

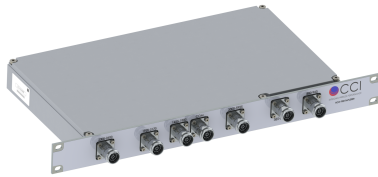


# Filters & Combiners

DATA SHEET

## Broadband Hexplexer Combiner

HPR-3830-0-S2



- Indoor Rackmount version available
- Low Loss
- Good Isolation
- Good IMD
- High reliability
- Full 385-862, 880-960, 1425-1880, 1920-2170, 2300-2690 and 3300-5925 bands

### Overview

Communication Components, Inc. Broadband Hexplexer Combiner combines 385-862, 880-960, 1425-1880, 1920-2170, 2300-2690 and 3300-5925 band Basestation Tx/Rx signals onto a common port. Specifically intended for use in feeder line limited sites or multi-band high power DAS systems, the CCI Outdoor Hexplexer model HPO-3830-xxx facilitates the addition of new technologies including LTE and new spectrum to existing sites while providing a low insertion loss and a high degree of isolation between systems. The cost and complexity of upgrading a Macro or DAS site is significantly reduced.

The CCI Broadband Hexplexer Combiner provides full band performance for each band with low insertion loss, low Intermodulation, and high power handling. Excellent return loss delivers the best match to the DAS system and base station, saving precious transmit power. The unit is available in an indoor rack mountable version..

### Technical Description:

The Broadband Hexplexer Combiner consists of a multiple filters to combine (or divide) full band 385-862, 880-960, 1425-1880, 1920-2170, 2300-2690 and 3300-5925 Band signals. This unit can be used as either a splitter or combiner to aggregate multiple bands on a common line. RF ports are available with 4.3-10 connectors. The filters have been designed to minimize insertion loss while maximizing isolation. Particular attention has been given to the intermodulation performance of the Broadband Hexplexer to minimize any passive intermodulation products from occurring.



# Filters & Combiners

## SPECIFICATIONS

### Broadband Hexplexer Combiner

HPR-3830-0-S2

#### Electrical Specification

RF Parameters	Ports	Frequency(MHz)	Specification	
Return Loss	COM	380 - 862	18 dB min., 20 dB typ.	
		880 - 960	18 dB min., 20 dB typ.	
		1425 - 1880	18 dB min., 20 dB typ.	
		1920 - 2170	18 dB min., 20 dB typ.	
		2300 - 2690	18 dB min., 20 dB typ.	
		3300 - 5925	18 dB min., 20 dB typ.	
		Port 1	385 - 862	18 dB min., 20 dB typ.
	Port 2	880 - 960	18 dB min., 20 dB typ.	
	Port 3	1425 - 1880	18 dB min., 20 dB typ.	
	Port 4	1920 - 2170	18 dB min., 20 dB typ.	
	Port 5	2300 - 2690	18 dB min., 20 dB typ.	
	Port 6	3300 - 5925	18 dB min., 20 dB typ.	
	Insertion Loss	COM to Port 1	385 - 862	0.37 dB typ., 1.45 dB max.
		COM to Port 2	880 - 960	0.60 dB typ., 0.90 dB max.
COM to Port 3		1425 - 1880	0.45 dB typ., 0.75 dB max.	
COM to Port 4		1920 - 2170	0.55 dB typ., 0.75 dB max.	
COM to Port 5		2300 - 2690	0.60 dB typ., 0.75 dB max.	
COM to Port 6		3300 - 5925	0.37 dB typ., 0.50 dB max.	



# Filters & Combiners

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### Broadband Hexplexer Combiner

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Isolation	Frequency Range	Isolation
COM to Port 1	880 - 960	50 dB min.
	1425 - 1880	50 dB min.
	1920 - 2170	50 dB min.
	2300 - 2690	50 dB min.
	3300 - 5925	50 dB min.
COM to Port 2	385 - 862	50 dB min.
	1425 - 1880	50 dB min.
	1920 - 2170	50 dB min.
	2300 - 2690	50 dB min.
	3300 - 5925	50 dB min.
COM to Port 3	385 - 862	50 dB min.
	880 - 960	50 dB min.
	1920 - 2170	50 dB min.
	2300 - 2690	50 dB min.
	3300 - 5925	50 dB min.
COM to Port 4	385 - 862	50 dB min.
	880 - 960	50 dB min.
	1425 - 1880	50 dB min.
	2300 - 2690	50 dB min.
	3300 - 5925	50 dB min.
COM to Port 5	385 - 862	50 dB min.
	880 - 960	50 dB min.
	1425 - 1880	50 dB min.
	1920 - 2170	50 dB min.
	3300 - 5925	50 dB min.
COM to Port 6	385 - 862	50 dB min.
	880 - 960	50 dB min.
	1425 - 1880	50 dB min.
	1920 - 2170	50 dB min.
	2300 - 2690	50 dB min.

