

# SYS SERIES COMPACT INTEGRATED COMBINING SYSTEMS

MODEL NUMBER: UHF25462/SYS-50

EMR CORPORATION 17431 N. 25th Avenue Phoenix, AZ 85023 1-800-796-2875 - 623-581-2875 Fax: 623-581-9499 www.emrcorp.com sales@emrcorp.com

#### Practical & Compact

EMR Corp. Systems Solutions for all LMR & PMR applications offering the most practical approach to full duplex combining in mobile and base station applications. These are single antenna systems. Each model includes transmitter combiner, receiver multicoupler and antenna duplexer.

The systems are delivered ready for operation with no on-site tuning or adjustment needed. Loss figures are nominal. Losses and gains per individual channel can vary over filter bandwidth.

EMR's Compact Integrated Combining Systems are available as 25 Watt (SYS-25), 50 Watt & 100 Watt systems. By using hybrid/ferrite technology a greater variety of difficult to combine frequencies can be used in the same compact system. Standard components provide economical products with reliable, uniform performance and quick delivery times.

Contact the factory for systems in different frequency bands, with narrowed or expanded filter bandwidths and complex specialized combining.

#### **Product Features**

Available for up to 100 W Power Applications: VHF, UHF, 700 & 800 MHz

Up to 8 CH: For 25 W, 4 for 50 &-100 W; VHF or UHF; Adjacent Channel Possible. Even 6.25 KHz Spacing!

Suited for On-Site and Local Area: Industrial Applications for local area coverage.

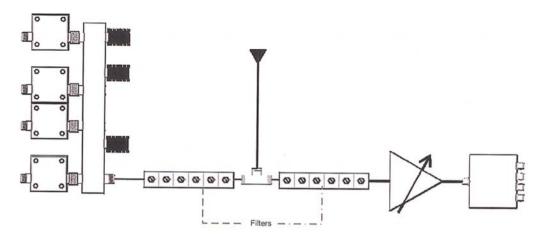
Compact Size: Only 3 RU Height (5.25" Vertical Height for 25 W, 2, 3 and 4 CH Version).

Full Duplex: Ideal for New Digital RF Repeater Systems including iDAS<sup>™</sup>, MOTOTRBO<sup>™</sup> and NXDN®.

## **Reduced Cost**

Costs Less Than \$1,700 List Per repeater pair (4 CH 25 W Full Duplex System)! Contact Factory for Details: sales@emr.com

#### SYS-25: 25 Watt / 4 Channel Model: UHF25341/SYS-25



# OUR MISSION: TO PROVIDE HIGH QUALITY PRODUCTS, TECHNICAL EXCELLENCE & PRACTICAL ENGINEERING AT AN ECONOMICAL PRICE

#### EMR CORPORATION

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138 - 300 MHz

#### **ELECTRICAL SPECIFICATIONS**

Model Number	VHF24321/SYS-25	VHF24331/SYS-25	VHF24341/SYS-25	
Frequency Band	150 - 174 MHz	150 - 174 MHz	150 - 174 MHz	
Number of Channels	2	3	4	
Max. Input Power / CH	25 Watts	25 Watts	25 Watts	
TX Insertion Loss Typ (Note 1 & 2)	5.7 dB	7.5 dB	8.8 dB	
Recommended TX Passband (Note 3)	1.0 MHz	1.0 MHz	1.0 MHz	
Recommended RX Passband (Note 3)	1.0 MHz	1.0 MHz	1.0 MHz	
TX-RX Stop Band Minimum (Note 3)	4.0 MHz	4.0 MHz	4.0 MHz	
TX-TX Isolation	50+ dB	50+ dB	50+ dB	
TX-RX Isolation	70+ dB	70+ dB	70+ dB	
RX-TX Isolation	70+ dB	70+ dB	70+ dB	
ANT-TX Isolation	30+ dB	30+ dB	30+ dB	
Input Return Loss	20 dB or better	20 dB or better	20 dB or better	
TX Bandpass Filter (Note 3)	Optional	Optional	Optional	
Receiver Multicoupler Amp	Yes	Yes	Yes	
Maximum Amplifier Gain	38 dB at 160 MHz	38 dB at 160 MHz	38 dB at 160 MHz	
Maximum Amplifier Gain	35 dB at 300 MHz	35 dB at 300 MHz	35 dB at 300 MHz	
Amplifier Gain Field Adjust	Yes	Yes	Yes	
Amplifier NF	3.0 dB	3.0 dB	3.0 dB	
Standard Voltage Required	115 / 230 VAC	115 / 230 VAC	115 / 230 VAC	
Optional Voltages	13.6 / 24 / 48 VDC	13.6 / 24 / 48 VDC	13.6 / 24 / 48 VDC	
MECHANICAL SPECIFICATIONS				
Dimensions (19" EIA Rack Mount)	3 RU	3 RU	3 RU	
Weight	Contact Factory	Contact Factory	Contact Factory	

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Note 1: TX passband width, RX passband width, and stop band between them will have a direct affect on TX side insertion loss.

