





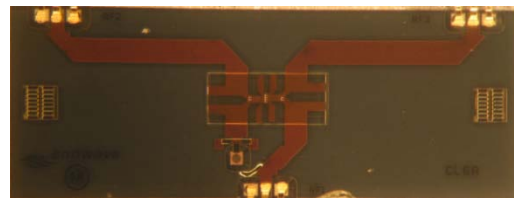


Features

-  Broadband performance: 71 to 86 GHz
-  Insertion loss: 1 dB, typical
-  In-band return loss: > 10 dB, typical
-  MLMS™ Technology Provides
Excellent Performance and Repeatability
-  Die size: 1.61 x 4.51 x 0.1 mm
-  RoHS Compliant

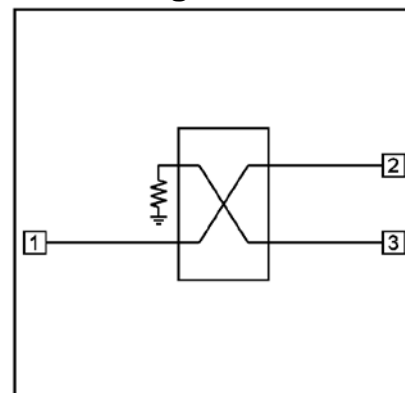
Device Photo



Description

The Endwave *EWO8601ZZ* is a high performance MLMS™ Lange coupler offering low insertion loss and excellent repeatability. The coupler typically provides 1 dB insertion loss and good return loss from 71 to 86 GHz. The device can be used for a wide range of applications from defense electronics to commercial communication systems where it is an ideal coupler for E-band applications. All die are 100% DC and RF tested and inspected visually to Mil-Std-883 Method 2010.

Block Diagram



Electrical Characteristics (Temperature = +25 °C)

Parameter	Min.	Typ.	Max.	Units
Frequency	71		86	GHz
Pass band Insertion Loss (Note 1)		1		dB
Input & Output Return Loss		12		dB

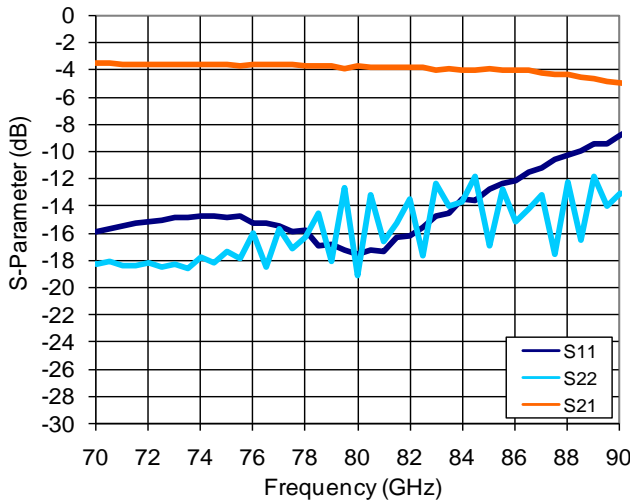
Note 1: Neglecting 3 dB loss in ideal power split

