

# SignalOn<sup>®</sup> Series

## Passive Modules Diplex Filter Modules



5RU Chassis  
(front view)

### Features

- Diplex filter modules conveniently separate or combine the forward and reverse path frequency bands so that the respective signals can then be routed to the appropriate downstream, or upstream transmission equipment

D3.1/CCAP™  
Compliant

1.2 GHz

### Specifications

#### Diplex Filter

		N-MDPXF3L	N-MDPXF3LH	N-MDPXF3H	N-MDPXF3HH
MEASUREMENT	FREQUENCY $F_{min} - F_{low} / F_{high} - F_{max}$	5-42 MHz / 54-1002 MHz (dB)	5-42 MHz / 54-1218 MHz (dB)	5-65 MHz / 88-1002 MHz (dB)	5-65 MHz / 88-1218 MHz (dB)
INSERTION LOSS (Max) LOW PORT	< $F_{low}$	1.4	1.4	1.4	1.4
INSERTION LOSS (Max) HIGH PORT	> $F_{high}$	1.4	1.4	1.4	1.4
FLATNESS (Max) LOW PORT	< $F_{low}$	0.5	0.5	0.5	0.5
FLATNESS (Max) HIGH PORT	> $F_{high}$	0.5	0.8	0.5	0.8
RETURN LOSS (Min) LOW PORT	< $F_{low}$	17	17	17	17
RETURN LOSS (Min) HIGH PORT	> $F_{high}$	15	15	15	15
RETURN LOSS (Min) COMMON PORT	< $F_{low}$	17	17	17	17
	> $F_{high}$	15	15	15	15
ISOLATION (Min) LOW TO HIGH PORTS	< $F_{low}$	50	50	50	50
	$F_{high} - 860$	45	45	45	45
	> 860	40	38	40	38
ISOLATION (Min) ADJACENT CIRCUITS	< 860	70	70	70	70
	> 860	65	65	65	65



54-1002 MHz    54-1218 MHz

Diplex Filters  
(front view)

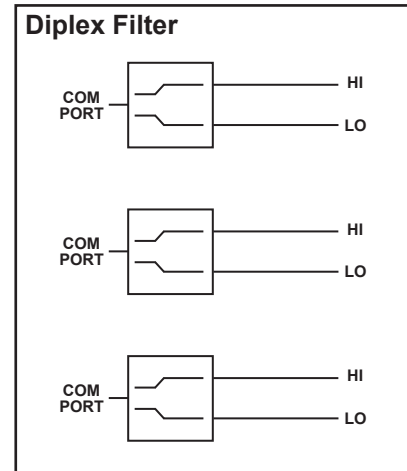
# Specifications

## RF Module\*

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	5-95% Non-condensing
ELECTRICAL	
EMI (External)	< -100 dBc
INTERNAL ISOLATION OF DUAL/TRIPLE MODULES	< -70 dBc
FLATNESS	Defined as MAX +/- Deviation from Linear Trend Line
IMPEDANCE	75 Ω Nominal
OTHER	
DIMENSIONS	8.25"H x 0.83"W x 4.1"D (20.96H x 2.1W x 10.4D cm)
WEIGHT	1.43 lbs (0.65 kg)

NOTE:

\* Unless otherwise stated by module specific table.



Functional Schematic

## Ordering Information

Part Number	Description
<b>Domestic Diplex Filter Module</b>	
N-MDPXF3LH	F Connector, Low 5-42 MHz, High 54-1218 MHz
N-MDPXF3L	F Connector, Low 5-42 MHz, High 54-1002 MHz
<b>International Diplex Filter Module</b>	
N-MDPXF3HH	F Connector, Low 5-65 MHz, High 88-1218 MHz
N-MDPXF3H	F Connector, Low 5-65 MHz, High 88-1002 MHz

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