

Platino Handheld Reader

User Guide





Reader Overview

- 1. ENTER
- 2. READ
- 3. SETTING
- 4. POWER
- 5. DIRECTIONS (UP, DOWN, LEFT, RIGHT)
- 6. NUMBER PAD (1,2,3...0,*,#)
- 7. FUNCTION 1 (F1)
- 8. FUNCTION 2 (F2)
- 9. FUNCTION 3 (F3)
- 10.Hard Reset Button (Under the rubber grip)





Basic Operations

Starting up Platino

Press the POWER button for a 2 seconds to power up the device. A "beep" sound should be heard and the main screen with the above information is shown when Platino is booted up.





Reading tags

Press the READ button while Platino is ON. Put an ISOC tag near the antenna area and you should be able to read the tags EPC number.

Wireless Connectivity

Platino offers 2 types of wireless connectivity: WiFi and Bluetooth (BLE). User can check the connection type by the icon displayed next to the battery sign.



Bluetooth (BLE)



WiFi

Shutting down Platino

Press the POWER button for 2 seconds while Platino is ON. The main screen will shut down and a short been will be heard.



Read/Write Mode Selection

Press ENTER in any of the read/write mode to enter the read/write mode selection menu. Use the UP or DOWN button to navigate through different mode options and press ENTER to enter any of the available read/write mode.

Read Single Tag

Read data in different memory banks of a single tag. Data from only 1 tag will be displayed at a time. The data will also be automatically store in the reader memory and transmitted to the mobile app if available.



Read Multiple Tag

Read EPC from multiple tags in the reader vicinity. User can manually save the tags EPC to the reader memory with the function button. Up to 100 tags can be saved at a time.

Write Tag

Write data to different memory banks of a tag.

Lock/Kill Tag

Change the lock state of different memory banks of a tag with access password or disable a tag permanently with the kill password.

Block Read Lock

Custom command for Alien H3 chip which allows user to "read lock" different memory blocks of the user memory bank in a tag. Read locked data can only be viewed if the correct access password is provided.

Read Barcode

Read 1D barcode with the build-in barcode reader. User can manually save the barcode data to the reader memory with the function button.



Reading Different Memory Banks

Platino starts in Read Single Tag mode. In this mode user can read a single tag by pressing the READ button. User can press LEFT and RIGHT button to select different memory banks to read. The following options are available:

- 1. Read EPC
- 2. Read TID
- 3. Read User Data
- 4. Read EPC + TID
- 5. Read EPC + User Data
- 6. Read All Data

User can press UP or DOWN button to select the Access Password field. The field will be highlighted in blue once it is selected. Press F1 to switch between different input methods (number/alphabet) for the Access Password field. Access Password can be used to read memory bank that is "read-locked".

Tag data read in this mode will be automatically stored in the file SINGLE.TXT in the reader memory. Please refer to the Collecting Data section of this manual for more information.

NOTE: Reading TID, User Memory and All Data may require more energy than reading the EPC number only. Please place the tag in close proximity to the antenna while attempting to read the TID, User Memory and All Data.