**Note 2:** Standard system TX side is equipped with only pass notch filters. Bandpass filters can be added but will increase insertion loss and cost. **Note 3:** Filter can be customized to adapt to greater passband widths and/or lesser stop band widths.

\*\* 6.25, 12.5, 25 KHz Channels

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138 - 300 MHz

#### **ELECTRICAL SPECIFICATIONS**

Model Number	VHF24422/SYS-50	VHF24432/SYS-50	VHF24442/SYS-50
Frequency Band	150 - 174 MHz	150 - 174 MHz	150 - 174 MHz
Number of Channels	2	3	4
Max. Input Power / CH	50 Watts	50 Watts	50 Watts
TX Insertion Loss Typ (Note 1 & 2)	6.0 dB	7.8 dB	9.0 dB
Recommended TX Passband (Note 3)	1.0 MHz	1.0 MHz	1.0 MHz
Recommended RX Passband (Note 3)	1.0 MHz	1.0 MHz	1.0 MHz
TX-RX Stop Band Minimum (Note 3)	4.0 MHz	4.0 MHz	4.0 MHz
TX-TX Isolation	80+ dB	80+ dB	80+ dB
TX-RX Isolation	70+ dB	70+ dB	70+ dB
RX-TX Isolation	70+ dB	70+ dB	70+ dB
ANT-TX Isolation	60+ dB	60+ dB	60+ dB
Input Return Loss	20 dB or better	20 dB or better	20 dB or better
TX Bandpass Filter (Note 3)	Optional	Optional	Optional
Receiver Multicoupler Amp	Yes	Yes	Yes
Maximum Amplifier Gain	38 dB at 160 MHz	38 dB at 160 MHz	38 dB at 160 MHz
Maximum Amplifier Gain	35 dB at 300 MHz	35 dB at 300 MHz	35 dB at 300 MHz
Amplifier Gain Field Adjust	Yes	Yes	Yes
Amplifier NF	3.0 dB	3.0 dB	3.0 dB
Standard Voltage Required	115 / 230 VAC	115 / 230 VAC	115 / 230 VAC
Optional Voltages	13.6 / 24 / 48 VDC	13.6 / 24 / 48 VDC	13.6 / 24 / 48 VDC
MECHANICAL SPECIFICATIONS	3		
Dimensions (19" EIA Rack Mount)	4 RU	4 RU	4 RU
Weight	Contact Factory	Contact Factory	Contact Factory

Note 1: TX passband width, RX passband width, and stop band between them will have a direct affect on TX side insertion loss.

**Note 2:** Standard system TX side is equipped with only pass notch filters. Bandpass filters can be added but will increase insertion loss and cost. **Note 3:** Filter can be customized to adapt to greater passband widths and/or lesser stop band widths.

\*\* 6.25, 12.5, 25 KHz Channels

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138 - 300 MHz

#### **ELECTRICAL SPECIFICATIONS**

Model Number	VHF24522/SYS-100	VHF24532/SYS-100	VHF24542/SYS-100	
Frequency Band	150 - 174 MHz	150 - 174 MHz	150 - 174 MHz	
Number of Channels	2	3	4	
Max. Input Power / CH	100 Watts	100 Watts	100 Watts	
TX Insertion Loss Typ (Note 1 & 2)	6.0 dB	7.8 dB	9.0 dB	
Recommended TX Passband (Note 3)	1.0 MHz	1.0 MHz	1.0 MHz	
Recommended RX Passband (Note 3)	1.0 MHz	1.0 MHz	1.0 MHz	
TX-RX Stop Band Minimum (Note 3)	4.0 MHz	4.0 MHz	4.0 MHz	
TX-TX Isolation	80+ dB	80+ dB	80+ dB	
TX-RX Isolation	70+ dB	70+ dB	70+ dB	
RX-TX Isolation	70+ dB	70+ dB	70+ dB	
ANT-TX Isolation	60+ dB	60+ dB	60+ dB	
Input Return Loss	20 dB or better	20 dB or better	20 dB or better	
TX Bandpass Filter (Note 3)	Optional	Optional	Optional	
Receiver Multicoupler Amp	Yes	Yes	Yes	
Maximum Amplifier Gain	38 dB at 160 MHz	38 dB at 160 MHz	38 dB at 160 MHz	
Maximum Amplifier Gain	35 dB at 300 MHz	35 dB at 300 MHz	35 dB at 300 MHz	
Amplifier Gain Field Adjust	Yes	Yes	Yes	
Amplifier NF	3.0 dB	3.0 dB	3.0 dB	
Standard Voltage Required	115 / 230 VAC	115 / 230 VAC	115 / 230 VAC	
Optional Voltages	13.6 / 24 / 48 VDC	13.6 / 24 / 48 VDC	13.6 / 24 / 48 VDC	
MECHANICAL SPECIFICATIONS	3			
Dimensions (19" EIA Rack Mount)	6 RU	6 RU	6 RU	
Weight	Contact Factory	Contact Factory	Contact Factory	

