

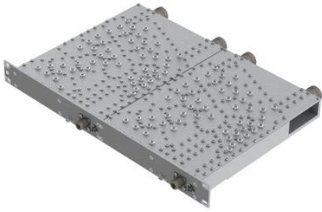


Filters & Combiners

DATA SHEET

1900 Dual Duplexer

DDP-1819-HP-1



- Two 1900 Dual Duplexers in a 1U Tray
- Combines Tx and Rx BTS outputs onto a common feeder
- Two Dual Duplexers in one housing
- DC inputs for passing bias
- Integrated Bandpass

Overview

CCI's Dual Duplexer combines Tx and Rx paths onto a common feeder. Provides Duplexing of UMTS and GSM onto a single feeder without the loss normally associated with passive combiners. Separate isolated receive paths permit connection of multiple components, such as CCI's RX-AIT (Multicoupler). The Tx filter is a high Q design optimized for low insertion loss with high power handling. The Rx1 filter provides significant rejection in the Tx band, while maintaining low loss. The Rx2 filter provides moderate rejection in the Tx band.



Filters & Combiners

SPECIFICATIONS

1900 Dual Duplexer

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Electrical

RF Parameters	Ports	Frequency(MHz)	Specification	
Return Loss	ANT	1850 - 1910	20 dB min.	
		1930 - 1990	20 dB min.	
	BTS	1850 - 1910	20 dB min.	
		1930 - 1990	20 dB min.	
	RX OUT	1850 - 1910	20 dB min.	
		RX IN	1850 - 1910	20 dB min.
	Insertion Loss	ANT to RX OUT	1850 - 1910	0.6 dB typ.
		ANT to BTS	1930 - 1990	0.25 dB typ.
		BTS to RX IN	1850 - 1910	0.6 dB typ.
	Rejection	ANT to RX OUT	1930 - 1990	91 dB min.
		ANT to BTS	1850 - 1910	60 dB min.
		BTS to RX IN	1930 - 1990	45 dB min.

General Characteristics	
Impedance	50 ohms
Group Delay	100 nS max. / 3.84 MHz band
Amplitude Ripple	± 0.05 dB max. / 3.84 MHz band
Phase Ripple	± 3 deg. max. / 3.84 MHz band
Continuous Average Power	500 W max. (BTS and ANT ports)
	1 W max. (RX IN and RX OUT ports)
Peak Envelope Power	2 kW max. (all ports)
Intermodulation Performance	<-117 dBm (-160 dBc) typical (2 x +43 dBm tones)
DC Pass Current	3A DC

Environmental

Operating Temperature	0° C to +55° C
Enclosure	Indoor
MTBF	>500,000 hours

Mechanical

Connectors	4 x 7-16 DIN female [BTS 0, BTS 1, ANT 0, ANT 1] (rear), 2 x SMA female [RX IN 0, RX IN 1] (front), 2 x N female [RX OUT 0, RX OUT 1] (front), 2 x JST 2-Pin Plug [DC 0, DC 1] (front)
Dimensions (body only)(HxWxD)	1U or 1.75 x 17.0 x 12.1 in. (44.45 x 432 x 308 mm)
Dimensions (incl. connectors)(HxWxD)	1U or 1.75 x 19.0 x 14.0 in. (44.45 x 483 x 356 mm)
Weight with brackets	25 lbs max. (11.34 kg)