EWO8601ZZ

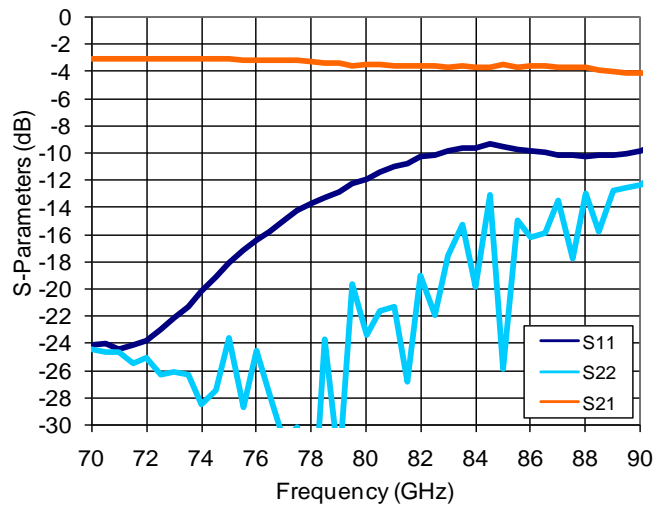
September 2009 – Rev 1

Production

MLMS CL6 RF1 to RF2 Response with Terminated RF3

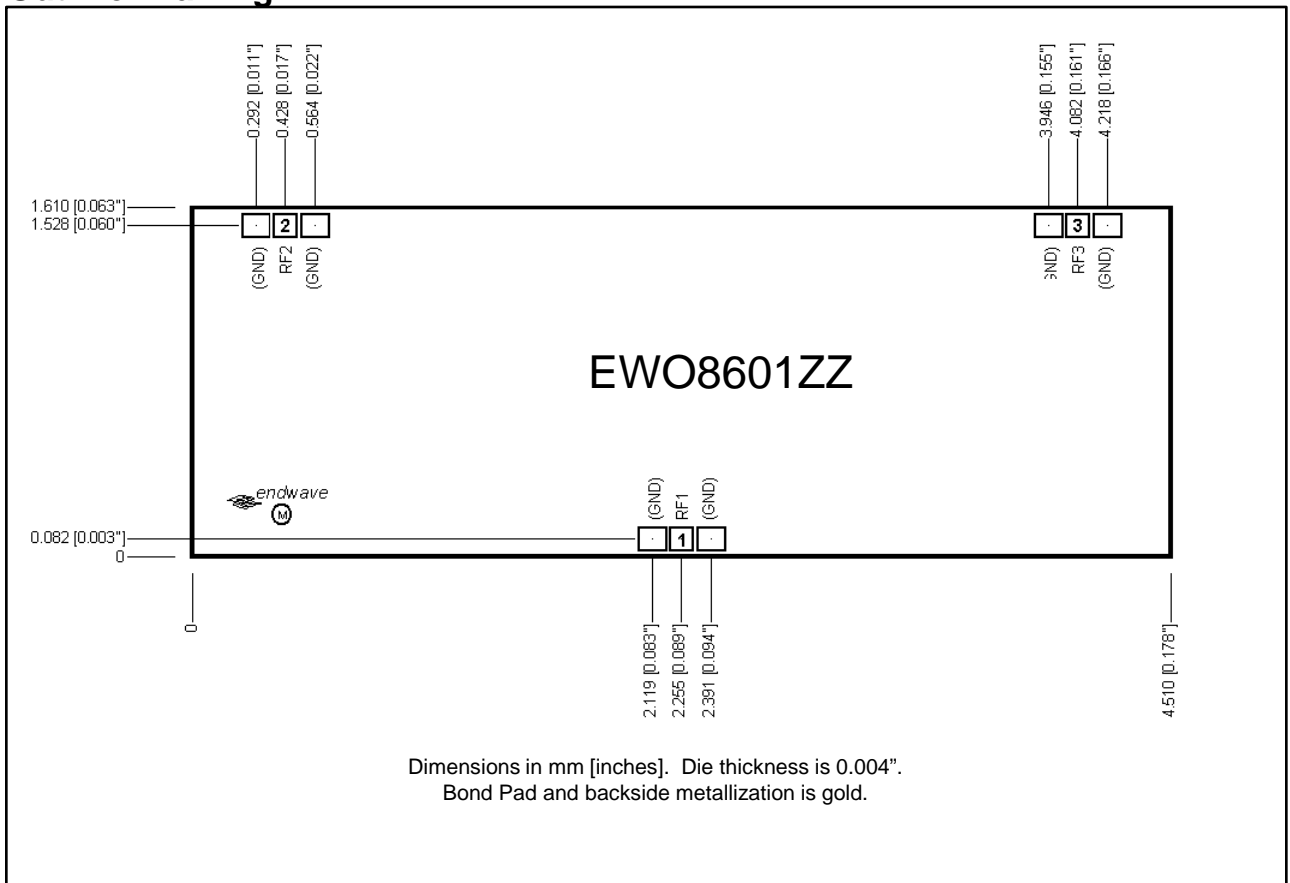


MLMS CL6 RF1 to RF3 Response with Terminated RF2



Note: Measured data is shown with a 50 ohm termination bonded to the other output port.
Insertion loss, neglecting ideal split, is 3 dB better than shown.

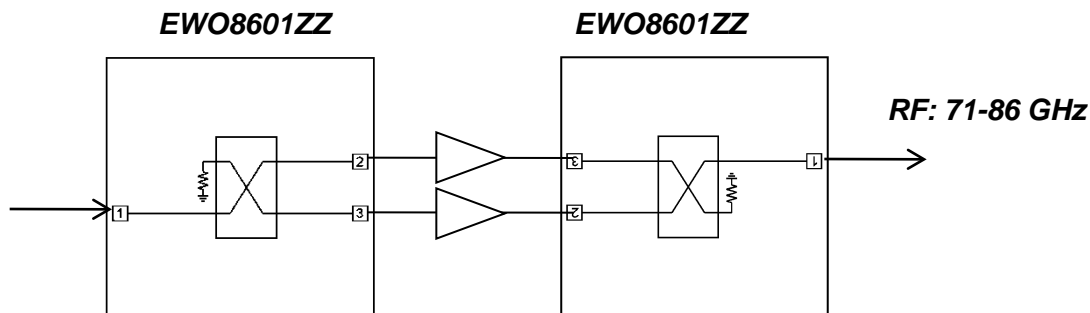
Outline Drawing



Absolute Maximum Ratings

RF input power	+25 dBm
Storage Temperature	-65 to +150 C
Operating Temperature	-40 to +85 C

Typical Application



Note: The EWO8601ZZ is designed to accommodate E-band balanced amplifier configurations by using off the shelf E-band LNAs or MPAs in the market.

Support Documentation

Support documentation including Assembly Notes, Application Notes and Qualification Procedures can be found on our website at www.endwave.com.

Ordering Information

Part Number	Description
EWO8601ZZ	RoHS compliant bare die in waffle or gel packs

MLMS™ Lange Coupler – Stacked Die