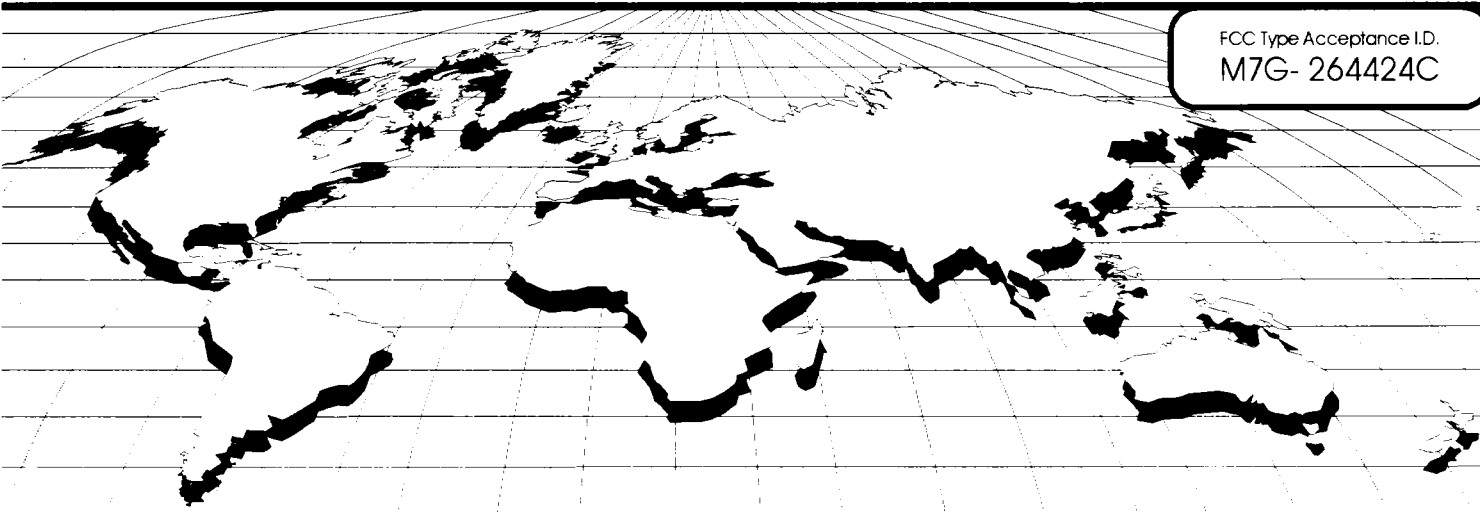


FCC Type Acceptance I.D.  
M7G- 264424C



**EMR corp.**

# SERVICE MANUAL

**264424C SERIES**  
**150-175 Mhz AMPS**

EMR Corp. - 22402 N. 19th Ave. - Phoenix, Az. 85027

Tel: 623/581/2875

1/800/796/2875

Email: [info@emrcorp.com](mailto:info@emrcorp.com)

