS | 51 | CCT-38SX4C-DS | 93 | CCT-38SX5C-DRM | 135 | CCT-38SX6C-DM |
| 10 | CCT-38SX3C-R | 52 | CCT-38SX4C-M | 94 | CCT-38SX5C-DRS | 136 | CCT-38SX6C-DR |
| 11 | CCT-38SX3C-RM | 53 | CCT-38SX4C-MS | 95 | CCT-38SX5C-DS | 137 | CCT-38SX6C-DRM |
| 12 | CCT-38SX3C-RMS | 54 | CCT-38SX4C-R | 96 | CCT-38SX5C-M | 138 | CCT-38SX6C-DRS |
| 13 | CCT-38SX3C-RS | 55 | CCT-38SX4C-RM | 97 | CCT-38SX5C-MS | 139 | CCT-38SX6C-DS |
| 14 | CCT-38SX3C-S | 56 | CCT-38SX4C-RMS | 98 | CCT-38SX5C-R | 140 | CCT-38SX6C-M |
| 15 | CCT-38SX3C-T | 57 | CCT-38SX4C-RS | 99 | CCT-38SX5C-RM | 141 | CCT-38SX6C-MS |
| 16 | CCT-38SX3C-TD | 58 | CCT-38SX4C-S | 100 | CCT-38SX5C-RMS | 142 | CCT-38SX6C-R |
| 17 | CCT-38SX3C-TDM | 59 | CCT-38SX4C-T | 101 | CCT-38SX5C-RS | 143 | CCT-38SX6C-RM |
| 18 | CCT-38SX3C-TDMS | 60 | CCT-38SX4C-TD | 102 | CCT-38SX5C-S | 144 | CCT-38SX6C-RMS |
| 19 | CCT-38SX3C-TDS | 61 | CCT-38SX4C-TDM | 103 | CCT-38SX5C-T | 145 | CCT-38SX6C-RS |
| 20 | CCT-38SX3C-TM | 62 | CCT-38SX4C-TDMS | 104 | CCT-38SX5C-TD | 146 | CCT-38SX6C-S |
| 21 | CCT-38SX3C-TMS | 63 | CCT-38SX4C-TDS | 105 | CCT-38SX5C-TDM | 147 | CCT-38SX6C-T |
| 22 | CCT-38SX3C-TS | 64 | CCT-38SX4C-TM | 106 | CCT-38SX5C-TDMS | 148 | CCT-38SX6C-TD |
| 23 | CCT-38SX30 | 65 | CCT-38SX4C-TMS | 107 | CCT-38SX5C-TDS | 149 | CCT-38SX6C-TDM |
| 24 | CCT-38SX30-D | 66 | CCT-38SX4C-TS | 108 | CCT-38SX5C-TM | 150 | CCT-38SX6C-TDMS |
| 25 | CCT-38SX30-DM | 67 | CCT-38SX40 | 109 | CCT-38SX5C-TMS | 151 | CCT-38SX6C-TDS |
| 26 | CCT-38SX30-DR | 68 | CCT-38SX40-D | 110 | CCT-38SX5C-TS | 152 | CCT-38SX6C-TM |
| 27 | CCT-38SX30-DRM | 69 | CCT-38SX40-DM | 111 | CCT-38SX50 | 153 | CCT-38SX6C-TMS |
| 28 | CCT-38SX30-DRS | 70 | CCT-38SX40-DR | 112 | CCT-38SX50-D | 154 | CCT-38SX6C-TS |
| 29 | CCT-38SX30-DS | 71 | CCT-38SX40-DRM | 113 | CCT-38SX50-DM | 155 | CCT-38SX60 |
| 30 | CCT-38SX30-M | 72 | CCT-38SX40-DRS | 114 | CCT-38SX50-DR | 156 | CCT-38SX60-D |
| 31 | CCT-38SX30-MS | 73 | CCT-38SX40-DS | 115 | CCT-38SX50-DRM | 157 | CCT-38SX60-DM |
| 32 | CCT-38SX30-R | 74 | CCT-38SX40-M | 116 | CCT-38SX50-DRS | 158 | CCT-38SX60-DR |
| 33 | CCT-38SX30-RM | 75 | CCT-38SX40-MS | 117 | CCT-38SX50-DS | 159 | CCT-38SX60-DRM |
| 34 | CCT-38SX30-RMS | 76 | CCT-38SX40-R | 118 | CCT-38SX50-M | 160 | CCT-38SX60-DRS |
| 35 | CCT-38SX30-RS | 77 | CCT-38SX40-RM | 119 | CCT-38SX50-MS | 161 | CCT-38SX60-DS |
| 36 | CCT-38SX30-S | 78 | CCT-38SX40-RMS | 120 | CCT-38SX50-R | 162 | CCT-38SX60-M |
| 37 | CCT-38SX30-T | 79 | CCT-38SX40-RS | 121 | CCT-38SX50-RM | 163 | CCT-38SX60-MS |
| 38 | CCT-38SX30-TD | 80 | CCT-38SX40-S | 122 | CCT-38SX50-RMS | 164 | CCT-38SX60-R |
| 39 | CCT-38SX30-TDM | 81 | CCT-38SX40-T | 123 | CCT-38SX50-RS | 165 | CCT-38SX60-RM |
| 40 | CCT-38SX30-TDMS | 82 | CCT-38SX40-TD | 124 | CCT-38SX50-S | 166 | CCT-38SX60-RMS |
| 41 | CCT-38SX30-TDS | 83 | CCT-38SX40-TDM | 125 | CCT-38SX50-T | 167 | CCT-38SX60-RS |
| 42 | CCT-38SX30-TM | 84 | CCT-38SX40-TDMS | 126 | CCT-38SX50-TD | 168 | CCT-38SX60-S |