Note 1: TX passband width, RX passband width, and stop band between them will have a direct affect on TX side insertion loss.

**Note 2:** Standard system TX side is equipped with only pass notch filters. Bandpass filters can be added but will increase insertion loss and cost. **Note 3:** Filter can be customized to adapt to greater passband widths and/or lesser stop band widths.

\*\* 6.25, 12.5, 25 KHz Channels

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300 - 512 MHz

## **ELECTRICAL SPECIFICATIONS**

Model Number	UHF25321/SYS-25	UHF25331/SYS-25	UHF25341/SYS-25	UHF25351/SYS-25
Frequency Band	300 - 650 MHz			
Number of Channels	2	3	4	5
Max. Input Power / CH	25 Watts	25 Watts	25 Watts	25 Watts
TX Insertion Loss Typ (Note 1 & 2)	5.7 dB	7.5 dB	8.8 dB	10.0 dB
Recommended TX Passband (Note 3)	1.0 MHz	1.0 MHz	1.0 MHz	1.0 MHz
Recommended RX Passband (Note 3)	1.0 MHz	1.0 MHz	1.0 MHz	1.0 MHz
TX-RX Stop Band Minimum (Note 3)	4.0 MHz	4.0 MHz	4.0 MHz	4.0 MHz
TX-TX Isolation	50+ dB	50+ dB	50+ dB	50+ dB
TX-RX Isolation	70+ dB	70+ dB	70+ dB	70+ dB
RX-TX Isolation	70+ dB	70+ dB	70+ dB	70+ dB
ANT-TX Isolation	30+ dB	30+ dB	30+ dB	30+ dB
Input Return Loss	20 dB or better			
TX Bandpass Filter (Note 3)	Optional	Optional	Optional	Optional
Receiver Multicoupler Amp	Yes	Yes	Yes	Yes
Maximum Amplifier Gain	35 dB at 300 MHz			
Maximum Amplifier Gain	31 dB at 470 MHz			
Amplifier Gain Field Adjust	Yes	Yes	Yes	Yes
Amplifier NF	3.0 dB	3.0 dB	3.0 dB	3.0 dB
Standard Voltage Required	115 / 230 VAC			
Optional Voltages	13.6 / 24 / 48 VDC			
MECHANICAL SPECIFICATIO	INS			
Dimensions (19" EIA Rack Mount)	3 RU	3 RU	3 RU	3 RU
Weight	Contact Factory	Contact Factory	Contact Factory	Contact Factory

Note 1: TX passband width, RX passband width, and stop band between them will have a direct affect on TX side insertion loss.

Note 2: Standard system TX side is equipped with only pass notch filters. Bandpass filters can be added but will increase insertion loss and cost.

Note 3: Filter can be customized to adapt to greater passband widths and/or lesser stop band widths.

