

42-83J-05 Series Receive Multicouplers



HIGHSTAGE #
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TX RX Systems Receive Multicouplers are a key component in an efficient received-signal distribution system. The Receive Multicouplers amplify signals and then split them to the requisite number of output ports. The design has been optimized to handle strong signals without overloading, while maintaining a good noise figure.

Product Features

- Quadrature coupled low noise amplifier that provides multiple levels of redundancy to ensure continuous operation
- A test port is located on the front panel for easy access to allow for non-intrusive testing and benchmarking
- Expandable from 8 to 16 ports. Contact TX RX Systems for custom configurations beyond 16 ports
- Amplifier current fault monitoring is provided and is annunciated through a form-C output alarm contact that can be integrated into an external alarm system
- Gain is easily adjustable in increments of 1dB through an electronic attenuator
- Additional filtering can be provided externally by connecting to the preselector input and output ports that are provided
- Complies with R56 grounding requirements

Expansion Kits

Model Numbers	Description	Receive Connectors
75-05-08N	8 to 16 Port Expansion Kit, N	N
75-05-08B	8 to 16 Port Expansion Kit, BNC	BNC

Model Numbers	42-83J-05-08N	42-83J-05-08N-48	42-83J-05-08B	42-83J-05-08B-48	42-83J-05-16N	42-83J-05-16N-48	42-83J-05-16B	42-83J-05-16B-48
# of Ports	8	8	8	8	16	16	16	16
System Gain (MAX)*	18dB	18dB	18dB	18dB	15dB	15dB	15dB	15dB
Power Requirements	85-264 VAC	-48 VDC						
Receive Connectors	N	N	BNC	BNC	N	N	BNC	BNC
Dimensions	1RU x 19" x 14"	1RU x 19" x 14"	1RU x 19" x 14"	1RU x 19" x 14"	2RU x 19" x 14"	2RU x 19" x 14"	1RU x 19" x 14"	1RU x 19" x 14"

*Electronic Attenuator (0~15 dB range) in each unit can be used to reduce system gain for optimal performance.

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Specifications

Frequency Range	794-902 MHz
System Gain	See Model Matrix
Amplifier Type	Quadrature Coupled
Amplifier Noise Figure	< 1.5 dB
Amplifier OIP3	> +40dBm
Number of Output Ports	See Model Matrix
RF Port Return Loss	> 14 dB
Test Port Coupling	-30dB
Antenna Connector	N-female
Receiver Connector	See Model Matrix
Test Port Connector	BNC-female
Rx-Rx Port Isolation (Min)	>20 dB
Total Power Dissipation	4 Watts
Attenuator Setting	15 dB in 1 dB steps
Alarm Contacts	Form-C Contacts
Power Requirements	See Model Matrix
Operating Temperature	0°-50°C
Enclosure	Standard EIA 19" Rack
Dimensions (HWD)	See Model Matrix
Net Weight	9 lbs