



190826574 Si47901-02 Data Sheet Rev 1.3

PCN Issue Date: 8/26/2019

Effective Date: 12/2/2019

PCN Type: Datasheet

Description of Change

Silicon Labs is pleased to announce the release of the Si47901-02 Data Sheet from document revision 1.2 to documents revision 1.3. A detailed description of the changes to the data sheet are summarized in the change impact section of this document. The new features reflected in the data sheet are applicable with a FW version that is 4.0 or later.

Reason for Change

The Data Sheet was updated to reflect changes in features.

Impact on Form, Fit, Function, Quality, Reliability

There is no impact on form, fit, quality and reliability.

Si47901-02 Data Sheet Revision 1.3 changes:

- Updated "Features" on page 1.
 - o AM/FM
 - Removed Analog FM phase diversity (this feature is supported on the Dual Eagle devices). Firmware releases prior to July 2019 still support this feature.
 - o HD Radio
 - Removed HD Radio MRC (this feature is supported on the Dual Eagle devices). Firmware releases prior to July 2019 still support this feature.
 - o DAB/DAB+/DMB
 - Removed DAB/DAB+/DMB MRC (this feature is supported on the Dual Eagle devices).
 - o Removed L band (firmware releases prior to July 2019 still support this feature).
 - o DRM30/DRM+
 - This feature will be supported only on Si47902 (but not on Si47901).
 - Added DRM Detect feature.
- Added Note 2 in Table 1 specifying that VIO1 and VIO2 must be configured to the same voltage level.
- Updated Table 9, "Band III Receiver Characteristics (Si47902 Only)," on page 13.
 - o Changed CW offset for Selectivity spec from 5.163 to 5.136 MHz.
- Deleted Table 9. L Band Specification
- Updated Table 19, "Crystal Oscillator Characteristics*," on page 30.
 - o Added Crystal Frequency Tolerance specification for DRM applications (± 50 ppm Max)
 - o Changed Crystal Frequency Tolerance specification for DAB applications to be ± 50 ppm Max (instead of ± 100 ppm Max). The change enables improved reception performance of the DAB coprocessor.
- Updated Table 20, "Thermal Characteristics," on page 31.
 - o Maximum operating ambient temperature for G-grade devices changed to 85 °C.
- Updated Table 21, "Absolute Maximum Ratings1," on page 31.
 - o Band III Max RF input level increased from 13 dBm to 21 dBm.
- Added "7.3. Digital Radio Detect" on page 51, which explains HD Detect, DAB Detect, and DRM Detect features.
- Updated "6.4.1. ZIF I/Q Data Format" on page 45.
 - o Added explanation about possible frame sizes in DAB mode.
- Updated Figure 27, "Example of System with Buffers," on page 47.
 - o Updated the figure and the descriptions of the audio output port connections to match Silicon Labs recommended configuration.
- Deleted section "6.11.2. Antenna Diversity"
- Used to describe inter-chip communication in antenna diversity mode. July 2019 firmware release and later firmware releases will not support antenna diversity.
- Updated "7. Digital Radio" on page 50.
 - o Deleted sections 7.1, 7.2, 7.4, and 7.5, which specified antenna diversity operation in analog radio and digital radio modes (antenna diversity is not supported on Si47901/02 with 2019 July and future firmware release).
 - o Added "7.2. DRM30 (Si47902 Only)" on page 50, which describes DRM operation.
 - o Added "7.3. Digital Radio Detect" on page 51.
 - o Added "7.4. Digital AGC (Si47902 Only—DAB and DRM)" on page 51.
- Updated "10.1. Software Licenses" on page 58.
- Deleted software packages that enabled analog radio and digital radio antenna diversity (antenna diversity is not supported on Si47901/02 with 2019 July and future firmware release).
- Updated "13. Top Markings" on page 62.
 - o "13.1. Si47901/02 Top Markings" line 2 was updated.
 - o "13.2. Top Marking Explanation" updated as follows:
 - Manufacturing code reduced from 6 to 5 characters.
 - Last character from left changed to "1" for Si47901 device and "2" for Si47902 device.
- Deleted "14. Additional Supporting Documents."
 - o Previously listed support documentation and collateral is provided to customers during the development cycle.
- Updated "8.3. OPERATIONAL State" on page 52.
 - o Updated setup and hold timing requirements for RSTB signal.

Product Identification

Existing Part #
 SI47901A2GE1AM
 SI47901A2GE1AMR
 SI47901A2GE1GM
 SI47901A2GE1GMR
 SI47902A2GE1AM
 SI47902A2GE1AMR
 SI47902A2GE1GM
 SI47902A2GE1GMR

Last Date of Unchanged Product: 12/2/2019

Qualification Samples

Available upon request.

