

DR9011R

POINT-TO-POINT REPEATER

FEATURES

- Provides Repeater Capability Between a DR9011 TX and a DR9021 RX
- Receives and Retransmits Data on Different Frequencies
- Provides RF Link Around Obstructions and Increased Distance
- 900MHz and 2.4GHz Versions Available
- Spread Spectrum Frequency Hopping Technology*
- Ranges to 20 Miles From DR9011 TX and From DR9021 RX (900MHz)
- Ranges to 10 Miles From DR9011 TX and From DR9021 RX (2.4GHz)
- 5 Year Warranty
  1 Year on Radio Module
- UL/cUL Recognized

DESCRIPTION

The DR9011R Repeater is used to provide a path from a DR9011 Transmitter to a DR9021 Receiver, when the path between the transmitter and receiver is obstructed or too far in distance.

The DR9011R Repeater receives the signal transmitted by the DR9011 and retransmits it on a different Hop sequence for reception by the DR9021.

A different Hop value is used for reception and retransmission so there can be no partial reception of direct signals from the DR9011 to the DR9021.

Three radio modules are available for the DR9011 and DR9021, two 915MHz band versions with 7 Hop sequences each and a 2.4GHz band version with 7 Hop sequences. They use spread spectrum, frequency hopping technology. These choices provide 21 different Hop sequences that allow 21 systems to work in the same locale without interfering with each other. The DR9011R Repeater uses the same radio modules.

With proper antenna and cable selection and a 915MHz band version radio, the DR9011 Transmitter can transmit up to 20 miles to the DR9011R Repeater. The DR9011R Repeater can transmit up to 20 miles to the DR9021 Receiver. The 2.4GHz band version can transmit up to 10 miles from unit to unit.

A DIP Switch on the PC board is used to set the Hop sequence for reception and retransmitting. Screw terminal blocks that plug into the case allow easy wiring and removal of products. All of the DR Series products provide transient protection to help eliminate damage from lightning and from other transients created on the power and signal leads.

Long coaxial cable runs to external antennas require a surge suppressor Type N bulkhead connector in the coaxial cable system.

SPECIFICATIONS

RADIO

Frequency
- 908 MHz (Standard)
- 922 MHz (Optional)
- 2.4000 - 2.4835 GHz

Transmit Output Power
- 908 and 922 MHZ
  - 100mW (20dBm)
- 2.4 GHZ
  - 50mW (17dBm)

Receiver Sensitivity
- 908 and 922 MHZ
  - -110dBm
- 2.4 GHZ
  - -105dBm

Spread Spectrum Type,
Frequency Hopping, Direct FM
- 7 Hop Sequences per Frequency

Range (Line of Sight)
- 900 MHz — Up to 20 Mi. with high gain antennas
- 2.4GHz — Up to 10 Mi. with high gain antennas

Antenna Connector
- Reverse Polarity SMA Female (RPSMA)

CERTIFICATIONS

RF Module
- FCC Part 15.247

DR9011R Repeater
- UL/cUL Recognized

OPERATING TEMPERATURE

-13°F to 167°F
-25°C to 75°C

POWER

DR9011R Repeater
- 10 to 30 VDC
  - 1.5 Watts Max

* See page 56 for a comprehensive definition.

ORDERING INFORMATION

RADIO

- ☐ 908 MHz - Standard
- ☐ 922 MHz - Optional
- ☐ 2.4 GHz

NOTE: Radio used must match DR9011- DR9021 Radio

Except in rare occasions, the antenna will need to be a vertical omni-directional antenna.

*** NOTE: This unit must be used with a DR9011 Transmitter and DR9021 Receiver.**

ACCESSORIES

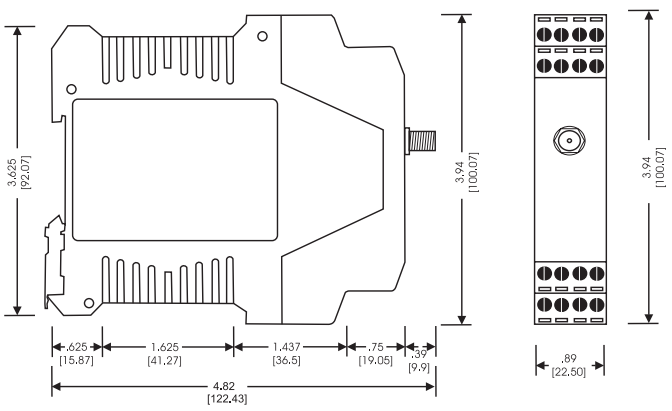
RP = Reverse Polarity

4073	Two Antenna Coupler, Transmit and Receive, 2-Port 900 MHz	QTY _____
4051	Receive Only, 2 to 4 Antenna Coupler 4-Port 900 MHz	QTY _____
4061	Receive Only, 2 to 4 Antenna Coupler 4-Port 2.4 GHz	QTY _____
4062	50 Ohm Termination, For Unused Ports On P/N 4051,4061	QTY _____
4022	PSP24-024S, 24 VDC 1 Amp Power Supply	QTY _____
4026	Bulkhead Connector Type N Female to Type N Female	QTY _____
4011	Bulkhead Surge Protector Type N Male to Type N Female	QTY _____
4035	Bulkhead Surge Protector Type N Female to Type N Female	QTY _____
CBH2	2 Ft WBC195 Cable w/ RP-SMA Male & RP-SMA Female Bulkhead Connector	QTY _____
CBH6	6 Ft WBC195 Cable w/ RP-SMA Male & RP-SMA Female Bulkhead Connector	QTY _____
CBH10	10 Ft WBC195 Cable w/ RP-SMA Male & RP-SMA Female Bulkhead Connector	QTY _____
CBH-X	Custom Length WBC195 Cable w/ RP-SMA Male & RP-SMA Female Bulkhead Connector	QTY _____
CPT2	2 Ft WBC195 Cable w/ RP-SMA Male & Type N Male Connector	QTY _____
CPT6	6 Ft WBC195 Cable w/ RP-SMA Male & Type N Male Connector	QTY _____
CPT10	10 Ft WBC195 Cable w/ RP-SMA Male & Type N Male Connector	QTY _____
CPT-X	Custom Length WBC195 Cable w/ RP-SMA Male & Type N Male Connector	QTY _____

For more accessories and cables, see the ACCESSORIES section of this catalog (Page 51).

DIMENSIONS

Inches [mm]



CONNECTIONS

TERMINAL	CONNECTION
1	NA
2	NA
3	NA
4	NA
5	NA
6	NA
7	NA
8	NA
9	NA
10	NA
11	NA
12	NA
13	NC
14	NC
15	Power +
16	Power -