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## MCP45HVX1 Rev. A1 Silicon/Data Sheet Errata

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The MCP45HVX1 parts that you have received conform functionally to the current device data sheet (DS20005304A) except for the anomalies described in this document.

All the issues discussed in the following pages will be addressed in future revisions of the MCP45HVX1 silicon.

### Silicon Errata Issues

**Note:** This document summarizes all silicon errata issues from all revisions of silicon, previous as well as current.

#### 1. Module: I<sup>2</sup>C™ Interface

The MCP45HVX1 interface will accept the serial data that was intended for other devices on the I<sup>2</sup>C™ bus.

This occurs when the other device on the same I<sup>2</sup>C bus Acknowledges the I<sup>2</sup>C Control Byte (contains the I<sup>2</sup>C Slave Address). This causes the MCP45HVX1 to accept the subsequent serial data until either a Stop or Restart condition occurs. The MCP45HVX1 will interpret this received data per the defined command definitions.

**Note:** If the MCP45HVX1 interprets the data as a Read command, the I<sup>2</sup>C SDA signal will result in a value of the expected data (of the addressed device) logically ANDed with the read data of the MCP45HVX1.

#### Work around

Each MCP45HVX1 device would need to be on a unique I<sup>2</sup>C bus with no other I<sup>2</sup>C devices.

#### 2. Module: I<sup>2</sup>C Interface

The I<sup>2</sup>C General Call command (see [Figure 1](#)) does not properly decode the four address bits (b7:b4) in the second byte with respect to the two command bits (b3:b2). If the received address is invalid for the specified command, then the device will use the address from the previous valid command received. If either of these addresses was a valid combination for the specified command, then the MCP45HVX1 will generate an ACK on this second byte and operate the command.

#### Work around

If the second byte of the I<sup>2</sup>C General Call command is a different value than the three reserved commands or the four Microchip-specific commands, then the MCP45HVX1 device would need to be on a separate I<sup>2</sup>C bus where those commands would not occur.

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## 3. Module: I<sup>2</sup>C Interface

The I<sup>2</sup>C General Call command (see Figure 1) does not properly decode the Hardware General Call bit (b0) in the second byte. The device ignores the state of this bit, and responds according to the state of the previous seven bits.

### Work around

None.