\*\* 6.25, 12.5, 25 KHz Channels

300 - 512 MHz

## **ELECTRICAL SPECIFICATIONS**

Model Number	UHF25422/SYS-50	UHF25432/SYS-50	UHF25442/SYS-50	UHF25452/SYS-50
Frequency Band	300 - 650 MHz			
Number of Channels	2	3	4	5
Max. Input Power / CH	50 Watts	50 Watts	50 Watts	50 Watts
TX Insertion Loss Typ (Note 1 & 2)	6.0 dB	7.8 dB	9.0 dB	10.2 dB
Recommended TX Passband (Note 3)	1.0 MHz	1.0 MHz	1.0 MHz	1.0 MHz
Recommended RX Passband (Note 3)	1.0 MHz	1.0 MHz	1.0 MHz	1.0 MHz
TX-RX Stop Band Minimum (Note 3)	4.0 MHz	4.0 MHz	4.0 MHz	4.0 MHz
TX-TX Isolation	80+ dB	80+ dB	80+ dB	80+ dB
TX-RX Isolation	70+ dB	70+ dB	70+ dB	70+ dB
RX-TX Isolation	70+ dB	70+ dB	70+ dB	70+ dB
ANT-TX Isolation	60+ dB	60+ dB	60+ dB	60+ dB
Input Return Loss	20 dB or better			
TX Bandpass Filter (Note 3)	Optional	Optional	Optional	Optional
Receiver Multicoupler Amp	Yes	Yes	Yes	Yes
Maximum Amplifier Gain	35 dB at 300 MHz			
Maximum Amplifier Gain	31 dB at 470 MHz			
Amplifier Gain Field Adjust	Yes	Yes	Yes	Yes
Amplifier NF	3.0 dB	3.0 dB	3.0 dB	3.0 dB
Standard Voltage Required	115 / 230 VAC			
Optional Voltages	13.6 / 24 / 48 VDC			
MECHANICAL SPECIFICATIO	ONS			
Dimensions (19" EIA Rack Mount)	4 RU	4 RU	4 RU	4 RU
Weight	Contact Factory	Contact Factory	Contact Factory	Contact Factory

Note 1: TX passband width, RX passband width, and stop band between them will have a direct affect on TX side insertion loss.

Note 2: Standard system TX side is equipped with only pass notch filters. Bandpass filters can be added but will increase insertion loss and cost.

Note 3: Filter can be customized to adapt to greater passband widths and/or lesser stop band widths.

\*\* 6.25, 12.5, 25 KHz Channels

UHF25432/SYS-50

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300 - 512 MHz

## **ELECTRICAL SPECIFICATIONS**

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Model Number	UHF25522/SYS-100	UHF25532/SYS-100	UHF25542/SYS-100	UHF25552/SYS-100
Frequency Band	300 - 650 MHz			
Number of Channels	2	3	4	5
Max. Input Power / CH	100 Watts	100 Watts	100 Watts	100 Watts
TX Insertion Loss Typ (Note 1 & 2)	6.0 dB	7.8 dB	9.0 dB	10.2 dB
Recommended TX Passband (Note 3)	1.0 MHz	1.0 MHz	1.0 MHz	1.0 MHz
Recommended RX Passband (Note 3)	1.0 MHz	1.0 MHz	1.0 MHz	1.0 MHz
TX-RX Stop Band Minimum (Note 3)	4.0 MHz	4.0 MHz	4.0 MHz	4.0 MHz
TX-TX Isolation	80+ dB	80+ dB	80+ dB	80+ dB
TX-RX Isolation	70+ dB	70+ dB	70+ dB	70+ dB
RX-TX Isolation	70+ dB	70+ dB	70+ dB	70+ dB
ANT-TX Isolation	60+ dB	60+ dB	60+ dB	60+ dB
Input Return Loss	20 dB or better			
TX Bandpass Filter (Note 3)	Optional	Optional	Optional	Optional
Receiver Multicoupler Amp	Yes	Yes	Yes	Yes
Maximum Amplifier Gain	35 dB at 300 MHz			
Maximum Amplifier Gain	31 dB at 470 MHz			
Amplifier Gain Field Adjust	Yes	Yes	Yes	Yes
Amplifier NF	3.0 dB	3.0 dB	3.0 dB	3.0 dB
Standard Voltage Required	115 / 230 VAC			
Optional Voltages	13.6 / 24 / 48 VDC			
MECHANICAL SPECIFICATIO	ONS			
Dimensions (19" EIA Rack Mount)	6 RU	6 RU	6 RU	6 RU
Weight	Contact Factory	Contact Factory	Contact Factory	Contact Factory

Note 1: TX passband width, RX passband width, and stop band between them will have a direct affect on TX side insertion loss.

Note 2: Standard system TX side is equipped with only pass notch filters. Bandpass filters can be added but will increase insertion loss and cost.

Note 3: Filter can be customized to adapt to greater passband widths and/or lesser stop band widths.

