

EMR Corporation was founded in 1980 by William Lieske, Sr. as an OEM supplier of ferrite and hybrid devices to the land mobile communications and broadcast industries. Mr. Lieske has been involved in radio communications for more than 60 years. Beginning with a radio amateur license at the age of 13, he went on to work in military radar, public safety, radio communications manufacturing and commercial corporate sales. As the chief engineer, his approach to R.F. systems component design is without parallel in the industry. Bill's work has helped set standards in the U.S. and international land mobile communications and antenna site management industries. Today EMR is owned and managed by William Lieske, Jr. who has been with EMR since its inception in 1980.

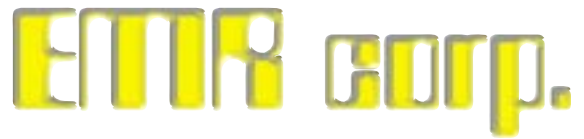
EMR expanded its product line to include the design and manufacturing of cavity resonant devices and complex combination of R.F. filtering products, such as antenna duplexers, hybrid and cavity resonant combining networks and receiver multicoupling.

In early 1992, EMR began manufacturing amplifiers for land mobile and broadcast receiver applications. EMR's product line includes a line of receiver pre-amplifiers, hybrid dividers and amplifiers in various bands for up to 250 watts output power. EMR also offers a complete line of antenna site and mobile application filtering products covering the R.F. spectrum from 30 MHz to 2.8 GHz.

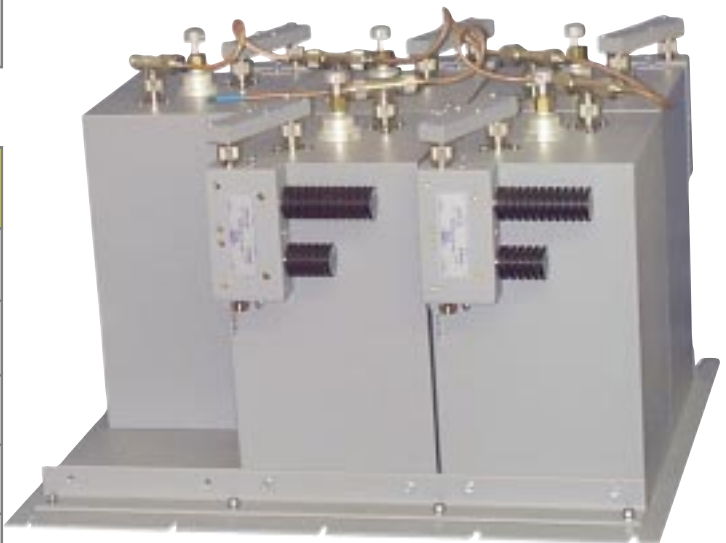
EMR has built an efficient and effective team of highly trained motivated, dedicated employees. With our specialized team members providing leadership, top notch engineering and state of the art manufacturing we design and manufacture a wide variety of custom products as well as products for standardized applications. EMR excels in unique designs to meet exact customer requirements.

EMR Corporation provides design, supply and implementations of complete R.F. communication systems. Our corporate philosophy is:

**TO PROVIDE THE HIGHEST QUALITY PRODUCTS AT THE  
GREATEST LEVEL OF TECHNICAL EXCELLENCE WITH THE  
MOST PRACTICAL CONSIDERATION AT AN ECONOMICAL PRICE**



**Filter  
Ferrite  
Combiner  
300 - 650 MHz**



<b>GENERAL SPECIFICATIONS</b>	
Input Power: Per Channel Max. Cont.	125 Watts
Reflected Power: Max.	60 Watts
Nominal Impedance	50 Ohms
Max VSWR All Ports @ Resonance	1.25:1
Temperature Range	-22 to +140 deg F (-30 to +60 deg C)
Connectors	N Female
Finish	EMR Gray

<b>ELECTRICAL SPECIFICATIONS</b>	
Model Number	65552/7
Number of Channels	5
Insertion Loss, Max.	2.3 - 2.9 dB
Isolator Stage	Dual
TX-TX Isolation	90+ dB
ANT-TX Isolation	70+ dB

<b>MECHANICAL SPECIFICATIONS</b>	
Dimensions: Width Height Depth	19" ( 483 mm) 22.75" (578 mm) 14 - 17" (356 - 432 mm)
Shipping Weight:	65 lbs. (29.5 kg.)

**NOTES:**

- Insertion loss is a per channel loss which includes the dualstage isolators.
- Five channel units include interconnecting cables between each cavity.
- Transmitter to transmitter isolations given are minimum when matched to antenna system per instructions provided.



## Receive Multicoupler 406 - 512 MHz



- (1) The model series has many suffixes which stipulate various options or add on components to meet all your needs.
- (2) The output connector can be either N Female or BNC Female; denoted with a -0 for N or -1 for BNC (example: 25108-1).
- (3) Multicouplers come standard with a 5 pole filter (example: 25108-1/P-5); the -5 signifying the number of resonators in the filter. 6 pole and group filters are available as options.
- (4) Multicouplers come standard with 115 VAC. Options include 230 VAC and 12, 24 and 48 VDC.

