

E-Series Surface Mount Mixer 880 - 915 MHz

Rev. V2

Features

- LO Power +17 dBm
- Up to +13 dBm RF
- Surface Mount
- RoHS* Compliant version of the EMRS-6HX1
- Tape and reel packaging

Description

M/A-COM Technology Solutions MAMX-008786-ES0120 is a RoHS compliant device that is equivalent to the EMRS-6HX1 mixer.

This device is a Low Cost, High Drive, surface mount Mixer designed for use in high volume wireless applications.

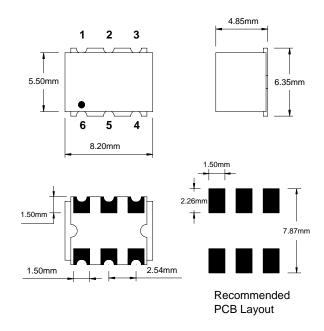
The MAMX-008786-ES0120 mixer is offered in a surface mount package and is designed to be utilized in both standard reflow and high temperature soldering reflow profiles.



Pin Configuration

Pin No.	Function		
1	LO		
2	Ground		
3	Ground		
4	RF		
5	IF		
6	Ground		

Component Dimensions



Dimensions in mm, Tolerance: $.xx \pm 0.3$, unless otherwise stated. Drawing not to scale.

Recommended Maximum Ratings 1,2

Parameter	Value
Max RF Power	50 mW
Peak IF Current	40 mA
Pin Temperature (10 seconds)	260° C
Operating Temperature	-10°C to +85°C
Storage Temperature	-55°C to +125°C

- 1. Exceeding any one or combination of these limits may cause permanent damage to this device.
- 2. M/A-COM Technology Solutions does not recommend sustained operation near these survivability limits.

ADVANCED: Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed. PRELIMINARY: Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

- North America Tel: 800.366.2266 Europe Tel: +353.21.244.6400
- India Tel: +91.80.43537383
- China Tel: +86.21.2407.1588

Visit www.macomtech.com for additional data sheets and product information.

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^{*} Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.



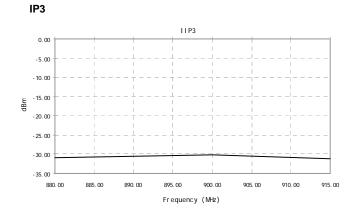
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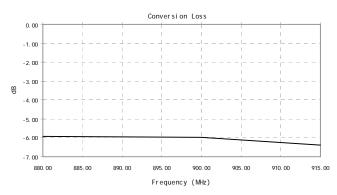
Electrical Specifications: $T_A = 25^{\circ}C$, $Z_0 = 50$ Ohms, LO = +17dBm

Parameter	Test Conditions	Frequency	Units	Min	Тур	Max
RF Frequency	_	880 - 915	MHz	_	_	_
LO Frequency	_	1000 - 1130	MHz	_	_	_
IF Frequency	_	150 - 170	MHz	_	_	_
Conversion Loss	_	880 - 915 MHz	dB	_	5.5	8.0
Isolation (LO - RF)	_	1000 - 1130 MHz	dB	25	30	_
Isolation (LO - IF)	_	1000 - 1130 MHz	dB	25	30	_
RF Input for 1 dB Compression	_	_	dBm	_	_	+13
IIP3	_	880 - 915	dBm	23	27	_
RF VSWR	_	880 - 915	Ratio	1.7:1	2.0:1	2.3:1
LO VSWR	_	1000-1130	Ratio	1.3:1	1.5:1	1.8:1
IF VSWR	_	150-170	Ratio	1.0:1	1.2:1	1.4:1

Typical Performance Curves @ +25°C



Conversion Loss



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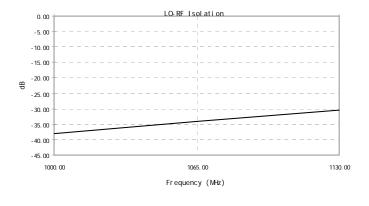


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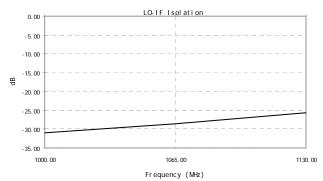
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Typical Performance Curves @ +25°C

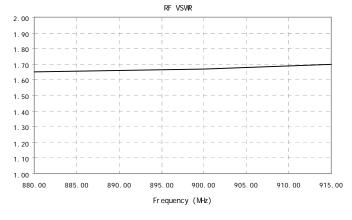
LO - RF Isolation



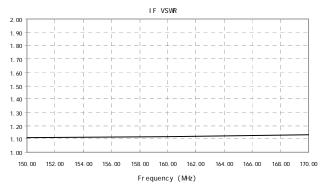
LO - IF Isolation



RF VSWR

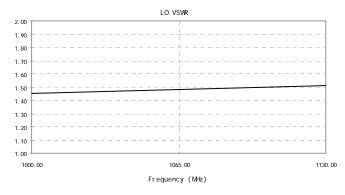


IF VSWR



LO VSWR

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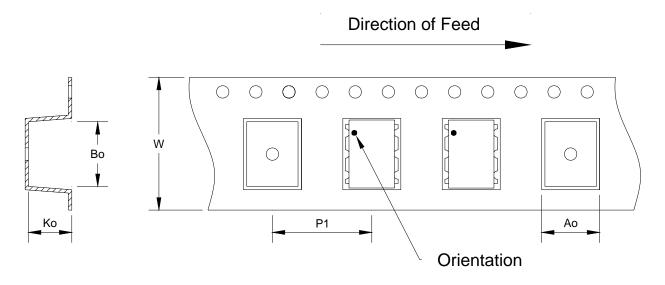
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Tape & Reel Information



Item	Dimension	
Ao	7.00mm +/- 0.1mm	
Во	8.60mm +/- 0.1mm	
Ko	5.23mm +/- 0.1mm	
W	16.00mm +/- 0.3mm	
P1	12.00mm +/- 0.1mm	

Ordering Information

Part Number	Package
MAMX-008786-ES0120	Tape and Reel 900 pieces

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