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RoBoard Module
RM-G212

Manual V1.01

The Heart of Robotics

Jan 2013

DMP Electronics Inc

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Trademarks Acknowledgment

Table Of Contents

Chapter 1

Introduction

1.1 Packing List

Product Name	Package
RM-G212	RoBoard Module RM-G212
	
Cable-RM-1	1x6 pin Cable x 1
	

1.2 Product Description

The RM-G212 is a 16X4 array of thermopile sensors suitable to detect thermal radiation and measure temperatures without making contact with the object.

The RM-G212 utilizes innovative non-contact temperature measurement technology to create a highly cost-effective thermography solution.

Covering a -20°C to 300°C temperature range, this 16 x 4 element far infrared (FIR) thermopile sensor array produces a map of heat values for the target area in real time, avoiding the need to scan the area with a single point sensor or the use of an expensive microbolometer device.

The RoBoard Module RM-G212 is an 16x4 thermal array module, simply and all done through I2C interface, the dimension of it is wee as 20 x 20 mm.

Application:

- Comfort Sensing
- misting/fogging detection and prevention
- Seat Occupant Detection
- Vision Systems (Night, Fog, Avoidance, Tracking)
- Access Control
- Motion Sensor
- Temperature measurement
- Alarm and Security Systems
- Room Temperature Sensing
- Anti-Theft Protection
- Temperature measurement
- Machine Vision
- Diagnosis Systems