**Notes:**

Other options include lightning protection and variable gain amplifier.  
All unused receiver multicoupler ports must be terminated with 50 ohm load terminations.

### ELECTRICAL SPECIFICATIONS

Model Series <sup>(1)</sup>	25108
Number of Channels	8
Pass Band	3-15 MHz
Number of Resonators <sup>(3)</sup>	5
RX/RX Isolation	20 dB min.
System Voltage <sup>(4)</sup>	115 VAC
System NF (Typical)	5.0 dB
Amplifier Type	Bipolar
Gain	30+ dB
Noise Figure	3.0 dB
3rd Order IP	+42 dBm
1 dB Comp	+ 21 dBm
Bias Voltage	13.6 VDC
Current Draw	200 mA
Nominal Impedance	50 Ohms
Max. VSWR @ Resonance	1.25:1
Temperature Range	-22 to +140 deg F (-30 to +60 deg C)

### MECHANICAL SPECIFICATIONS

Finish	Chem Film
Connectors <sup>(2)</sup> : Input Output	N Female N or BNC Female
Dimensions: Width Height Depth	19" (483 mm) 5.25" (134 mm) 12" (305 mm)
Shipping Weight:	15 lbs.( 7 kg.)

## ELECTRICAL SPECIFICATIONS

Model Numbers	65534/ENC	65536/ENC	65544/SNC
Frequency Range	440-512 MHz	440-512 MHz	440-512 MHz
Duplexer Type	Pass Notch	Pass Notch	Pass Notch
Frequency Separation: Minimum Maximum	5.0 MHz 30.0 MHz	3.0 MHz 30.0 MHz	3.0 MHz 30.0 MHz
Insertion Loss (TX and RX) @ Minimum Separation @ Maximum Separation	1.0 dB 0.8 dB	2.0 dB 1.2 dB	1.2 dB 0.8 dB
Isolation (TX-RX and RX-TX) @ Minimum Separation @ Maximum Separation	80+ dB 90+ dB	85+ dB 95+ dB	85+ dB 90+ dB
Input Power	100 Watts	100 Watts	150 Watts
Nominal Impedance	50 Ohms	50 Ohms	50 Ohms
Max. VSWR @ Resonance	1.25:1	1.25:1	1.25:1
Temperature Range	-22 to +140 deg F (-30 to +60 deg C)	-22 to +140 deg F (-30 to +60 deg C)	-22 to +140 deg F (-30 to +60 deg C)

## MECHANICAL SPECIFICATIONS

Resonators	4	6	4
Connector Terminations	N Female	N Female	N Female
Finish	Chem Film	Chem Film	EMR Gray
Dimensions: Width Height Depth	5.25" (134 mm) 19" (483 mm) 10" (254 mm)	3.5" (89 mm) 19" (483 mm) 10" (254 mm)	14-17" (356-432 mm) 19" (483 mm) 4.5" (115 mm)
Shipping Weight:	9 lbs.( 4.1 kg.)	11 lbs.( 5.0 kg.)	22 lbs.( 10.0 kg.)



# EMR CORP.

**Antenna Duplexers  
300 - 512 MHz**



## R.F. Enhancement Systems 300 - 650 MHz



### ELECTRICAL SPECIFICATIONS

Model Numbers	850612	850622
System Description <sup>(1)</sup>	Master	Master
System Gain	50 dB	50 dB
Output Power, Amplifier <sup>(2)</sup>	5 Watts Max.	5 Watts Max.
Noise Figure: Amplifier System	3.0 dB 5.5 dB	3.0 dB 6.0 dB
3rd Order Intercept	+50 dBm	+50 dBm
Number of Resonators	8	16
System Bandwidth <sup>(3)</sup>	Single Channel	<1.2 MHz
Nominal Impedance	50 Ohms	50 Ohms
VSWR (Maximum)	1.6:1	1.6:1
Amplifier Bias Voltage	13.6 VDC	13.6 VDC
Primary Voltage <sup>(4)</sup>	115 VAC	115 VAC
System Current Draw	4.0 A	4.0 A
Temperature Range	-22 to +140 deg F (-30 to +60 deg C)	-22 to +140 deg F (-30 to +60 deg C)

- (1) EMR R.F. Enhancement systems are classified by the FCC as Class B Signal Booster systems (multi-channel)
- (2) Amplifiers output power per carrier is a function of the number of carriers and is dependent on the signal strength of each carrier.
- (3) System bandwidth can be modified to meet your equipment. Please contact the factory with your needs.
- (4) Systems are available with 115 VAC and 230 VAC, 12, and 24 VDC.
- (5) These systems are suitable for mounting to 19" EIA rack assemblies or for wall mount.

### MECHANICAL SPECIFICATIONS

Connector	N Female	N Female
Finish	EMR Gray	EMR Gray
Dimensions <sup>(5)</sup> : Width Height Depth	29.75" (766 mm) 19" (483 mm) 17" (432 mm)	36.75" (934 mm) 19" (483 mm) 17" (432 mm)
Shipping Weight:	125 lbs.( 56.7 kg.)	145 lbs.( 65.8 kg.)