

SignalOn[®] Series

RF Signal Management



Active Products

RF Switches:

The primary function of the module is to monitor the RF signal gain of the operating primary "A" input, and switch to the backup "B" input if the gain of the primary path rises, or falls below the pre-set customer selected threshold. Use with 2-way splitter & two external amplifiers to achieve redundancy in RF driver amplifier and virtually eliminate a potential outage.

Features:

- ▶ 5-1002 MHz models available with precision F or BNC connectors
- ▶ 5-1218 MHz models available with precision F connectors
- ▶ Detects both high & low power failures
- ▶ Built-in delay to prevent false switching
- ▶ Failover switching time < 10mS
- ▶ Automatic switchback after "A" path is restored
- ▶ Single or dual modules
- ▶ Low power consumption (0.65W single, 1.3W dual)
- ▶ Certifications: FCC, U/L, NEBS Level 3
- ▶ Works in SignalOn[®] active 20-position or 8-position chassis

Front Access Controls/Features:

- ▶ RF level bar graph indicator for continuous monitoring of both A & B inputs relative to switch threshold
- ▶ Status LEDs
- ▶ Manual vs automatic switch mode selection
- ▶ Push button to store reference level (REF) one step calibration

Rear Access Features:

- ▶ User selectable switching threshold of +/- 3 or +/- 6 dB from REF
- ▶ Alarm relay contact for remote monitoring



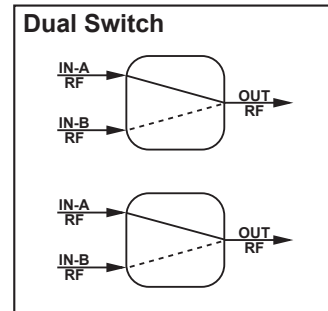
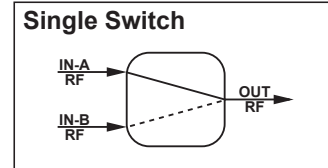
Dual RF Switch
(front view)

RF Switches:

RF Switch Specifications

SPECIFICATIONS		1 GHz MODELS N-MRFSMn-c	1.218 GHz MODELS N-MRFSMn-cH
FREQUENCY RANGE OF OPERATION ⁽¹⁾		5-1002 MHz	5 MHz - 1.218 GHz
FREQUENCY RANGE OF DETECTION		50-1002 MHz	50 MHz - 1.218 GHz
INSERTION LOSS		5 MHz < 1 dB / 870 MHz < 1.15 dB / 1002 MHz < 1.15 dB	5 MHz < 1 dB / 870 MHz < 1.15 dB / 1002 MHz < 1.15 dB / 1218 MHz < 1.25 dB
RETURN LOSS		5-870 MHz > 20 dB / 870-1002 MHz > 18.5 dB	> 18 dB
POWER CONSUMPTION	SINGLE	0.65W (max)	
	DUAL	1.3W (max)	
IMPEDANCE		75 Ω	
OPERATING INPUT LEVEL ⁽²⁾		-28 to 22 dBm	
FLATNESS		< 0.5 dB	
SWITCHING THRESHOLD		± 3 dB (± 0.5 dB) / ± 6 dB (± 0.5 dB)	
ISOLATION BETWEEN SIGNAL PATHS		> 60 dB	
ISOLATION BETWEEN CIRCUITS (DUAL UNIT)		> 70 dB	
ALARM CONTACT RATING		1 Amp (max)	
EMI (Near Field)		> 90 dBc	
EMI - RADIATED & CONDUCTED EMISSIONS CISPR22		Class A	
PHYSICAL			
DIMENSIONS		8.5"H x 1.7"W x 5.9"D (21.6H x 4.3W x 14.9D cm)	
WEIGHT	SINGLE	1.54 lbs (0.7 kg)	
	DUAL	1.86 lbs (0.8 kg)	
ENVIRONMENTAL			
OPERATING TEMPERATURE		0°C to +50°C (+32°F to +122°F)	
STORAGE TEMPERATURE		-40°C to +70°C (-40°F to +158°F)	
STORAGE HUMIDITY		20-90% (without condensation)	
NOTES:			
(1) Unless otherwise noted, all specifications apply from Fmin to Fmax.			
(2) Total composite RF Input power.			

Functional Schematics



Ordering Information

Part Number	Description
1.218 GHz Redundant RF Switch Modules	
N-MRFSM1-FH	Single Circuit, 1.218 GHz, F Connector
N-MRFSM2-FH	Dual Circuit, 1.218 GHz, F Connector
1 GHz Redundant RF Switch Modules	
N-MRFSM1-F	Single Circuit, 1 GHz, F Connector
N-MRFSM2-F	Dual Circuit, 1 GHz, F Connector
N-MRFSM1-B	Single Circuit, 1 GHz, BNC Connector
N-MRFSM2-B	Dual Circuit, 1 GHz, BNC Connector
ORDERING NOTES:	
Following values MUST be specified by customer at time of ordering:	
N-MRFSMn-cf	
n = number of switch circuits (1 = Single, 2 = Dual)	
c = connector choice (F = F, B = BNC)	
f = optional frequency increase (blank = 1 GHz, H = 1.218 GHz)	
EXAMPLE:	
Part #: N-MRFSM2-FH, Dual F Connector Switch rated to 1.218 GHz	

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Specifications subject to change without notice.

