



**DowKey®  
Microwave**  
CORPORATION



## DowKey® 531-561 Series Latching Terminated, SMA

### Specifications :

**Operating Voltage:**  
(across temperature range)  
12 Vdc (11-14 Vdc)  
28 Vdc (24-32 Vdc)

**Coil Current (Nominal):**  
12 Vdc 414 mA  
28 Vdc 177 mA

**Switching Time:**  
15 mS maximum

**Operating Temperature:**  
-25°C to +65°C

**Mechanical Life, Cycles:**  
1 x 10<sup>6</sup> minimum

**Nominal Weight:**  
10.0 oz, (283 g)

The DowKey Microwave 3 to 6 Position Latching Terminated switch is a multi-position electro-mechanical latching coaxial switch with suppression diodes, a solid state self cut-off circuit, and 2 Watt, 50 Ohm internal terminations.. Utilizing SMA connectors, the RF characteristics are excellent over the DC-18 GHz frequency range.

Options include 5 Watt terminations, a "D" type control connector, moisture seal, indicator contacts, special operating voltages, and TTL or BCD compatibility. Also available are BMA (Blind Mate) connectors which provide quick installation into modular plug-in systems operating to 18 GHz. The BMA connectors mate with OSP\* female connectors.

\*OSP is a registered trademark of M/A COM Omni-Spectra, Inc.

### Typical applications for the 531-561 Series include:

- Automatic Test Equipment
- Switch Matrixes
- Multi-Band or Alternate Source Selection

### RF Characteristics

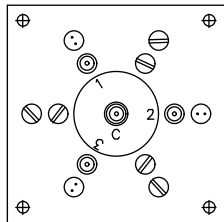
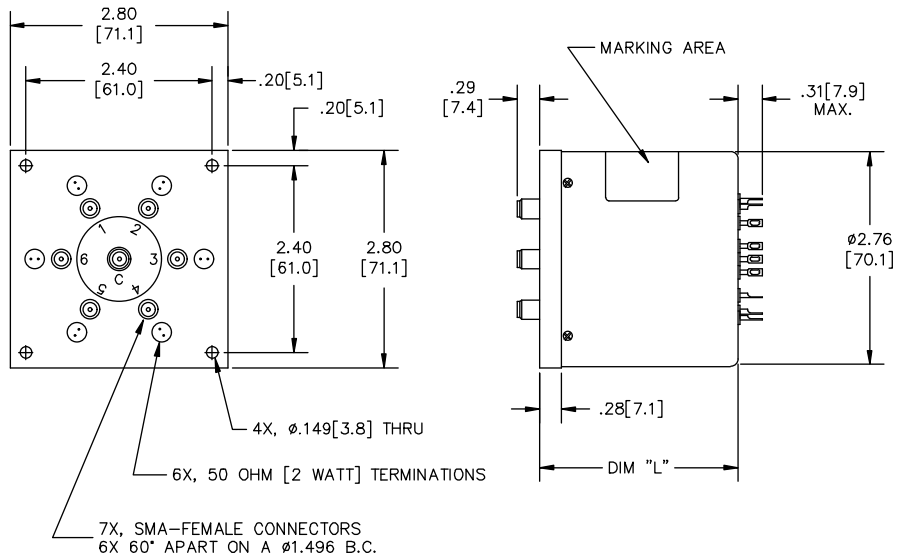
Frequency GHz	VSWR (max)	Isolation dB (min)	Ins. Loss dB (max)	RF Power Watts (CW)
DC-4	1.25	70	0.20	100
4-8	1.35	65	0.30	70
8-12	1.40	60	0.40	60
12-16	1.50	60	0.50	50
16-18	1.60	60	0.50	45

Power handling capability is for through path only. Internal termination is limited to 500 milliwatts dissipation.

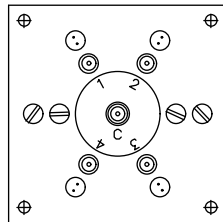
### Connectors and Part Numbers

Nominal Coil Voltage	Connector Type	Switch Configuration		
		SP3T	SP4T	SP6T
12 Vdc	SMA	531-420803	541-420803	561-420803
28 Vdc	SMA	531-430803	541-430803	561-430803
<b>Latching with Self Cut-Off, Indicators</b>				
12 Vdc	SMA	531-420823	541-420823	561-420823
28 Vdc	SMA	531-430823	541-430823	561-430823
<b>Latching with Self Cut-Off, TTL Compatible Logic</b>				
12 Vdc	SMA	531-420803A	541-420803A	561-420803A
28 Vdc	SMA	531-430803A	541-430803A	561-430803A
<b>Latching with Self Cut-Off, Indicators, TTL Compatible Logic</b>				
12 Vdc	SMA	531-420823A	541-420823A	561-420823A
28 Vdc	SMA	531-430823A	541-430823A	561-430823A

## Mechanical



3 POSITION



4 POSITION

DIM "L" (MAX)	MODEL
2.40 [61.0]	5X1-4X0803
2.70 [68.6]	5X1-4X0823
2.70 [68.6]	5X1-4X0803A
3.00 [76.2]	5X1-4X0823A

## Available Options

Moisture Seal

9 or 15 PIN "D" Plug

BCD Decoding Circuit

Operating Voltages:  
15, 20, 24 Vdc

-55°C to +85°C Operation

BMA Connectors

## Electrical

