

A09-3167

Regulatory Compliance Information

Revision 0.2
Feb' 2020

This document covers the Regulatory Compliance information which will be part of the A09-3167 (ATSAMR34-XPRO) datasheet and related documents shared with customers.

This equipment (ATSAMR34 Xplained Pro Evaluation Kit/ A09-3167) is an evaluation kit and not a finished product. It is not directly marketed or sold to general public through retail; it is only sold through authorized distributors or through Microchip.

Using it requires a significant engineering expertise towards understanding of the tools and relevant technology which can be expected only from a person who is Professionally trained in the technology.

The following regulatory notices are to cover the requirements under the regulatory approval.

1.1 Antenna Considerations:

Table 1-1 provides the list of Approved antennas along with the manufacturer and part number details.

S/no.	P/N	Vendor	Antenna Gain @ 915 MHz Band	Antenna type
1	AL-A80355-UB701	Alead Technology	2 dBi	Dipole
2	RFA-ZW-C55-B70-D034	Alead Technology	2 dBi	Dipole

1.2 A09-9137 Usage Instructions under Limited Modular Approval

The Evaluation kit when used in USA and Canada, will only work on the 902-928 MHz Frequency band, with hopping activated if the 125kHz channels are enabled.

The Host product manufacturer must ensure that the RF behavior adheres to the certification (e.g. FCC, ISED) requirements when the module is installed in the final Host product.

2.1 United States

The A09-3167 module has received Federal Communications Commission (FCC) CFR47 Telecommunications, Part 15 Subpart C “Intentional Radiators” limited single-modular approval in accordance with Part 15.212 Modular Transmitter approval.

The user must comply with all of the instructions provided by the Grantee, which indicate installation and/or operating conditions necessary for compliance.

2.1.1 Labeling and User Information Requirements

The A09-3167 module has been labeled with their own FCC ID number. If the FCC ID is not visible when the module is installed inside another device, then the outside of the finished product into which the module is installed must display a label referring to the enclosed module. This exterior label can use wording as follows:

For the A09-3167:

Contains Transmitter Module FCC ID: 2ADHKA093167

or

Contains FCC ID: 2ADHKA093167

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

A user's manual for the finished product should include the following statement:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

Additional information on labeling and user information requirements for Part 15 devices can be found in KDB Publication 784748, which is available at the FCC Office of Engineering and Technology (OET) Laboratory Division Knowledge Database (KDB) <https://apps.fcc.gov/oetcf/kdb/index.cfm>

2.1.2 RF Exposure

All transmitters regulated by FCC must comply with RF exposure requirements. KDB 447498 General RF Exposure Guidance provides guidance in determining whether proposed or existing transmitting facilities, operations or devices comply with limits for human exposure to Radio Frequency (RF) fields adopted by the Federal Communications Commission (FCC).

From the FCC Grant:

Output Power listed is conducted.

This device must be professionally installed.

This grant is valid only when the device is sold to OEM integrators and installation is done under the control of the Grantee. This transmitter is restricted for use with the specific antenna(s) tested in this application for Certification and must not be co-located or operating in conjunction with any other antenna or transmitters within a host device, except in accordance with FCC multi-transmitter product procedures. The antenna of this transmitter must be installed to provide a separation distance of at least 20cm from all persons.

2.1.3 Approved Antenna Types

To maintain modular approval in the United States, only the antenna types that have been tested shall be used.

Antennas approved for A09-3167 with the antenna types are listed in Table 1-1.

Antenna Requirement :47CFR section 15.203

Caution: This equipment must be professionally installed. The installer shall be responsible for ensuring that only the supplied antenna is employed so that the limits in this part are not exceeded. Non-professional installation or installation of the equipment with an improper antenna may void the equipment authorization from the FCC and will void the Microchip warranty.

2.1.4 Helpful Websites

Federal Communications Commission (FCC): <http://www.fcc.gov>

FCC Office of Engineering and Technology (OET) Laboratory Division Knowledge Database (KDB):
<https://apps.fcc.gov/oetcf/kdb/index.cfm>

3.1 Canada

The A09-3167 module has been certified for use in Canada under Innovation, Science and Economic Development Canada (ISED, formerly Industry Canada) Radio Standards Procedure (RSP) RSP-100, Radio Standards Specification (RSS) RSS-Gen and RSS-247. Modular approval permits the installation of a module in a host device without the need to recertify the device.

3.1.1 Labeling and User Information Requirements

Label Requirements (from RSP-100 Issue 11, Section 3): The host device shall be properly labeled to identify the module within the host device.

The Innovation, Science and Economic Development Canada certification label of a module shall be clearly visible at all times when installed in the host device, otherwise the host device must be labeled to display the Innovation, Science and Economic Development Canada certification number of the module, preceded by the words “Contains”, or similar wording expressing the same meaning, as follows:

For the A09-3167 module:

Contains IC: 20266-093167

User Manual Notice for License-Exempt Radio Apparatus (from Section 8.4 RSS-Gen, Issue 5, April 2018): User manuals for license-exempt radio apparatus shall contain the following or equivalent notice in a conspicuous location in the user manual or alternatively on the device or both:

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada’s license-exempt RSS(s). Operation is subject to the following two conditions:

- (1) This device may not cause interference;**
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.**

L’émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d’Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L’exploitation est autorisée aux deux conditions suivantes:

- (1) L’appareil ne doit pas produire de brouillage;**
- (2) L’appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d’en compromettre le fonctionnement.**

Transmitter Antenna (From Section 6.8 RSS-GEN, Issue 5, April 2018): User manuals, for transmitters shall display the following notice in a conspicuous location:

This radio transmitter [IC: 20266-093167] has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Le présent émetteur radio [IC: 20266-093167] a été approuvé par Innovation, Sciences et Développement économique Canada pour fonctionner avec les types d’antenne énumérés cidessous et ayant un gain admissible maximal. Les types d’antenne non inclus dans cette liste, et dont le gain est supérieur au gain maximal indiqué pour tout type figurant sur la liste, sont strictement interdits pour l’exploitation de l’émetteur.

Immediately following the above notice, the manufacturer shall provide a list of all antenna types

approved for use with the transmitter, indicating the maximum permissible antenna gain (in dBi) and required impedance for each.

3.1.2 RF Exposure

All transmitters regulated by ISED must comply with RF exposure requirements listed in RSS-102 - Radio Frequency (RF) Exposure Compliance of Radio communication Apparatus (All Frequency Bands).

This transmitter is restricted for use with a specific antenna tested in this application for certification, and must not be co-located or operating in conjunction with any other antenna or transmitters within a host device, except in accordance with Canada multi-transmitter product procedures.

The installation of the transmitter must ensure compliance is demonstrated according to the ISED SAR procedures.

3.1.3 Helpful Web Sites

Industry Canada: <http://www.ic.gc.ca/>