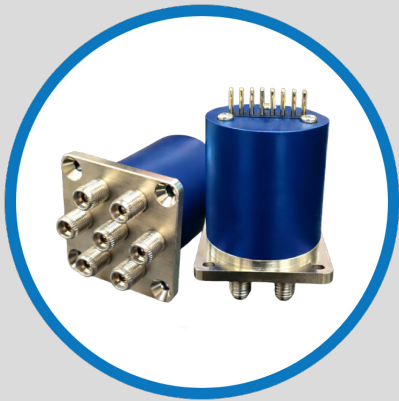


CMS-38K/CMS-48K Series

DC-32 GHz & DC-40 GHz SPnT Mini Normally Open Coaxial Switch



Highlights:

- Mini SPnT Coax Switch
- 2.92 mm Connectors
- RoHS Compliant

Series Identification:

- CMS-38K:
 - DC to 32 GHz
 - -25°C to 65°C
- CMS-48K:
 - DC to 40 GHz
 - -25°C to 65°C

TYPICAL RF PERFORMANCE CHARACTERISTICS

Frequency (GHz)	DC - 6	6 - 12	12- 18	18 - 26.5	26.5 - 32	32 - 40
Insertion loss (max)	0.2 dB	0.3 dB	0.6 dB	0.8 dB	0.8 dB	1.1 dB
Isolation (min)	80 dB	75 dB	70 dB	70 dB	60 dB	60 dB
VSWR (max)	1.20:1	1.25:1	1.35:1	1.50:1	1.70:1	1.80:1

Repeatability¹ ±0.10 dB IL over 2,000,000 cycles

RF plots on page 4

GENERAL SPECIFICATIONS

ELECTRICAL SPECIFICATIONS		
Actuation Type		Break Before Make
Frequency Range	CMS-38K	DC - 32 GHz
	CMS-48K	DC - 40 GHz
Characteristic Impedance		50Ω
Switching Time		20 ms max
Actuation Voltage (VDC)¹		12 24
Actuation Current Max (mA)¹		280 250
Magnetic Sensitivity		5 Gauss, 0.5 inch max
ENVIRONMENTAL AND PHYSICAL SPECIFICATIONS		
Storage Temperature		-55°C to 90°C
Operating Temperature		-25°C to 65°C
Vibration², 10 ~ 2000 Hz, 300 s MIL-STD-202 Method 204, Condition C		10G peak
Shock, Half-Sine Pulse MIL-STD-202 Method 213, Condition D		500G peak
Moisture Resistance³		95% RH Non-condensing
Actuation Life		5,000,000 cycles min.
Connector Type		2.92 mm (K) Female
Weight		2.47 oz. max (70g)

