

MCP215X Rev. C Silicon/Data Sheet Errata

The MCP215X Rev. C parts you have received conform functionally to the MCP2150 and MCP2155 Device Data Sheets (DS21655B and DS21690A), except for the anomaly described below.

1. Module: IR Protocol Handler

During the discovery phase of IR communications, the devices negotiate the baud rate for future communications. The Primary Device specifies its rates and the Secondary Device responds.

The MCP215X device responds to the baud rate query with all supported baud rates, and not an "AND" of the baud rates supplied by the Primary Device.

Note: The Palm® Z22 will ignore the baud rate setting specified by the PDA application program and will operate at the fastest baud rate reported by the Secondary Device.

The MCP215X does switch to the maximum baud rate requested by the Primary Device.

Note: If the Palm Z22 baud rate query value has a maximum baud rate that is slower than the response from the MCP215X, then these two devices will switch to different baud rates and will not communicate. After this invalid communication occurs, both devices will disconnect.

Under "normal" operating conditions, this should not be an issue, since both devices will specify to operate at their fastest baud rate setting.

Note: The Palm Z22 IR pulse width at 115,200 baud appears to be wider than the IrDA® Specification. This causes the MCP215X not to maintain the link at 115,200 baud.

Work around

None

Note: The MCP2140 will communicate with the Palm Z22 device at 9600 baud.

Clarifications/Corrections to the Data Sheet:

In the MCP2150 and MCP2155 Device Data Sheets (DS21655B and DS21690A), the following clarifications and corrections should be noted.

1. An IrDA standard operating system (Symbian OS™ for cell phones) has been reported that only sends out XID commands with a Timeslot of 0. Since the MCP215X devices respond to Timeslot 2, they are not able to establish a link to an OS that is compliant with the IrDA standard. The MCP2140 can be used in these systems, since it responds to the XIP command with Timeslot 0.

Note: Newer versions of the Symbian OS may not have this characteristic.

2. The MCP2150 emulates the state of all the non-data circuits (CTS, RTS, DTR, DSR, CD, and RI). These signals on the MCP2150 are used to interface with the embedded systems host controller. The values in the IrDA standard packet response would not reflect the value on the corresponding MCP2150 pin.

The MCP2155 emulates the state of the CTS, RTS and DSR non-data circuits. These signals on the MCP2155 are used to interface with the embedded systems Host Controller. The DTR, CD and RI signal values are communicated with the IrDA standard Primary device in an IrCOMM packet. The MCP2155 will only send this information when the state of one of these signals change. The MCP2155 devices will ignore any request for the status of the non-data circuits from the IrDA standard Primary device.

3. When any state machine is operated outside of its' specified operating conditions, undesired operations may occur. When the MCP215X is in a brown-out state, an external voltage supervisory circuit should hold the MCP215X in reset. Failure to do this may cause the MCP215X operation to corrupt the programmable device ID. If the device ID becomes invalid, the Primary Device may be unable to establish a link to the MCP215X system. For the MCP215X system to communicate with the Primary Device, the MCP215X's device ID needs to be programmed to a valid device ID.

MCP215X

APPENDIX A: REVISION HISTORY

Revision A (February 2006)

- Initial release of this document.

APPENDIX B: SILICON REVISION HISTORY

The following table and package marking information indicates how to determine the revision of the MCP215X device. The revision information can be determined by the Year and Week Code of the manufacture printed on the device.

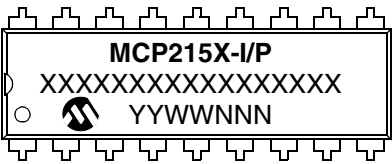
TABLE B-1: SILICON REVISION/DEVICE MARKING

Silicon Revision	YYWWNNN		Comments
	Start Date	End Date	
Rev C	0419NNN	—	In Production

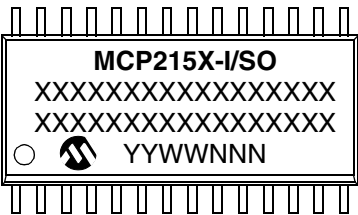
Legend: “N” is any alphanumeric character.

Package Marking Information

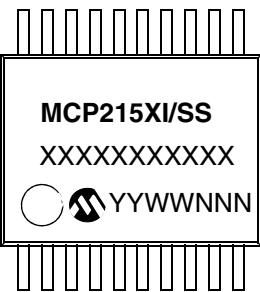
18-Lead PDIP



18-Lead SOIC



20-Lead SSOP



Legend: XX...X Customer specific information*
YY Year code
(last 2 digits of calendar year)
WW Week code
(week of January 1 is week '01')
NNN Alphanumeric traceability code

Note: In the event the full Microchip part number cannot be marked on one line, it will be carried over to the next line thus limiting the number of available characters for customer specific information.

* Standard marking consists of Microchip part number, year code, week code, and traceability code.

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