

Control Station Combiner

Standard SN Series

890-960MHz

CS8996-xx05-SN Series



RFI's range of Standard SN Control Station Combiners combine multiple shared Tx output / Rx input (T/R) ports from control station radios and then separate them into two separate paths which can be terminated via a duplexer to a single antenna or connected to separate transmitter and receiver antennas. The CSC provides predictable co-located control station radio transceiver to transceiver isolation and full frequency agility within the designated band.

Compatible with both analog and digital communication systems the CSC is modular in construction providing easy expansion accommodating from 4 up to 32 channels. Fitted to 19 inch rack front panels these units are compact and robust maximizing heat dissipation for relatively high per channel duty cycles.

Features:

- Combines transceivers in the 890 to 960MHz frequency band
- Effective combining method for frequency agile single port mobile transceivers
- Multiple shared (T/R) ports are separated into Rx and Tx only ports
- Modular and expandable from 4 up to 32 channels
- Fixed non-tunable predictable port to port isolation
- 19 inch rack mountable
- 50W per channel rating



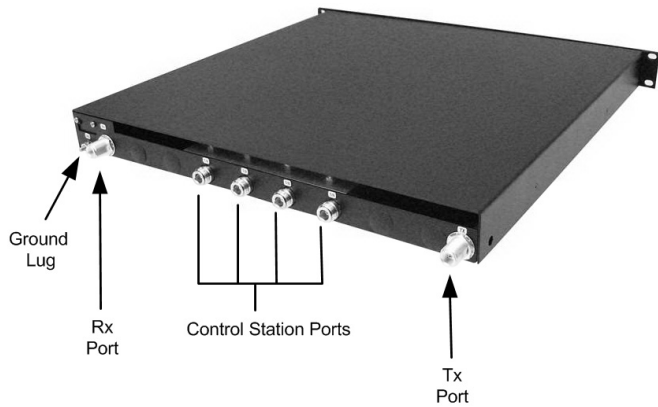
Specifications

| Model Number | CS8996-xx05-SN | | | | | |
|--|------------------|--------|------|------|--------|--------|
| Model number derivative | 04 | 08 | 12 | 16 | 24 | 32 |
| Number of channels | 4 | 8 | 12 | 16 | 24 | 32 |
| Type | Banded | | | | | |
| Frequency range | 890-960MHz | | | | | |
| Minimum Tx to Tx frequency separation between channels | 0MHz | | | | | |
| Input power per channel (<i>maximum</i>) | 50W | | | | | |
| Insertion Loss (<i>typical +/-1dB</i>) | 8.5dB | 11.5dB | 15dB | 15dB | 18.5dB | 18.5dB |
| Antenna to Tx Isolation (<i>typical</i>) | 55dB | | | | | |
| Tx to Tx Isolation (<i>typical</i>) | 60dB | | | | | |
| Tx to Rx Isolation (<i>typical</i>) | 60dB | | | | | |
| Input port Return Loss / VSWR | > 14dB / < 1.5:1 | | | | | |
| Impedance | 50 Ohm | | | | | |
| Termination connectors | N (F) | | | | | |
| Finish | Painted Black | | | | | |
| Depth | 16.5" | | | | | |
| Total 19 inch Rack Units (<i>height</i>) | 1RU | 1RU | 3RU | 3RU | 4RU | 5RU |
| Temperature Range | 14°F to 122° F | | | | | |

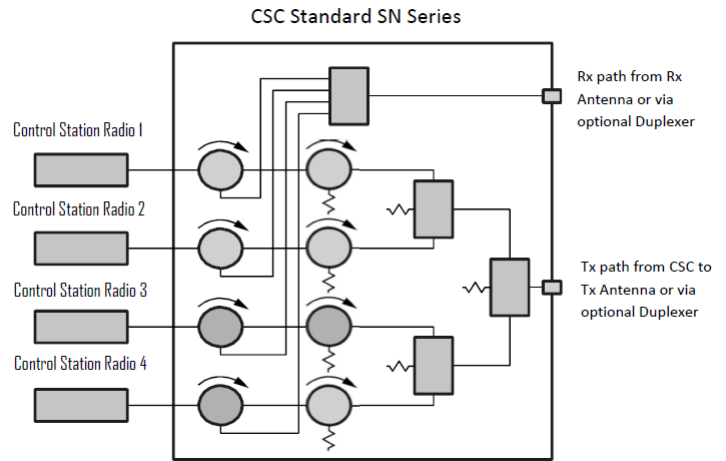
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 890-960MHz
 CS8996-xx05-SN Series



CS8996-0405-SN Port allocations



Functional block diagram of a 4-Ch Standard SN CSC

| Ordering Information | Description |
|----------------------|--|
| CS8996-0405-SN | Control Station Combiner, 890-960MHz, 4 Ch 50W N(F) |
| CS8996-0805-SN | Control Station Combiner, 890-960MHz, 8 Ch 50W N(F) |
| CS8996-1205-SN | Control Station Combiner, 890-960MHz, 12 Ch 50W N(F) |
| CS8996-1605-SN | Control Station Combiner, 890-960MHz, 16 Ch 50W N(F) |
| CS8996-2405-SN | Control Station Combiner, 890-960MHz, 24 Ch 50W N(F) |
| CS8996-3205-SN | Control Station Combiner, 890-960MHz, 32 Ch 50W N(F) |

Supporting Products

RFI can supply a range of duplexers to support the use of our Control Station Combiners.



| | |
|---------------------|----------------|
| Model Number | DP8010-0883-32 |
| Frequency Range #1 | 896-902MHz |
| Frequency Range #2 | 935-941MHz |
| Pass Band | 6MHz |
| Tx to Rx Separation | 39MHz |

| Ordering Information | Description |
|----------------------|---|
| DP8010-0883-32 | Duplexer 896-941MHz 6MHz PB, 39MHz T/R, 100W, 2RU |

Refer to individual data sheets for more detailed information.

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