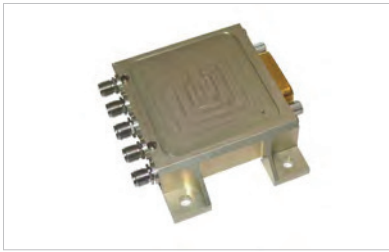


Low Power Coaxial DP3T Switch



LOW-POWER LATCHING COAXIAL DP3T SWITCH according to Radiall specification RAD-DET-DP3T-001

- DC to 22 GHz with SMA connectors
- DC to 31 GHz with SMA 2.9 connectors
- Telemetry circuit
- Suppression diodes
- D-Sub
- Lay Down
- 106 grams

GENERAL SPECIFICATIONS

	Unit	Min	Typical	Max	
Actuation Voltage	V	+22	+26	+29	
Pick-Up Voltage	V			+20.5	
Actuation Current	mA				
@+29V, +25°C			129	139	
@+29V, -30°C				164	176
@+29V, +85°C				105	113
Switching Time	ms			20	
Pulse Duration	ms	20		1000	
Coil Resistance (at +25°C)	Ω	210	225		
RF Contact Resistance	mΩ			100	
TLM Indicator Circuit					
Contact closed	mΩ			1000	
Contact Open	MΩ	10			
Contact Current	mA			100	
Coil Isolation at 500 VDC	MΩ	10			
Dielectric Withstanding at 50 or 60Hz	Vrms	500			
Mass	grams			106	
Torque Screws for					
Fixing unit	N.m			2.0	
For DC connector		0.27		0.44	
For SMA connector		0.8	1.1	1.15	

RF PERFORMANCES

DC to 22 GHz SMA

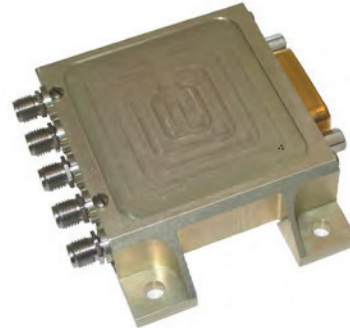
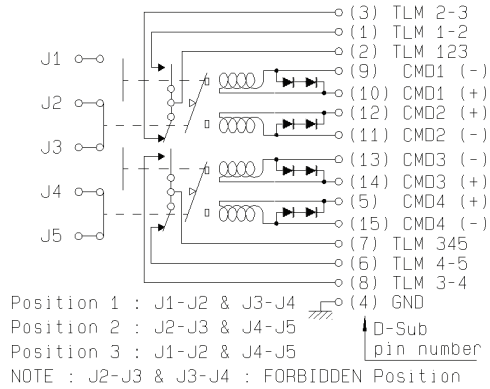
Frequency	GHz	DC - 4.2	4.2 - 10.7	10.7 - 12.75	12.75 - 14.5	14.5 - 22
Insertion Loss (max)	dB	0.15	0.15	0.25	0.30	0.40
VSWR (max)	(dB)	1.15:1	1.20:1	1.25:1	1.25:1	1.40:1
Return Loss (min)		(23.1)	(20.8)	(19.1)	(19.1)	(15.6)
Isolation (min)	dB	70			60	
E-Field Shielding Effectiveness (min)	dB	75			70	

KA – BAND SMA2.9

Frequency	GHz	17.5-21.5	21.5 - 27.5	27.5 - 31
Insertion Loss (max)	dB	0.50	0.45	0.65
VSWR (max)	(dB)	1.33:1	1.35:1	1.40:1
Return Loss (min)		(17)	(16.5)	(15.6)
Isolation (min)	dB	65	60	
E-Field Shielding Effectiveness (min)	dB	60	60	
Power Handling (max)	W	10	5	

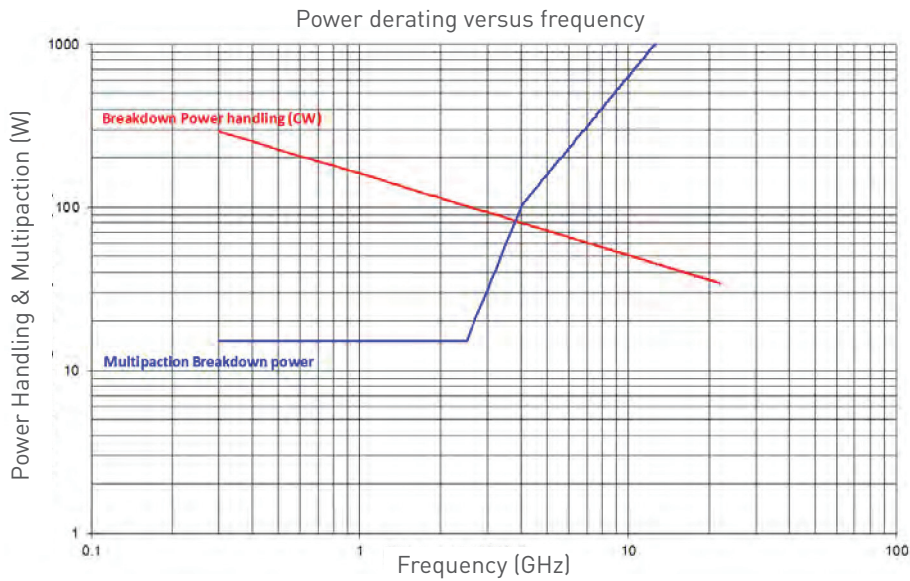
Low Power Coaxial DP3T Switch

SCHEMATICS & DRAWINGS



POWER DERATING GRAPH

Variant 001 to 003: DC to 22 GHz SMA



Frequency (GHz)	Breakdown Power Handling (W)	Breakdown Multipaction Power (W)
0.3	292.1	15.2
2.3	105.5	15.2
2.4	103.3	15.2
2.5	101.2	15.2
2.6	99.2	17.8
2.7	97.4	20.7
2.8	95.6	23.9
2.9	94.0	27.5
3.0	92.4	31.5
4.0	80.0	101.6
5.0	71.6	158.8
6.0	65.3	228.6
7.0	60.6	311.2
8.0	56.6	406.4
9.0	53.3	514.4
10.0	50.6	635.0
12.0	46.2	914.5
14.0	42.8	1244.7
16.0	40.0	1625.7
18.0	37.7	2057.5
20.0	35.8	2540.2
22.0	34.1	3073.6