\*\* 6.25, 12.5, 25 KHz Channels

764 - 960 MHz

### **ELECTRICAL SPECIFICATIONS**

Model Number	HUHF26321/SYS-25	HUHF26331/SYS-25	HUFH26341/SYS-25	HUFH26351/SYS-25
Frequency Band	764 - 960 MHz			
Number of Channels	2	3	4	5
Max. Input Power / CH	25 Watts	25 Watts	25 Watts	25 Watts
TX Insertion Loss Typ (Note 1 & 2)	5.7 dB	7.5 dB	8.8 dB	10.0 dB
Recommended TX Passband (Note 3)	1.0 MHz	1.0 MHz	1.0 MHz	1.0 MHz
Recommended RX Passband (Note 3)	1.0 MHz	1.0 MHz	1.0 MHz	1.0 MHz
TX-RX Stop Band Minimum (Note 3)	4.0 MHz	4.0 MHz	4.0 MHz	4.0 MHz
TX-TX Isolation	50+ dB	50+ dB	50+ dB	50+ dB
TX-RX Isolation	70+ dB	70+ dB	70+ dB	70+ dB
RX-TX Isolation	70+ dB	70+ dB	70+ dB	70+ dB
ANT-TX Isolation	30+ dB	30+ dB	30+ dB	30+ dB
Input Return Loss	20 dB or better			
TX Bandpass Filter (Note 3)	Optional	Optional	Optional	Optional
Receiver Multicoupler Amp	Yes	Yes	Yes	Yes
Maximum Amplifier Gain	27 dB at 700 MHz			
Maximum Amplifier Gain	24 dB at 849 MHz			
Amplifier Gain Field Adjust	Yes	Yes	Yes	Yes
Amplifier NF	3.0 dB	3.0 dB	3.0 dB	3.0 dB
Standard Voltage Required	115 / 230 VAC			
Optional Voltages	13.6 / 24 / 48 VDC			
MECHANICAL SPECIFICATIO	NS			
Dimensions (19" EIA Rack Mount)	3 RU	3 RU	3 RU	3 RU
Weight	Contact Factory	Contact Factory	Contact Factory	Contact Factory

Note 1: TX passband width, RX passband width, and stop band between them will have a direct affect on TX side insertion loss.

Note 2: Standard system TX side is equipped with only pass notch filters. Bandpass filters can be added but will increase insertion loss and cost.

Note 3: Filter can be customized to adapt to greater passband widths and/or lesser stop band widths.

\*\* 6.25, 12.5, 25 KHz Channels

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764 - 960 MHz

## **ELECTRICAL SPECIFICATIONS**

Model Number	HUHF26422/SYS-50	HUHF26432/SYS-50	HUHF26442/SYS-50	HUHF26442/SYS-50
Frequency Band	764 - 960 MHz			
Number of Channels	2	3	4	5
Max. Input Power / CH	50 Watts	50 Watts	50 Watts	50 Watts
TX Insertion Loss Typ (Note 1 & 2)	6.0 dB	7.8 dB	9.0 dB	10.2 dB
Recommended TX Passband (Note 3)	1.0 MHz	1.0 MHz	1.0 MHz	1.0 MHz
Recommended RX Passband (Note 3)	1.0 MHz	1.0 MHz	1.0 MHz	1.0 MHz
TX-RX Stop Band Minimum (Note 3)	4.0 MHz	4.0 MHz	4.0 MHz	4.0 MHz
TX-TX Isolation	80+ dB	80+ dB	80+ dB	80+ dB
TX-RX Isolation	70+ dB	70+ dB	70+ dB	70+ dB
RX-TX Isolation	70+ dB	70+ dB	70+ dB	70+ dB
ANT-TX Isolation	60+ dB	60+ dB	60+ dB	60+ dB
Input Return Loss	20 dB or better			
TX Bandpass Filter (Note 3)	Optional	Optional	Optional	Optional
Receiver Multicoupler Amp	Yes	Yes	Yes	Yes
Maximum Amplifier Gain	27 dB at 700 MHz			
Maximum Amplifier Gain	24 dB at 849 MHz			
Amplifier Gain Field Adjust	Yes	Yes	Yes	Yes
Amplifier NF	3.0 dB	3.0 dB	3.0 dB	3.0 dB
Standard Voltage Required	115 / 230 VAC			
Optional Voltages	13.6 / 24 / 48 VDC			
MECHANICAL SPECIFICATIO	ONS			
Dimensions (19" EIA Rack Mount)	4 RU	4 RU	4 RU	4 RU
Weight	Contact Factory	Contact Factory	Contact Factory	Contact Factory

Note 1: TX passband width, RX passband width, and stop band between them will have a direct affect on TX side insertion loss.

Note 2: Standard system TX side is equipped with only pass notch filters. Bandpass filters can be added but will increase insertion loss and cost.

Note 3: Filter can be customized to adapt to greater passband widths and/or lesser stop band widths.

