



Filters & Combiners

DATA SHEET

Wideband Hybrid Combiner

HYO-75-3xx



- Wideband Hybrid Combiner covering 698 - 3800 MHz
- Near lossless combining
- High in-band isolation
- Outdoor capable unit
- Very low PIM
- High power Handling 300W per port and 3KW peak
- RoHS compliant

Overview

CCI's Wideband 3-Way Hybrid Combiner with Coupler provides a solution where combining two RF inputs into one, two or three common outputs is required. The unit is housed in a weatherproof outdoor enclosure for outdoor basestation or tower mount applications.

Technical Description:

CCI's Outdoor Wideband 3-Way Hybrid Combiner covers the full 698 - 3800 MHz spectrum. The unit is housed in an IP67 moisture proof enclosure, with IP67 moisture proof connectors suited for long-life. The combiner can be wall or pole mounted.



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SPECIFICATIONS

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Electrical

RF Parameters	Ports	Frequency(MHz)	Specification
Insertion Loss	Coupling loss	698 - 3800	5.0 ± 1.0 dB
Isolation	Input* to Input*	698 - 3800	25 dB min.
Return Loss	All Ports	698 - 2700	20 dB min.
Return Loss	All Ports	2700 - 3800	19 dB min.

*Input Refers to Ports IN1, IN2 and IN3

General Characteristics	
Impedance	50 ohms
Continuous Average Power	300 W maximum (per port)
Peak Envelope Power	3 kW maximum
Intermodulation Performance	<-160 dBc (-117 dBm) @ 2 x +43 dBm tones

Environmental

Operating Temperature	-20 °C to +65 °C
Ingress Protection	IP67
Relative Humidity	5 - 95%

Mechanical

Parameters	HYO-75-3F1	HYO-75-3F2	HYO-75-3F3
Connectors	6 x 7-16	6 x 4.3-10	6 x N-type
Housing Dimensions	329 x 114 x 30 mm (13.0 x 4.5 x 1.2 in.)	329 x 114 x 30 mm (13.0 x 4.5 x 1.2 in.)	329 x 114 x 30 mm (13.0 x 4.5 x 1.2 in.)
Weight	0.68 Kg (1.5 lbs)	0.68 Kg (1.5 lbs)	0.68 Kg (1.5 lbs)
Mounting	Pole/Wall mounting bracket		

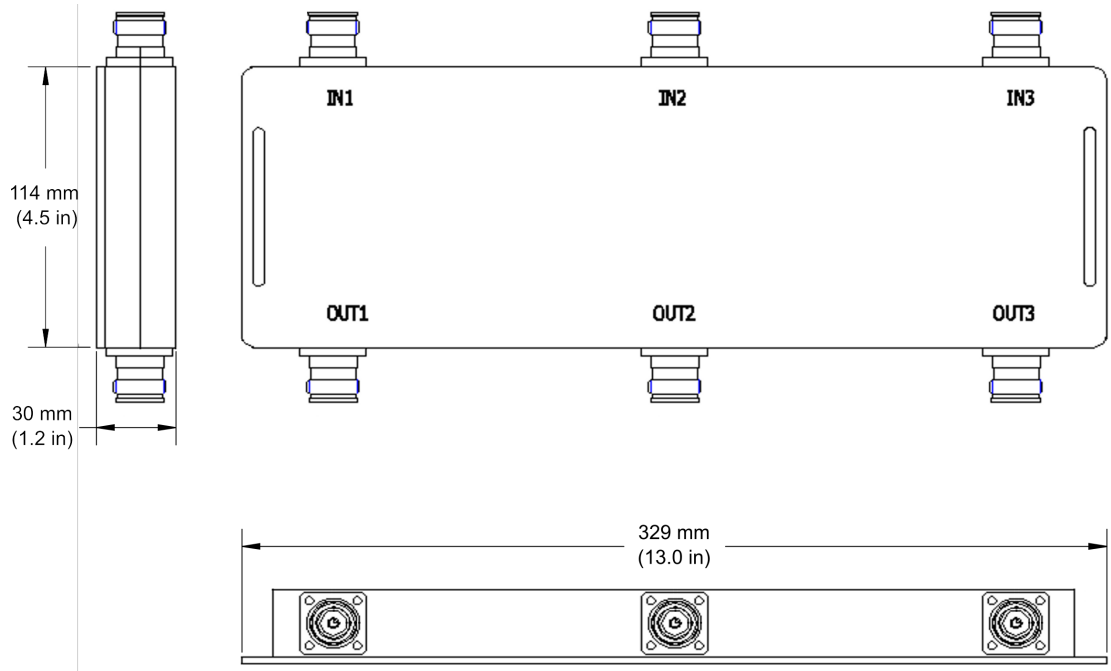


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3-Way Hybrid Combiner Outline Drawing with 4.3-10 Connectors

Block Diagram



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STANDARDS & CERTIFICATIONS

Wideband Hybrid Combiner

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Parts & Accessories

- HYO-75-3F1** Outdoor Wideband 3-Way Hybrid Combiner, covering 698--3800 MHz with 7-16 DIN Connectors
- HYO-75-3F2** Outdoor Wideband 3-Way Hybrid Combiner, covering 698--3800 MHz with 4.3-10 Connectors
- HYO-75-3F3** Outdoor Wideband 3-Way Hybrid Combiner, covering 698--3800 MHz with N-type Connectors

Standards & Compliance

Safety	EN 60950-1, UL 60950-1
Emission	EN 55022
Immunity	EN 55024
Environmental	IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-5, IEC 60068-2-6, IEC-60068-2-11, IEC 60068-2-14, IEC 60068-2-18, IEC 60068-2-27, IEC 60068-2-29, IEC 60068-02-30, IEC 60068-2-52, IEC 60068-2-64, GR-63-CORE 4.3.1, EN 60529 IP65 & IP67

Certifications

Antenna Interface Standards Group (AISG), Federal Communication Commission (FCC) Part 15 Class B, CE, CSA US, ISO 9001