13:29:41 01/09/2014	* 📼
EPC: 3000201408290	00000000001
0005	
49499459	
01/09/2014	* 🖷
TID:E2003412C184	AFFFF044B1A
1H0E00A170055	FFBFFFFDC00
13:30:15	* 🖿
USER:00000000000000	000000000000
000000000000000000000000000000000000000	0000000000000
000000000000000000000000000000000000000	0000000000000
000000000000000000000000000000000000000	0000000000000
000000000000000000000000000000000000000	000000000000
0000000	
13:30:30	* •
EPC:3000201408290	00000000001
0006	
TID-E20024120104E	AFFFFOAAD4A
10.620034120104F	FEBEFEEDCOO
11020011100055	TI DI TI I DOUD
13:30:43	8 🖬
13:30:43 01/09/2014 326-5000/2014(0):250	010101010101010101
13:30:43 01/09/2014 EPC:3000201408290 0006	8 mm
13:30:43 01/09/2014 EPC:3000201408290 0006	8
13:30:43 01/09/2014 EPC:3000201408290 0006	00000000001
13:30:43 01/09/2014 EPC:3000201408290 0006	
13:30:43 01/09/2014 EPC:3000201408290 0006 USER:000000000000 000000000000000000000000	> > 000000000001 > 000000000000 > 000000000000 > 000000000000 > 000000000000 >
13:30:43 01/09/2014 EPC:3000201408290 0006 USER:000000000000 0000000000000 0000000000	> > 000000000001 > 000000000000 > 000000000000 > 000000000000 > 00000000000 > 00000000000 >
13:30:43 01/09/2014 EPC:3000201408290 0006 USER:000000000000 0000000000000 0000000000	> > 000000000000 > 000000000000 > 000000000000 > 000000000000 > 00000000000 > 00000000000 > 00000000000 > 000000000000 > 000000000000 >
13:30:43 01/09/2014 EPC: 3000201408290 0006 USER: 0000000000000 0000000000000 000000000	> > 000000000001 > 000000000000 > 000000000000 > 000000000000 > 00000000000 > 00000000000 > 00000000000 > 00000000000 > 00000000000 >
13:30:43 01/09/2014 EPC:3000201408290 0006 USER:0000000000000 0000000000000 000000000	> 0000000000001 0000000000000 000000000000 000000000000 000000000000 000000000000 000000000000 000000000000 000000000000 0000000000000 0000000000000 0000000000000 0000000000000000 000000000000000000000000000000000000
13:30:43 01/09/2014 EPC:3000201408290 0006 USER:000000000000 0000000000000 0000000000	> 000000000001 000000000000 000000000000 00000000000 00000000000 00000000000 00000000000 00000000000 000000000000 0000000000000 000000000000 0000000000000 220E00761260
13:30:43 01/09/2014 EPC: 3000201408290 0006 USER: 0000000000000 0000000000000 000000000	\$ 000000000001 000000000000 000000000000 00000000000 00000000000 00000000000 000000000000 000000000000 000000000000 220E00761260
13:30:43 61/09/2014 EPC: 3000201408290 0006 USER: 0000000000000 0000000000000 000000000	000000000001 000000000000 000000000000 00000000000 00000000000 00000000000 00000000000 000000000000 000000000000 000000000000 000000000000 0000000000000 000000000000000000000000000000000000
13:30:43 61/09/2014 EPC: 3000201408290 0006 USER: 0000000000000 0000000000000 000000000	\$ 000000000001 000000000000 00000000000 00000000000 00000000000 00000000000 00000000000 220E00761260 2E0000B39963
13:30:43 61/09/2014 EPC: 3000201408290 0006 USER: 0000000000000 0000000000000 000000000	000000000001 000000000000 000000000000 00000000000 00000000000 00000000000 00000000000 000000000000 220E00761260 220000839963 ABBFFFFPDC50
13:30:43 EPC:3000201408290 0006 USER:0000000000000 0000000000000 000000000	000000000001 000000000000 000000000000 000000000000 000000000000 000000000000 000000000000 000000000000 000000000000 0000000000000 220E00761260 200000B39963 CE00000B39963 CE00000B39963
13:30:43 EPC:3000201408290 0006 USER:00000000000 000000000000 000000000000 000000000000 000000000000 000000000000 000000000000 000000000000 000000000000 00000000000 00000000000 00000000000 00000000000 00000000000 00000000000 00000000000 00000000000 000000000000 000000000000 000000000000 000000000000000000000000000000000000	> > 000000000001 > 000000000000 > 00000000000 > 00000000000 > 00000000000 > 220E00761260 > 2200000839963 > 368BFFFFDC50 >
13:30:43 EPC:3000201408290 0006 USER:00000000000 0000000000000 000000000000 000000000000 000000000000 000000000000 000000000000 000000000000 00000000000 00000000000 00000000000 00000000000 00000000000 00000000000 13:27:59 01/09/2014 EPC:3000E20030312 9963 TID:E2003412012EF 280A007F00055 USER:000000000000000000000000000000000000	> 000000000001 000000000000 00000000000 00000000000 00000000000 000000000000 220E00761260 220E000761250 000000000000 0000000000000
13:30:43 EPC:3000201408290 0006 USER:00000000000 000000000000 000000000000 000000000000 000000000000 000000000000 000000000000 00000000000 00000000000 00000000000 0000000000 0000000000 0000000000 13:27:59 01/09/2014 EPC:3000E20030312 9963 TID:E2003412012EF 280A007F00055 USER:000000000000000000000000000000000000	> 000000000001 000000000000 00000000000 00000000000 00000000000 000000000000 220E00761260 220E000761250 000000000000 000000000000 000000000000 000000000000000000000000000000000000
13:30:43 EPC:3000201408290 0006 USER:000000000000 000000000000 000000000000 000000000000 000000000000 000000000000 000000000000 00000000000 00000000000 00000000000 0000000000 00000000000 000000000000 000000000000000000000000000000000000	>>>>>>>>>>>>>>>>>>>>>>>>>>>>



