

PRODUCT DATASHEET MAX66300 HF Reader Module 491192002	Issue Date: 2024/07/17
	Version: A

Approver	Examiner	Editor

MAX66300 HF Reader Module



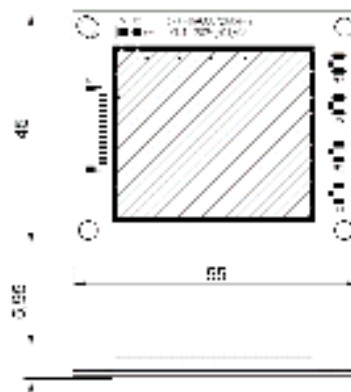
Features

- Reader Module 55 x 45 x 5.95mm
- ISO/IEC 15693 and 14443 Type A Standard Compliant
- SHA-256 Engine to Run a Symmetric Key-Based Bidirectional Secure Authentication
- Scalable 13.56MHz Analog Front-End

Applications

- Secure Access Control
- Authentication of Consumables
- Asset-Tracking

Physical Specification



Dimension	W 45 mm
	L 55 mm
	T 5.95 mm
*The exact size is mainly based on metric unit.	
Color	Green
Material	PCB

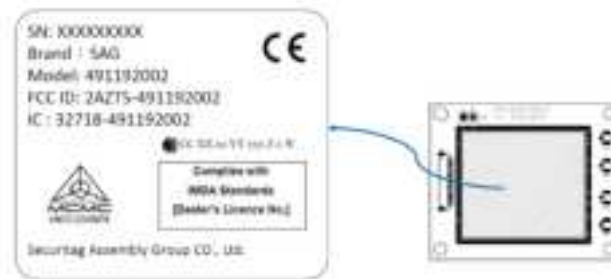
RF Specification

RFID Chip	Analog Device MAX66300
Memory	Four 32-Byte Pages of User Memory
Communication Standard	ISO/IEC 15693 and 14443 Type A Standard Compliant
Operating Frequency	13.56 MHz

Environmental Resistance

Operating Temperature	-40°C to 85°C
Storage Temperature	-40°C to 85°C
Warranty	One Year
IP Rating	IP5X

Label Information



PIN Define



Pin No.	PIN DEFINE	Basic Description	Voltage	Type
1	VCC3.3	3.3V Power Supply	3.3VDC	Power
2	VCC5	5V Power Supply	5VDC	Power
3	MISO	Master in-Slave Out	5VDC	SPI
4	MOSI	Master Out-Slave In	5VDC	SPI
5	SCLK	Serial Clock	5VDC	SPI
6	SSEL	Slave Select	5VDC	SPI
7	GPIO1	General-purpose input/output 1	3.3VDC	I/O
8	GPIO2	General-purpose input/output 2	3.3VDC	I/O
9	IRQ	Interrupt Out	5VDC	I/O
10	SLEEP	Sleep Mode	5VDC	I/O
11	BUSY	Busy Out	3.3VDC	I/O
12	PORTSLCT	Port Select In	5VDC	I/O
13	TP	Test Pin	3.3VDC	I/O
14	GND	Ground	---	GND

Notice

FCC Supplier's Declaration of Conformity §2.1077(a)(3)

Name: Brady Worldwide

Address: 6555 W Good Hope Rd PO Box 2131 Milwaukee WISCONSIN 53201 USA

Telephone number or Internet contact: (414)228-5688

The OEM or integrator is obligated to adhere to these requirements and restrictions as a condition for using the module's certification. The OEM or integrator is responsible to perform the required additional host regulatory testing and/or obtaining the required host approvals for compliance.

Per KDB 996369 D03 v01r01 OEM Manual, this module is intended for OEM integrators under the following conditions:

Ensure that the end-user has no manual instructions to remove or install module.

2.2 List of applicable FCC and ISSED rules

This module is certified pursuant to Part 15 rule section 15.225 and RSS-210.

2.3 Summarize the specific operational use conditions

This module has been approved to operate with the antenna types listed below:

Frequency Band	Model Number	Antenna Type
13.56MHz	39x55 Ant V9	Loop Antenna

2.4 Limited module procedures

Not applicable.

2.5 Trace antenna designs

Not Applicable.

2.6 RF exposure considerations

This module is restricted to installation in products for use only in mobile and fixed applications.

