



## FEATURES

- 20 To 1100 MHz
- 20 To 1200 MHz Option
- Switchable Dual Input Option
- 70 dB Reverse Isolation
- Wide Dynamic Range
- Low Noise
- Fourteen Outputs (Max)
- Tempest Option

## DESCRIPTION

The Model 414 VHF/UHF Multicoupler is a compact unit which provides the means to couple up to 14 VHF/UHF receivers to a single antenna or, optionally, to one of two switch selectable antennas (This feature may be remotely controlled). The input signal drives a wideband amplifier which achieves wide dynamic range and high isolation with amplifier gain sufficient to overcome incidental losses.

The Model 414 is available with a choice of the number of output connectors or as a dual channel unit which consists of two separate 1 input/6 or 8 output VHF/UHF multicouplers in a standard Model 414 chassis. The Model 414 operates from either 115 or 230 Vac power and is housed in totally shielded chassis 1-3/4 inch high, that is suitable for installation in an EIA standard 19-inch rack. A TEMPEST option is available.

## SPECIFICATIONS

<b>Frequency Range</b>	20 to 1100 MHz - Standard 20 to 1200 MHz - Optional
<b>Number of Inputs</b>	One - Standard Two - (Switchable Dual Input) - Optional
<b>Number of Outputs</b>	6, 12 or 14
<b>Impedance - Input and Output</b>	50 ohms
<b>VSWR</b>	2:1 maximum
<b>Gain</b>	2 dB nominal
<b>Gain Flatness</b>	±2 dB
<b>Isolation, Output-Output</b>	30 dB minimum
<b>Isolation, Output-Input</b>	70 dB minimum
<b>Dynamic Range</b>	
<b>2nd Order Input Intercept Point</b>	+30 dBm typical
<b>3rd Order Input Intercept Point</b>	+18 dBm typical

Specifications subject to change without notice.

<b>Input for 1 dB Gain Compression</b>	+5 dBm typical, 0 dBm minimum
<b>Noise Figure</b>	7.5 dB nominal, 8.5 dB maximum
<b>Connectors</b>	
<b>Output</b>	BNC - rear panel mounted
<b>Input</b>	Type N
<b>Controls</b>	Power, Input Selector
<b>Power</b>	115/230 Vac, 47 to 62 Hz, 15 watts - Standard 115/230 Vac, 47 to 420 Hz, 15 watts - Optional
<b>EMI</b>	Designed to meet TEMPEST requirements - Optional
<b>Temperature - Operating Style</b>	0° to 50°C EIA Standard Chassis, 1-3/4" high, 16" deep, suitable for 19" rack mounting
<b>Weight</b>	11 lbs.

## ORDERING INFORMATION

A standard Model 414 VHF/UHF Multicoupler has a frequency range of 20 to 1100 MHz, a single input with a Type N input connector, BNC output connectors and a 115/230 VAC, 47-62 Hz Power Supply. The number of outputs (6, 12 or 14), as well as any other desired options, must be specified from the options list below. A dual-channel version, the Model 414-2, is also available. When ordering, please specify:

<b>414</b>	VHF/UHF Multicoupler (single channel)	<b>K22</b>	TNC Input Connector
<b>Y06</b>	6 Outputs	<b>K31</b>	Type N Output Connectors
<b>Y12</b>	12 Outputs	<b>K32</b>	TNC Output Connectors
<b>Y14</b>	14 Outputs	<b>414-2</b>	VHF/UHF Multicoupler (Dual Channel, each with one input and six outputs)
<b>R01</b>	Extended Frequency Range (20-1200 MHz)	<b>Y06</b>	6 Outputs
<b>S01</b>	Switchable Dual Input	<b>R01</b>	Extended Frequency Range (20-1200 MHz)
<b>S09</b>	Remotely Controlled Switched Inputs	<b>T01</b>	Designed to meet TEMPEST requirements
<b>T01</b>	Designed to meet TEMPEST requirements	<b>P01</b>	400 Hz Power Supply
<b>P01</b>	400 Hz Power Supply		
<b>K01</b>	MS Power Input Connector		

## WARRANTY

All of Reaction Instruments' equipment is guaranteed for one year, except for damage caused by accident or misuse, provided the equipment is returned for repair to the plant in Herndon, VA

**Adams Russell**

**REACTION INSTRUMENTS, INC.**

475 Springpark Place, Herndon, VA 22070  
(703) 471-6060 FAX (703) 471-4847

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