Reading Multiple Tags

Read Multiple Tag mode allows user to read multiple tags EPC simultaneously.

Press and hold the READ button to start reading tags. Any tag that is read will generate and new entry on the screen with the tag's EPC and read count shown. The total number of distinct tags is shown at the bottom of the screen.

Maximum of 9 tags can be displayed simultaneously on the screen, user can press the UP or DOWN button to go through the tag list and view the tags in the next page (e.g. if a total number of 27 tags are read, there will be 3 pages of data available).

Press F1 to save the data into MULTIPLE.TXT in the reader memory. Please refer to the Collecting Data section of this manual for more information. The tag list on the screen will be cleared afterwards.

If user selected one of the tag with UP or DOWN button, pressing F2 will pass the selected EPC to the WRITE TAG mode so user can write data to the tag with specific EPC.

Press F3 to clear the tag list on screen.

EPC	
Number of Tag	s: F2-Write Tag
F3-Clear Tag	

13:32:49 01/09/2014	8 📟		
EPC	COUNT		
000000000000000000000000000000000000000	00000004 1		
E20020756907022	521603A8F 1		
E2003072070A010	124801895 1		
201408290000000	000010005 1		
201408290000000	00001000D 1		
201408290000000	000010003 1		
201408290000000	00001003C 1		
201408290000000	00001000E 2		
201408290000000	000010001 1		
Page: 1/3 Number of Tags: 26 F1-Save Tag F2-Write Tag F3-Clear Tag			
READ/WRITE MODE	SETTING		



Writing Data to Tag

Write Tag mode allow user to write data to different memory bank of a specific tag.

Target EPC

User need to input a Target EPC through one of the following methods:

- 1. Press F1 in Write Tag mode to read a new tag. The tag's EPC will be displayed in the Target EPC field.
- 2. Read a tag in Read Single Tag mode, then press F2 to pass the EPC of that tag to Write Tag mode
- 3. Read tags in Read Multiple Tag mode, use UP or DOWN button to select one of the tag, then press F2 to pass the EPC of that tag to Write Tag mode
- 4. Manually input the Target EPC using the keyboard

Memory Bank

Once a target EPC is established, user can choose among the following field to write

- 1. Kill Password
- 2. Access Password
- 3. EPC
- 4. TID (not available)
- 5. User

Start Pointer

The start position of memory bank to write. Each pointer represent 16 bit (4 hexadecimal word) of data. Please note that Point 0 of EPC (checksum) is not available for writing.

13:33:35 01/09/2014	8 🖿
TARGET EPC	
MEMORY BANK	Kill PW
START PTR	
PASSWORD	
Write Data	
PRESS MIDDLE BU	TTON TO WRITE
F1-READ NEW TAP	IGET EPC
PEAD /WRITE	GETTING
MODE	SETTING
	and the second se

13:34:53 01/09/2014 12	з 🖇 🗖
TARGET EPC	
300020140829000	0000000010006
MEMORY BANK	◀ EPC ►
START PTR 2	
PASSWORD 123	45678
Write Data 2345	
PRESS MIDDLE BL	ITTON TO WRITE RGET EPC
READ/WRITE MODE	SETTING



Writing Data to Tag

Access Password

If the memory bank is previously locked with an access password, user will need to fill in the password field to successfully write to the tag. Once the field is selected, user can use the F1 button to switch between integer and alphabet input.

Write Data

Data to be written in the designated memory bank. Once the field is selected, user can use the F1 button to switch between integer and alphabet input.



Locking/Killing Tags

Lock/Kill Tag mode allow user to change the lock state of different memory bank in the tag or kill the tag with kill password.

