INGICS TECHNOLOGY

Guide
Ver.0c

iBS04 User Guide

Introduction

This application note is a guide for user to operate iBS04 beacon. To quickly verify it, please download INGICS iBS01 Tag Utility APP from below link(Android only):
https://play.google.com/store/apps/details?id=com.ingics.tag.igstagconfig

Operation

Power on

One CR2032 battery is pre-installed in each iBS04 beacon at shipment. Please remove the isolation plastic sheet to power on it. You will see the LED flash when powered on. At power on, the user can configure it within 15 seconds.

Button

As pressing the button, the LED will light up. In the meantime, it will trigger a burst of BLE transmission in 300ms with button active event. As the back end server received this status change, it can be used as warning or alarming.

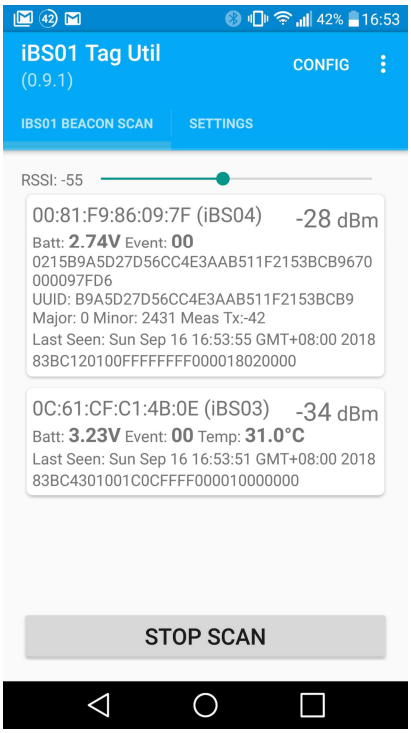
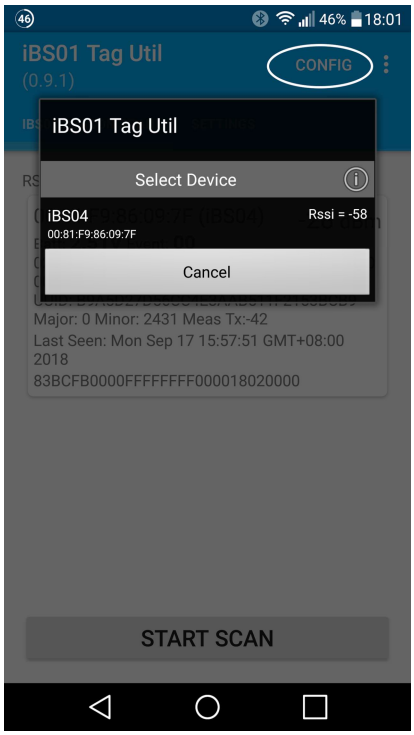
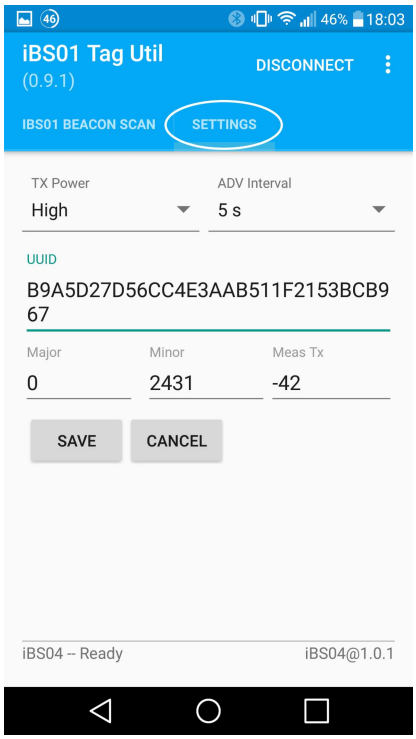
INGICS iBS01 Tag Utility

When powered on, iBS04 starts to advertise immediately. Users can use iBS01 Tag Utility to scan iBS04 and configure transmit power and advertising internally of iBS04.