Customer Response

Lack of acknowledgment of the PCN within 30 days constitutes acceptance of the change, Ref. JEDEC-J-STD-046.

To request further data or inquire about this notification, please contact your Silicon Labs sales representative. A list of Silicon Labs sales representatives is available at <http://www.silabs.com>.

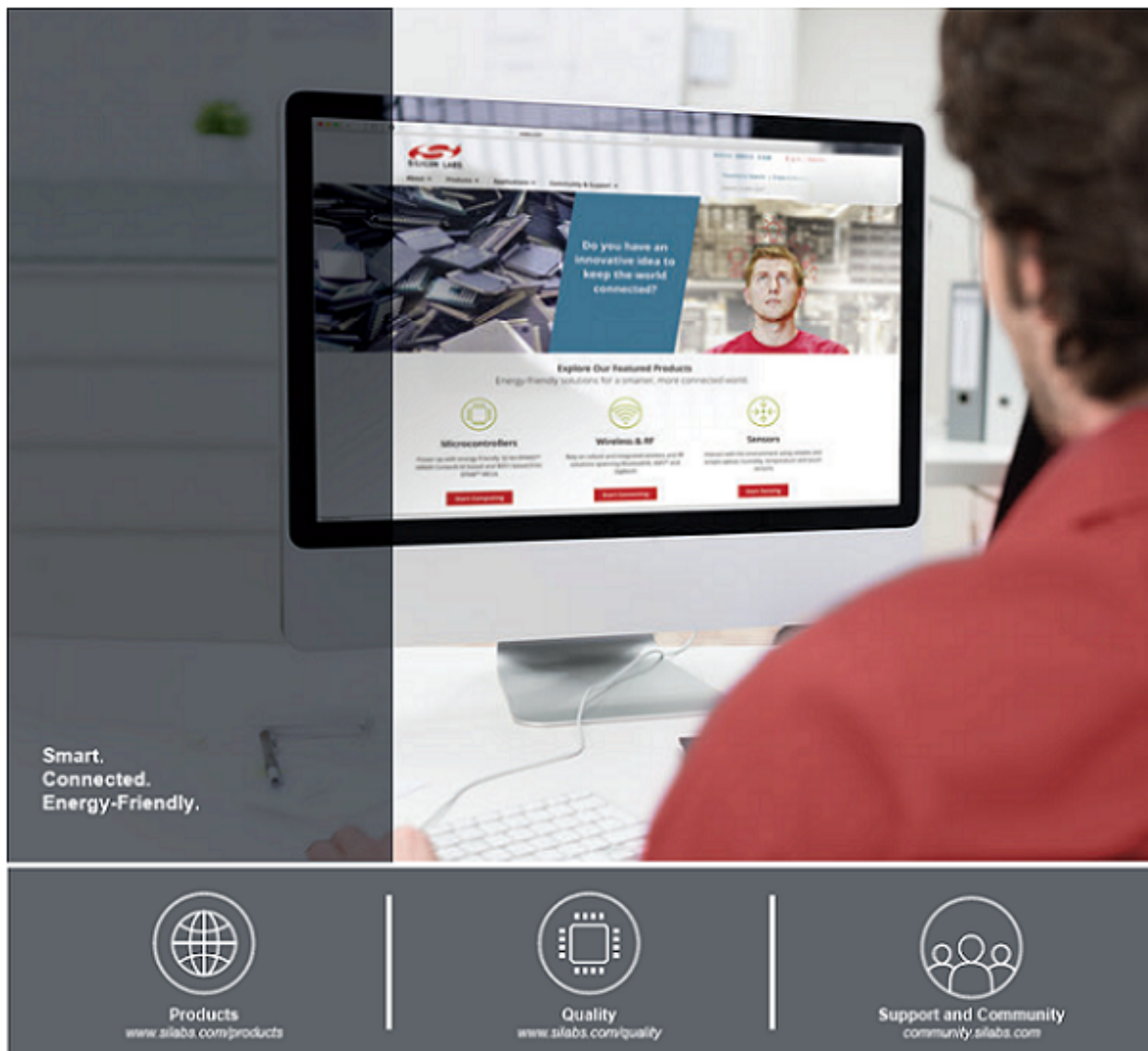
Customers may approve early PCN acceptance by emailing approval, along with PCN # to PCNEarlyAcceptance@silabs.com

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Qualification Data

Not applicable.



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