

# **RECEIVER MULTICOUPLERS**



Receiver multicouplers are an essential part of today's modern multi-channel antenna systems.

There are four key components in a receiver multicoupler which determine its overall performance:

**The Preselector**, comprised of cascaded bandpass filters to provide high selectivity in dense R.F. environments. It filters unwanted signals from entering the amplifier and contributes in reducing the overall noise figure of the system.

**The Amplifier**. In order to be effective in high R.F. environments, amplifiers must have a high third order intercept point to handle off-frequency signals of high amplitude, and be capable of handling strong signals without overloading the receiver.

**The Power Divider**. Broadband unit to divide the received signals from the output of the amplifier to the individual receiver ports. They provide 25 dB or more isolation between each receiver port to minimize any possible interaction.

**The Power Supply**. A 110 VAC/12 VDC source is required to drive the amplifier.

Alternate power sources, preselectors and amplifiers with PIN-Diode attenuators are available to suit specific site requirements.

Please consult our representative for additional information.

# RECEIVER MULTICOUPLERS

# Features

- ◆ Non-expandable series allow 2 to 12 receivers to be connected to a single antenna.
- ◆ Economical solution for systems with a limited number of channels.
- ◆ High selectivity and low noise to maximize system performance.
- ◆ Compact design to minimize rack space.
- ◆ Comes complete with 110VAC/12VDC power supply, amplifier and compact preselector filter.
- ◆ Alternate power sources, connectors, preselectors & mechanical configurations are available to suit specific system requirements.

# Receiver Multicouplers

RMC-150\*\* /N Series

138-174 MHz

*This series of non-expandable receiver multicouplers has been specially designed to provide outstanding immunity to intermodulation. They are designed for use in the most demanding environments and can combine 2 to 12 receivers to a single antenna.*

### Electrical Specifications

### RMC-150\*\*/N

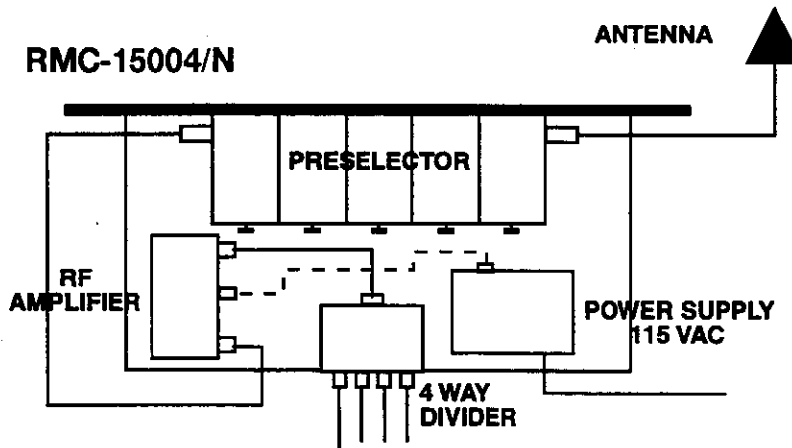
Electrical Specifications		RMC-150**/N
Frequency range	Mhz	138-174
Number of channels		2-12
System gain (min)	dB	1
V.S.W.R. input/output		1.35:1
Noise figure (amplifier)	dB	3.0
Noise figure (system)	dB	4.5
3rd order intercept	dBm	+40
Isolation	dB	25
Temperature range		-30 C to +60 C
Termination		
Antenna input		N Female
Receiver outputs		BNC Female

- NOTES: 1) VSWR is referenced to 50 ohms  
 2) Specify 115 VAC or 230 VAC when ordering  
 3) Specify operating frequencies when ordering  
 4) Insert number of channels desired (\*\*) in model number

### Mechanical Specifications

### RMC-150\*\*/N

Mechanical Specifications		RMC-150**/N
Height	in.(mm)	3.5 (88.9)
Width	in.(mm)	19 (483)
Depth	in.(mm)	10 (254)
Weight	lb(kg)	6 (2.7)





# Features

- ◆ Non-expandable series allow 2 to 12 receivers to be connected to a single antenna.
- ◆ Economical solution for systems with a limited number of channels.
- ◆ High selectivity and low noise to maximize system performance.
- ◆ Compact design to minimize rack space.
- ◆ Comes complete with 110VAC/12VDC power supply, amplifier and compact preselector filter.
- ◆ Alternate power sources, connectors, preselectors & mechanical configurations are available to suit specific system requirements.

