

# Datasheet

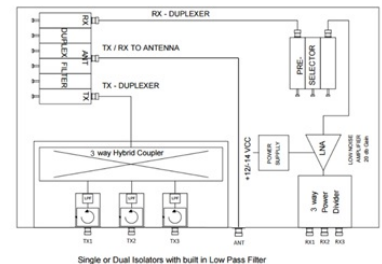
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# HCMR150-3-DUPT

## Hybrid 3 channel VHF TX/RX Combiner and Duplex Filter HS

HCMRI50-3-DUPT series is a VHF TX/RX hybrid combiner and duplexer with single or dual isolators used for combining 3 VHF transceivers into one antenna with close frequency spacing.

- Standard EIA 19" trays. Two of 2HU, 400 mm depth.
- Tuned to customer specified frequencies, need to be specified when ordering.
- Full bandwidth.
- 100 W power handling.
- Combiner with high spec. external duplexer.



## ELECTRICAL SPECIFICATIONS

|                   |                                                                  |
|-------------------|------------------------------------------------------------------|
| Type              | Hybrid 3 channel VHF TX/RX Combiner and Duplex Filter HS         |
| Frequency         | 144 - 162 MHz<br>158 - 175 MHz                                   |
| VSWR              | ≤ 1.5:1                                                          |
| Impedance         | 50 Ohm                                                           |
| Max. Input Power  | 100 Watts (Per channel)                                          |
| Insertion Loss    | Single isolator: < 6.9 dB<br>Dual isolator: < 7.2dB              |
| TX-TX spacing     | DUPT-5: ≤ 1.5 MHz<br>DUPT-10: ≤ 2.0 MHz                          |
| TX-RX spacing     | DUPT-5: 4 - 7 MHz<br>DUPT-10: 8 -12 MHz                          |
| Isolation RX-TX   | TX-TX spacing <0.4 MHz :> 90dB<br>TX-TX spacing <2.0 MHz :> 70dB |
| Isolation TX-RX   | RX-RX spacing <0.4 MHz :> 90dB<br>RX-RX spacing <2.0 MHz :> 70dB |
| Isolation TX - TX | Single isolator: > 50 dB<br>Dual isolator: > 70 dB               |
| Isolation RX-RX   | >20 dB                                                           |
| Bandwidth (RX)    | Approx. 3 MHz (in band)                                          |
| Gain              | RX: 20±1.0 dB                                                    |
| LNA Noise Figure  | < 2.0 dB                                                         |
| Power Supply      | 100-240 V; 50/60 Hz (Max. 7W)                                    |

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## MECHANICAL SPECIFICATIONS

|                       |                                                   |
|-----------------------|---------------------------------------------------|
| Color                 | Black Grey (RAL7021)                              |
| Dimension             | Two units:<br>482.6 x 89.0 x 300 mm (W x H x L)   |
| Weight                | Single Isolator: 9.3 kg<br>Dual Isolator: 10.5 kg |
| Connector             | Type N-female                                     |
| Serial no.            | On product label                                  |
| Operating temperature | -20° to +60°C                                     |

## ORDERING INFORMATION

|           |                                                                                     |
|-----------|-------------------------------------------------------------------------------------|
| 55132-113 | HCMR150-3S-L-5-150<br>144-162 MHZ 3CH x 100 W Single Isolator + DUPT-5<br>2 x 2HU   |
| 55134-123 | HCMR150-3S-L-10-150<br>144-162 MHZ 3CH x 100 W Single Isolator + DUPT-10<br>2 x 2HU |
| 55132-133 | HCMR150-3S-H-5-150<br>158-175 MHZ 3CH x 100 W Single Isolator + DUPT-5<br>2 x 2HU   |
| 55134-143 | HCMR150-3S-H-10-150<br>158-175 MHZ 3CH x 100 W Single Isolator + DUPT-10<br>2 x 2HU |
| 55132-153 | HCMR150-3D-L-5-150<br>144-162 MHZ 3CH x 100 W Dual Isolator + DUPT-5<br>2 x 2HU     |
| 55134-163 | HCMR150-3D-L-10-150<br>144-162 MHZ 3CH x 100 W Dual Isolator + DUPT-10<br>2 x 2HU   |
| 55132-173 | HCMR150-3D-H-5-150<br>158-175 MHZ 3CH x 100 W Dual Isolator + DUPT-5<br>2 x 2HU     |
| 55134-183 | HCMR150-3D-H-10-150<br>158-175 MHZ 3CH x 100 W Dual Isolator + DUPT-10<br>2 x 2HU   |
| Power     | Cable not included                                                                  |