<http://www.emrcorp.com>

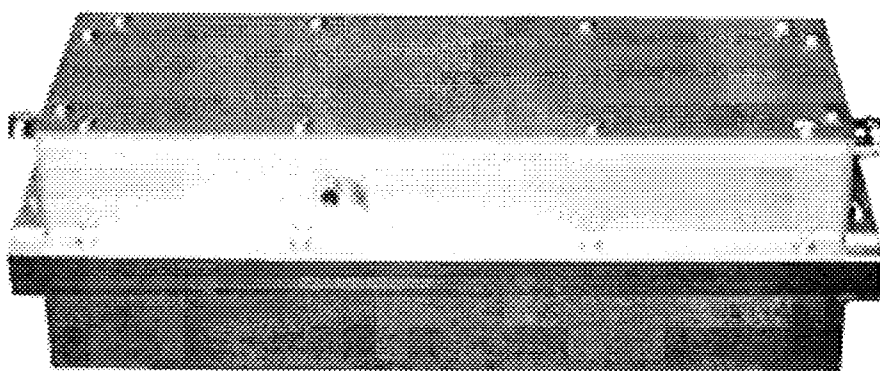
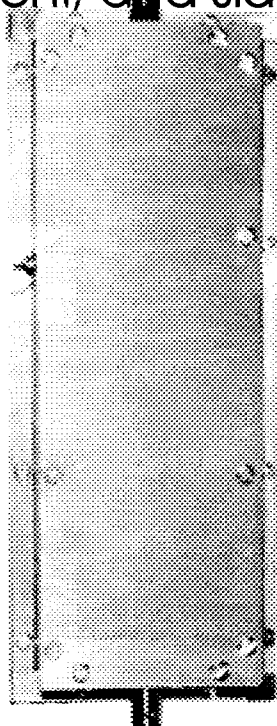
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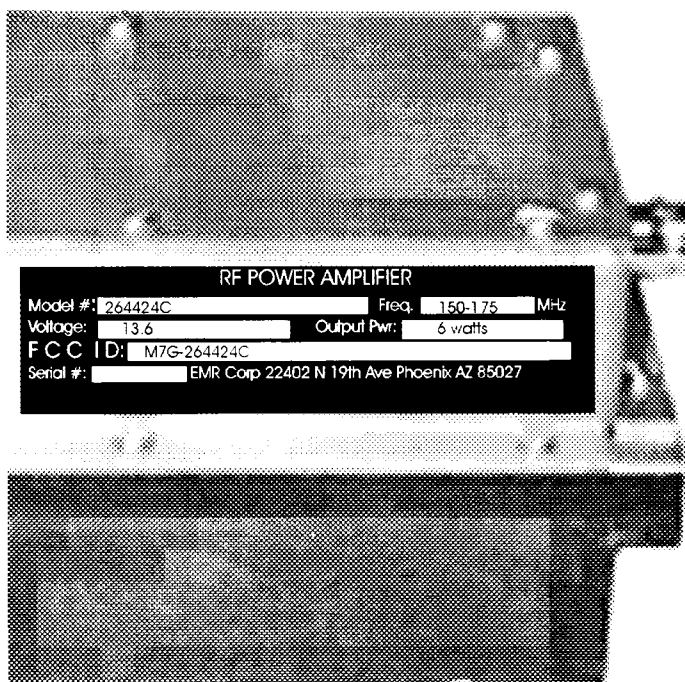
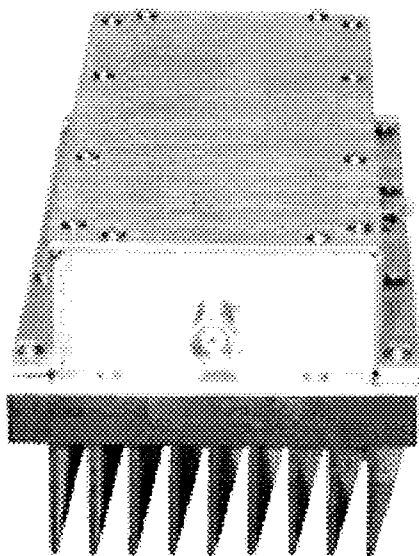
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The 264424C Series of EMR amplifiers are intended for use in low power amplification and re-amplification systems. Applications include land mobile radio bi- and uni- directional signal booster systems. They will cover the frequency range extending from 150 MHz to 175 Mhz.

For operator convenience, views of the top, front, and side of the amplifier are presented here.



