

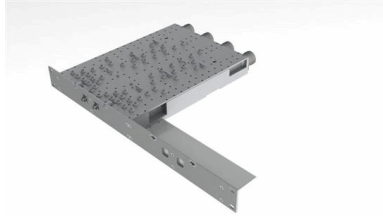


# Filters & Combiners

DATA SHEET

## 1900 Double Duplexer

DUP-1819-2-1



- Two Double Duplexers in a single 1U Height "Rack Mountable" Tray
- Unduplexes fully duplexed cabinets for RXAIT
- Ideal for adding additional cabinets of the same type
- Combines Tx and Rx BTS outputs onto a common feeder
- Two Duplexers in one housing
- Integrated Bandpass
- Optional second (or "Expansion") Duplexer can be installed adjacent to the first Duplexer on the Tray
- DC Pass-Through now available on "New" 1900 MHz Duplexers. DC ports are mounted on the Duplexer Front Panel

### Overview

CCI's Double Duplexer combines Tx and Rx paths onto a common feeder. The Tx filter provides a low insertion loss, high power handling path, with high rejection of the receive band. The Rx filter passes the full receive band and provides significant rejection to a broad spectrum, with a minimum of 90 dB in the Tx Passband. The Tx filter is a high Q design optimized for low insertion loss with high power handling. The duplexer is designed to be expandable. A second unit can be installed adjacent to the first unit, saving rack space for a total of four (4) duplexers in a 1U high space. The above photo shows the standard unit "without" the optional second unit. DC ports allow for Bias of TMA's. Note: "Old" Duplexer units do not have DC-Pass-Through.



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## SPECIFICATIONS

### 1900 Double 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.
	RX	1850 - 1910	20 dB min.
	TX	1930 - 1990	20 dB min.
Insertion Loss	ANT to RX	1850 - 1910	0.6 dB typ.
	ANT to TX	1930 - 1990	0.25 dB typ.
Rejection	ANT to RX	1930 - 1990	90 dB min.
	ANT to TX	1850 - 1910	60 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 TX ports)
	1 W max. (RX 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

#### Environmental

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

#### Mechanical

Connectors	4 x 7-16 DIN female [BTS ANT A, BTS ANT B, TX A, TX B] (rear), 2 x SMA DIN female [RX-A, RX-B] (front), 2 x Molex "Micro-Fit 3.0" Plug [DC-A, DC-B] (front)
Dimensions (body only)(HxWxD)	1U or 1.75 x 17.0 x 12.125 in. (44.45 x 431.79 x 307.98 mm)
Dimensions (incl. connectors)(HxWxD)	1U or 1.75 x 19.0 x 13.862 in. (44.45 x 482.6 x 352.10 mm)
Weight with brackets	15 lbs max. (5.44 kg)

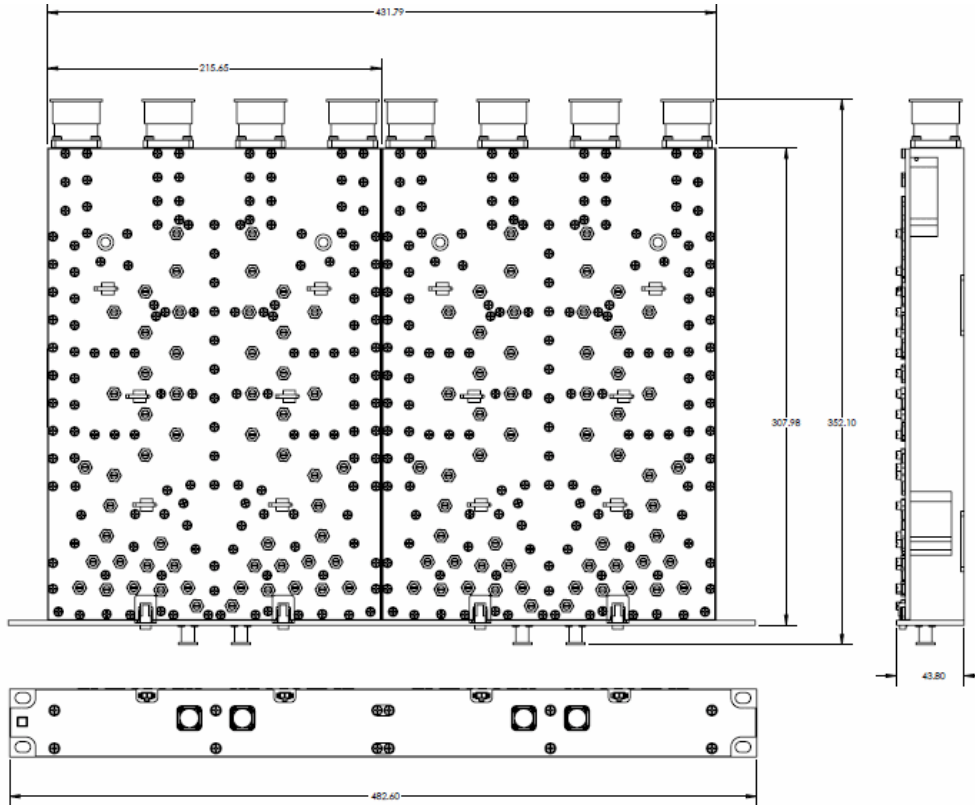


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SPECIFICATIONS

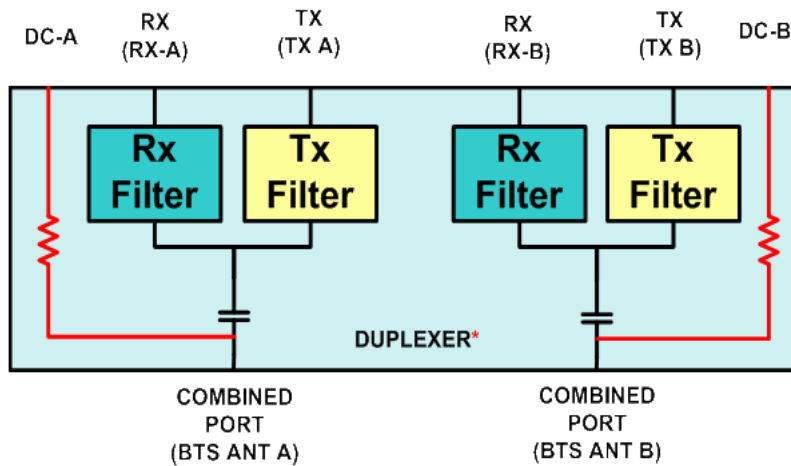
1900 Double Duplexer

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Duplexer Outline Drawing

Block Diagram



Duplexer Block Diagram



# Filters & Combiners

ORDERING

1900 Double Duplexer

DUP-1819-2-1

Parts & Accessories

DUP-1819-2-1 1900 MHz Double Duplexer



# Filters & Combiners

STANDARDS &  
CERTIFICATIONS

1900 Double Duplexer

DUP-1819-2-1

Certifications

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