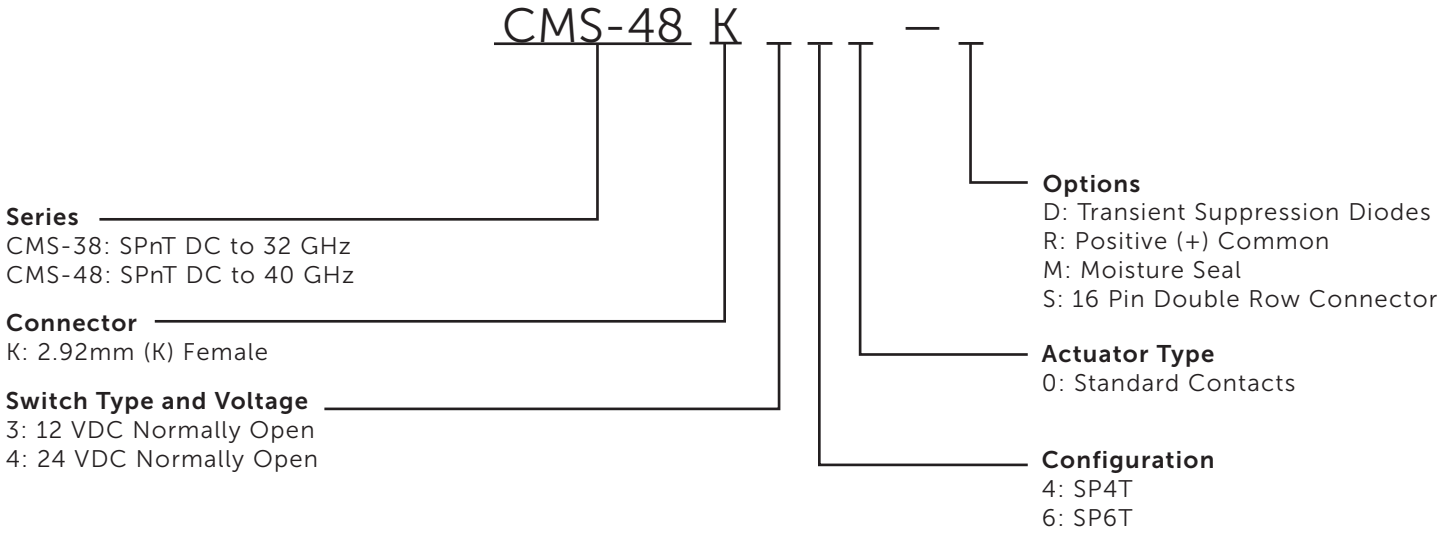
1. Measured @ 20 °C

2. Non-operating

3. When moisture seal option is selected

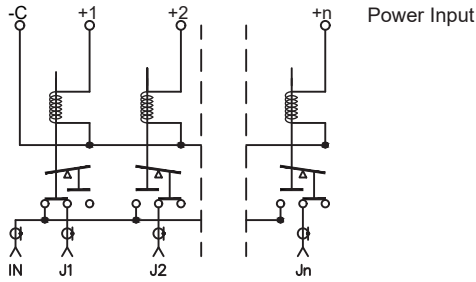
For additional options modifications please contact the factory

