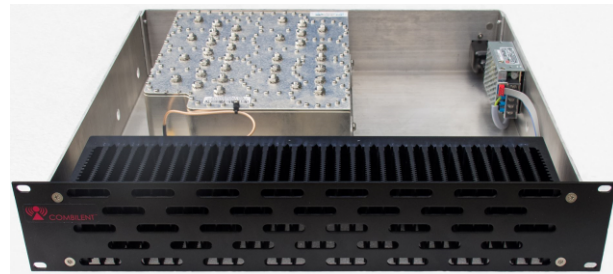


## 1 ch / 2 ch Combiner and Duplexer System

### Key features:

Two transmitter duplexing with amplifier on a single antenna.

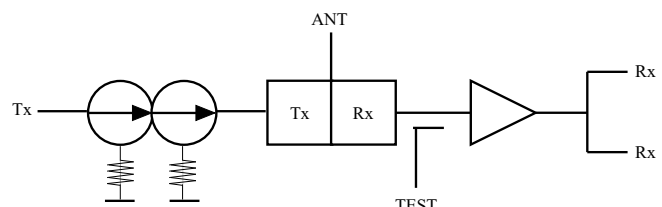
- Two Base Stations to operate on a single antenna
- Low Noise amplifier included for maximum sensitivity
- Band-pass selectivity in the duplexer for high level carrier suppression
- Test port included for accurate receiver sensitivity measurements
- Integrated isolators on the Duplex system shelf
- Low PIM design for a two channel duplexer
- Integrated receive distribution for one or two channels
- Hybrid design to allow combining without regard to transmit frequency separation
- Compact 19" design
- Wide bandwidth for UHF
- Full band for 7/8/900 MHz
- Multiple units allows more than two channels to be combined on multiple antennas
- Very economical compared to two duplexers, two antennas, and two antenna cables



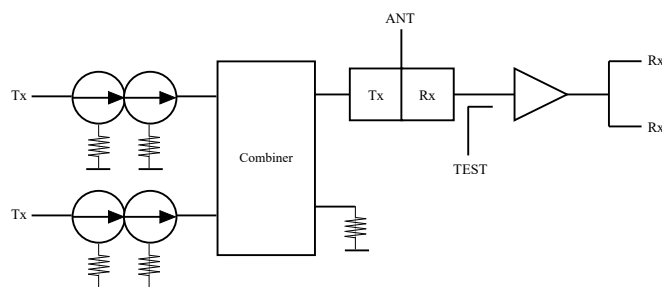
Front view



Back view



Schematic 1 ch version



Schematic 2 ch version

### Cost / installation advantages:

- Reduces the number of antennas and cables on the tower, reducing wind loading, icing problems, tower climbs, etc.
- Reduced time for installation, less time at the site
- Less cable on the tower and fewer antennas results in lower long-term maintenance costs
- Compact – takes up less rack space.
- Fewer tower climbs, a distinct cost advantage

### Combilent

Ryttermarken 5, 3520 Farum, Denmark  
[sales@combilent.com](mailto:sales@combilent.com) [www.combilent.com](http://www.combilent.com)

### TX RX Systems

8625 Industrial Parkway, Angola, NY 1400, USA  
[sales@txrx.com](mailto:sales@txrx.com) [www.txrx.com](http://www.txrx.com)



DS20398. June 23, 2020

**Part numbers:**

Description	Part number	Part number
<b>Antenna connector</b>	<b>7-16 female</b>	<b>4.3-10 female</b>
2 ch duplexer 380-420 MHz	CP05445	CP06408
2 ch duplexer 450-470 MHz	CP04491	CP06409
2 ch duplexer 480-512 MHz	CP05446	CP06410
2 ch duplexer 700 MHz Rx: 793-805 MHz/ Tx: 763-775 MHz	CP05455	tbd
2 ch duplexer 800 MHz Rx: 806-824 MHz / Tx: 851-869 MHz	CP05456	CP06427
2 ch duplexer 800 MHz Rx: 806-816 MHz / Tx: 851-861 MHz	CP06406	N/A
2 ch duplexer 900 MHz Rx: 896-902 MHz / Tx: 935-941 MHz	CP01031	CP06412