FCC Certification  
Label Placement



PRODUCT DESCRIPTION

# GENERAL SPECIFICATIONS

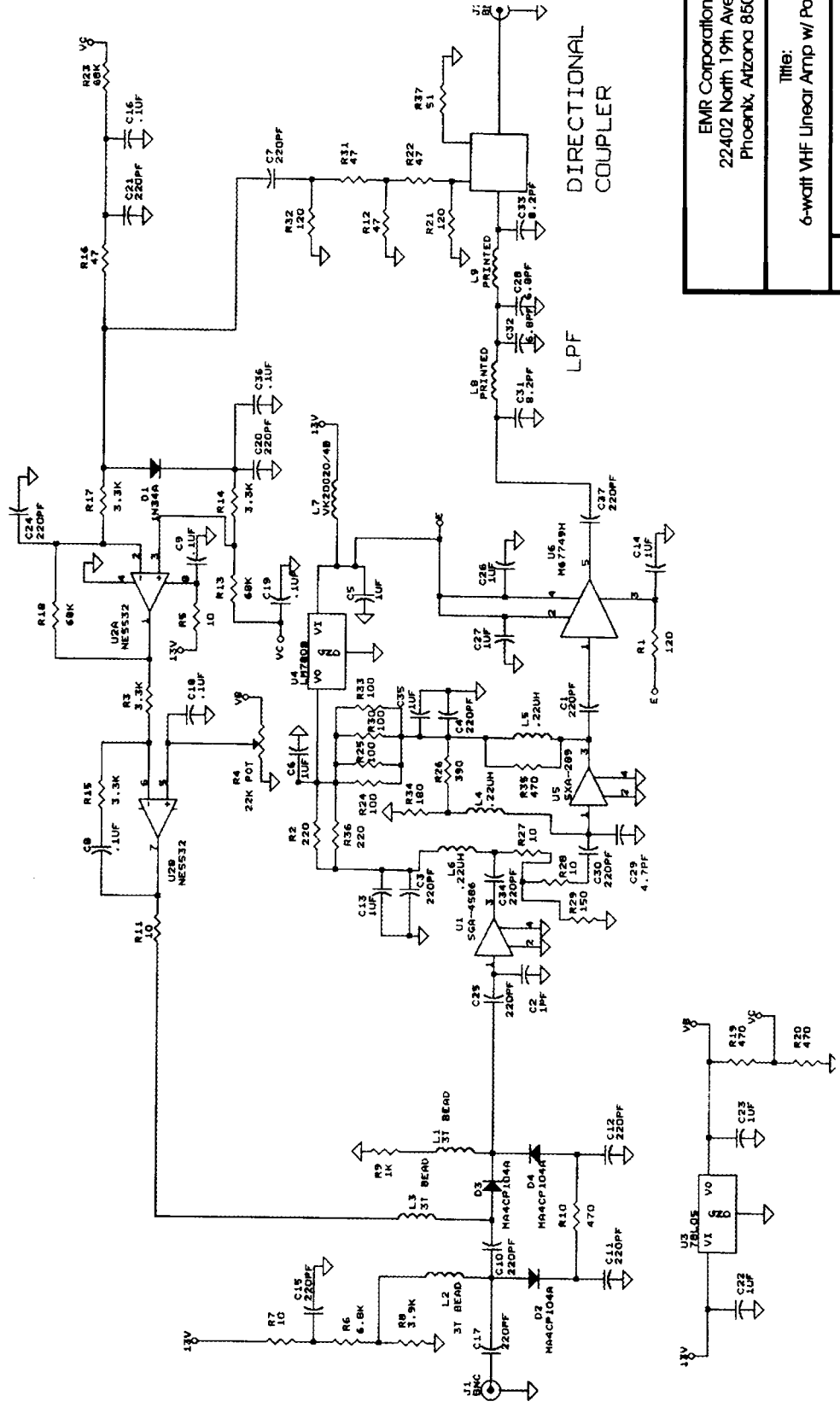
FREQUENCY RANGE:	150 - 175 Mhz
OPERATING MODE:	FM
USAGE:	Bi- & Uni- Directional Systems
MODEL #:	264424C
OUTPUT POWER:	6 WATTS
OPERATING TEMPERATURE RANGE:	-20 to +50 Deg. C
OPERATING VOLTAGE:	+13.6 VDC
DUTY CYCLE:	100%
HARMONIC ATTENUATION:	Meets FCC Certification
OPTIONS:	EMR Amplifiers are available With several mechanical mounting options and in various configurations. (Specified at time of order.)

FCC LABEL

RF POWER AMPLIFIER			
Model #:	264424C	Freq:	150-175 Mhz
Voltage:	13.6	Output Pwr:	6 watts
F C C I D:	M7G-264424C		
Serial #:	EMR Corp 22402 N 19th Ave Phoenix AZ 85027		

The 264424C Series amplifier is a self-contained single board unit capable of up to 6 watts of output power with built in power control circuitry. The input signal is amplified by 2 gain blocks and a module capable of 70dB of gain, filtered by the output low pass filter and finally analyzed by the output coupler circuitry for excessive power. If overdrive level is sensed, the coupler and power control circuits compute a dc voltage that controls an electronic attenuator at the input of the unit. The attenuator makes the necessary adjustment to relieve the overdrive condition sensed by the output coupler.

# SCHEMATICS



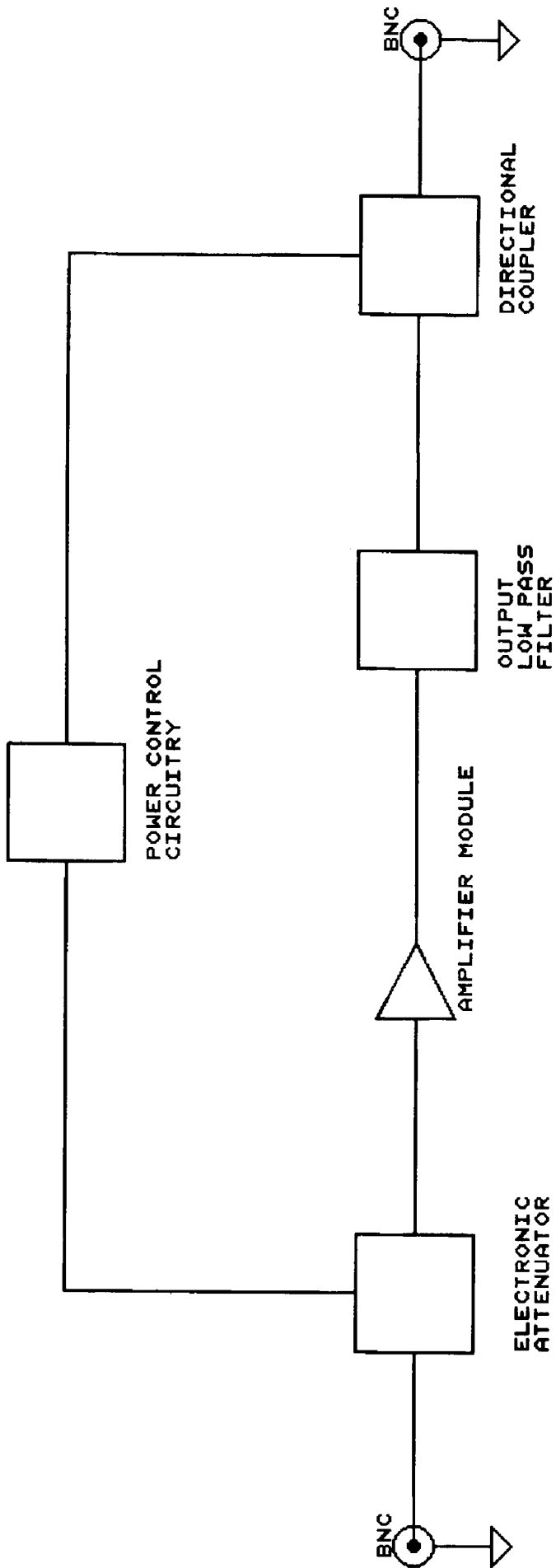
EMR Corporation 22402 North 19th Avenue Phoenix, Arizona 85027	
Title: 6-watt VHF Linear Amp w/ Power Control	
Size B	Document #
Date: October 7, 2002	Rev: B
Sheet: 1 of 1	