PART NUMBER SCHEME

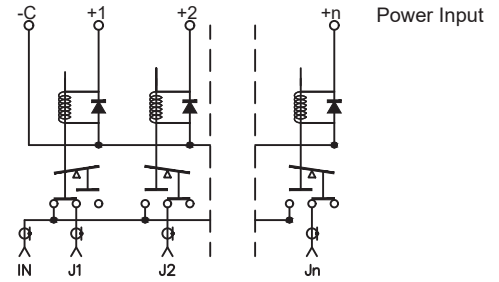


ELECTRICAL SCHEMATICS

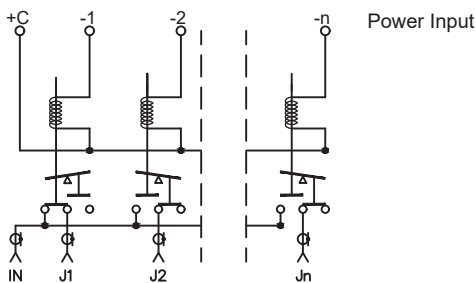
CMS-38K & 48K with no options



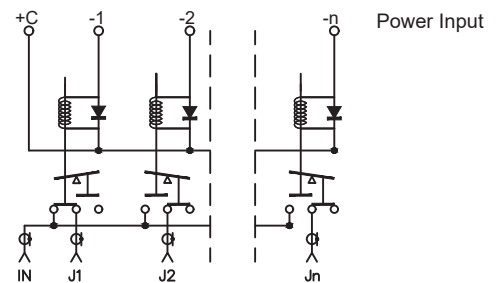
CMS-38K & 48K with Diodes



CMS-38K & 48K with Positive Common

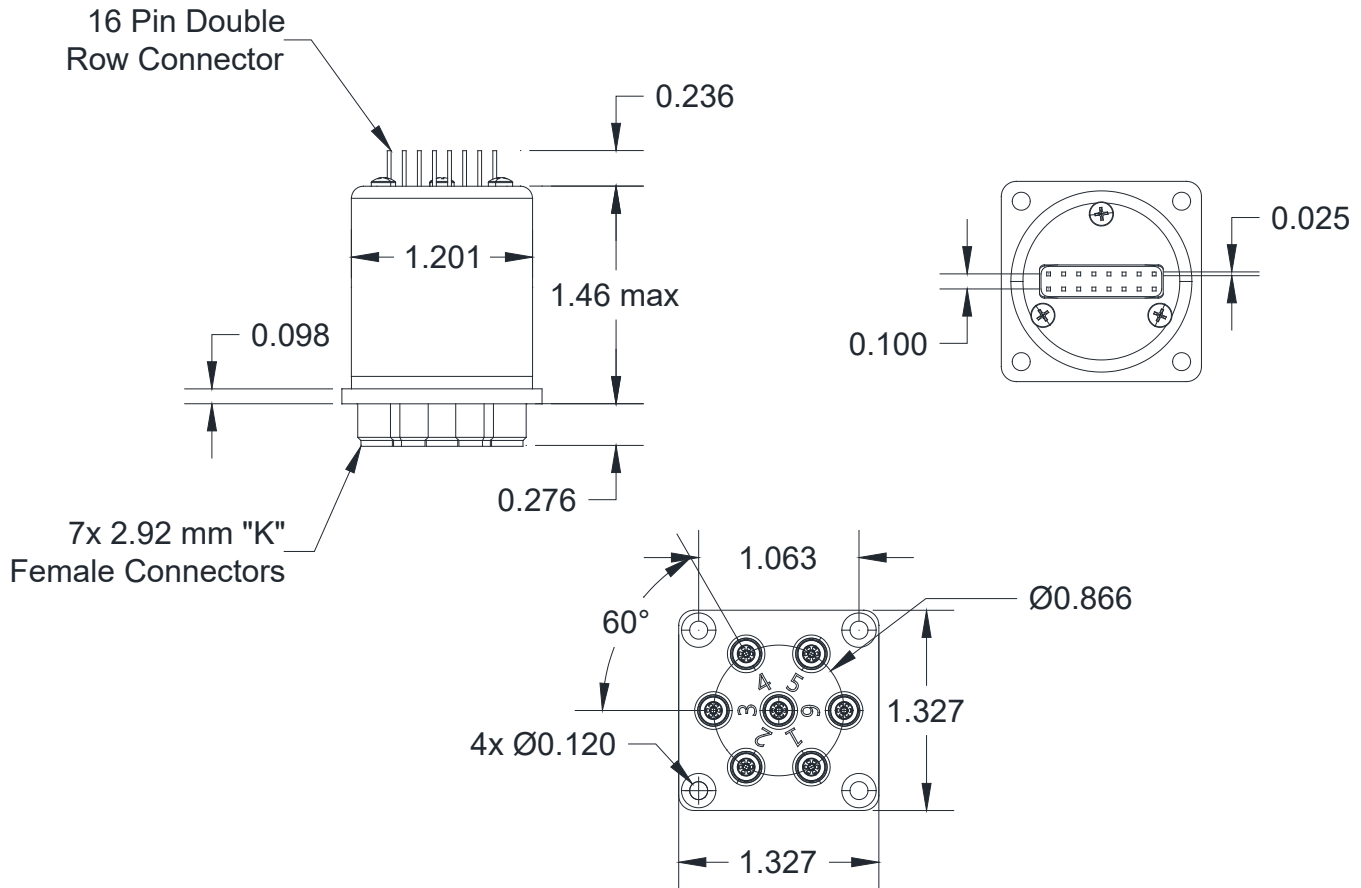


