

## GENERAL SPECIFICATIONS

**INSULATION RESISTANCE:** Resistance greater than 2 Giga-ohms at 50 Vdc is required between the chassis and all switch terminals.

**SPECIAL TESTING:** Is available upon request. Please contact factory.  
**FINISH:** Electroless Nickel, Contact Factory if different finish is required.

**RF CONTACTS:** Beryllium Copper, Gold plated over a Nickel undercoating.

**STORAGE TEMPERATURE:** -55°C to +100°C.

**TOLERANCES:** Unless otherwise specified. Dimensions are in inches.

**XX:** +/- 0.03  
**XXX:** +/- 0.005  
**ANG:** +/- 1°

**INTERNAL TERMINATION RF POWER:** 3WCW @ +85°C

**INTERNAL TERMINATION VSWR:** 2.00 VSWR max. typical.

**REPEATABILITY:** 0.1 dB max. between positions.

**AUXILIARY CONTACTS:** (Indicators) rated at 250mA, 100 Vdc, 5W max. (switching). Must use a series current limiting resistor.

**RF CONNECTOR TORQUE:** Apply no more than 8 inch pounds of torque to install mating connectors.

**SUPPLY VOLTAGE:** +/- 10% nominal.

**MAGNETIC SENSITIVITY:** SPDT switches - electromechanical switches can be sensitive to ferrous materials and external magnetic fields. Allow mounting no closer than 1/8" for neighboring ferrous materials.

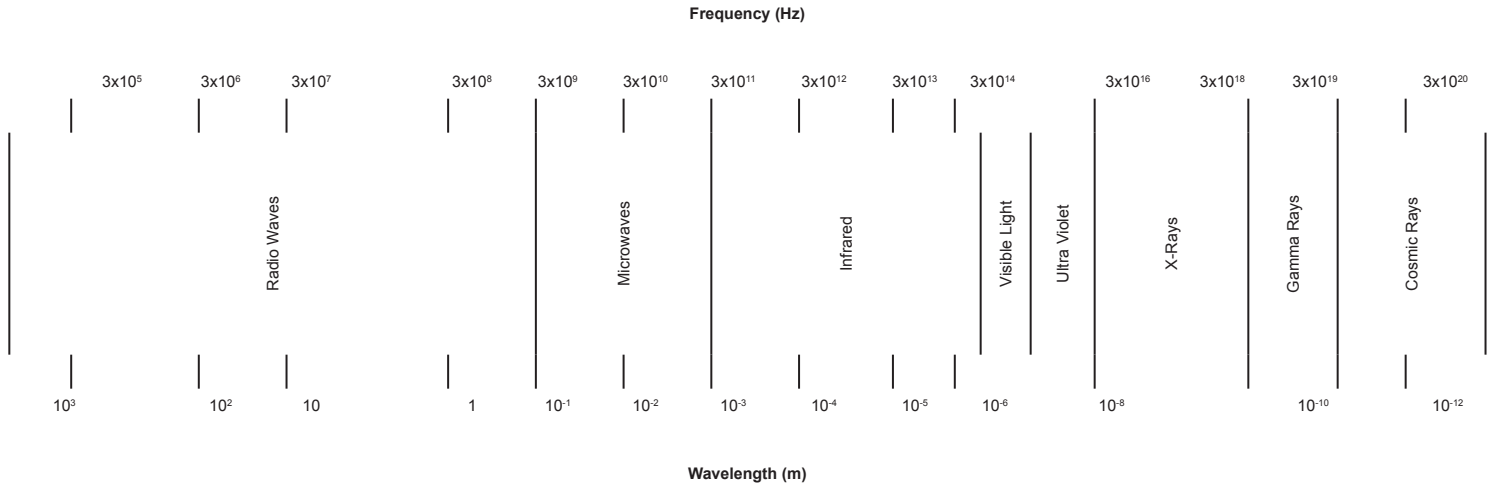
**ACTUATION:** DTI Microwave switches are RF devices, the impedance match is lost if more than one position is actuated simultaneously. Simultaneous actuation of more than one position is not recommended and under certain circumstances may damage the switch. Please consult factory.

### DC TERMINAL FUNCTION LEGEND

N/A	Not Applicable
AV	Actuation Voltage
C	Actuation Voltage Common, Plus (+) or Minus (-)
+V SW	Positive Switch Actuation Voltage
C RTN	Common Return for Actuation & Logic Voltage Supplies
L	Logic Input (1= 3.5 - 5.5 Vdc; 0= 0 - 0.8 Vdc)
PV	Pulse Voltage with specified polarity for latching operation (20 msec min.)
IND COM	Indicator Common
F/S	Failsafe Position (when applicable)
+1, -2	SPDT/Transfer Failsafe version, indicates positive & negative actuation terminals
N/C	Normally Closed Position
N/O	Normally Open Position
+A	TTL Control, Indicates Postive Coil Voltage Terminals
-B	TTL Control, Indicates DC Return

**SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.**

**ELECTROMAGNETIC SPECTRUM**



**Frequency vs. Wavelength**

$f = c/\lambda$                        $\lambda = c/f$

$\lambda$ = Wavelength (meters)  
 c= Speed of light (3x10<sup>8</sup> meters/sec)

f= Frequency (hertz)

Letter Band Designations	
1-2 GHz	L Band
2-4 GHz	S Band
4-8 GHz	C Band
8-12 GHz	X Band
12-18 GHz	Ku Band
18-27 GHz	K Band
27-40 GHz	Ka Band
40-75 GHz	V Band

Broadcasting Frequencies	
AM	535-1,605 KHz
FM	88-108 MHz
TV CH 2-4	54-72 MHz
TV CH 5-6	76-88 MHz
TV CH 7-13	174-216 MHz
TV CH 14-83	470-890 MHz

ITU Frequency Band Designations		
Band	Nomenclature	Frequency
ELF	Extremely Low Frequency	3 - 30 Hz
SLF	Super Low Frequency	30 - 300 Hz
ULF	Ultra Low Frequency	300 - 3000 Hz
VLF	Very Low Frequency	3 - 30 kHz
LF	Low Frequency	30 - 300 kHz
MF	Medium Frequency	300 - 3000 kHz
HF	High Frequency	3 - 30 MHz
VHF	Very High Frequency	30 - 300 MHz
UHF	Ultra High Frequency	300 - 3000 MHz
SHF	Super High Frequency	3 - 30 GHz
EHF	Extremely High Frequency	30 - 300 GHz

ITU= INTERNATIONAL TELECOMMUNICATIONS UNION

Typical Metric Prefixes and their Symbols				
Prefix	Symbol	Power of Ten	Decimal Value	Value
tera	T	10 <sup>12</sup>	1,000,000,000,000	1 trillion
giga	G	10 <sup>9</sup>	1,000,000,000	1 billion
mega	M	10 <sup>6</sup>	1,000,000	1 million
kilo	k	10 <sup>3</sup>	1,000	1 thousand
milli	m	10 <sup>-3</sup>	0.001	1 thousandth
micro	μ	10 <sup>-6</sup>	0.000	1 millionth
nano	n	10 <sup>-9</sup>	0.000	1 billionth
pico	p	10 <sup>-12</sup>	0.000	1 trillionth