



**DowKey®  
Microwave**  
CORPORATION



## DowKey® 531-561 Series Normally Open Terminated, SMA

### Specifications :

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

**Coil Current (Nominal):**  
12 Vdc 324 mA  
28 Vdc 140 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:**  
11.0 oz., (312g.)

The DowKey Microwave 3 to 6 Position Normally Open switch is a multi-position electro-mechanical coaxial switch with SMA connectors. The RF characteristics are excellent over the DC-18 GHz frequency range.

Options include extended frequency range up to 26.5 GHz, a "D" type control connector, moisture seal, indicator contacts, suppressions diodes, 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

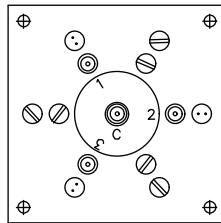
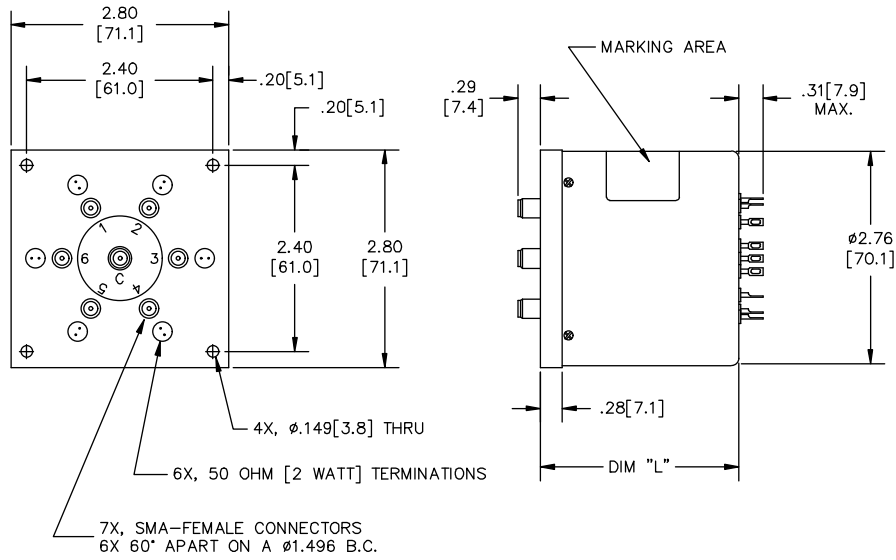
### RF Characteristics

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

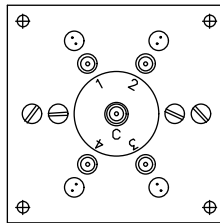
### Connectors and Part Numbers

Nominal Coil Voltage	Connector Type	Switch Configuration		
		SP3T	SP4T	SP6T
12 Vdc	SMA	531-520803	541-520803	561-520803
28 Vdc	SMA	531-530803	541-530803	561-530803
<b>Normally open with indicators</b>				
12 Vdc	SMA	531-520823	541-520823	561-520823
28 Vdc	SMA	531-530823	541-530823	561-530823
<b>Normally open with TTL Compatible Logic</b>				
12 Vdc	SMA	531-520803A	541-520803A	561-520803A
28 Vdc	SMA	531-530803A	541-530803A	561-530803A
<b>Normally open with Indicators, TTL Compatible Logic</b>				
12 Vdc	SMA	531-520823A	541-520823A	561-520823A
28 Vdc	SMA	531-530823A	541-530823A	561-530823A

## Mechanical



3 POSITION



4 POSITION

DIM "L" (MAX)	MODEL
1.95 [49.5]	5X1-5X0803
2.29 [58.2]	5X1-5X0823
2.29 [58.2]	5X1-5X0803A
2.58 [65.5]	5X1-5X0823A

## 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

Normally Closed, Position 1

BMA Connectors

## Electrical

