NxH5104_SOIC_ADB

Board User Manual

1.00 — March 13, 2017 **User Manual**

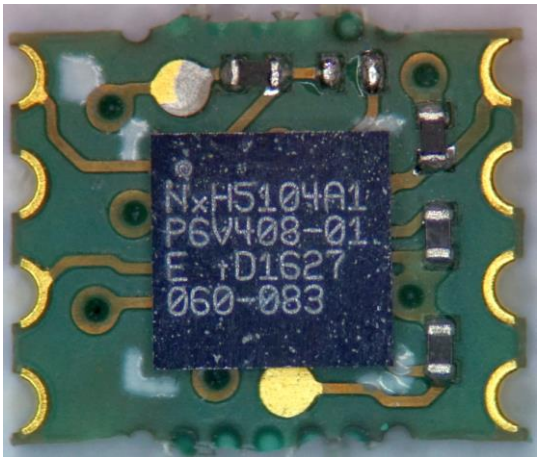
Document information

Info	Content
Keywords	NxH5104, SPI EEPROM
Abstract	This document describes the setup and usage of the NxH5104_SOIC_ADB, which are mounted with NxH5104 samples and pre-configured in Wide Range Supply mode.

1. Introduction

This document describes the NxH5104_SOIC_ADB (adaptor board). The NxH5104_SOIC_ADB is a small PCB that adapts the NxH5104 WLCSP package into an 8-SOIC JEDEC compliant footprint. The NxH5104_SOIC_ADB replaces an industry standard SPI compatible Serial E²PROM and extends the memory to 4Mbit. The board is intended to evaluate the NxH5104; this board is not targeted for mass production.

Picture below shows the NxH5104_SOIC_ADB.



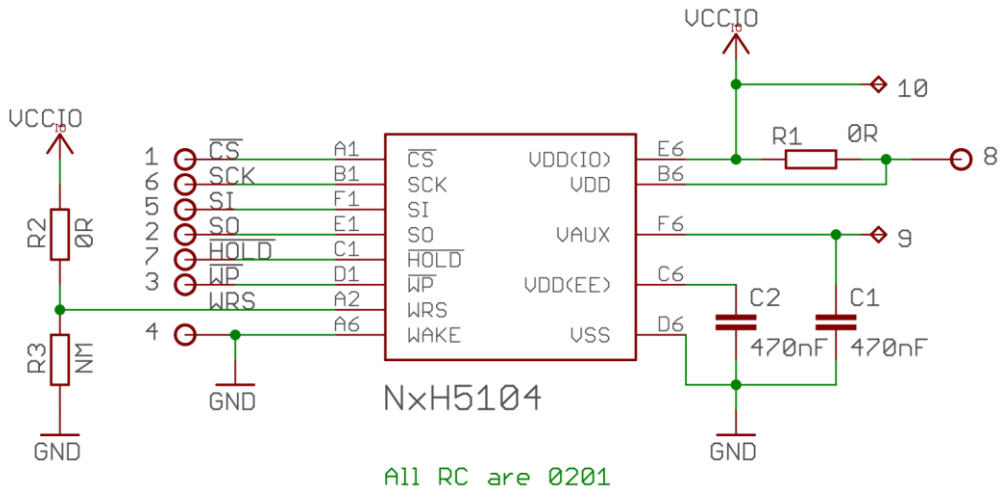
2. Datasheet

The datasheet of NxH5104 can be found in NXH5104_Datasheet.pdf

Please take note of the limitations, supply requirements and dynamic characteristics in chapters 7, 8 and 9.

3. Schematic

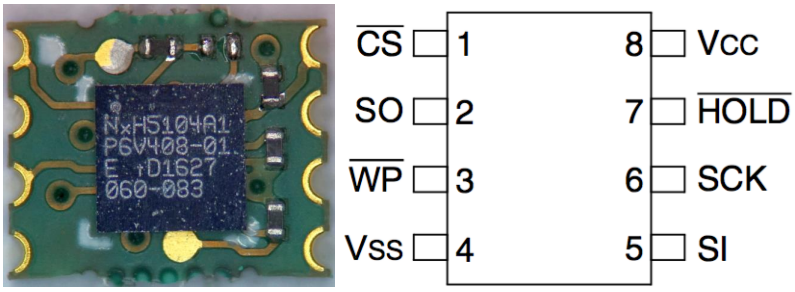
The schematic of the NxH5104_SOIC_ADB is shown below.



The bill of material is listed the following table:

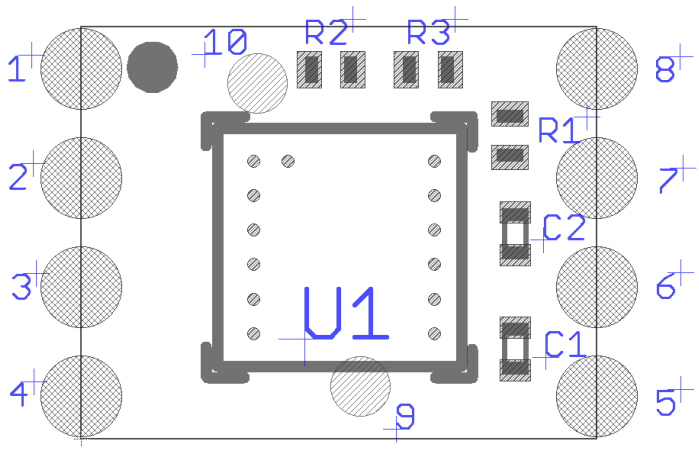
Item number	Ref des	Description	PCB decal
1	C1, C2	470nF 0201 4V X5R	C-0201
2	R1, R2	0R 0201	C-0201
3	U1	NxH5104	CSP

The pinout of the NxH5104_SOIC_ADB and mapping to an industry standard SPI compatible E²PROM is shown in the figures below



4. PCB

Picture below shows the component placement of the NxH5104_SOIC_ADB.



The PCB measures 4.8x6.0mm (length x width). The total height of the board assembly is 1.45mm±0.3. The castellated holes have a pitch of 1.27mm. The NxH5104_SOIC_ADB replaces an 8-SOIC JEDEC compliant device.

5. How to use

The purpose of the NxH5104_SOIC_ADB is to evaluate the performance of the NxH5104 device in a real HW platform. The NxH5104_SOIC_ADB is a direct replacement of a serial SPI E²POM and can be soldered on an 8-SOIC footprint. The NxH5104 operates in Wide Range Supply mode with a supply voltage according to the specified voltage range: 1.0V to 2.0V.

If the minimum supplied voltage > 1.65V the Fixed High Supply mode can be selected by removing R2 and populate R3. This case WRS is connected to GND.

The auxiliary supply (V_{aux}) is available on pad “9” as an independent, configurable supply for auxiliary components.

6. Known Limitations

There are currently no known limitations.

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