The host product manufacturer must provide following statement in end-product manuals.

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

2.7 Antennas

This module has been approved to operate with the antenna types listed below:

Frequency Band	Model Number	Antenna Type
13.56MHz	39x55 Ant V9	Loop Antenna

2.8 Label and compliance information

Label of the end product:

FCC:

The host product must be labeled in a visible area with the following "Contains FCC ID: 2AZT5-491192002".

The end product shall bear the following 15.19 statement: 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.

ISED:

This transmitter module is authorized only for use in device where the antenna may be installed such that 20 cm may be maintained between the antenna and users. The final end product must be labeled in a visible area with the following: "Contains transmitter module IC: 32718-491192002" or "Contains IC: 32718-491192002"

Contient le module d'émission IC: 32718-491192002

The Host Model Number (HMN) must be indicated at any location on the exterior of the end product or product packaging or product literature which shall be available with the end product or online.

2.9 Information on test modes and additional testing requirements

This module has been approved under stand-alone configuration.

The separate approval is required for all other operating configurations, including portable configurations with respect to Part 2.1093/RSS-102 and different antenna configurations.

The information on how to configure test modes for host product evaluation for different operational conditions for a stand-alone modular transmitter in a host, versus with multiple, simultaneously transmitting modules or other transmitters in a host can be found at KDB Publication 996369 D04.

OEM integrator is still responsible for testing their end product for any additional compliance requirements required with this module installed (for example, digital device emissions, PC peripheral requirements, etc.).

IMPORTANT NOTE: In the event that these conditions cannot be met (for example certain laptop configurations or co-location with another transmitter), then the FCC/ISED authorization is no longer considered valid and the FCC/IC No. cannot be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC/ISED authorization.

2.10 Additional testing, Part 15 Subpart B and ICES-003 disclaimer

Appropriate measurements (e.g. Part 15 Subpart B compliance) and if applicable additional equipment authorizations (e.g. SDoC) of the host product to be addressed by the integrator/manufacturer.

This module is only FCC/ISED authorized for the specific rule parts 15.225, RSS-210 listed on the grant, and the host product manufacturer is responsible for compliance to any other FCC/ISED rules that apply to the host product as being Part 15 Subpart B/ICES-003 compliant.

2.11 Note EMI Considerations

Note that a host manufacture is recommended to use D04 Module Integration Guide recommending as "best practice" RF design engineering testing and evaluation in case non-linear interactions generate additional non-compliant limits due to module placement to host components or properties

For standalone mode, reference the guidance in D04 Module Integration Guide and for simultaneous mode; see D02 Module Q&A Question 12, which permits the host manufacturer to confirm compliance.

2.12 How to make changes

If any changes or modifications need to be made to the integrated product, such as adding or adjusting the antenna or cable, follow the guidelines provided by Grantee.

For further assistance, please contact: mark@sag.com.tw

The user manual of the end product should include (information for OEMs):

The module must be installed and used in strict accordance with the manufacturer's instructions as described in the user documentation that comes with the product.

Information To Be Supplied to the End User by the OEM or Integrator

FCC:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons.

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.

The antenna(s) used for this transmitter must not transmit simultaneously with any other antenna or transmitter.

ISED:

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-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.

ISED Radiation Exposure Statement:

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20cm de distance entre la source de rayonnement et votre corps.

The transmitter module may not be co-located with any other transmitter or antenna.

Le module émetteur peut ne pas être coïmplanté avec un autre émetteur ou antenne.

The end user manual shall include all required regulatory information/warning as shown in this document.

NCC 警語

取得審驗證明之低功率射頻器材，非經核准，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。低功率射頻器材之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前述合法通信，指依電信管理法規定作業之無線電通信。低功率射頻器材須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

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SAG reserves the right to alter specifications at any time without obligation to update previously supplied data.

Our products are warranted against defects in material and workmanship under normal use. This warranty excludes accidental damage, wear and tear, misuse, improper handling, and unauthorized modifications. SAG is not liable for any indirect, incidental, consequential, or punitive damages, including loss or damage to devices, data, or records.

Users must verify product suitability and compatibility for their applications. To minimize risks, follow all usage guidelines and safety instructions, particularly regarding electrostatic discharge (ESD).