

**MR2222 SERIES** Duplexer, 4 cavity mobile, 5 or 10 MHz separation, 138-174 MHz

- Extremely compact form factor
- Four highly stable temperature compensated helical resonators
- Enclosure made of lightweight and rugged aluminum extrusion
- 50 Watts power handling with 50 dB Tx to Rx isolation

Sinclair's MR2222 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 Sep. | Frequency Range | Insertion Loss |
|-------------|-----------|----------------|-----------------|----------------|
|             |           | MHz            | MHz             |                |
| MR2222B-1-1 | BNC(f)    | 5              | 138-155         | 1.5            |
| MR2222B-1-2 | BNC(f)    | 10             | 138-155         | 1              |
| MR2222B-2-1 | BNC(f)    | 5              | 150-174         | 1.5            |
| MR2222B-2-2 | BNC(f)    | 10             | 150-174         | 1              |
| MR2222T-1-1 | TNC(f)    | 5              | 138-155         | 1.5            |
| MR2222T-1-2 | TNC(f)    | 10             | 138-155         | 1              |
| MR2222T-2-1 | TNC(f)    | 5              | 150-174         | 1.5            |
| MR2222T-2-2 | TNC(f)    | 10             | 150-174         | 1              |

BNC connector model shown.

| Region           | United States         | Europe, Middle East and Africa       | Caribbean and Latin America    | Canada and rest of the world                             |
|------------------|-----------------------|--------------------------------------|--------------------------------|--|
| <b>Telephone</b> | USA: 1 800 263 3275   | International: +44 (0) 1487 84 28 19 | International: +1 905 726 7676 | Canada: 1 800 263 3275<br>International: +1 905 727 0165 |
| <b>E-mail</b>    | salesusa@sinctech.com | salesuk@sinctech.com                 | salesla@sinctech.com           | salescan@sinctech.com                                    |

#### Electrical Specifications

|  |     |            |    |
|--|-----|------------|----|
| Frequency Range                                | MHz | 138 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  | 1.5        | *2 |
| Impedance                                      | Ω   | 50         |    |
| Isolation - Tx noise suppression at Rx (min)   | dB  | 50         |    |
| Isolation - Rx carrier suppression at Tx (min) | dB  | 50         |    |
| Average Input Power (max)                      | W   | 50         |    |
| Frequency separation range                     | MHz | 5 or 10    | *3 |

#### Mechanical Specifications

|                        |          |                     |
|------------------------|----------|---------------------|
| Width                  | in (mm)  | 4.3 (109)           |
| Depth                  | in (mm)  | 4.06 (103)          |
| Length/ Height         | in (mm)  | 1.31 (33)           |
| Finish                 |          | chemical conversion |
| Weight                 | lbs (kg) | 1 (0.45)            |
| Actual shipping weight | lbs (kg) | 2 (0.91)            |
| Shipping dimensions    | in (mm)  | 13x9x3 (330x229x76) |

#### Environmental Specifications

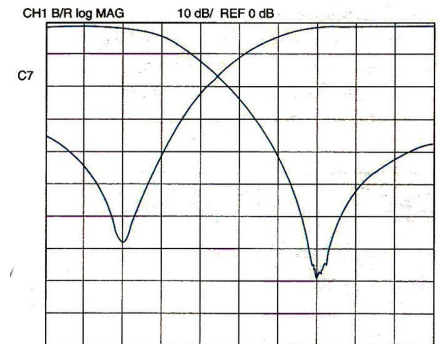
|                   |         |                          |
|-------------------|---------|--------------------------|
| Temperature range | °F (°C) | -22 to +140 (-30 to +60) |
|-------------------|---------|--------------------------|

#### Notes

- \*1 : See previous page for details.
- \*2 : 1.5 dB at 5 MHz spacing; 1 dB at 10 MHz spacing.
- \*3 : See previous page for details.

#### Ordering Information

Specify Tx and Rx frequencies when ordering.



Span 10 MHz  
Response curve (typical), 5MHz Sep.

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