* X = 1 (28Vdc), 2 (15Vdc), 3 (12Vdc) and 4 (24Vdc)

NORMALLY OPEN CCT-38S/CT-38S PART NUMBER LIST

| | PART No. | | PART No. | | PART No. | | PART No. |
|-----|-----------------|-----|----------------|-----|----------------|-----|----------------|
| 169 | CCT-38SX60-T | 211 | CT-38SX30-RS | 253 | CT-38SX40-RM | 295 | CT-38SX50-MS |
| 170 | CCT-38SX60-TD | 212 | CT-38SX30-S | 254 | CT-38SX40-RMS | 296 | CT-38SX50-R |
| 171 | CCT-38SX60-TDM | 213 | CT-38SX30-T | 255 | CT-38SX40-RS | 297 | CT-38SX50-RM |
| 172 | CCT-38SX60-TDMS | 214 | CT-38SX30-TD | 256 | CT-38SX40-S | 298 | CT-38SX50-RMS |
| 173 | CCT-38SX60-TDS | 215 | CT-38SX30-TDM | 257 | CT-38SX40-T | 299 | CT-38SX50-RS |
| 174 | CCT-38SX60-TM | 216 | CT-38SX30-TDMS | 258 | CT-38SX40-TD | 300 | CT-38SX50-S |
| 175 | CCT-38SX60-TMS | 217 | CT-38SX30-TDS | 259 | CT-38SX40-TDM | 301 | CT-38SX50-T |
| 176 | CCT-38SX60-TS | 218 | CT-38SX30-TM | 260 | CT-38SX40-TDMS | 302 | CT-38SX50-TD |
| 177 | CT-38SX3C | 219 | CT-38SX30-TMS | 261 | CT-38SX40-TDS | 303 | CT-38SX50-TDM |
| 178 | CT-38SX3C-D | 220 | CT-38SX30-TS | 262 | CT-38SX40-TM | 304 | CT-38SX50-TDMS |
| 179 | CT-38SX3C-DM | 221 | CT-38SX4C | 263 | CT-38SX40-TMS | 305 | CT-38SX50-TDS |
| 180 | CT-38SX3C-DR | 222 | CT-38SX4C-D | 264 | CT-38SX40-TS | 306 | CT-38SX50-TM |
| 181 | CT-38SX3C-DRM | 223 | CT-38SX4C-DM | 265 | CT-38SX5C | 307 | CT-38SX50-TMS |
| 182 | CT-38SX3C-DRS | 224 | CT-38SX4C-DR | 266 | CT-38SX5C-D | 308 | CT-38SX50-TS |
| 183 | CT-38SX3C-DS | 225 | CT-38SX4C-DRM | 267 | CT-38SX5C-DM | 309 | CT-38SX6C |
| 184 | CT-38SX3C-M | 226 | CT-38SX4C-DRS | 268 | CT-38SX5C-DR | 310 | CT-38SX6C-D |
| 185 | CT-38SX3C-MS | 227 | CT-38SX4C-DS | 269 | CT-38SX5C-DRM | 311 | CT-38SX6C-DM |
| 186 | CT-38SX3C-R | 228 | CT-38SX4C-M | 270 | CT-38SX5C-DRS | 312 | CT-38SX6C-DR |
| 187 | CT-38SX3C-RM | 229 | CT-38SX4C-MS | 271 | CT-38SX5C-DS | 313 | CT-38SX6C-DRM |
| 188 | CT-38SX3C-RMS | 230 | CT-38SX4C-R | 272 | CT-38SX5C-M | 314 | CT-38SX6C-DRS |
| 189 | CT-38SX3C-RS | 231 | CT-38SX4C-RM | 273 | CT-38SX5C-MS | 315 | CT-38SX6C-DS |
| 190 | CT-38SX3C-S | 232 | CT-38SX4C-RMS | 274 | CT-38SX5C-R | 316 | CT-38SX6C-M |
| 191 | CT-38SX3C-T | 233 | CT-38SX4C-RS | 275 | CT-38SX5C-RM | 317 | CT-38SX6C-MS |
| 192 | CT-38SX3C-TD | 234 | CT-38SX4C-S | 276 | CT-38SX5C-RMS | 318 | CT-38SX6C-R |
| 193 | CT-38SX3C-TDM | 235 | CT-38SX4C-T | 277 | CT-38SX5C-RS | 319 | CT-38SX6C-RM |
| 194 | CT-38SX3C-TDMS | 236 | CT-38SX4C-TD | 278 | CT-38SX5C-S | 320 | CT-38SX6C-RMS |
| 195 | CT-38SX3C-TDS | 237 | CT-38SX4C-TDM | 279 | CT-38SX5C-T | 321 | CT-38SX6C-RS |
| 196 | CT-38SX3C-TM | 238 | CT-38SX4C-TDMS | 280 | CT-38SX5C-TD | 322 | CT-38SX6C-S |
| 197 | CT-38SX3C-TMS | 239 | CT-38SX4C-TDS | 281 | CT-38SX5C-TDM | 323 | CT-38SX6C-T |
| 198 | CT-38SX3C-TS | 240 | CT-38SX4C-TM | 282 | CT-38SX5C-TDMS | 324 | CT-38SX6C-TD |
| 199 | CT-38SX30 | 241 | CT-38SX4C-TMS | 283 | CT-38SX5C-TDS | 325 | CT-38SX6C-TDM |
| 200 | CT-38SX30-D | 242 | CT-38SX4C-TS | 284 | CT-38SX5C-TM | 326 | CT-38SX6C-TDMS |
| 201 | CT-38SX30-DM | 243 | CT-38SX40 | 285 | CT-38SX5C-TMS | 327 | CT-38SX6C-TDS |
| 202 | CT-38SX30-DR | 244 | CT-38SX40-D | 286 | CT-38SX5C-TS | 328 | CT-38SX6C-TM |
| 203 | CT-38SX30-DRM | 245 | CT-38SX40-DM | 287 | CT-38SX50 | 329 | CT-38SX6C-TMS |
| 204 | CT-38SX30-DRS | 246 | CT-38SX40-DR | 288 | CT-38SX50-D | 330 | CT-38SX6C-TS |
| 205 | CT-38SX30-DS | 247 | CT-38SX40-DRM | 289 | CT-38SX50-DM | 331 | CT-38SX60 |
| 206 | CT-38SX30-M | 248 | CT-38SX40-DRS | 290 | CT-38SX50-DR | 332 | CT-38SX60-D |
| 207 | CT-38SX30-MS | 249 | CT-38SX40-DS | 291 | CT-38SX50-DRM | 333 | CT-38SX60-DM |
| 208 | CT-38SX30-R | 250 | CT-38SX40-M | 292 | CT-38SX50-DRS | 334 | CT-38SX60-DR |
| 209 | CT-38SX30-RM | 251 | CT-38SX40-MS | 293 | CT-38SX50-DS | 335 | CT-38SX60-DRM |
| 210 | CT-38SX30-RMS | 252 | CT-38SX40-R | 294 | CT-38SX50-M | 336 | CT-38SX60-DRS |