The basic configuration steps is

1. At power on, iBS04 will be in configure mode within 15 seconds.
2. Connect with the utility.
3. Change the parameters and save
4. Disconnect and then the parameter will be effective.

Details is as below

1. Scan iBS04 Beacon You can see a. MAC ID b. UUID(iBS04i model only) c. Major(iBS04i model only) d. Minor(iBS04i model only) e. Meas Tx(iBS04i model only)	2. Connect iBS04 a. Power on b. Press CONFIG icon on the up-right corner of utility c. You can see iBS04 to be connected	3. Configure iBS04 a. Press iBS04 to connect it. b. In page SETTING, you will see like figure below. c. You can configure the parameters you want and press SAVE and DISCONNECT for the parameters to take effect.
		

Parameters

In iBS04, Below parameters can be configured.

a. TX power: High(+5 dBm) , Mid(0 dBm), Low(-6 dBm)
b. ADV Interval: 100 ms~1 min.
c. UUID: iBeacon UUID.(special iBS04i model only)
d. Major: iBeacon, group name. In default, it is assigned with our lot number.(special iBS04i model only)
e. Minor: iBeacon, individual name. In default, It is the last 4 digit of MAC ID in DEC format.(special iBS04i model only)
f. Meas TX: iBeacon parameter, a reference RSSI in 1 Meter. In default, it is -42(dBm).(special iBS04i model only)

Revision History

DATE	REVISION	CHANGES
Sep 17, 2018	0a	Initial release
Sep 25, 2018	0b	iBeacon parameters apply to iBS04i only
Dec 12, 2019	0c	Add regulation statement

Statement

Federal Communication Commission 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.

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.

Industry Canada Statement

This device complies with Industry Canada licence-exempt RSS standard. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie 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, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

IC Radiation Exposure Statement

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

Cet équipement est conforme aux CNR-102 d'Industrie Canada. Cet équipement doit êtreinstallé et utilisé avec une distance minimale de 20 centimètres entre le radiateur et votrecorps. Cet émetteur ne doit pas être co-localisées ou opérant en conjonction avec autreantenne ou émetteur. Les antennes utilisées pour cet émetteur doivent être installés etfournir une distance de séparation d'au moins 20 centimètre de toute personne et doit pas être co-située ni fonctionner en conjonction avec une autre antenne ou émetteur.

NCC 警語

第十二條

經型式認證合格之低功率射頻電機，非經許可，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。

第十四條

低功率射頻電機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。

前項合法通信，指依電信法規定作業之無線電通信。

低功率射頻電機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

DECLARATION OF CONFORMITY

EU EU RED - DIRECTIVE 2014/53/EU -

This Declaration that the following designated product

Sensor Beacon
Model No.: iBS04
Multi-listing Model No.: iBS04, iBS04i
Brand Name: INGICS

(Product identification)

complies with the essential requirements of the EU RED - DIRECTIVE 2014/53/EU on the approximation of the laws of the Member States relating to ***Radio Spectrum Matters.***
Assessment of compliance of the product with the requirements relating to radio spectrum matters was based on Annex IV of the Directive 2014/53/EU and the following standard:

EMC	Radio Spectrum	Safety
EN 301 489 -1: V 2.2.0 (2017)	EN 300 328 (V 2.1.1, 2016-11)	EN 60950-1:2006+A11:2009
EN 301 489 – 17: V 3.2.0 (2017)	EN 62479 : 2010	+A1:2010+A12:2011+A2:2013
	EN 50663 : 2017	

(Identification of regulations / standards)

This declaration is issued for

INGICS TECHNOLOGY.
2F., No.15-2, Changshou St.,
Shulin Dist., New Taipei City 238,, Taiwan, R.O.C.

(Name / Address)

Furthermore we declare that our product will be produce in correspondence with all requirements according to the Directive 2014/53/EU .

Name: J.K.Fan Title: President

Signature 

Date: 2019. 8.5