

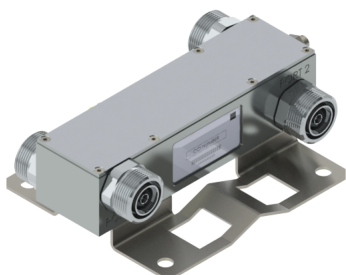


Filters & Combiners

DATA SHEET

Wideband Hybrid Combiner

HYO-77-2xx



- Wideband Hybrid Combiner covering 698 - 2700 MHz
- Near lossless combining
- High in-band isolation
- Outdoor capable unit
- Very low PIM
- High power Handling 500W per port and 3KW peak
- RoHS compliant

Overview

CCI's Wideband 2-Way Hybrid Combiner provides a solution where combining two RF inputs into one or two 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 2-Way Hybrid Combiner covers the full 698 - 2700 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.



Filters & Combiners

SPECIFICATIONS

Wideband Hybrid Combiner

HYO-77-2xx

Electrical

RF Parameters	Ports	Frequency(MHz)	Specification
Insertion Loss	Input ¹ to Output ²	698 - 800	3.05 dB $\pm$ 0.4 dB
		800 - 2700	3.05 dB $\pm$ 0.3 dB
Coupled Output	Input ¹ to Coupled Port ³	698 - 2700	34 dB $\pm$ 10 dB
Isolation	Input Port 1 to Input Port 2	698 - 2700	30 dB min. , 32 dB typ.
Return Loss	All Ports	698 - 2700	$\leq$ 25 dB min.

¹Ports 1 & 2; ²Ports 3 & 4; ³Test Port

General Characteristics

Impedance	50 ohms
Continuous Average Power	500 W maximum (per port)
Peak Envelope Power	3 kW maximum
Intermodulation Performance (2 x 43 dBm carriers)	<-160 dBc (-117 dBm) minimum, <-165 dBc (-122 dBm) typ.
DC Pass Current/AISG Pass	DC paths: Port 1 to Port 3; Port 2 to Port 4; (max 6.5 A per AISG 2.0)

Environmental

Operating Temperature	-40 °C to +70 °C
Ingress Protection	IP67
Relative Humidity	0 - 95%

Mechanical

Parameters	HYO-77-2F1	HYO-77-2F2
Input Connectors	7-16 DIN female x 4	4.3-10 female x 4
Dimensions (body only)(HxWxD)	1.89 x 6.49 x 1.61 in. (48 x 165 x 41 mm)	
Dimensions (incl. brackets)(HxWxD)	5.04 x 6.49 x 2.24 in. (128 x 165 x 57 mm)	
Weight with brackets	2.56 lbs (1.16 Kg)	
Mounting	Pole/Wall mounting bracket	

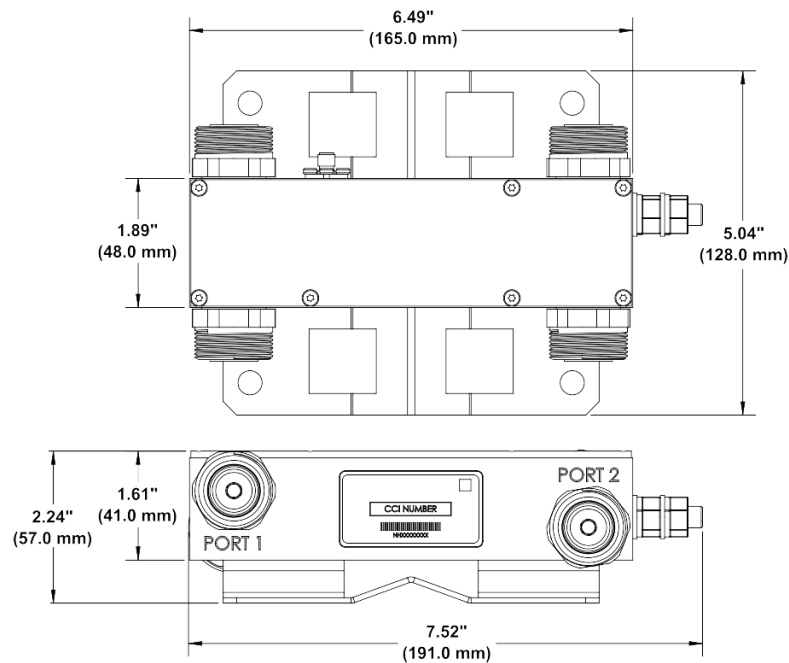


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SPECIFICATIONS

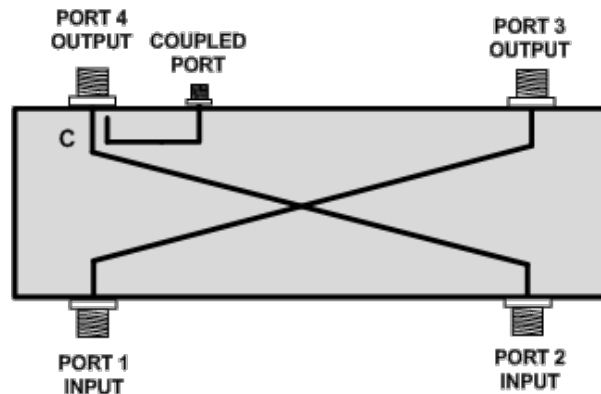
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Hybrid Combiner Outline Drawing

Block Diagram



2 x 2 Hybrid Combiner Block Diagram



Filters & Combiners

STANDARDS & CERTIFICATIONS

Wideband Hybrid Combiner

HYO-77-2xx

Parts & Accessories

HYO-77-2F1 Outdoor Wideband 2-Way Hybrid Combiner with Output Coupler and 7-16 Connectors

HYO-77-2F2 Outdoor Wideband 2-Way Hybrid Combiner with Output Coupler and 4.3-10 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



CCI Communication Components Inc.
EXTENDING WIRELESS PERFORMANCE