# Receiver Multicouplers

RMC-450\*\*/N

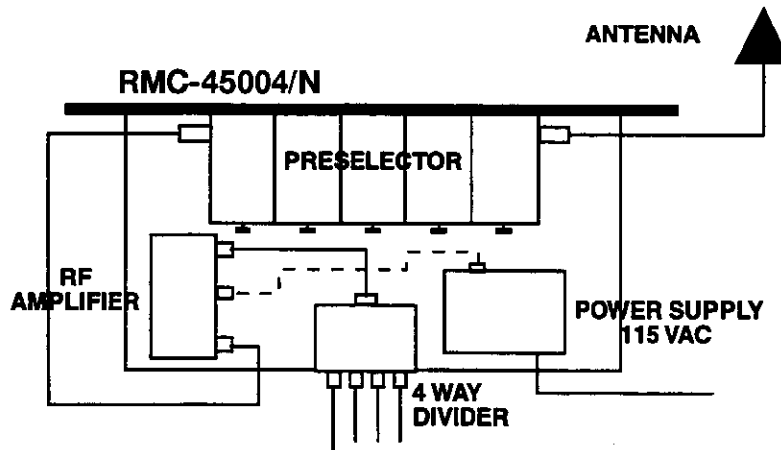
406-512MHz

*This series of non-expandable receiver multicouplers has been specially designed to provide outstanding immunity to intermodulation. They are designed for use in the most demanding environments and can combine 2 to 12 receivers to a single antenna.*

Electrical Specifications		RMC-450**/N
Frequency range	Mhz	406-512
Number of channels		2-12
System gain (min)	dB	1
V.S.W.R. input/output		1.35:1
Noise figure (amplifier)	dB	2.4
Noise figure (system)	dB	3.9
3rd order intercept	dBm	+40
Isolation	dB	25
Temperature range		-30 C to +60 C
Termination		
Antenna input		N Female
Receiver outputs		BNC Female

- NOTES: 1) VSWR is referenced to 50 ohms  
 2) Specify 115 VAC or 230 VAC when ordering  
 3) Specify operating frequencies when ordering  
 4) Insert number of channels desired (\*\*) in model number

Mechanical Specifications		RMC-450**/N
Height	in.(mm)	3.5 (88.9)
Width	in.(mm)	19 (483)
Depth	in.(mm)	10 (254)
Weight	lb(kg)	6 (2.7)



# Features

- ◆ Non-expandable series allow 2 to 12 receivers to be connected to a single antenna.
- ◆ Economical solution for systems with a limited number of channels.
- ◆ High selectivity and low noise to maximize system performance.
- ◆ Compact design to minimize rack space.
- ◆ Comes complete with 110VAC/12VDC power supply, amplifier and compact preselector filter.
- ◆ Alternate power sources, connectors, preselectors & mechanical configurations are available to suit specific system requirements.

