

**Work Instruction**

Name: MT240 product integration

**MT240**

Date: 3/1/2010

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**Revisions****Originator**

JLS

**Reason**

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**Date**

3/1/10

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## Work Instruction

MT240

Date: 3/1/2010

Name: MT240 product integration

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### Purpose:

The CPS P/N MT240 is an RF transceiver module based on the TI/Chipcon CC2500 RF transceiver chip. The MT240 is to be used as a module to achieve RF connectivity in CPS Products Inc. data gathering products.

This document as well as the document(s) referred to in this Work Instruction provide basic instructions to achieve the integration of the MT240 with a microcontroller based data gathering equipment.

**CAUTION: The MT240 is a self contained, functional module. No component of the module should be changed or altered and it should always be operated with the shield in place and within the operating specifications provided below. Failure to observe these guidelines will result in serious damage to the product and will violate the licenses under which this transceiver operates.**

### Operating specifications:

Power:	4 to 14 VDC at 100 mA max.
Data lines:	0 to 3.3 VDC max.
SPI clock frequency:	5.0 MHz. max.
Temperature:	-20°C to +50°C.
Humidity:	0% to 90% RH non-condensing.

### Programming details:

The MT240 transceiver module functions are controlled by writing information to the CC2500 RF transceiver chip's internal registers. The CC2500 receives information through a 4 wire SPI bus. The SPI bus is controlled by an external microcontroller which programs the CC2500 in the MT240 to send and receive data. The programming details are given in the user manual and data sheet for the CC2500; Texas Instruments document number **SWRS040C** of 04/05/2008.

Besides the 4 wire SPI bus, the CC2500 utilizes a dedicated 2 wire bus to notify the external controller of data received.

The schematic of the MT240 module is attached.

**This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: this device may not cause harmful interference, and this device must accept any interference received, including interference that may cause undesired operation.**

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# MT240 V1

REV	DATE	DESCRIPTION
A	10/6/09	PRELIMINARY RELEASE

SCHEMATIC PAGE DESCRIPTION	
PAGE	TITLE
01	COVER PAGE
02	TRANSCEIVER
03	POWER SUPPLY
04	SHIELD
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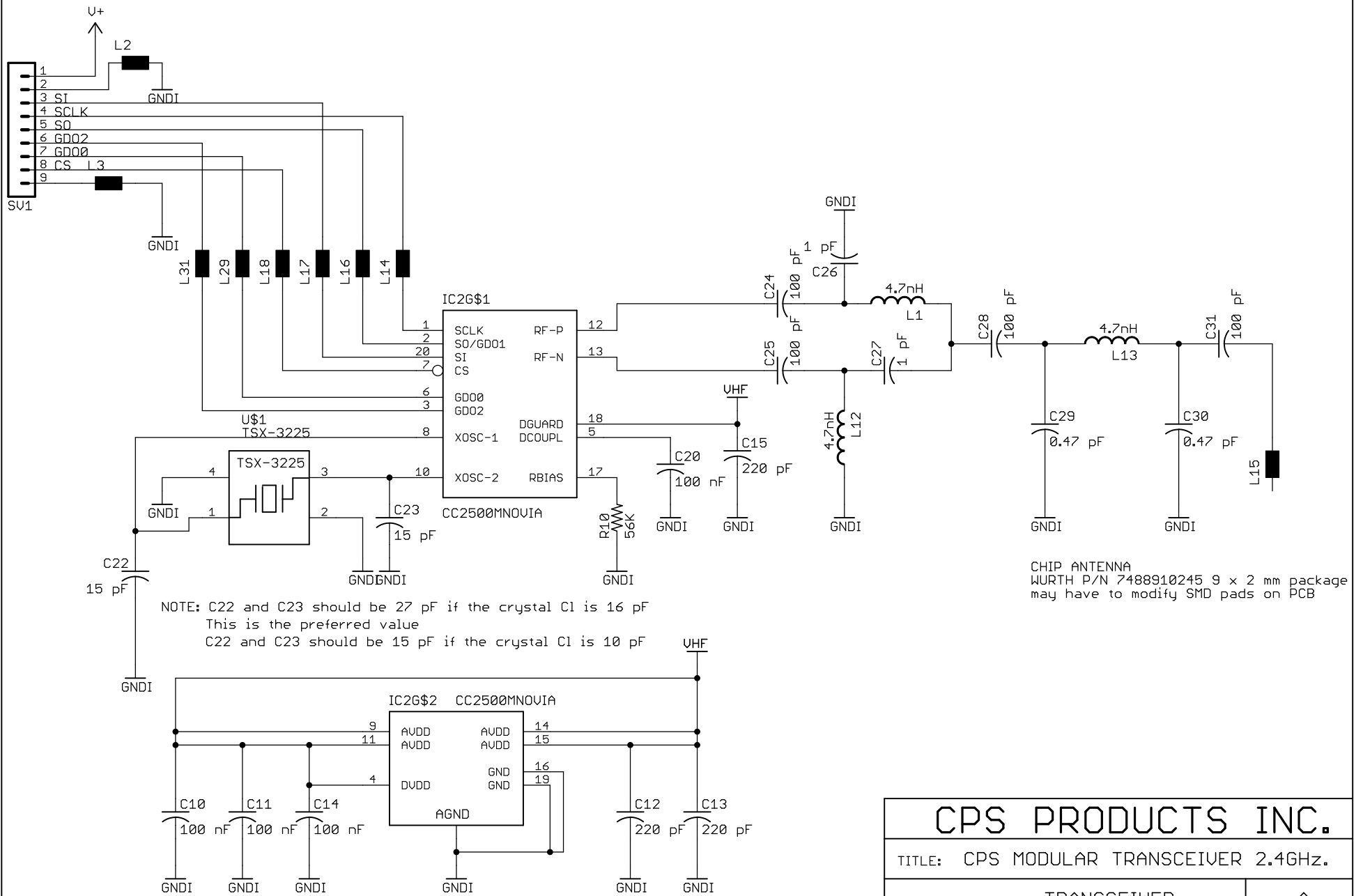
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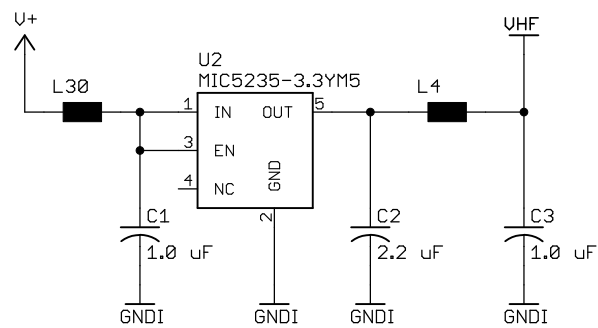
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NOTE: L4 is MURATA P/N BLM18HD102SN1D

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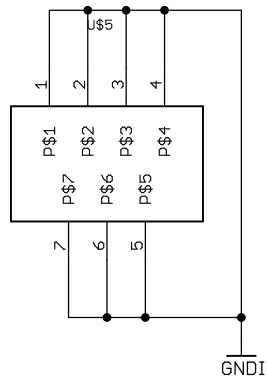
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