\*\* 6.25, 12.5, 25 KHz Channels

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764 - 960 MHz

## **ELECTRICAL SPECIFICATIONS**

Model Number	HUHF26522/SYS-100	HUHF26532/SYS-100	HUHF26542/SYS-100
Frequency Band	764 - 960 MHz	764 - 960 MHz	764 - 960 MHz
Number of Channels	2	3	4
Max. Input Power / CH	100 Watts	100 Watts	100 Watts
TX Insertion Loss Typ (Note 1 & 2)	6.0 dB	7.8 dB	9.0 dB
Recommended TX Passband (Note 3)	1.0 MHz	1.0 MHz	1.0 MHz
Recommended RX Passband (Note 3)	1.0 MHz	1.0 MHz	1.0 MHz
TX-RX Stop Band Minimum (Note 3)	4.0 MHz	4.0 MHz	4.0 MHz
TX-TX Isolation	80+ dB	80+ dB	80+ dB
TX-RX Isolation	70+ dB	70+ dB	70+ dB
RX-TX Isolation	70+ dB	70+ dB	70+ dB
ANT-TX Isolation	60+ dB	60+ dB	60+ dB
Input Return Loss	20 dB or better	20 dB or better	20 dB or better
TX Bandpass Filter (Note 3)	Optional	Optional	Optional
Receiver Multicoupler Amp	Yes	Yes	Yes
Maximum Amplifier Gain	27 dB at 700 MHz	27 dB at 700 MHz	27 dB at 700 MHz
Maximum Amplifier Gain	24 dB at 849 MHz	24 dB at 849 MHz	24 dB at 849 MHz
Amplifier Gain Field Adjust	Yes	Yes	Yes
Amplifier NF	3.0 dB	3.0 dB	3.0 dB
Standard Voltage Required	115 / 230 VAC	115 / 230 VAC	115 / 230 VAC
Optional Voltages	13.6 / 24 / 48 VDC	13.6 / 24 / 48 VDC	13.6 / 24 / 48 VDC
MECHANICAL SPECIFICATIONS			
Dimensions (19" EIA Rack Mount)	7 RU	7 RU	7 RU
Weight	Contact Factory	Contact Factory	Contact Factory

Note 1: TX passband width, RX passband width, and stop band between them will have a direct affect on TX side insertion loss.

**Note 2:** Standard system TX side is equipped with only pass notch filters. Bandpass filters can be added but will increase insertion loss and cost. **Note 3:** Filter can be customized to adapt to greater passband widths and/or lesser stop band widths.

\*\* 6.25, 12.5, 25 KHz Channels

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806 - 869 MHz

#### **ELECTRICAL SPECIFICATIONS**

Model Number	HUHF26321/SYS-25	HUHF26331/SYS-25	HUHF26341/SYS-25
Frequency Band	806 - 869 MHz	806 - 869 MHz	806 - 869 MHz
Number of Channels	2	3	4
Max. Input Power / CH	25 Watts	25 Watts	25 Watts
TX Insertion Loss Typ (Note 1 & 2)	5.0 - 6.0 dB	6.7 - 7.7 dB	8.0 - 9.0 dB
Recommended TX Passband (Note 3)	3.0 MHz	3.0 MHz	3.0 MHz
Recommended RX Passband (Note 3)	3.0 MHz	3.0 MHz	3.0 MHz
TX-RX Stop Band Minimum (Note 3)	40.0 MHz	40.0 MHz	40.0 MHz
TX-TX Isolation	55+ dB	55+ dB	55+ dB
TX-RX Isolation	70+ dB	70+ dB	70+ dB
RX-TX Isolation	70+ dB	70+ dB	70+ dB
ANT-TX Isolation	35+ dB	35+ dB	35+ dB
Input Return Loss	20 dB or better	20 dB or better	20 dB or better
TX Bandpass Filter (Note 3)	Optional	Optional	Optional
Receiver Multicoupler Amp	Yes	Yes	Yes
Maximum Amplifier Gain	27 dB at 700 MHz	27 dB at 700 MHz	27 dB at 700 MHz
Maximum Amplifier Gain	24 dB at 849 MHz	24 dB at 849 MHz	24 dB at 849 MHz
Amplifier Gain Field Adjust	Yes	Yes	Yes
Amplifier NF	3.0 dB	3.0 dB	3.0 dB
Standard Voltage Required	115 / 230 VAC	115 / 230 VAC	115 / 230 VAC
Optional Voltages	13.6 / 24 / 48 VDC	13.6 / 24 / 48 VDC	13.6 / 24 / 48 VDC
MECHANICAL SPECIFICATION	3		
Dimensions (19" EIA Rack Mount)	3 RU	3 RU	3 RU
Weight	Contact Factory	Contact Factory	Contact Factory

Note 1: TX passband width, RX passband width, and stop band between them will have a direct affect on TX side insertion loss.