CMS-38K & 48K with Diodes and Positive Common



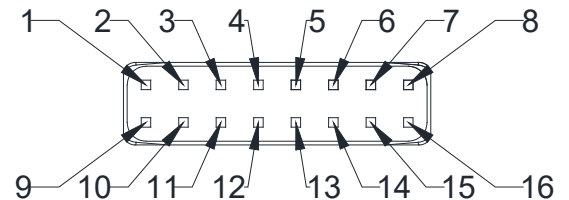
MECHANICAL OUTLINE DRAWING

MEASUREMENTS SHOWN IN INCHES

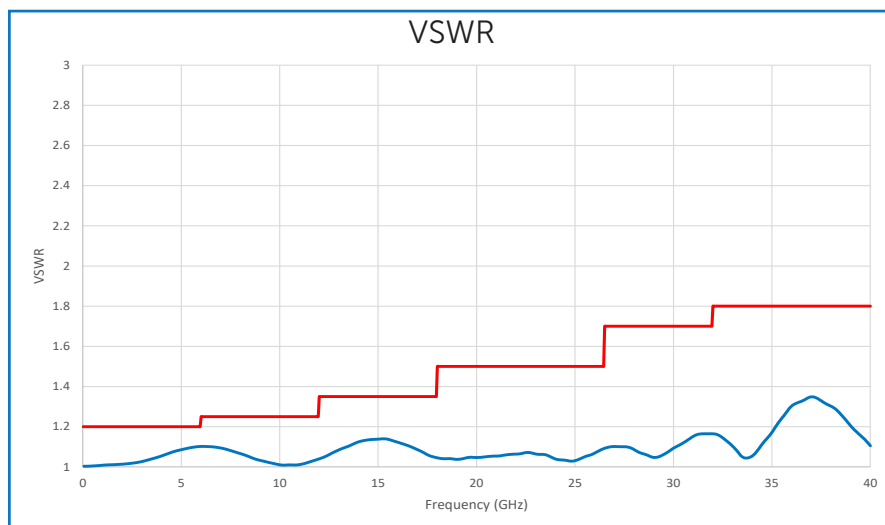
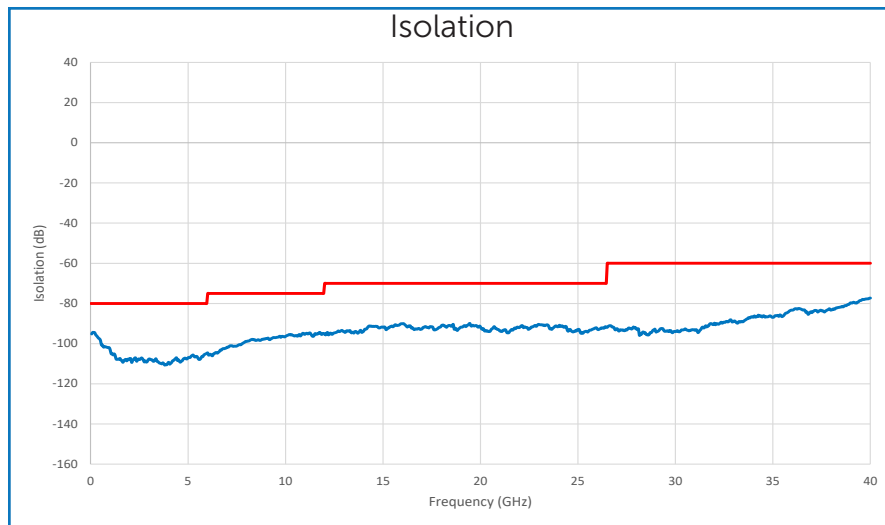
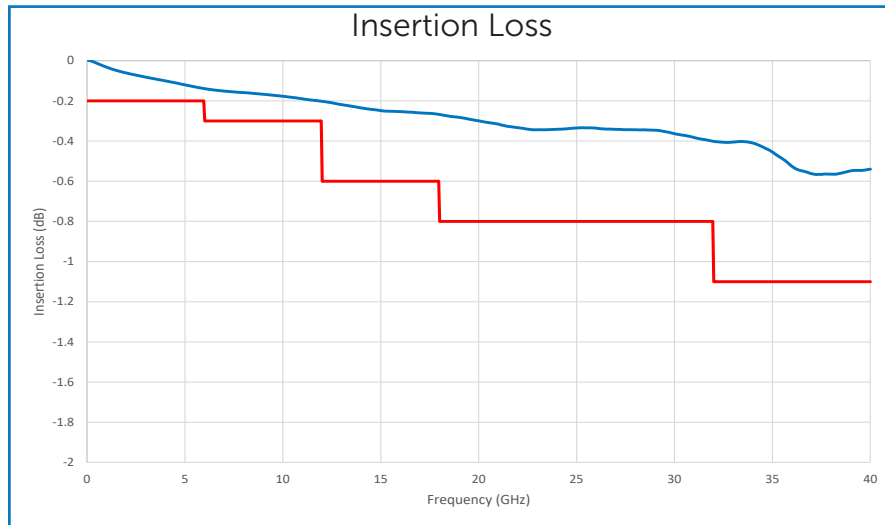


