

**MR254 SERIES** Duplexer, 4 cavity mobile, 4.5 to 10 MHz separation, 126-174 MHz

- Four highly stable temperature compensated helical resonators
- Enclosure made of lightweight and rugged aluminum extrusion
- 50 Watts power handling with 60 dB Tx to Rx isolation
- Minimum Tx-Rx spacing of 4.5 MHz, maximum of 10 MHz

Sinclair's MR254 series of mobile duplexers are compact units, fabricated from lightweight, rugged aluminum extrusion, which affords maximum structural integrity. Carefully temperature-compensated resonators are designed to minimize variations due to changing operating environments. These duplexers provide superior performance for trunking and conventional applications, and may also be used as low-power base station duplexers.

When ordering, please refer to the chart below for the model number, and also specify the Tx and Rx frequencies. Different connector configurations are subject to various list price. Customization is also available. Please contact your Sinclair Sales Representative or Customer Service Representative for more information.

Part Number	Connector	Frequency range
MR254B-1	BNC(f)	136-148 MHz
MR254B-2	BNC(f)	148-160 MHz
MR254B-3	BNC(f)	160-174 MHz
MR254B-4	BNC(f)	126-137 MHz
MR254N-1	N(f)	136-148 MHz
MR254N-2	N(f)	148-160 MHz
MR254N-3	N(f)	160-174 MHz
MR254T-1	TNC(f)	136-148 MHz
MR254T-2	TNC(f)	148-160 MHz
MR254T-3	TNC(f)	160-174 MHz

**Note:**

The MR series of compact mobile duplexers can be re-tuned within the sub-band for which the unit was designed, as long as the Tx/Rx separation remains the same. Tuning procedures are available upon request. Significant Tx/Rx frequency separation re-tuning requires shipping the units back to the factory. Please call for details.



Region	United States	Europe, Middle East, and Africa	Canada, Caribbean, and Latin America	Asia-Pacific
<b>Telephone</b>	1 800 263 3275	+44 (0) 1487 84 28 19	Canada: 1 800 263 3275 International: +1 905 726 7676	+1 905 727 0165
<b>E-mail</b>	salesusa@sinctech.com	salesuk@sinctech.com	salescan@sinctech.com	salesasia@sinctech.com
Product Specification Sheet		MR254 SERIES	Issue: 1	Dated: 02-10-20

#### Electrical Specifications

Frequency Range	MHz	126 to 174	
Number of Cavities - Low Pass Side		2	
Number of Cavities - High Pass Side		2	
Connectors		Various	*1
Input VSWR (max)		1.5:1	
Insertion loss (max)	dB	1.2	
Impedance	Ω	50	
Isolation - Tx noise suppression at Rx (min)	dB	60	
Isolation - Rx carrier suppression at Tx (min)	dB	60	
Average Input Power (max)	W	50	*2
Frequency Separation Range	MHz	4.5 to 10	

#### Notes

\*1 : See previous page for details

\*2 : 40 watts for base station usage scenario

#### Mechanical Specifications

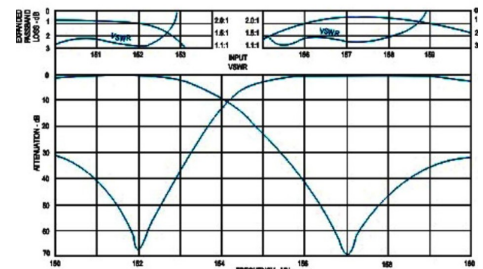
Width	in (mm)	4.13 (105)
Depth	in (mm)	7 (178)
Length/ Height	in (mm)	1.31 (33)
Finish		chemical conversion
Weight	lbs (kg)	1.8 (0.82)
Actual shipping weight	lbs (kg)	2 (0.91)
Shipping dimensions	in (mm)	13x9x3 (330x229x76)

#### Ordering Information

Specify Tx and Rx frequencies when ordering.

#### Environmental Specifications

Temperature range	°F (°C)	-22 to +140 (-30 to +60)
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Span 10 MHz  
Response curve (typical), 5MHz Sep.

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E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salescan@sinctech.com	salesasia@sinctech.com
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