**Note 2:** Standard system TX side is equipped with only pass notch filters. Bandpass filters can be added but will increase insertion loss and cost. **Note 3:** Filter can be customized to adapt to greater passband widths and/or lesser stop band widths.

\*\* 6.25, 12.5, 25 KHz Channels

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806 - 869 MHz

#### **ELECTRICAL SPECIFICATIONS**

Model Number	HUHF26422/SYS-50	HUHF26432/SYS-50	HUHF26442/SYS-50
Frequency Band	806 - 869 MHz	806 - 869 MHz	806 - 869 MHz
Number of Channels	2	3	4
Max. Input Power / CH	50 Watts	50 Watts	50 Watts
TX Insertion Loss Typ (Note 1 & 2)	5.0 - 6.0 dB	6.7 - 7.7 dB	8.0 - 9.0 dB
Recommended TX Passband (Note 3)	3.0 MHz	3.0 MHz	3.0 MHz
Recommended RX Passband (Note 3)	3.0 MHz	3.0 MHz	3.0 MHz
TX-RX Stop Band Minimum (Note 3)	40.0 MHz	40.0 MHz	40.0 MHz
TX-TX Isolation	80+ dB	80+ dB	80+ dB
TX-RX Isolation	70+ dB	70+ dB	70+ dB
RX-TX Isolation	70+ dB	70+ dB	70+ dB
ANT-TX Isolation	60+ dB	60+ dB	60+ dB
Input Return Loss	20 dB or better	20 dB or better	20 dB or better
TX Bandpass Filter (Note 3)	Optional	Optional	Optional
Receiver Multicoupler Amp	Yes	Yes	Yes
Maximum Amplifier Gain	27 dB at 700 MHz	27 dB at 700 MHz	27 dB at 700 MHz
Maximum Amplifier Gain	24 dB at 849 MHz	24 dB at 849 MHz	24 dB at 849 MHz
Amplifier Gain Field Adjust	Yes	Yes	Yes
Amplifier NF	3.0 dB	3.0 dB	3.0 dB
Standard Voltage Required	115 / 230 VAC	115 / 230 VAC	115 / 230 VAC
Optional Voltages	13.6 / 24 / 48 VDC	13.6 / 24 / 48 VDC	13.6 / 24 / 48 VDC
MECHANICAL SPECIFICATIONS			
Dimensions (19" EIA Rack Mount)	4 RU	4 RU	4 RU
Weight	Contact Factory	Contact Factory	Contact Factory

Note 1: TX passband width, RX passband width, and stop band between them will have a direct affect on TX side insertion loss.

**Note 2:** Standard system TX side is equipped with only pass notch filters. Bandpass filters can be added but will increase insertion loss and cost. **Note 3:** Filter can be customized to adapt to greater passband widths and/or lesser stop band widths.

\*\* 6.25, 12.5, 25 KHz Channels

SYS SERIES

#### EMR CORPORATION

17431 N. 25th Avenue Phoenix, Arizona 85023 Toll Free:1-800-796-2875 Tel: (623) 581-2875 Fax: (623) 582-9499 13 www.emrcorp.com e-mail: info@emrcorp.com

