

Description

CambridgeIC's CAM204 Central Tracking Unit (CTU) chip is a single-chip processor for position measurement. It implements the electronic processing for resonant inductive position sensing technology.

The CAM204 measures the position of contactless, inductively coupled targets relative to sensors that are built from printed circuit boards to CambridgeIC's design. A selection of sensor geometries is possible, including rotary and linear.

The Type 6 CTU Development Board is a PCB including the CAM204 CTU chip and external Type 6 circuitry. This is compatible with up to two Type 6 sensors.

Type 6 sensors are typically for through shaft rotary position measurement. Please refer to the appropriate sensor datasheet for more details.

Please refer to the CAM204 datasheet for more details on features and specifications of the CAM204 chip.

Features

- CAM204 CTU chip
- Processes up to two Type 6 sensors
- Test points for key CTU connections
- 14-way header for host interface connection
- 6-way headers for sensor connection

Applications

- Prototyping CTU chip based applications
- Processor board for position sensor solutions

Host Interface Connector P2		
Pin	Signal	Description
1	3V3	Supply voltage input 2.7V ... 3.6V
2	GND	Supply voltage return (0V)
3	IO1	User IO outputs
4	IO2	
5	IO3	
6	IO4	
7	GND	Supply voltage return (0V)
8	MOSI	Master Out Slave In input
9	nSS	Slave Select input
10	SCK	Serial Clock input
11	MISO	Master In Serial Out output
12	IO5	Not connected
13	IO6	
14	nRST	CTU chip reset input

Product identification	
Part no.	Description
013-5030	Type 6 CTU Development Board

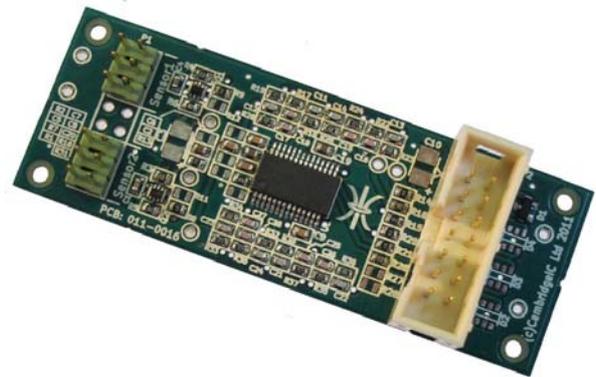


Figure 1 Type 6 CAM204 Development Board

Sensor Connections	
Connector	Type 6 Sensor
P1A	Sensor 1
P1B	Sensor 2

Pinout of Sensor Connectors P1A, P1B		
Pin	Signal	Description
1	EX	Excitation coil connection
2	COSB	Coarse sensor coil connection
3	SINB	Coarse sensor coil connection
4	COSA	Fine sensor coil connection
5	VREF	Common return for all coils
6	SINA	Fine sensor coil connection

1 Component Layout and Schematic

Figure 2 shows the location of the Type 2&5 CTU Development Board's components, connectors and their pin numbers, and mechanical dimensions. Figure 3 shows the board's schematic.

