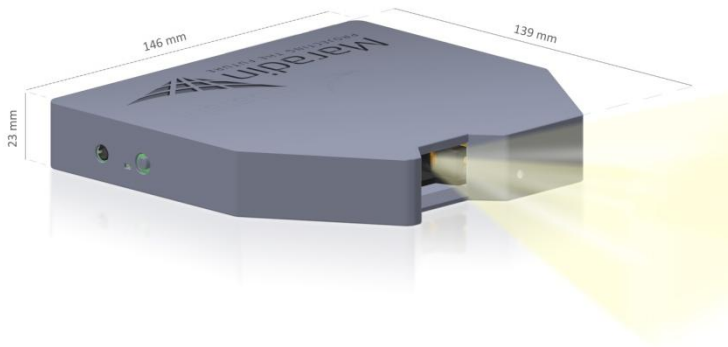


MARADIN 2D MEMS PROJECTION EVALUATION KIT PN DM003100



Maradin Evaluation Kit

An easy to use and a straight forward platform for developers and business development personnel.

The DM3100 enables the evaluation of Maradin's laser based projection core components, including: MAR1100 - 2D MEMS scanning mirror, MAR2100 - MEMS drive and control IC and the MAR3100 - GILBOA reference design to incorporate Maradin's proprietary laser timing algorithm. The DM3100 shortens the development time, enables flexibility and a fast demonstration of laser projection based on Maradin's technology.

FEATURES

- Real-time Video input (HDMI compatible)
- Real Time Laser-Mirror Sync Algorithm
- Powerful GUI for FOV control using API
- Pixels adaptive timing
- Laser Color and Intensity control
- Shortening OEM time to market

