

TS100 and TS100A

Hardware User Guide



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Revisions

Revision	Date	Description
01	Dec 18, 2018	Preliminary draft
02	Aug 20, 2021	Ad functional description
03	Mar 11 2022	Ad cable caution and NCC approve



Has been tested in accordance to essential protection requirements of the RED – DIRECTIVE 2014/53/EU, EU-LOW VOLTAGE DIRECTIVE 2014/35/EU on the approximation of the laws of the Member States relating to Radio Spectrum Matters and found the test results indeed meet the limitation of the relevant test standard(s) listed below:

EMC	Radio Spectrum	Safety	Health
EN 301 489-1 : V2.2.0 (2017)	EN 302 208 V3.2.0 (2018)	IEC 62368-1 : 2014 / COR1:2015 and EN 62368- 1:2014 / A11:2017	EN62311 : 2008
EN 301 489-3 : V2.1.1 (2017)	EN 300 328 V2.1.1 (2016)		
EN 301 489-17 : V3.2.0 (2017)			



Test standard: FCC rules Part 15 subpart B

Test Result: Radiated Emission. FCC Part 15.109/15.107 Class B Test passed.

Test standard: FCC rules Part 15 subpart C 15.247 (2017 - 10)

Test Result: No deviations from the technical specification(s) were ascertained in the course of the tests performed.

Warning

Federal Communication Commission (FCC) Interference 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 that 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 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.

FCC Caution

To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example - use only shielded interface cables when connecting to computer or peripheral devices).

FCC Radiation Exposure Statement

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

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

Contains transmitter module: FCC ID: 2AC7Z-ESPWROOM02, FCC ID: 2AE2I-ACI810700S

LIMITED WARRANTY

Giga-Tms warrants that the products sold pursuant to this Agreement will perform in accordance with Giga-Tms's published specifications. This warranty shall be provided only for a period of **one year** from the date of the shipment of the product from Giga-Tms (the "Warranty Period"). This warranty shall apply only to the "Buyer" (the original purchaser, unless that entity resells the product as authorized by Giga-Tms, in which event this warranty shall apply only to the first re-purchaser).

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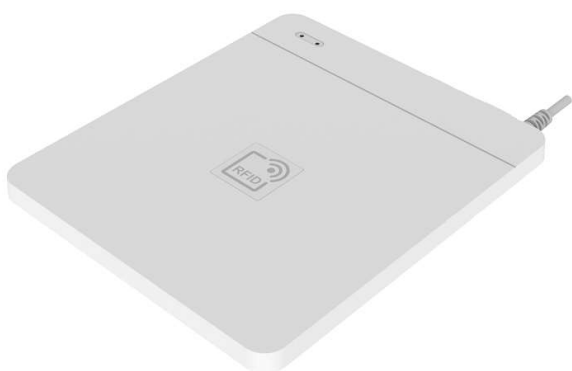
Chapter 1 : Introduction

Introduce

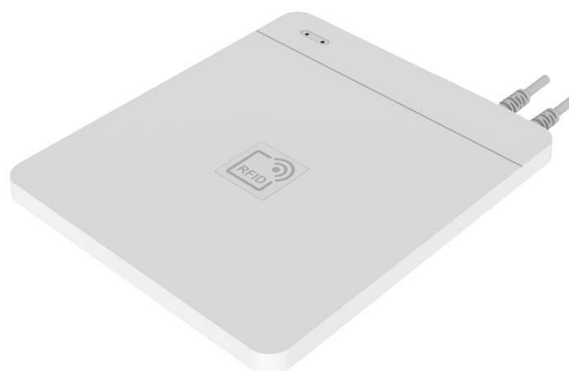
The TS100 and TS100A include Antenna. It is all in one Ultra High Frequency RFID Reader compliant to ISO18000-6C EPC Gen 2 protocol with an operating range of 860 to 960 MHz. TS100 (TS100A) has USB HID interface to connect to POS or PC and it can read up to 16 tags at the same time. TS100A also have extra USB HID can connect to barcode scanner.

Before using the TS100 (TS100A) Reader. We recommend that you should already read this user guide.

Fitting



TS100 Top View



TS100A Top View

Please download software or user guide from following link.
<http://ftp.gigatms.com.tw/disks/disk5472>



Scan QR code with your phone.

