



Product Change Notification / SYST-13VZEF157

Date:

17-Mar-2023

Product Category:

Bluetooth Module

PCN Type:

Document Change

Notification Subject:

ERRATA - IS1677/BM77/RN4677 Family Errata

Affected CPNs:

[SYST-13VZEF157_Affected_CPN_03172023.pdf](#)

[SYST-13VZEF157_Affected_CPN_03172023.csv](#)

Notification Text:

SYST-13VZEF157

Microchip has released a new Errata for the IS1677/BM77/RN4677 Family Errata of devices. If you are using one of these devices please read the document located at [IS1677/BM77/RN4677 Family Errata](#).

Notification Status: Final

Description of Change:

Initial revision

Impacts to Data Sheet: None

Reason for Change: To Improve Productivity

Change Implementation Status: Complete

Date Document Changes Effective: 17 Mar 2023

NOTE: Please be advised that this is a change to the document only the product has not been changed.

Markings to Distinguish Revised from Unrevised Devices: N/A

Attachments:

[IS1677/BM77/RN4677 Family Errata](#)

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Affected Catalog Part Numbers (CPN)

BM77SPPS5MC2-0004AA
BM77SPPS3MC2-0007AA
BM77SPPS3MC2-0006AA
BM77SPPS3MC2-0008AA
BM77SPP03MC2-0004AA
BM77SPP03MC2-0006AA
BM77SPP05MC2-0006AA
BM77SPP03MC2-0007AA
BM77SPP03MC2-0003AA
BM77SPP03MC2-0008AA
BM77SPP03MC2-0009AA
BM77SPPS3MC2-000AAA
BM77SPP03MC2-000AAA
BM77SPP03MC2-000BAA
RN4677-V/RM112
RN4677-V/RM100

IS1677SM/BM77/RN4677 Family Errata

Overview

The BM77/RN4677 family of devices conform functionally to the current device data sheet ([BM77](#), [RN4677](#)) available at the Microchip website, except for the anomalies described in this document.

The issues discussed in the following pages are for the part numbers listed below:

- BM77SPP03MC2-0003AA
- BM77SPP03MC2-0004AA
- BM77SPP03MC2-0006AA
- BM77SPP03MC2-0007AA
- BM77SPP03MC2-0008AA
- BM77SPP03MC2-0009AA
- BM77SPP03MC2-000AAA
- BM77SPP03MC2-000BAA
- BM77SPP05MC2-0006AA
- BM77SPPS3MC2-0006AA
- BM77SPPS3MC2-0007AA
- BM77SPPS3MC2-0008AA
- BM77SPPS3MC2-000AAA
- BM77SPPS5MC2-0004AA
- RN4677-V/RM100
- RN4677-V/RM112

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1. Module Errata

The following errata applies to the RN4677/BM77 module.

1.1 Disconnection from Peer Device after Short Duration

Issue

The IS1677SM, which is the SiP IC used in BM77 and RN4677 modules, contains a Flash die from a third party. Since 2021, the IS1677SM devices have shipped containing a Flash die with slower read access time, which cannot meet timing requirements across all operating conditions. The symptoms of such a situation include:

- After connecting to a peer Bluetooth® device and exchanging data over SPP, the module might disconnect after a few minutes of operation and require a power-cycle reset to recover.

Work Around

1. Migrate to the IS1678 IC or BM78/RN4678 module. The BM78/RN4678 modules are Bluetooth Dual mode modules that are pin compatible with the BM77/RN4677 module. The IS1678/BM78/RN4678 devices have more advanced features than the IS1677SM/ BM77/RN4677 devices. Migration guides are available to assist with the transition and can be found on the product pages for the BM78 and RN4678 modules on the Microchip Website. The recommended BM78/RN4678 CPNs are provided in the following table.

Original Device	Recommended Replacement
BM77SPP03MC2-0003AA, BM77SPP03MC2-0004AA, BM77SPP03MC2-0006AA, BM77SPP03MC2-0007AA, BM77SPP03MC2-0008AA, BM77SPP03MC2-0009AA, BM77SPP03MC2-000AAA, BM77SPP03MC2-000BAA, BM77SPP05MC2-0006AA	BM78SPP05MC2-0B06AA
BM77SPPS3MC2-0006AA, BM77SPPS3MC2-0007AA, BM77SPPS3MC2-0008AA, BM77SPPS3MC2-000AAA, BM77SPPS5MC2-0004AA	BM78SPPS5MC2-0B06AA
RN4677-V/RM100, RN4677-V/RM112	RN4678-VB/RM122

2. Software mitigation: Increase the internal voltage setting for the LDO18 parameter in the memory configuration for the BM77/RN4677 module. To implement this software mitigation, reach out to your Microchip representative or Microchip support.

2. Document Revision History

Revision	Date	Section	Description
A	03/2023	Document	Initial Revision

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- **General Technical Support** – Frequently Asked Questions (FAQs), technical support requests, online discussion groups, Microchip design partner program member listing
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- Embedded Solutions Engineer (ESE)
- Technical Support

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