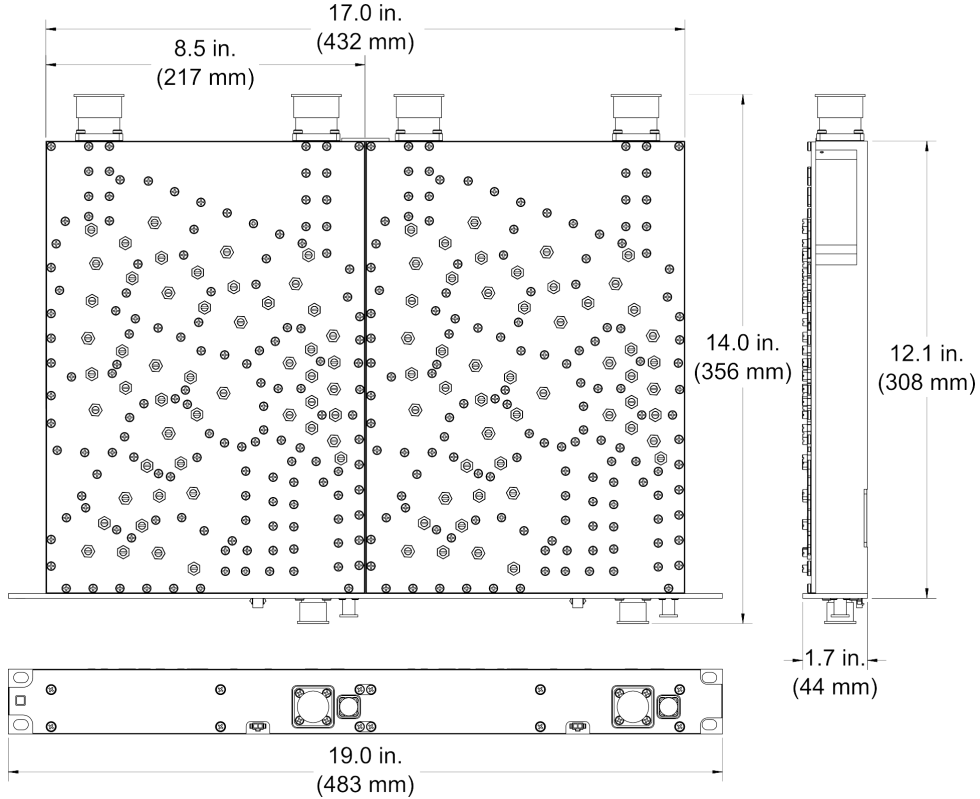


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SPECIFICATIONS

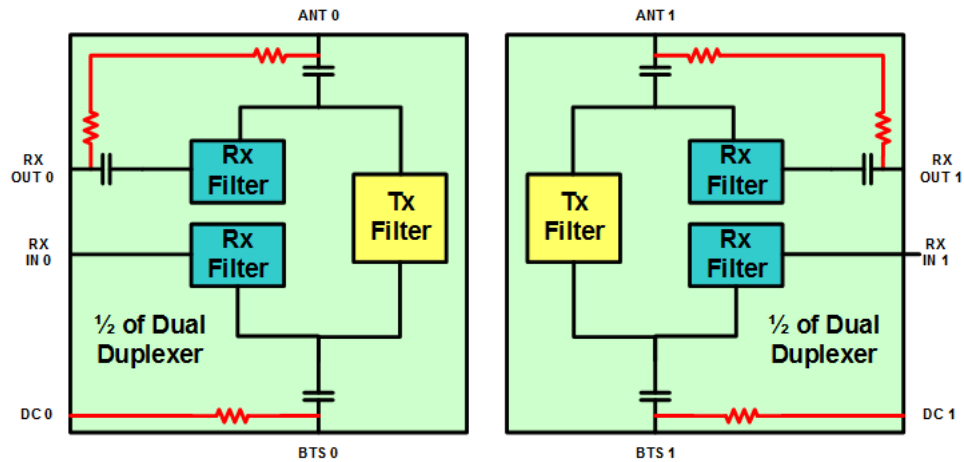
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Dual Duplexer Outline Drawing

Block Diagram



Dual Duplexer Block Diagram



Filters & Combiners

ORDERING

1900 Dual Duplexer

DDP-1819-HP-1

Parts & Accessories

DDP-1819-HP-1 1900 MHz Dual Duplexer



Filters & Combiners

STANDARDS &
CERTIFICATIONS

1900 Dual Duplexer

DDP-1819-HP-1

Certifications

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