806 - 869 MHz

#### **ELECTRICAL SPECIFICATIONS**

Model Number	HUHF26522/SYS-100	UHHF26532/SYS-100	HUHF26542/SYS-100	
Frequency Band	806 - 869 MHz	806 - 869 MHz	806 - 869 MHz	
Number of Channels	2	3	4	
Max. Input Power / CH	100 Watts	100 Watts	100 Watts	
TX Insertion Loss Typ (Note 1 & 2)	5.0 - 6.0 dB	6.7 - 7.7 dB	8.0 - 9.0 dB	
Recommended TX Passband (Note 3)	3.0 MHz	3.0 MHz	3.0 MHz	
Recommended RX Passband (Note 3)	3.0 MHz	3.0 MHz	3.0 MHz	
TX-RX Stop Band Minimum (Note 3)	40.0 MHz	40.0 MHz	40.0 MHz	
TX-TX Isolation	80+ dB	80+ dB	80+ dB	
TX-RX Isolation	70+ dB	70+ dB	70+ dB	
RX-TX Isolation	70+ dB	70+ dB	70+ dB	
ANT-TX Isolation	60+ dB	60+ dB	60+ dB	
Input Return Loss	20 dB or better	20 dB or better	20 dB or better	
TX Bandpass Filter (Note 3)	Optional	Optional	Optional	
Receiver Multicoupler Amp	Yes	Yes	Yes	
Maximum Amplifier Gain	27 dB at 700 MHz	27 dB at 700 MHz	27 dB at 700 MHz	
Maximum Amplifier Gain	24 dB at 849 MHz	24 dB at 849 MHz	24 dB at 849 MHz	
Amplifier Gain Field Adjust	Yes	Yes	Yes	
Amplifier NF	3.0 dB	3.0 dB	3.0 dB	
Standard Voltage Required	115 / 230 VAC	115 / 230 VAC	115 / 230 VAC	
Optional Voltages	13.6 / 24 / 48 VDC	13.6 / 24 / 48 VDC	13.6 / 24 / 48 VDC	
MECHANICAL SPECIFICATION	S			
Dimensions (19" EIA Rack Mount)	7 RU	7 RU	7 RU	
Weight	Contact Factory	Contact Factory	Contact Factory	

Note 1: TX passband width, RX passband width, and stop band between them will have a direct affect on TX side insertion loss.

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## **ORDERING, TERMS & POLICIES**

**ORDER PLACEMENT:** All prices shown are list price, FOB factory (Phoenix Arizona - USA) and are subject to change without prior notice. Prices include domestic packaging and are exclusive of federal, state or local excise or sales taxes, duty or brokerage charges on export shipments. Unless otherwise negotiated freight will be prepaid and added to the invoice.

**OPERATING FREQUENCIES:** Operating frequencies and power levels used in preparing EMR products are those provided by the customer. Errors in operating frequencies or power levels made by EMR will be corrected at no charge. Errors due to faulty information from the customer are subject to all shipping charges and any material and/ or labor cost incurred by EMR Corporation to correct the order.

**TERMS OF SALE:** Terms of sales are C.O.D., or Cash with Order unless other terms have been established prior to shipment. Open account status will be extended upon reasonable assurance of credit worthiness. Past due accounts are subject to a late charge of up to 2.0% monthly, beginning 30 days after the date of issuance of our valid invoices.

**ORDER ACCEPTANCE:** An order is considered contractually valid when a purchase order is accepted by mail, telephone, telegram or facsimile. Cancellations made less than 15 days prior to scheduled ship date may be subject to a cancellation charge.

**CLAIMS FOR SHIPPING LOSS OR DAMAGE:** All shipments will be made via the customers specified mode of transportation. If coded "best way" the shipment will be consigned to the most economical, reliable commercial carrier. Insurance will be taken unless the customer specifically takes responsibility for shipping loss or damage. Although claims for loss are the responsibility of the consignee, EMR will assist in all ways in making claims and tracking for loss or damage to any of its shipment.

**MODIFICATION AND DELAYS:** EMR reserves the right to make design changes or modifications to any of its products without specific prior notification provided that such modifications do not materially reduce the value or performance of the equipment concerned. EMR will not be responsible for delays in shipment occasioned by slow or interrupted deliveries to EMR of components, materials or processes necessary to the completion of any project as originally scheduled.

**PRODUCT RETURNS:** Merchandise returned without having first obtained written acknowledgment from EMR may be rejected. Unless otherwise authorized, credit or refund will not exceeds 90% of originally invoiced amounts, and in no event shall include transportation costs. Return authorizations shall expire in 60 days unless otherwise specifically noted.

**MECHANICAL SEALS:** EMR provides mechanical seals on many of its products. These seals insure that the unit has not been modified or tampered with once it has left the factory. "Breaking" these seals without consent from an authorized EMR Corporation engineer or technician may void the warranty policy stated below.

**STANDARD WARRANTY POLICY:** EMR Corporation, hereinafter called EMR, warrants that all equipment of its manufacture shall be free from defects in design, material and workmanship for a period of 5 years from date of shipment unless otherwise covered by special warranty. If any such product, entirely or in part, fails to produce the performance as set forth in the brochure, 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 alteration, misuse, tampering, misapplication, shipping damage or vandalism. If a product failure is found to be the fault of EMR the cost of transportation to the EMR factory and its return will be born by EMR. A reasonable charge for travel and subsistence costs will be invoiced when on-site repairs are necessary. Should EMR supply components not of its own manufacture, but specified by a customer, the warranty shall reflect the original manufacturers 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 material, workmanship or product support.

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