# Receiver Multicouplers

RMC-800\*\*/N

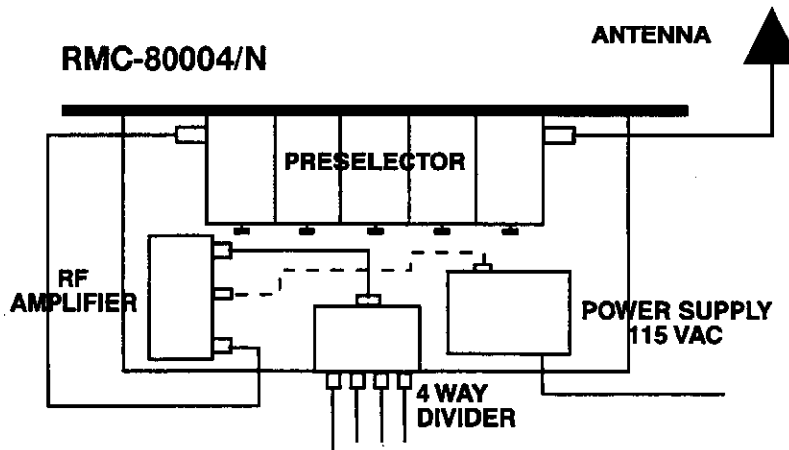
806-960MHz

*This series of non-expandable receiver multicouplers has been specially designed to provide outstanding immunity to intermodulation. They are designed for use in the most demanding environments and can combine 2 to 12 receivers to a single antenna.*

Electrical Specifications		RMC-800**/N
Frequency range	Mhz	806-960
Number of channels		2-12
System gain (min)	dB	1
V.S.W.R. input/output		1.35:1
Noise figure (amplifier)	dB	3.4
Noise figure (system)	dB	4.7
3rd order intercept	dBm	+38
Isolation	dB	25
Temperature range		-30 C to +60 C
Termination		
Antenna input		N Female
Receiver outputs		BNC Female

- NOTES: 1) VSWR is referenced to 50 ohms  
 2) Specify 115 VAC or 230 VAC when ordering  
 3) Specify operating frequencies when ordering  
 4) Insert number of channels desired (\*\*) in model number

Mechanical Specifications		RMC-800**/N
Height	in.(mm)	3.5 (88.9)
Width	in.(mm)	19 (483)
Depth	in.(mm)	10 (254)
Weight	lb(kg)	6 (2.7)





# Features

- ◆ The RMC-802 series are easily expanded in the field to up to 64 receivers.
- ◆ High performance «ultra linear» amplifier and a 5 section steep skirt preselector provide high selectivity and low noise to maximize system performance.
- ◆ Compact design to minimize rack space.
- ◆ Modular design for ease of expandability.
- ◆ Comes complete with 110VAC/12VDC power supply, high gain amplifier and compact preselector filter.
- ◆ Alternate power sources, preselectors, and amplifiers with built-in PIN-Diode attenuator are available to suit specific system requirements

## Expandable Series

# Receiver Multicouplers

RMC-802\*\*/E

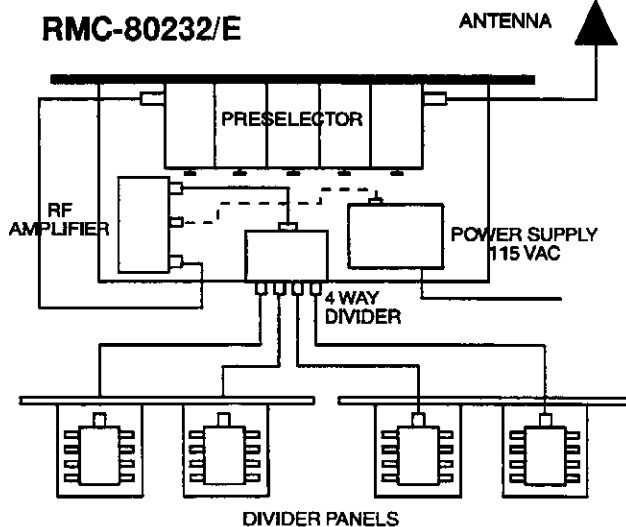
806-960 MHz

The RMC-802 series of expandable receiver multicouplers are specifically designed for SMR/Trunking systems at high density equipment sites. They provide outstanding immunity to intermodulation and can combine multiple receivers to a single antenna.