* X = 1 (28Vdc), 2 (15Vdc), 3 (12Vdc) and 4 (24Vdc)

Series CCT-38S/CT-38S

Multi-Throw DC-18 GHz/DC-22 GHz

Normally Open Coaxial Switch



NORMALLY OPEN CCT-38S/CT-38S PART NUMBER LIST

| | PART No. |
|-----|----------------|
| 337 | CT-38SX60-DS |
| 338 | CT-38SX60-M |
| 339 | CT-38SX60-MS |
| 340 | CT-38SX60-R |
| 341 | CT-38SX60-RM |
| 342 | CT-38SX60-RMS |
| 343 | CT-38SX60-RS |
| 344 | CT-38SX60-S |
| 345 | CT-38SX60-T |
| 346 | CT-38SX60-TD |
| 347 | CT-38SX60-TDM |
| 348 | CT-38SX60-TDMS |
| 349 | CT-38SX60-TDS |
| 350 | CT-38SX60-TM |
| 351 | CT-38SX60-TMS |
| 352 | CT-38SX60-TS |

* X = 1 (28Vdc), 2 (15Vdc), 3 (12Vdc) and 4 (24Vdc)

Компания «Океан Электроники» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Компания «Океан Электроники» является официальным дистрибьютором и эксклюзивным представителем в России одного из крупнейших производителей разъемов военного и аэрокосмического назначения «JONHON», а так же официальным дистрибьютором и эксклюзивным представителем в России производителя высокотехнологичных и надежных решений для передачи СВЧ сигналов «FORSTAR».



JONHON

«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели, кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



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