# 6 WATT LINEAR AMP W/POWER CONTROL

## Bill of Materials    Nov. 20, 2002

ITEM	QUANTITY	REFERENCE	PART
1	16	C1,C3,C4,C7,C10,C11,C12 C15,C17,C20,C21,C24,C25 C30,C34,C37	220PF
2	1	C2	1PF
3	9	C5,C6,C13,C14,C22,C23 C26,C27,C35	1UF
4	6	C8,C9,C16,C18,C19,C36	.1UF
5	2	C28,C32	6.8PF
6	1	C29	4.7PF
7	2	C31,C33	8.2PF
8	1	D1	1N34A
9	3	D2,D3,D4	MA4CP104A
10	2	J1,J2	BNC
11	3	L1,L2,L3	3T BEAD
12	3	L4,L5,L6	.22UH
13	1	L7	VK20020/4B
14	2	L8,L9	PRINTED
15	3	R1,R21,R32	120
16	2	R2,R36	220
17	4	R3,R14,R15,R17	3.3K
18	1	R4	22K POT
19	5	R5,R7,R11,R27,R28	10
20	1	R6	6.8K
21	1	R8	3.9K
22	1	R9	1K
23	4	R10,R19,R20,R35	470
24	4	R12,R16,R22,R31	47
25	3	R13,R18,R23	68K
26	4	R24,R25,R30,R33	100
27	1	R26	390
28	1	R29	150
29	1	R34	180
30	1	R37	51
31	1	U1	SGA-4586
32	1	U2	NE5532
33	1	U3	78L05
34	1	U4	LM7808
35	1	U5	SXA-289
36	1	U6	M67749H

PARTS LIST



13.6VDC

EMR Corp.  
 22402 N. 19th Avenue  
 Phoenix, Arizona 85027

TITLE:  
 150-175 Mhz Bi-Directional Block Diagram

DOCUMENT #

SIZE: A

REV: A

DATE:

November 20, 2002

SHEET:

1 of 1

# BLOCK DIAGRAM



EMR Corporation, hereinafter called EMR, warrants that all equipment of its manufacture shall be free from defects in design, materials and workmanship for a period of 12 months from date of shipments unless otherwise covered by special warranty. If any such product, entirely or in part, fails to produce the performance set forth in the brochures, quotations or literature provided by EMR, such product will be replaced or repaired at EMR's expense provided that the failure was not the result of alternation, misuse, tampering, misapplication, shipping damage or vandalism. If a product failure is found to be the fault of EMR, costs of transportation to the EMR factory and return will be born by EMR. Should EMR supply components not of its own manufacture, but specified by a customer, the warranty shall reflect the original manufactures warranty, only.

It is understood that this statement constitutes EMR's entire and only warranty, there being no other warranties expressed or implied in law or in fact, including implied warranties of fitness. In no event shall EMR be liable for damages either direct or consequential, that may be occasioned by any defect in materials, workmanship or product support.

For service on this amplifier, contact:

EMR Corporation  
22402 N. 19th Avenue  
Phoenix, Arizona 85027  
Tel: 623/581/2875      800/796/2875  
E-mail: [info@emrcorp.com](mailto:info@emrcorp.com)  
<http://www.emrcorp.com>  
FAX: 623/582/9499