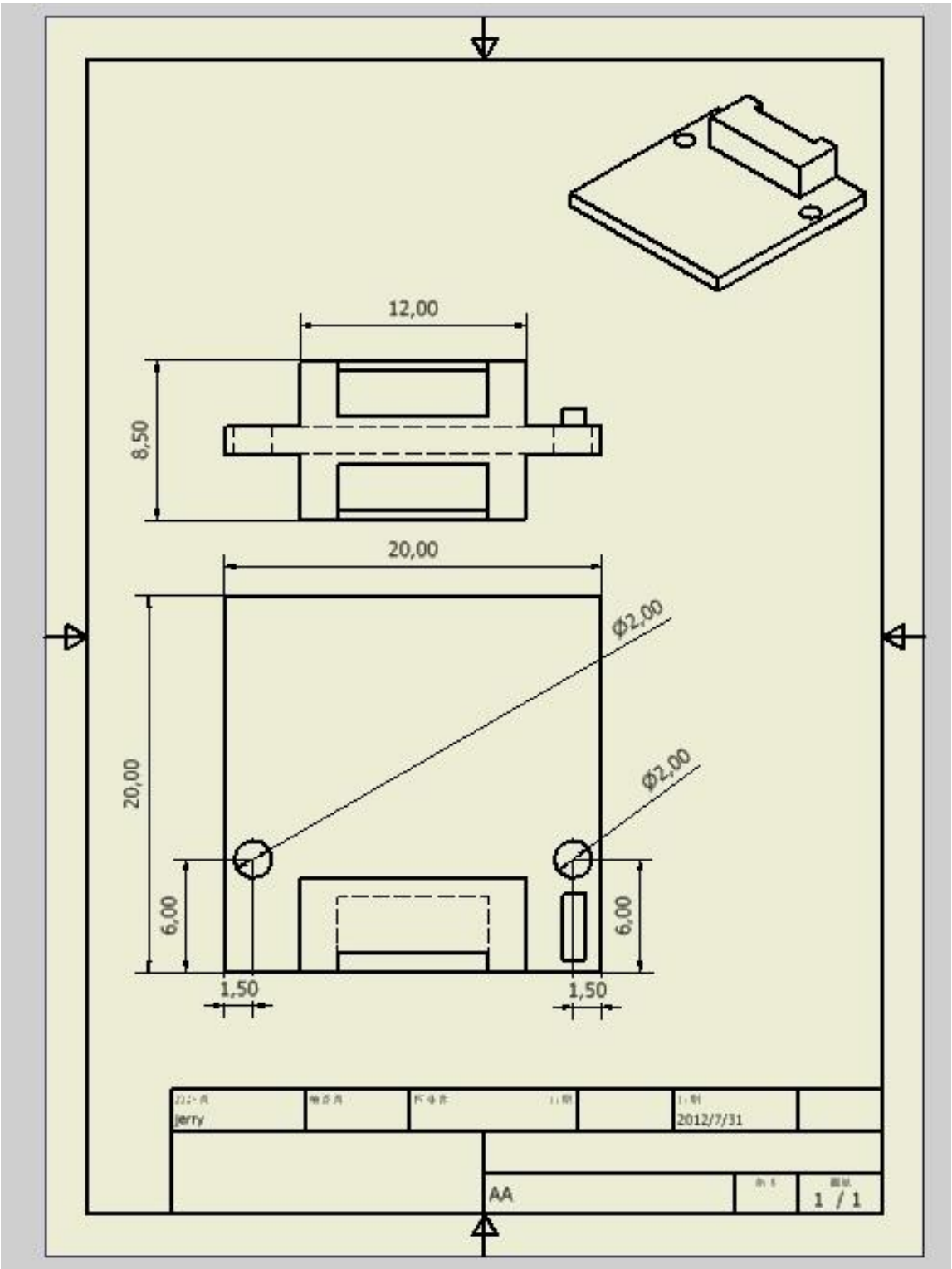
1.3 Specifications

	RM-G212 16x4 thermal array module
16x4 IR array	Melexis MLX90620
Interface	I^2C
Default Address	EEPROM : 0x50 RAM : 0x60
Connectors	1.25mm 6-pin wafer for I^2C x 2
Power Input	DC-in 5V
Dimension	20mm X 20mm
Weight	2.5g

1.4 I^2C Address

- EEPROM : 0x50
- RAM : 0x60

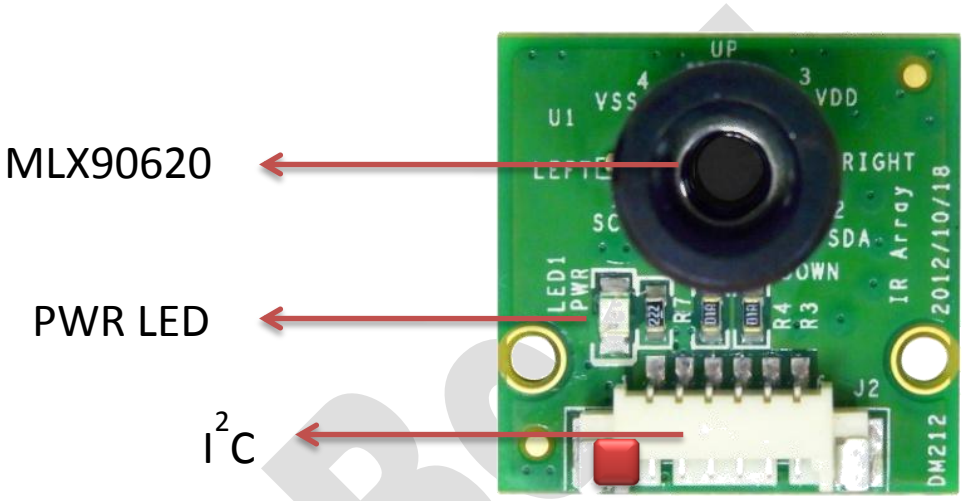
1.5 Board Dimension



Chapter2

Installation

2.1 Board Outline



2.2 Connectors & Jumpers Summary

Summary Table

	Description	Type of Connections	Pin
J1	I^2C connector (Top)	Wafer, 2.54mm,6x1	6-pin
J2	I^2C connector (Bottom)	Wafer, 2.54mm,6x1	6-pin

2.3 Pin Assignments

J1: I²C connector (Top)

Pin #	Signal Name
1	Vcc (Red)
2	GND (Black)
3	SCL (Blue)
4	SDA (Green)
5	X (White)
6	X (Orange)

J2: I²C connector (Bottom)

Pin #	Signal Name
1	Vcc (Red)
2	GND (Black)
3	SCL (Blue)
4	SDA (Green)
5	X (White)
6	X (Orange)

Chapter 3

Development Note

Sample and development code

The RM-G212 provides sample and development code.

Please download from official website: http://www.roboard.com

Warranty

This product is warranted to be in good working order for a period of one year from the date of purchase. Should this product fail to be in good working order at any time during this period, we will, at our option, replace or repair it at no additional charge except as set forth in the following terms. This warranty does not apply to products damaged by misuse, modifications, accident or disaster. Vendor assumes no liability for any damages, lost profits, lost savings or any other incidental or consequential damage resulting from the use, misuse of, originality to use this product. Vendor will not be liable for any claim made by any other related party. Return authorization must be obtained from the vendor before returned merchandise will be accepted. Authorization can be obtained by calling or faxing the vendor and requesting a Return Merchandise Authorization (RMA) number. Returned goods should always be accompanied by a clear problem description.