PINOUT ASSIGNMENT

PIN NO	FUNCTION
1	J1
2	J2
3	J3
4	J4
5	J5
6	J6
7	COM
8	NC
9	NC
10	NC
11	NC
12	NC
13	NC
14	NC
15	NC
16	NC



RF PERFORMANCE CHARTS

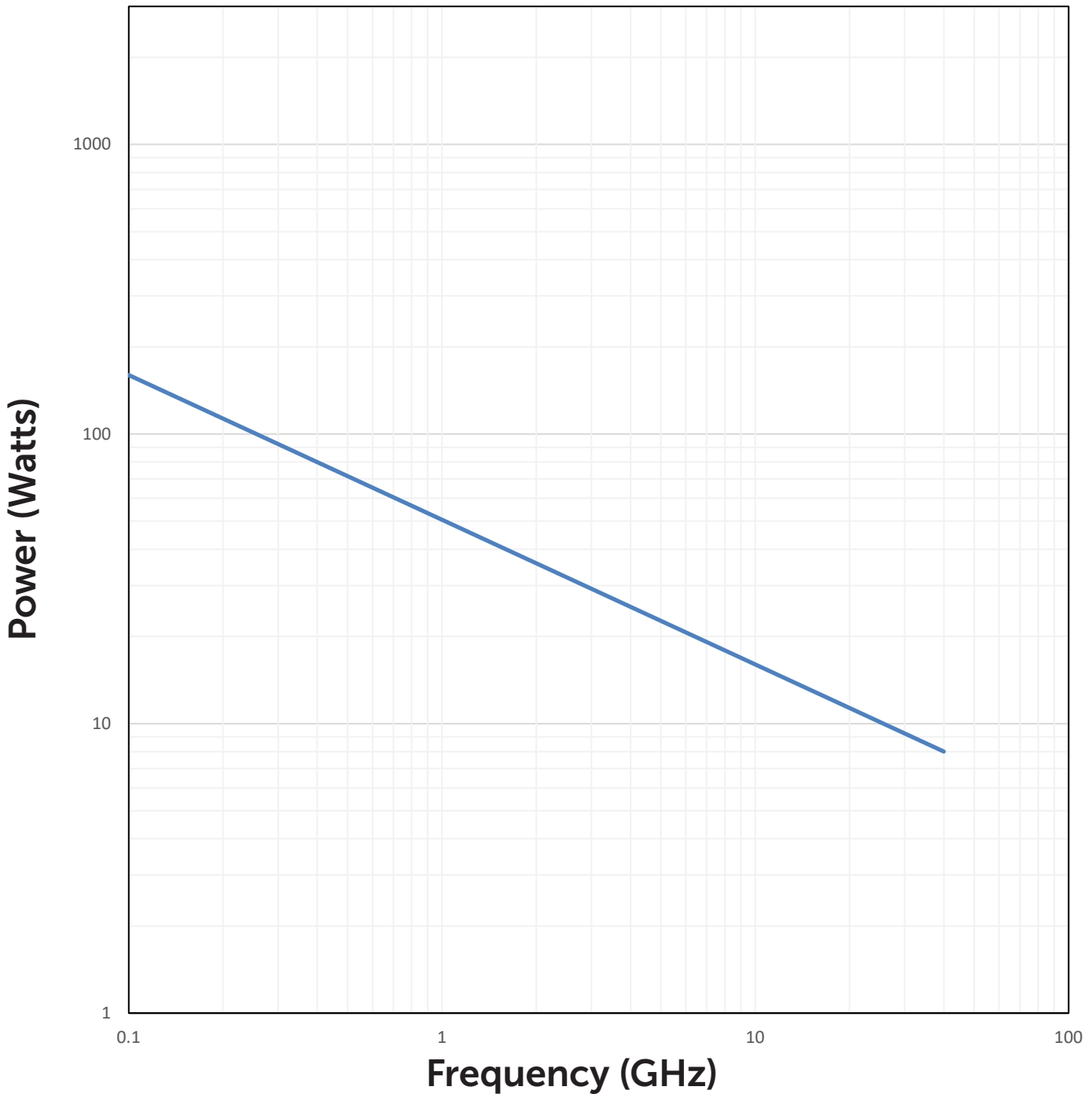


— TYPICAL
— MAXIMUM TEST LIMIT

RF POWER HANDLING

Power Handling vs. Frequency

— 2.92mm Switches



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.