Target EPC

User can press the F1 button to read the EPC of the tag to be locked/killed. Alternatively, by selecting the Target EPC field with UP or DOWN button and use the F1 button to change the input method between integer and alphabet

Memory Bank

The designated memory bank to perform the lock/kill action. The following memory banks are available

- 1. Kill Password
- 2. Access Password
- 3. EPC
- 4. TID (not available)
- 5. User

Kill Password

If user intend to use the kill function, a valid kill password must be input in this field. The default kill password (00000000) is not a valid kill password.

Access Password

If user intend to use the lock function, a valid access password must be input in this field. The default access password (00000000) is not a valid access password.

Action

The following actions are available in this mode

- 1. Unlock Set the designated memory bank to unlocked mode
- 2. PermaUnlock Set the designated memory bank to permanently unlocked mode
- 3. Lock Set the designated memory bank to locked mode
- 4. PermaLock Set the designated memory bank to permanently locked mode
- 5. Kill Permanently disable the tag with the kill password

1/09/2014	<u>× </u>
TARGET EPC	
MEMORY BANK	Killpwd 🕨
KILL PW	TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
ACCESS PW	
ACTION	UNLOCK
PRESS MIDDLE	BUTTON TO LOCK
F1-READ NEW T	ARGET EPC
MODE	SETTING
HIODE	



Block Read Lock Command

Target EPC

User can press the F1 button to read the EPC of the tag to be locked/killed. Alternatively, by selecting the Target EPC field with UP or DOWN button and use the F1 button to change the input method between integer and alphabet

User Memory Block to Lock

Use the number buttons on the number pad to choose which memory blocks will be locked/unlocked by the function. Multiple memory blocks can be chosen at once.

17:53:16 01/09/2014	8 🖷
TARGET EPC	
USER MEMORY BL	DCK TO LOCK
0 1	2 3
4 5	6 7
ACCESS PW	
ACTION	
PRESS MIDDLE BL	ITTON TO LOCK
1-READ NEW TARG	ET EPC
PEAD /WRITE	C C T T IN C
MODE	SETTING

Access Password

A non-zero access password must be assigned first before the lock function can be performed. User can input the assigned password in this field to perform the lock function. Press the F1 button to change the input between number/alphabet

Action

Choose to lock or unlock the selected memory blocks in "User Memory Blocks to Lock" field.



Reading Barcode

Read Barcode mode allow user to read 1D barcode using the scanner below the antenna.

Press and hold the READ button to start reading tags. Any barcode that is read will generate and new entry on the screen with the barcode data. The total number of distinct barcode is shown at the bottom of the screen.

Maximum of 9 barcode data can be displayed simultaneously on the screen, user can press the UP or DOWN button to go through the barcode list and view the barcode in the next page (e.g. if a total number of 27 barcode are read, there will be 3 pages of data available).



Press F1 to save the data into BARCODE.TXT in the reader memory. Please refer to the Collecting Data section of this manual for more information. The barcode list on the screen will be cleared afterwards.

If user selected one of the tag with UP or DOWN button, pressing F2 will pass the selected barcode data to the WRITE TAG mode in the "Write Data" field so user can write the content into the tag.

Press F3 to clear the barcode list on screen.



Reader Setting

Press the SETTING button in most of the read mode will bring up the setting page

<u>Buzzer</u>

Turn on/off the buzzer which make sound when a tag is read or button is pressed

<u>Power</u>

Conducted power of the reader to read RFID tags. Range from 10-30 dBm. Please note that user will need to press the READ button to confirm the change for power setting. Higher power may result in better read/write performance in exchange of higher power consumption.



Data Mode

External data connection for Platino. User can choose from the follow modes

1. USB

Allow Platino to be connected as a USB memory device from a PC. User can extract the read data from the reader in this mode. There are also specific parameter that can only be changed in the USB mode, please refer to "Parameter Configuration" section for more detail.

Please note that after USB mode is selected, Platino will not be able to store tag read data into the memory anymore. To restore saving tag data to memory in Read Single Tag, Read Multiple Tag and Read Barcode mode, user has to power OFF the reader and power ON again to restore the connectivity.

