

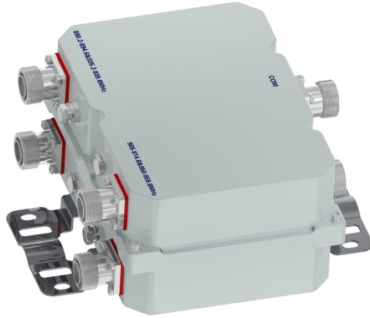


# Filters & Combiners

DATA SHEET

800 Band/850 Band Combiner

PFC-885-602



- Combines two Base Station Outputs on the 800 Band and 850 Band onto a Single Feeder
- Low Loss Combining
- Full Transmit and Receive Combining typ. 0.5 dB loss
- High Reliability Design
- High Power Handling
- Excellent Filter Response
- Temperature Stable
- Fully Passive
- Low Intermodulation
- Optional Wall Mount Kit Available

## Overview

CCI's Low Loss 800 Band and 850 Band Combiner combines two Base Station outputs onto a single feeder without the insertion loss normally associated with hybrid combiners. The unit is fully passive and delivers a matched low insertion loss solution for the sharing of common feeder lines and antennas. The unit requires no power and has a DC Block on the Input ports. The unit is housed in a weatherproof outdoor enclosure suitable for tower mount application.

## Technical Description:

Internal duplexers deliver signal to independent Tx and Rx filter combiners, enabling a high level of control and performance to maintain good isolation while minimizing insertion loss. Stages are kept to a minimum to maximize power and efficiency. Transmit paths are fully isolated from Receive paths to prevent intermodulation products. The tower mount unit consists of multiple band-pass filters which are housed in an IP67 moisture proof enclosure, and 4.3-10 connectors suited for long-life masthead mounting. The unit provides protection against lightning strikes via a multi-stage surge protection circuit.



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## 800 Band/850 Band Combiner

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### SPECIFICATIONS

#### Electrical

RF Parameters	Ports	Frequency(MHz)	Specification
Return Loss	COM	791.0 - 801.0	18 dB minimum, 20 dB typical
		832.0 - 842.0	18 dB minimum, 20 dB typical
		811.0 - 821.0	18 dB minimum, 20 dB typical
		852.0 - 862.0	18 dB minimum, 20 dB typical
	PORT 1	791.0 - 801.0	18 dB minimum, 20 dB typical
		832.0 - 842.0	18 dB minimum, 20 dB typical
	PORT 2	811.0 - 821.0	18 dB minimum, 20 dB typical
		852.0 - 862.0	18 dB minimum, 20 dB typical
Insertion Loss	PORT 1 to COM	791.0 - 801.0	0.5 dB typ. 0.6 dB max.
		832.0 - 842.0	0.5 dB typ. 0.6 dB max.
	PORT 2 to COM	811.0 - 821.0	0.5 dB typ. 0.6 dB max.
		852.0 - 862.0	0.5 dB typ. 0.6 dB max..
Isolation	PORT 1 to PORT 2	791.0 - 801.0	30 dB minimum
		832.0 - 842.0	30 dB minimum
		811.0 - 821.0	30 dB minimum
		852.0 - 862.0	30 dB minimum

General Characteristics	
Impedance	50 ohms
Continuous Average Power	200 W max. (all ports)
Peak Envelope Power	2 kW max. (all ports)
Intermodulation Performance (at COM port in RX band)	<-112 dBm (-155 dBc) typical (2 x +43 dBm tones) all bands
DC Pass Current/AISG Pass (Port 2 to COM)	3A/AISG signal (2.176 MHz) per AISG 2.0

#### Environmental

Operating Temperature	-20 °C to +65 °C
Relative Humidity	5% - 95%
Ingress Protection	IP67
MTBF	>500,000 hours
Lightning Protection	8/20us, ±10KA max, 10 strikes per IEC61000-4-5

#### Mechanical

Model	Twin
Connectors	6 x 4.3-10 female
Body Dimensions (HxWxD)	9.37 x 6.89 x 4.41 in. (238 x 175 x 112 mm)
Overall Dimensions (HxWxD)	9.37 x 10.47 x 5.00 in. (238 x 266 x 127 mm)
Weight	13.2 lbs (6.0 kg)
Mounting	Pole/Wall mounting bracket

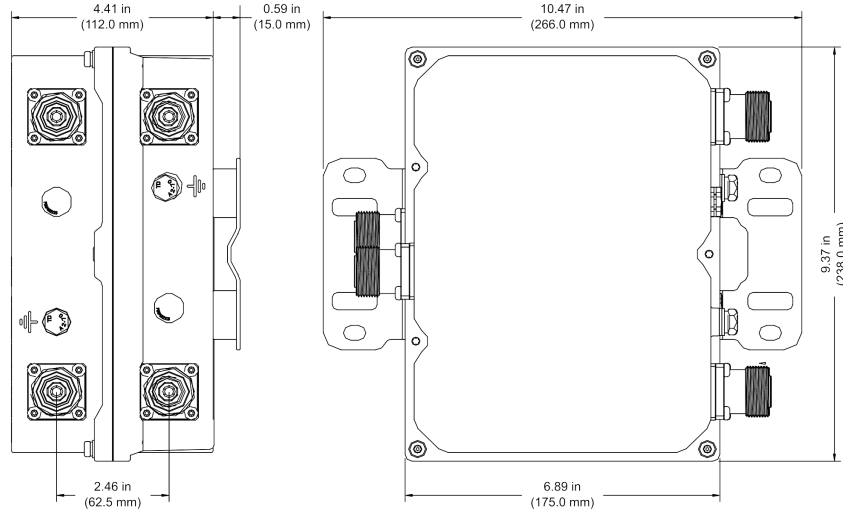


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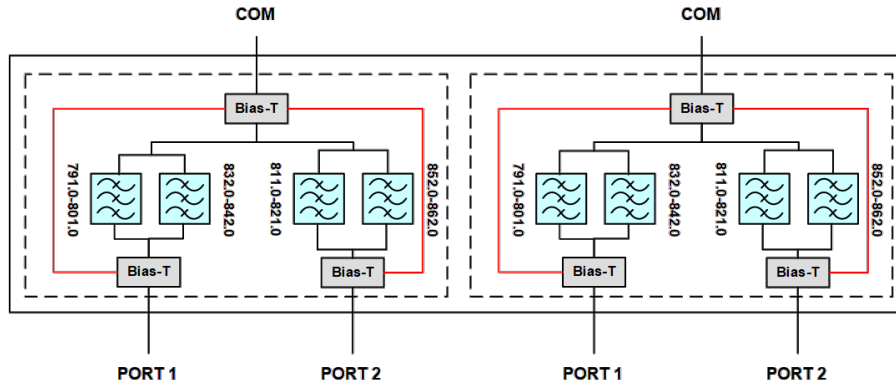
### 800 Band/850 Band Combiner

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Twin 800 Band/850 Band Combiner Outline Drawing

### Block Diagram



Twin 800 Band/850 Band Combiner Block Diagram



# Filters & Combiners

## 800 Band/850 Band Combiner

PFC-885-602

### STANDARDS & CERTIFICATIONS

#### Parts & Accessories

**PFC-885-602** Twin 800 Band/850 Band Combiner with 4.3-10 connectors and bracket

#### Standards & Compliance

<b>Safety</b>	EN 60950-1, UL 60950-1
<b>Emission</b>	EN 55022
<b>Immunity</b>	EN 55024
<b>Environmental</b>	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

Federal Communication Commission (FCC) Part 15 Class B, CE, CSA US, ISO 9001