APPLICATIONS



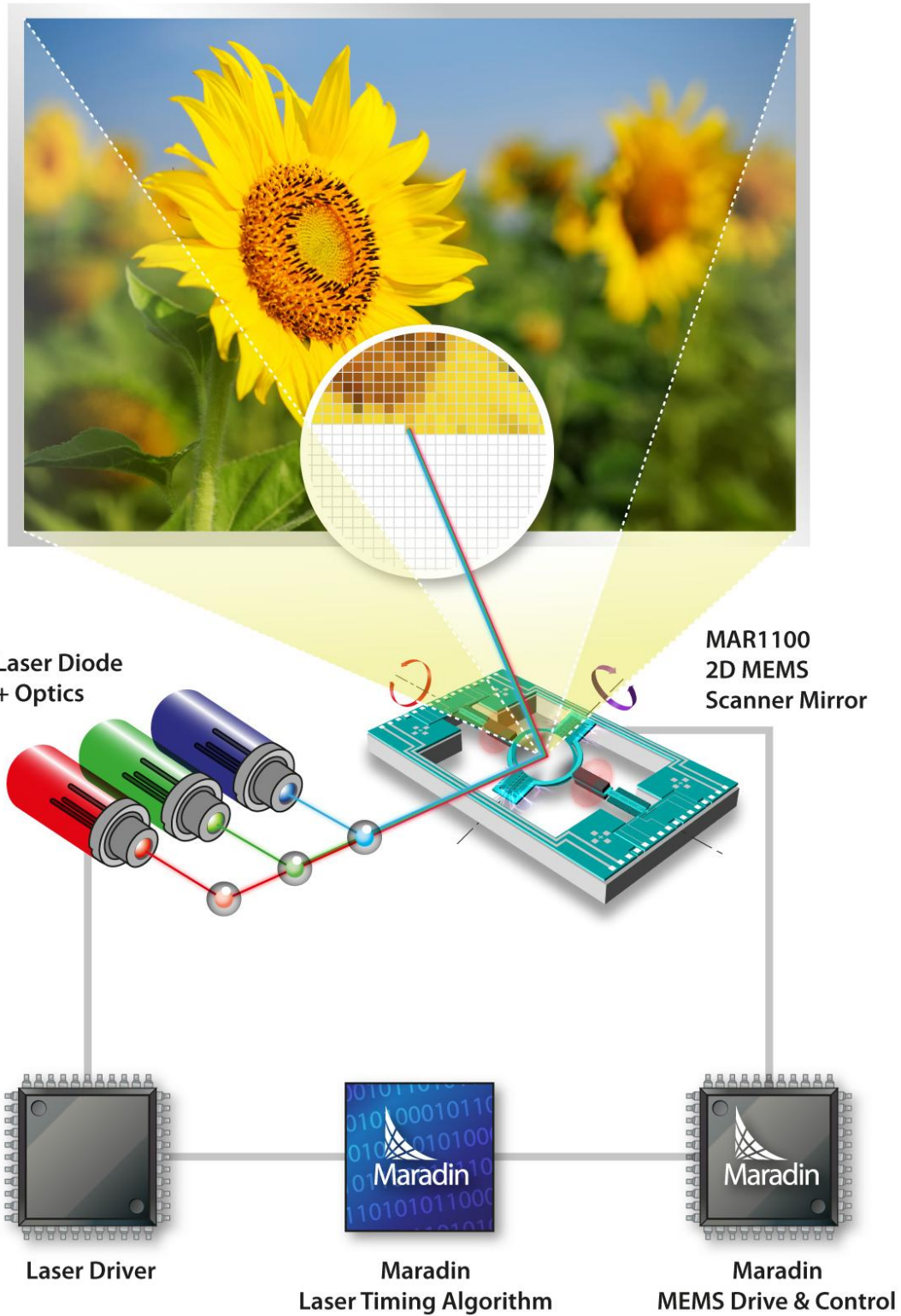


Figure 1: System Block Diagram

SYSTEM CHARACTERISTICS

	Parameter	Min	Typical Value	Max	Unit	Remarks
Image	Resolution (HxV)	1x240	854x480	1280x600	Pixel	
	Optical angle (H x V)		36x21	45x30	Deg.	HFOV x VHOV
	Throw Ratio		1.2	1		Distance/Diagonal FOV
	Pixel position error		±1/5		Pixel	Both vertical and Horizontal
MEMS Scanning module	Resonant frequency (H)	10,250	10,500	10,750	Hz	
	Resonant frequency (V)	1500	1700	1900	Hz	
	MEMS Scanning Module dimensions (L x W x H)		12x6.5x5.9		mm	Length x Width x Height
	Effective mirror size (H)		1		mm	X Horizontal direction X for torsion bar
	Effective mirror size (V)		1.1		mm	Y Vertical direction Y for torsion bar
	MEMS Scanning module power consumption	TBD	70	TBD	mW	rms
Optical	Mirror reflectance	90		93	%	Aluminum coating
	Wave length range for reflection	440		700	nm	Optical window coating
	Laser max spot size			0.7	mm	
	Laser max power			R - 120 G - 50 B - 80	mW	
	Laser wave length			R - 638 G - 520 B - 450	nm	

ELECTRICAL INTERFACE

#	Interface	Description
1	System Power Supply	12V/2A (Main Supply); 5.5x2.5mm Power jack
2	Video	mini HDMI Interface (HDMI type C)
3	Wi-Fi	Supports two modes: Miracast and DLNA/Airplay
4	Headphone	3.5mm Audio jack
5	Projection System Parameters Control (Through GUI interface)	Computer to EVK connection through USB to miniUSB cable
6	General Propose connector	Synchronization and Projection control signals output for external use
7	Optical Module	Drive Up to 6 different laser diodes. Lower number of lasers can be driven with high current.

IMPORTANT NOTE

This document contains proprietary information that is protected by copyright. All rights are reserved. No part of this document may be photocopied, reproduced, or translated into another language without the prior written consent of Maradin Ltd. or any of its subsidiaries or affiliates. The information in this document is subject to change without notice. Maradin Ltd. makes no warranty of any kind with regard to this printed material, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose.

Maradin Ltd. shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance, or use of this material. Brand or product names are trademarks or registered trademarks of their respective companies or organizations. Maradin Ltd. reserves the right to make any corrections, modifications, enhancements, improvements, and other changes to its products and services at any time and to discontinue any product or service upon its sole discretion and without notice. The buyer should obtain the latest relevant information before placing orders and should verify that such information is current and complete, and shall be solely liable to obtain such verifications. All products are sold subject to Maradin Ltd. General Terms and Conditions of Sale supplied at the time of order acknowledgment.

CONTACT DETAILS

2 HaCarmel St. P.O. Box 56, Yokneam 2609201, Israel
Tel. +972 (4) 627 3653 Fax. +972 (4) 959 0327
info@maradin.co.il www.maradin.co.il