2. Serial

Allow Platino to be connected as a COM port device from a PC. User can re-sync the time of Platino and send serial command to Platino for future functions



Reader Setting

Display Off

Controls how long the display of Platino would be automatically turned off. WiFi/Bluetooth connectivity remains when display is off.

Power Off

Controls how long Platino would automatically power off. WiFi/Bluetooth connectivity will be broken when reader is power off.

Reset Default

Reset all settings of the reader except those described in "Parameter Setting" section. In case the WiFi module cannot be connected due to incorrect setting, this option also reset all WiFi settings to the default state.



Collecting Data

Connect Platino to a computer with the provided USB cable. Change the data mode in the setting menu to USB. Wait for the USB drive to be detected by the computer operating system. You can find **SINGLE.txt**, **MULTIPLE.txt** and **BARCODE.txt** file inside the "datafile" directory.



SINGLE.TXT

15/08/2014 14:33:11,3000123400000000000000000000000000000000			
15/08/2014 14:33:14,,E20034120132F0000AD542BF2019008070055FFBFFFFDC60,,Platino001			
15/08/2014 14:33:18,,,0000000000000000000000000000000000	000000000000000000000000000000000000000	00000000000000000000000000000000000000	
15/08/2014 14:33:20,3000123400000000000000000000000000000000	15/08/201/	1/.33.58 / Dlatino001	
15/08/2014 14:33:23,3000123400000000000000000000000000000000	15/00/2014	14.33.30,4,F1a(110001	no001
15/08/2014 14:	15/09/2011	$1/1 \cdot 3/1 \cdot 03$ $1/23/32/123/11/$ Dlatino001	
33:25,3000123400000000000000000000000,E20034120132F0000AD542BF2019008070055FFBFFFDC60,000000000	13/00/2014	14.54.05,1254524125414,F1at110001	00000000
00000000000000000,Platino001	15/08/2014	11.31.08 111 Dlatino001	
16/08/2014 15:	15/00/2014	14.54.00,10,F1a(110001	
49:15,300052544300000000099999999,E2003412C17DFAFFFF1AF54D141C009E70055FFBFFFFDC70,000000000	15/09/2011	1/.3/.10 00010 Dlatino001	00000000
00000000000000000,Platino001	15/00/2014	14.54.10,00010,F1aC1110001	
	15/08/201/	14.34.11 DDU0001U Dlatino001	
	13/00/2014	14.54.11, ED000010, ETac110001	1
	15/08/2014	14.34.21 001007030320 Dlatino001	1
IVIULI IPLE.IXI	13/00/2014	14.34.21,001C07030320,P1ac110001	1

BARCODE.TXT

15/08/2014	14:33:35,300000000005450000096005958,3,Platino001
15/08/2014	14:33:35,300000000000000000000000000000000
15/08/2014	14:33:35,300000000005450000096005959,2,Platino001
15/08/2014	14:33:35,300000000000000000000000282,2,Platino001
15/08/2014	14:33:35,3000000000000000000000000288,2,Platino001
15/08/2014	14:33:35,3000E200680A000000000000000,1,Platino001
15/08/2014	14:33:35,3000E2003084170B023316206F9E,1,Platino001
15/08/2014	14:33:37,300000000000000000000000000000000
15/08/2014	14:33:37,34001234ABCD5678EFEF9A3F0000,1,Platino001
15/08/2014	14:33:37,300035000000000C201EFE930000,1,Platino001
15/08/2014	14:33:37,300000000000000000000000000000000
15/08/2014	14:33:37,3000000000000000000000000284,1,Platino001
15/08/2014	14:33:37,3000000000000000000000000283,1,Platino001
15/08/2014	14:33:37,3000123400000000000000000030,1,Platino001
15/08/2014	14:33:39,30000000000000BF02AC03DE71,1,Platino001
15/08/2014	14:33:39,3000E20020756903026017306924,1,Platino001
15/08/2014	14:33:39,30000000000000BF02AC03DE74,1,Platino001
15/08/2014	14:33:39,3000E2003074140101162490185C,2,Platino001
15/08/2014	14:33:39,3000E20030741401011624801A01,1,Platino001
15/08/2014	14:33:39,3000E20030741401011618005DB2,1,Platino001
18/08/2014	13:57:39,300000000000000000000000000000000000
18/08/2014	13:57:39,3000041614977849572091983450,78,Platino001
18/08/2014	13:57:39,3000E2003067200D01270530DC34,74,Platino001
18/08/2014	13:57:42,3000000000000000000000000000000000000
18/08/2014	13:58:00,3000E200207569070187217039F8,2,Platino001
18/08/2014	13:58:32,3000E2003067200D01270530DC34,39,Platino001
18/08/2014	13:58:32,300000000000000000000000000000000000
18/08/2014	13:58:33,3000041614977849572091983450,42,Platino001
18/08/2014	13:58:40,3000E2002075690300820450E860,2,Platino001



