

Specification



CMR3000-D0X PWB
CMR3100-D0X PWB

1 Introduction

The purpose of evaluation PWBs is to enable fast prototyping. This document is applicable following evaluation PWBs:

- CMR3000-D0X PWB
- CMR3100-D0X PWB

2 CMR3000-D0X PWB and CMR3100-D0X PWB

CMR3000-D0X PWB includes:

- CMR3000-D01 sensor soldered on PWB
- PWB design # VT129702 with pin headers
- Connectors and passive components

Refer to "CMR3000-D0X_Product_Family_Specification_8281000" when using the CMR3000-D01 assembled on the PWB.

CMR3100-D0X PWB includes:

- CMR3100-D01 sensor soldered on PWB
- PWB design # VT129702C3 with pin headers
- Connectors and passive components

Refer to "CMR3x00_Product_Family_Specification_SPEC_0000122" when using the CMR3100-D01 assembled on the PWB.

Detailed BOM of CMR3000-D0X PWB and CMR3100-D0X PWB is presented in Table 1 below.

Table 1. BOM.

Item	Qty	Ref	Part Name / type	Value
1	1	J1	8-pin through hole pin header, pitch 100 mils, pin size 0.63x0.63mm, length ~5.85mm (example mating part: Samtec: SSQ-107-01-S-S)	
2	1	J2	7-pin through hole pin header, pitch 100 mils, pin size 0.63x0.63mm, length ~5.85mm (example mating part: Samtec: SSQ-108-01-S-S)	
3	3	C1, C4, C6	capacitor, package size 0603	100 nF
4	3	C7	capacitor, package size 0603, not assembled	1 uF
5	1	IC1	CMR3000-D01 sensor or CMR3100-D01 sensor	
6	1	R1	resistor, package size 0603, not assembled	0 Ohm
7	1		PWB (design #VT129702C0) for CMR3000-D01 or PWB (design #VT129702C3) for CMR3100-D01 Material FR4, thickness 1,6 mm, size 20 × 23 mm	

Detailed pictures of PWBs are presented in following pages:

- Circuit diagram
- PWB layout

When using I2C-bus, cut the wire short circuiting pads of R1.

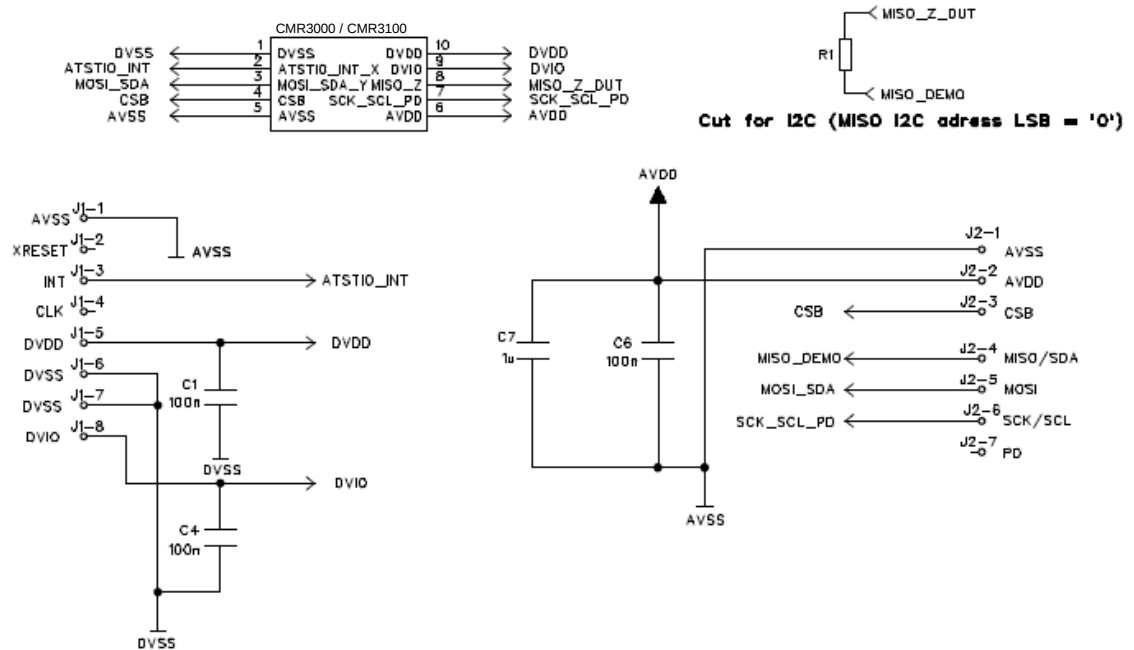
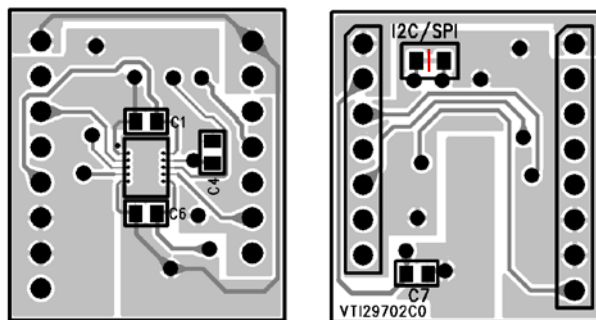