General Characteristics	
Impedance	50 ohms
Continuous Average Power	100 W max.
Peak Envelope Power	2 kW max.
Intermodulation Performance COM port	<-117 dBm (-160 dBc) typical (2 x +43 dBm tones) all bands, except the 3300-5925 MHz band

### Environmental Specification

Operating Temperature	0 °C to +50 °C
Ingress Protection	IP20
MTBF	>500,000 hours
Lightning Protection	8/20us, ±10KA max, 10 strikes each, IEC61000-4-5



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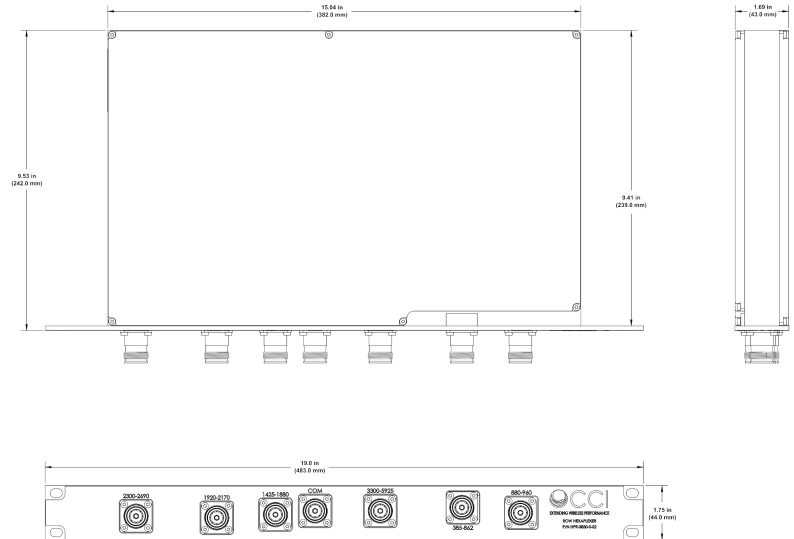
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### Broadband Hexplexer Combiner

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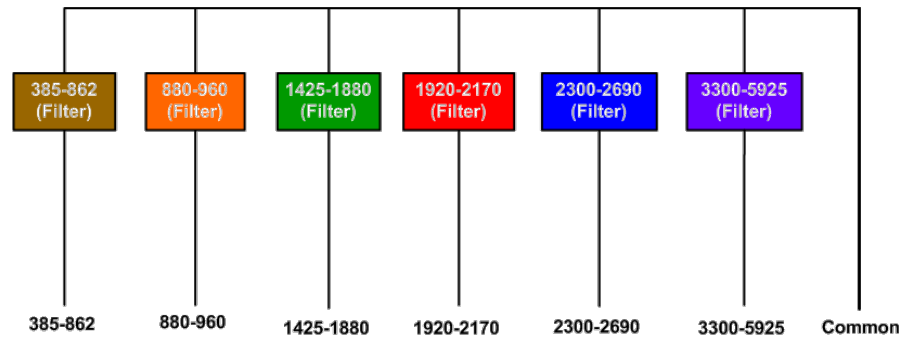
#### Mechanical Specification

Modularity	Single
Connectors	7 × 4.3-10 - per Hexplexer
Dimensions (body only)	15.0 × 9.4 × 1.70 in. (382.0 × 239.0 × 43.0 mm)
Dimensions (with connectors & panel)	19.0 × 9.5 × 1.75 in. (483.0 × 242.0 × 44.0 mm)
Weight	18.0 lbs (8.2 kg)
Mounting	19" Rackmount



Rackmount Broadband Hexplexer Outline Drawing

#### Block Diagram



Rackmount Broadband Hexplexer with No DC/AISG Pass-Through Block Diagram



# Filters & Combiners

## STANDARDS & CERTIFICATIONS

### Broadband Hexplexer Combiner

HPR-3830-0-S2

#### Parts & Accessories

**HPR-3830-0-S2** Rackmount Broadband Hexplexer with 4.3-10 connectors and No DC/AISG Pass-Through

#### Certifications

**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, IEC61000-4-5, GR-63-CORE 4.3.1, EN 60529 IP67, IP68

#### Certifications

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