Collecting Data

SINGLE.TXT Data Structure

[Date] [Time], [EPC], [TID], [UserData], [SerialNo]

Examples:

Reading EPC 15/08/2014 14:33:11,30001234000000000000000000030,,,Platino001

Reading TID

15/08/2014

14:33:14,,E20034120132F0000AD542BF2019008070055FFBFFFDC60,,Platino001

Reading User Data

15/08/2014

Reading EPC+TID

15/08/2014

Reading EPC+USER DATA

15/08/2014

Reading All Data

15/08/2014



Collecting Data

MULTIPLE.TXT Data Structure [Date] [Time],[EPC],[ReadCount],[SerialNo]

Examples:

15/08/2014 14:33:35,300000000005450000096005958,3,Platino001

Tag 300000000005450000096005958 is bring read for 3 times

BARCODE.TXT Data Structure
[Date] [Time],[BARCODE],[SerialNo]

Examples:

15/08/2014 14:34:21,001C07030320,Platino001



Parameter Configuration

Through the USB port, you can also configure the following parameters of the reader by accessing **SysPar.ini** located in the **Config** folder



Sample content of SysPar.ini

PlatinoSP0006,1

Data Structure
[SerialNo],[WiFi/BT Mode]

SerialNo defines the Serial Number attached at the end of every record. The default serial number is PlatinoXXXXXX, but you may change the serial number to your own needs.

WiFi/BT Mode defines if the unit is operating in WiFi or BT Mode

- 1 = BT Mode
- 2 = WiFi Mode

NOTE: After changing the parameters in SysPar.ini, please save the setting in the file and reboot the reader for the settings to take effect



Setting System Time

In order to change the system time of the Platino, the following steps will have to be followed closely in sequence.

- Install the virtual com port driver for Windows (VCPDriver_V1.1_Setup.exe) <u>http://star-int.net/file_product/VCPDriver_V1.1_Setup.exe.zip</u>
- 2. Connect the Platino to a PC via the USB cable
- 3. Enter the Setting menu, change the data mode to Serial
- 4. Check Device Manager for the com port number



5. Run the SetPlatinoSYSTime.exe



Setting System Time

	Platino Set Time	Ν	_ □	×
Serial Port Communic	ation		Options Port COM2 Baud Rate 9600 Parity None Stop Bits One Data Bits 8	> > > >
	Sync Time	Close Port	Open Por	t

6. Select the corresponding COM port and press "Open Port". If the port is successfully connected, the following message will be shown in the text box

Port opened at 1/9/2014 12:20:54

7. Press the "Sync Time" button and the program will automatically extract the system time on the PC and sync it with Platino. The following message will be shown if the sync is successful

2014-09-01,12:26:27 ? OK

NOTE: If "OK" is not shown after the sync, please close the port and re-open it and sync again



Android + iOS Applications Support

The Platino supports connecting with existing popular mobile platforms with enhanced data collection features. For details please download the applications from below:

Platino WiFi Android App: <u>https://play.google.com/store/apps/details?id=com.ssi.dorado</u>



Platino WiFi iOS App: https://itunes.apple.com/us/app/Platino-receiver/id830129900



Platino Bluetooth (BLE) Android App: https://play.google.com/store/apps/details?id=com.ssi.doradoble



Platino Bluetooth (BLE) iOS App: https://itunes.apple.com/us/app/Platino-ble/id871613628



STAR Systems International Limited www.star-int.net technical@star-int.net



Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. NOTE: 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 or more of the following measures:

o Reorient or relocate the receiving antenna.

o 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.

o Consult the dealer or an experienced radio/TV technician for help.

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.

Attached shielded USB cable with one ferrite core must be used.