Electrical Specifications		RMC-802**/E
Frequency range	Mhz	806-960
Number of channels		2-64
System gain (min)	dB	1to 7
V.S.W.R. input/output		1.35:1
Noise figure (amplifier)	dB	2.0
Noise figure (system)	dB	3.7
3rd order intercept	dBm	+37
Isolation	dB	25
Temperature range		-30 C to +60 C
Termination		
Antenna input		N Female
Receiver outputs		BNC Female

- NOTES: 1) VSWR is referenced to 50 ohms  
 2) Specify 115 VAC or 230 VAC when ordering  
 3) Specify operating frequencies when ordering  
 4) Insert number of channels desired (\*\*) in model number

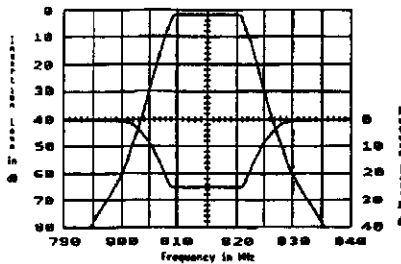
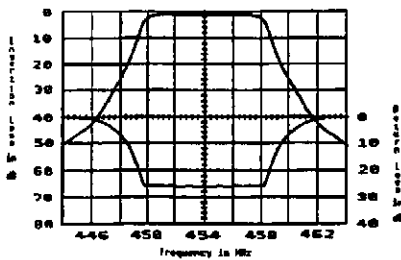
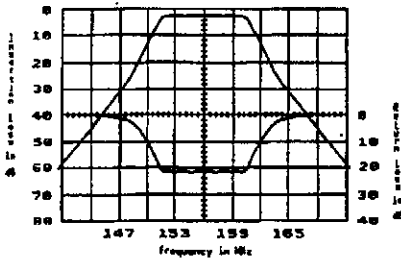
Mechanical Specifications		RMC-802**/E
Height	in.(mm)	3.5 (88.9)
Width	in.(mm)	19 (483)
Depth	in.(mm)	10 (254)
Weight	lb(kg)	6-18 (2.7-8.2)





# Features

- ◆ Steep skirt selectivity.
- ◆ Low loss, high selectivity.
- ◆ Compact, rugged aluminium construction.
- ◆ Passbands from 1 to 15 MHz.
- ◆ Passbands customized to user application.
- ◆ Standard models available in all popular bands from 30 to 960 MHz.



## Compact Series

## R.F. Preselectors

PF Series

30-960 MHz

The «PF» series preselectors are compact units that are suitable for most standard multicoupling requirements.

Model	Band MHz	Sections	Pass Band MHz	L	H	W	Weight Lbs
PF-15401	132-224	4	3 to 10	8.0"	3.4375"	2.0"	2.0
PF-45501	406-512	5	2 to 15	10.0"	5.8125"	2.0"	1.75
PF-80501	806-821	5	5 to 15	10.0"	3.4375"	2.0"	1.5
PF-90501	896-901	5	5	10.0"	3.4375"	2.0"	1.5

Note: 6 section preselectors and dual passband systems available on special order.

### PRESELECTOR RESPONSE CURVES

#### Model PF-15401 VHF Preselector

Passband: 151 to 160 MHz  
 Insertion Loss: 2.0 dB  
 Return Loss: 20 dB (typ)  
 Selectivity: 28+ dB, plus or minus 5 MHz of passband

#### Model PF-45501 UHF Preselector

Passband: 450 to 458 MHz  
 Insertion Loss: 1.5 dB  
 Return Loss: 20+ dB (typ)  
 Selectivity: 40+ dB, plus or minus 5 MHz of passband

#### Model PF-80501 UHF Preselector

Passband: 806 to 821 MHz  
 Insertion Loss: 1.5 dB  
 Return Loss: 20+ dB (typ)  
 Selectivity: 40+ dB, plus or minus 5 MHz of passband



# Compact Series

## R.F. Preselectors

PF Series

30-960 MHz

