DSDUP01 and DSDUP02 900 MHz Band
One and Two Channel Integrated Duplexer System
With Cellular Notch at 894 MHz and Built-in Receive LNA

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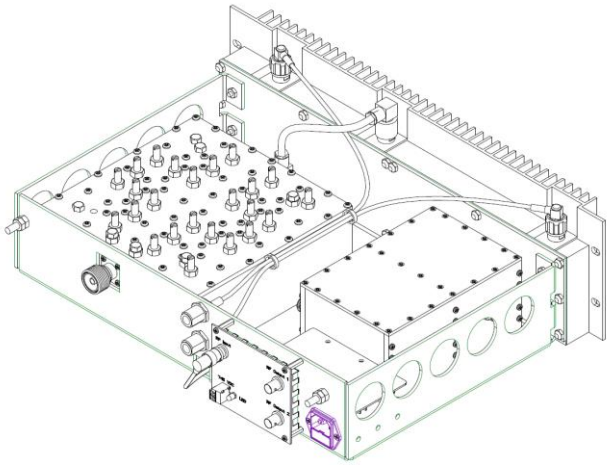
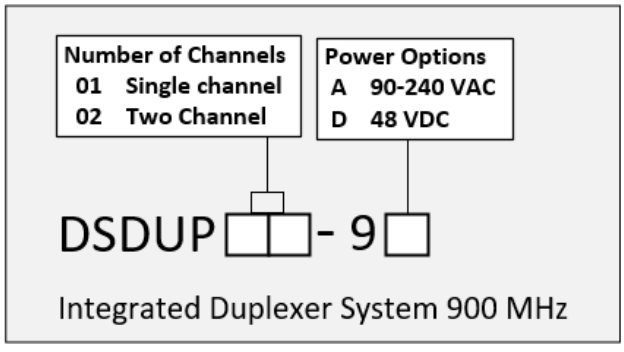


Rear view of two-channel model shows Isolator heat sink front panel and rear panel RF connections

Features and Benefits

- Enables use of one antenna and feedline for simultaneous transmit and receive. Integrated system includes built-in RX Multicoupler with Low Noise Amplifier (LNA) and splitter for two receive channels.
- Single-channel and two-channel models are available. Two-channel model includes 2-Way hybrid combiner.
- Transmitter connection(s) include RF isolators for transmitter intermodulation (IM) prevention.
- Milled-filter construction provides excellent selectivity in compact 3RU assembly. Filter provides a notch at 894 MHz to block cellular signals.

Ordering Information



Duplexer filters must be factory tuned; provide frequency information at time of order. Duplexer includes mounting brackets for two-post or four-post mounting.

Specifications

Electrical Specifications	
Frequency Band	**896-902 MHz (RX) 935-941 MHz (TX)**
Minimum TX-TX Spacing	**No Minimum**
Bandwidth of Passbands *(TX and RX)*	**6 MHz**
TX Isolation at RX 902 MHz	**>100 dB**
RX Isolation at TX 935 MHz	**>110 dB**
RX Filter Attenuation at 894 MHz *(Cellular Notch)*	**>70 dB**
TX Insertion Loss Single-Channel *(includes TX isolator)*	**< 3 dB**
TX Insertion Loss Two-Channel *(includes two TX Isolator & Hybrid)*	**< 6 dB**
Isolation: RX to RX	**> 20 dB**
Isolation: TX to TX	**> 50 dB**
Return Loss –All Ports	**>14 dB**
Receive System Noise Figure	**< 3 dB**
Net RX System Gain	**12 dB**
Amplifier Type	**Quadrature Coupled**
Amplifier Noise Figure	**< 1.5 dB**
Amplifier IP3	**> +40 dBm**
Maximum Transmitter Power Input *(continuous, each port)*	**100 W**
Power Requirement – AC Model	**90-240 VAC 50/60 Hz (25 Watts)**
Power Requirement – DC Model	**48 VDC < 0.5A (24 Watts) (±36-72 VDC, Isolated)**
Mechanical Specifications	
RX Test Port	**BNC - Female**
TX Connector (s)	**N-Type Female**
RX Connector(s)	**BNC Female**
Antenna Connector	**7/16 DIN Female**
Grounding Connector	**¼-20 Stud 1" length**
Mounting Configuration	**EIA 19" rack mounting 3 RU**
Dimensions	**19"W x 13" D x 5.25"**
Weight / Shipping Weight	**38 Lbs. / 43 Lbs.**
PIM-hardened Design	

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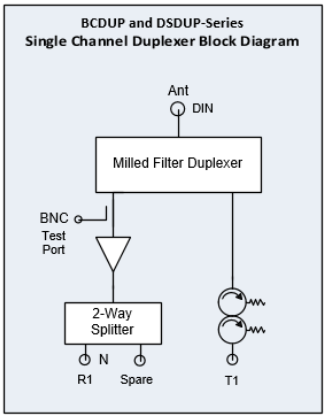
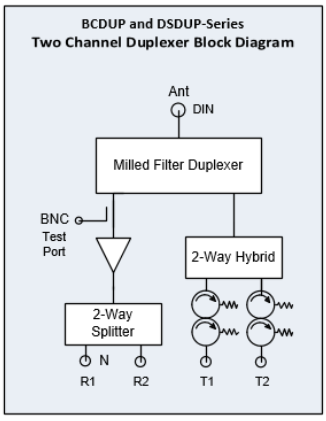
Block Diagrams

AC-input or DC -input
Power Supply for LNA not shown





Typical Performance With TX-RX Offset 39 MHz