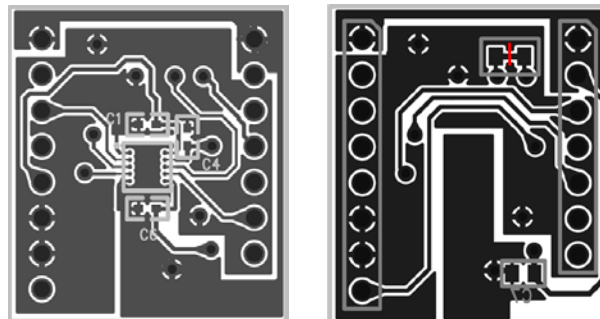
Figure 1. Circuit diagram for CMR3000-D0X PWB and CMR3100-D0X PWB.



CMR3000-D01 connection
on eval PWB is SPI only.

In case I²C is used, the
trace marked with red
needs to be cut (R1 in
circuit diagram).

Figure 2. Layouts of CMR3000-D0X PWB.



CMR3100-D01 connection
on eval PWB is SPI only.

In case I²C is used, the
trace marked with red
needs to be cut (R1 in
circuit diagram).

Figure 3. Layouts of CMR3100-D0X PWB.

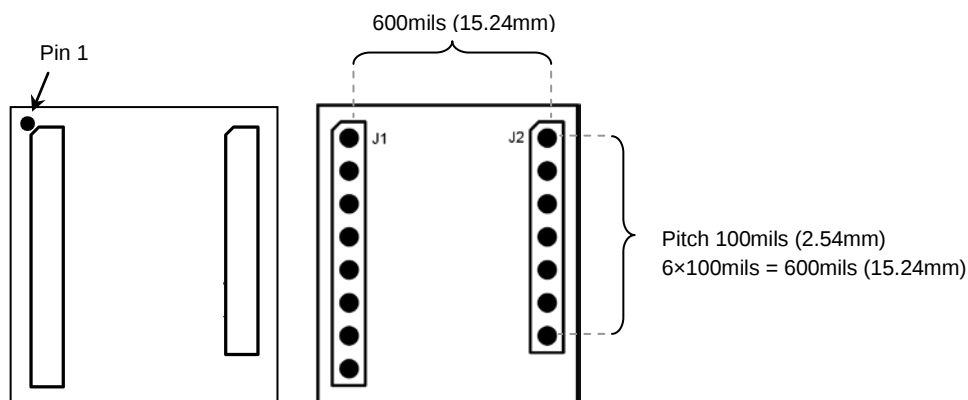


Figure 4. Assembly drawings for CMR3000-D0X PWB and CMR3100-D0X PWB.

3 Document Revision History

Version	Date	Change Description
0.01	17.06.2010	Initial release
0.02	20.08.2010	Fig 1 & 2 updated, Table 1 updated, info on I2C-usage added in section 2
0.03	03.11.2010	Release for product launch
0.04	02.01.2012	CMR3100 added, document number updated to SPEC-0000096