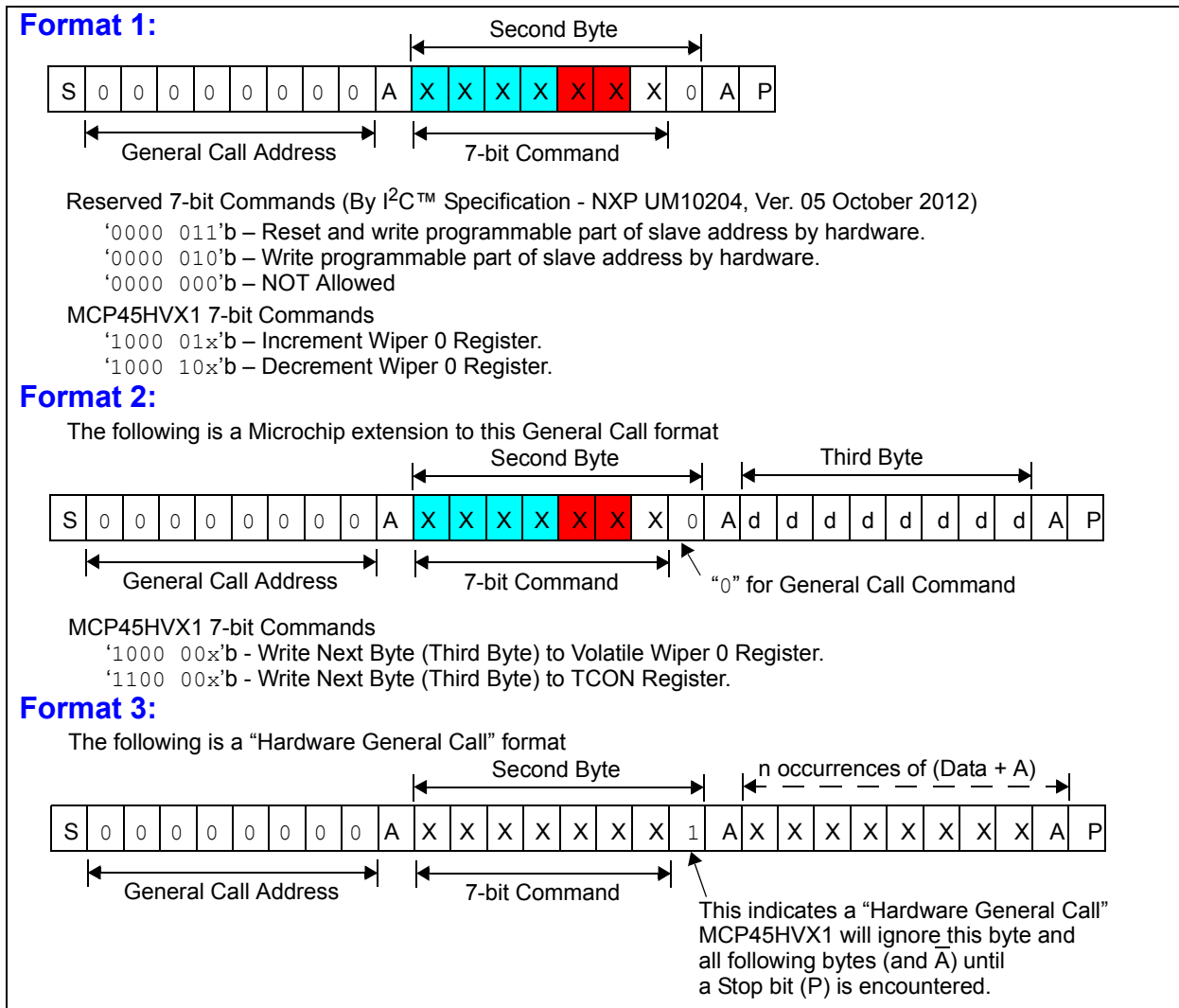


FIGURE 1: General Call Formats.

## Data Sheet Clarifications

The following typographic corrections and clarifications are to be noted for the latest version of the device data sheet (DS20005304A):

None.

## APPENDIX A: DOCUMENT REVISION HISTORY

### Revision B (7/2015)

- Added two dates to [Appendix B: "Silicon Revision History"](#).

### Revision A (3/2015)

- Initial release of this document.

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## APPENDIX B: SILICON REVISION HISTORY

The following table and package marking information indicates how to determine the revision of the MCP45HVX1 device. The revision information can be determined by the Year and Week Code of the manufacture printed on the device.

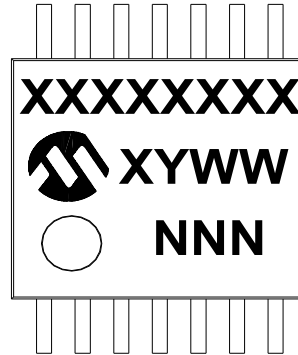
**TABLE B-1: SILICON REVISION/DEVICE MARKING**

Silicon Revision	YYWWNNN		Comments
	Start Date	End Date	
Rev A2	1520NNN	—	Current Sample Stock, Production Start Date 1520NNN
Rev A1	—	1518NNN	

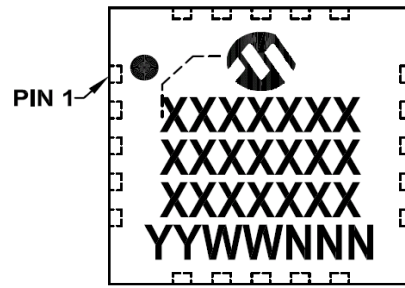
**Legend:** "N" is any alphanumeric character.

## Package Marking Information

14-Lead TSSOP (4.4 mm)



20-Lead QFN (5x5x0.9 mm)



<b>Legend:</b>	XX...X	Customer-specific information
	Y	Year code (last digit of calendar year)
	YY	Year code (last 2 digits of calendar year)
	WW	Week code (week of January 1 is week '01')
	NNN	Alphanumeric traceability code
	(e3)	RoHS Compliant JEDEC designator for Matte Tin (Sn)

**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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