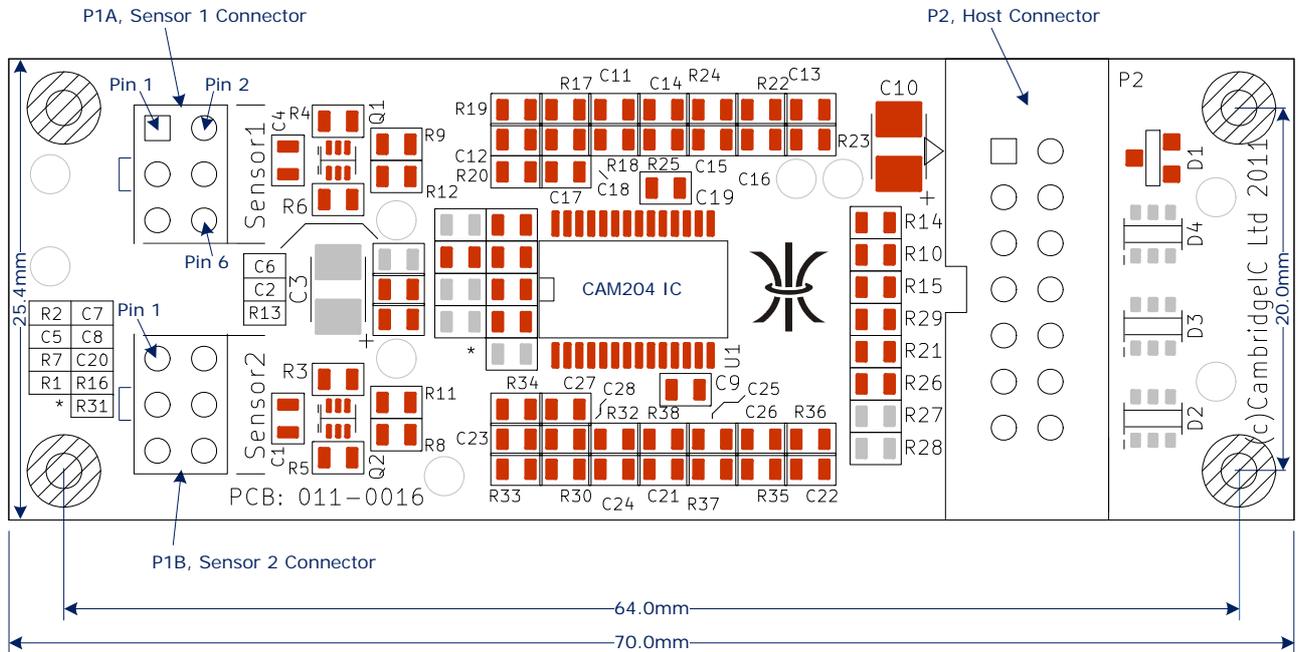
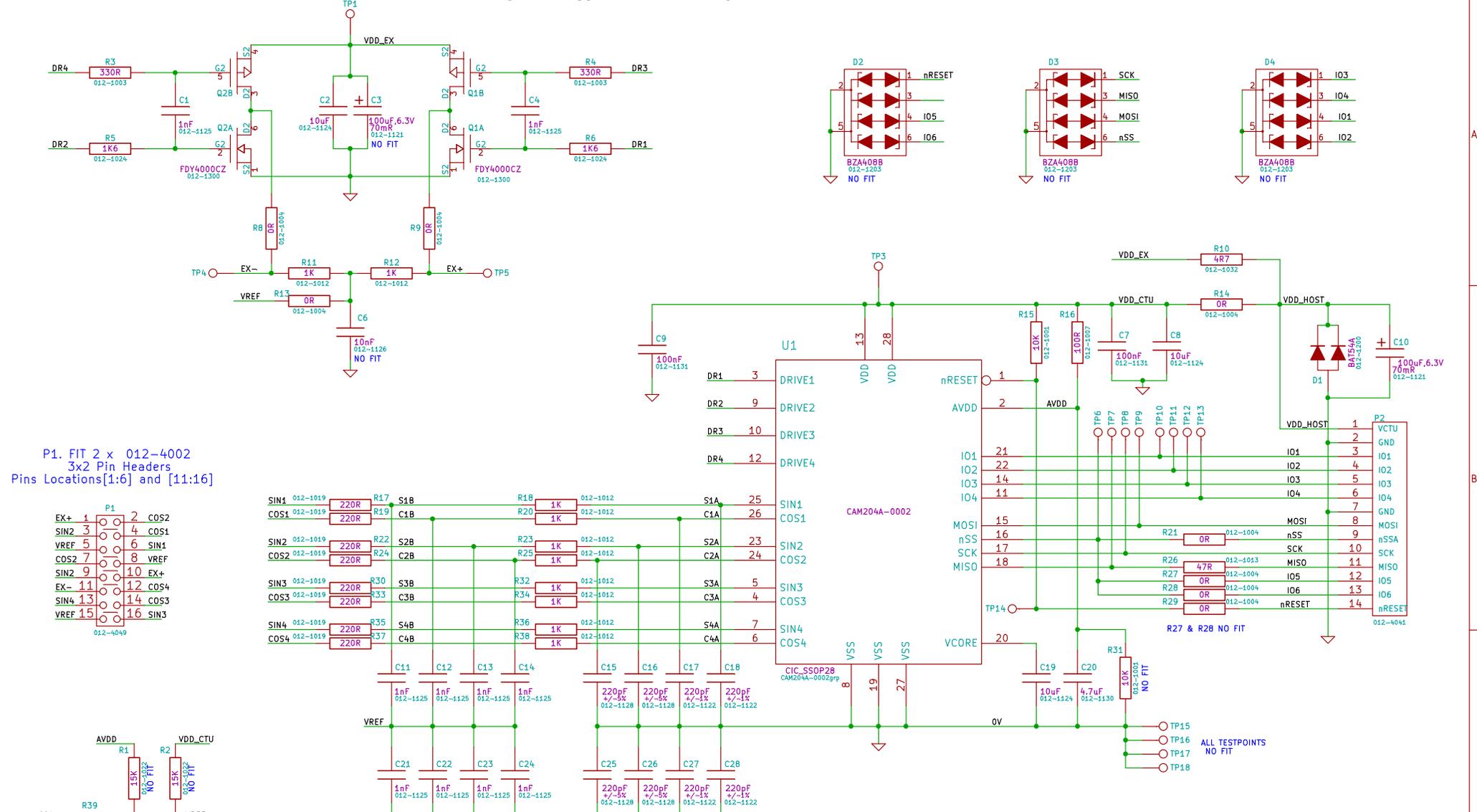
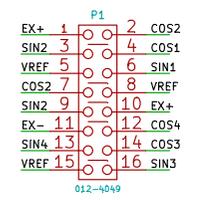


Figure 2 Component layout and dimensions

Figure 3 Type 6 CTU Development Board Schematic



P1. FIT 2 x 012-4002
3x2 Pin Headers
Pins Locations[1:6] and [11:16]



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2 Document History

Revision	Date	Reason
0001	16 March 2012	First draft

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4 Legal

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