TM921265-04B

Software download table

Chapter 2 : About TS100(TS100A)

Specification

		TS100 series	
PART NO	TS100	TS100A	
Standard			
RFID spec	ISO 18000-6C, EPC Class1 Gen2		
Operating Frequency	860-960Mhz Multi-regional Support		
Interface	Wire - USB HID keyboard emulation Wireless - 1) 2.4GHz WIFI, 802.11 b/g/n 2) BLE (optional)		
Power Require	Working : Max 500mA@5VDC		
Dimension	L: 180mm / W: 155mm / H: 9.5mm (without rubber foot)		
Physical Characteristics			
Weight	396 g	427 g	
Environment parameter			
Temperature	Operating : -10°C ~ +60°C		
	Storage : -15°C ~ +65°C		
Humidity	Operating : +0% ~ +90% (no coagulation)		
	Storage : MAX 90% (no coagulation)		
Regulatory approvals			
FCC ID	CE R&TTE	TELEC	NCC
Part 15 subpart B 15.109/15.107	EN 301 489-1 : V2.2.0 (2017)	NO : 201-170869/02	LP0002
Part 15 subpart C 15.247 (2017 - 10)	EN 301 489-3 : V2.1.1 (2017)		
	EN 301 489-17 : V3.2.0 (2017)		
	EN 302 208 V3.2.0 (2018)		
	EN 300 328 V2.1.1 (2016)		
	IEC 62368-1 : 2014 / COR1:2015		
	EN 62368-1:2014 / A11:2017		
	EN62311 : 2008		
ESD Contact : 4kv , Air : 8kv			

LED Indication

TS100

Status	LED Status			TS100 mode	Buzzer
	Single LED	Dual LED			
	Blue	Red	Green		
1	-	-	●	Reader Mode	Change mode
2	-	-	●	Customized Reader Mode	Success : Long beep
3	-		●	Tag Analysis Mode	Failure : Short beep
4	●	-	●	Deactivate Mode	
5	●	●	-	Reactivate Mode	
6	●		●	Configure mode	



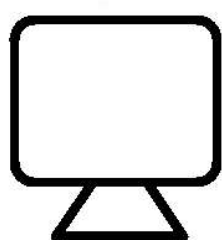
TS100A

Status	LED Status			TS100A mode	Buzzer
	Single LED	Dual LED			
	Blue	Red	Green		
1	-	-	●	Reader Mode	Change mode Success : Long beep Failure : Short beep
2	-	-	●	Customized Reader Mode	
3	-		●	Tag Analysis Mode	
4	●	-	●	Deactivate Mode	
5	●	●	-	Reactivate Mode	
6	●		●	Configure mode	
7	●	-	-	Encoder Mode	
8	-	●	-	Barcode Verify Mode	



Chapter 3 : How to use TS100(TS100A)

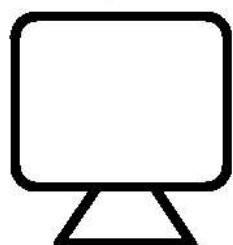
Before Installing



POS or PC



TS100



POS or PC



TS100A



Barcode scanner

Before Install TS100(TS100A). Please make sure the following items are ready.

A TS100(TS100A)

A Barcode Scanner (Just TS100A need)

A POS(PC) which have USB Type A interface and already installed TS100(TS100A) software (DISK5472)

Start to use TS100(TS100A)

- The TS100(TS100A) use an USB Type A to connect the POS or PC.
- Barcode scanner connect to the TS100A (Not applicable with TS100) .
- POS or PC open TS100(TS100A) software to set up the TS100(TS100A).
- Please refer to **TS100(TS100A) Software User Guide**. There are instructions about how to read EPC and Barcode.

Note: If use a high power barcode sensor on the TS100A. Please add an extra USB Hub (current up to 1A or more) to support TS100A.

Caution: Do not over-bend, kink or crimp the USB cable.

Chapter 4 : Troubleshooting

1. Cannot connect to TS100(TS100A) with TS100(TS100A) software?

- Please check that the TS100(TS100A) is actually connected to the POS or PC.
- Please check the power light of TS100(TS100A) is lighting



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