Description	Part number	Part number
<b>Antenna connector</b>	<b>7-16 female</b>	<b>4.3-10 female</b>
1 ch duplexer 380-420 MHz	CP06423	CP06424
1 ch duplexer 450-470 MHz	CP06405	CP06411
1 ch duplexer 480-512 MHz	tbd	tbd
1 ch duplexer 700 MHz Rx: 793-805 MHz/ Tx: 763-775 MHz	tbd	tbd
1 ch duplexer 800 MHz Rx: 806-824 MHz / Tx: 851-869 MHz	CP06425	CP06426
1 ch duplexer 900 MHz Rx: 896-902 MHz / Tx: 935-941 MHz	CP01011	CP06413

**Combilent**

Ryttermarken 5, 3520 Farum, Denmark  
[sales@combilent.com](mailto:sales@combilent.com) [www.combilent.com](http://www.combilent.com)

**TX RX Systems**

8625 Industrial Parkway, Angola, NY 1400, USA  
[sales@txrx.com](mailto:sales@txrx.com) [www.txrx.com](http://www.txrx.com)



DS20398. June 23, 2020

### Specification, System

<b>Frequency</b>	According to part number
<b>Tx / Rx bandwidth UHF</b>	See table below. Please specify frequencies
<b>Duplex spacing UHF</b>	See table below
<b>Tx insertion loss</b>	See table below
<b>Tx input power</b>	2*100 W
<b>Tx input return loss</b>	>18 dB
<b>Tx-Tx isolation</b>	>75 dB (2 ch only)
<b>Tx to ANT selectivity in Rx band</b>	>80 dB
<b>ANT port return loss in Tx band</b>	>17 dB
<b>PIM</b>	Tolerant
<b>Rx gain</b>	5 dB to 14 dB in 1 dB steps settable by rotary switch
<b>Noise figure (at max. gain)</b>	See table below
<b>Integrated test port</b>	30 dB
<b>OIP3 (at max. gain)</b>	+35 dBm
<b>Rx port return loss</b>	>15 dB.
<b>Rx to Rx isolation</b>	>20 dB
<b>ANT to Rx selectivity in Tx band</b>	>80 dB
<b>ANT port return loss in Rx band</b>	>17 dB
<b>Operating temp.</b>	-10°C to 60°C
<b>Enclosure</b>	Indoor
<b>Connectors, Tx</b>	N-female in the back
<b>Connector, ANT</b>	According to part number table
<b>Connectors, Rx and TEST</b>	BNC-female in the back
<b>Dimensions</b>	19", 2U, 15.8" deep
<b>Weight</b>	25 lbs
<b>Drawings</b>	OD19457

<b>Part number</b>	<b>Band width</b>	<b>Duplex spacing</b>	<b>Tx-insertion loss (typical)</b>	<b>Rx noise figure (typical)</b>
CP05445 / CP06423	5 MHz	10 MHz	5.3 dB / 1.8 dB	3 dB
CP04491 / CP06405	2.5 MHz	5 MHz	5.8 dB / 2.3 dB	3 dB
CP04446	5 MHz	10 MHz	5.3 dB	3 dB
CP05455	Full band	30 MHz	4.8 dB	2.7 dB
CP05456 / CP06425	Full band	45 MHz	4.8 dB / 1.3 dB	2.7 dB
CP06406	10 MHz	45 MHz	4.6 dB	2.5 dB
CP01031 / CP01011	Full band	39 MHz	4.8 dB / 1.3 dB	2.7 dB

### Combilent

Ryttermarken 5, 3520 Farum, Denmark  
[sales@combilent.com](mailto:sales@combilent.com) [www.combilent.com](http://www.combilent.com)

### TX RX Systems

8625 Industrial Parkway, Angola, NY 1400, USA  
[sales@txrx.com](mailto:sales@txrx.com) [www.txrx.com](http://www.txrx.com)