

Wireless Module SWAN-1

User's Manual

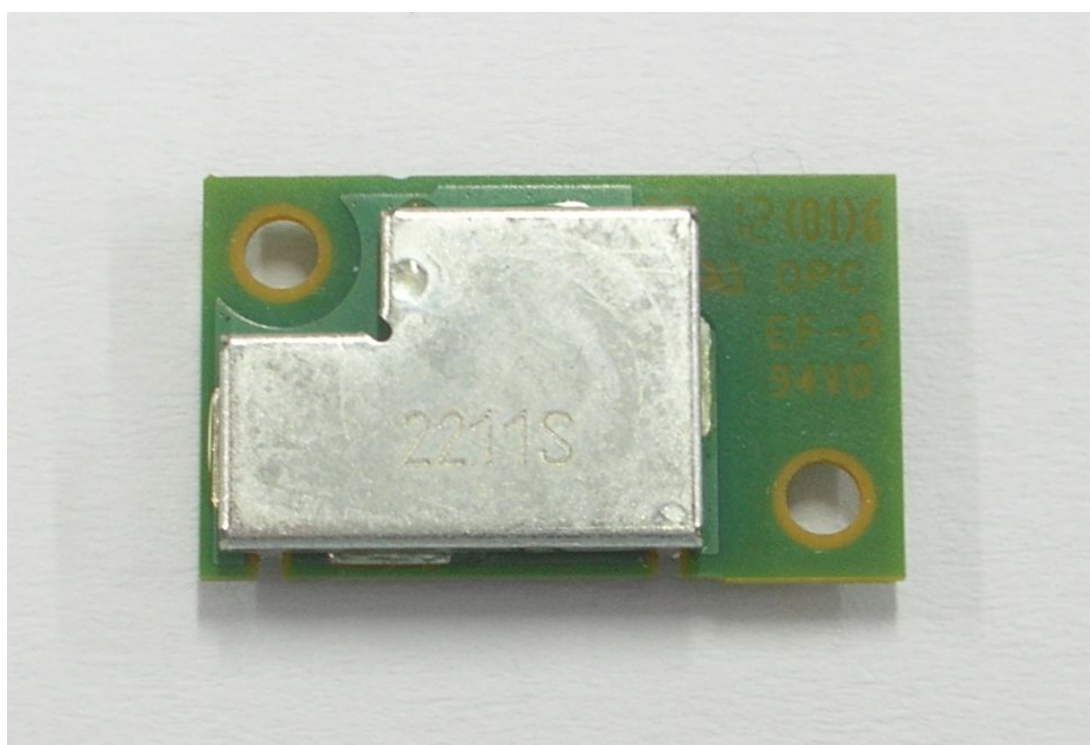


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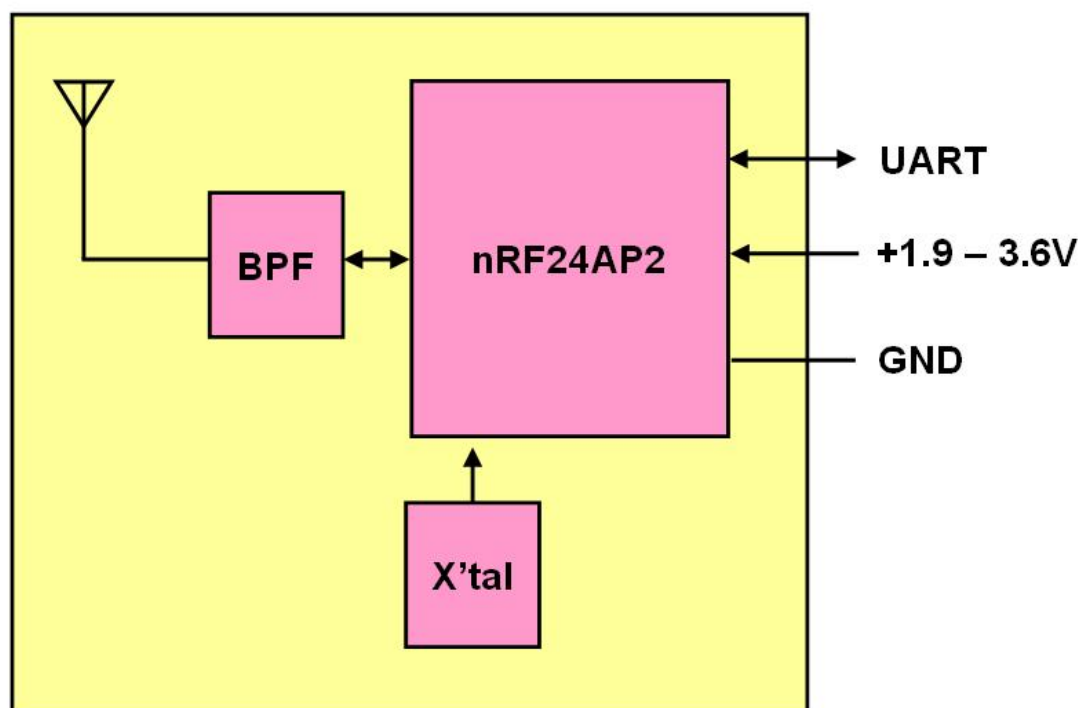
Introduction

This document describes the system operation of SWAN-1 –**ANT** module, as well as driver installation and the use of control software.

General description

SWAN-1 is an **ANT** module which has UART interface. This module can support a range of +1.9V ~ +3.6V power supply and regulated in main chip, nRF24AP2. A reference clock is used in the device, which is of 16MHz.

Block diagram



GND (Ground)

The ground line of ANT module is connected to one of the host computer via ground line of interface connector.

Software install

1. USB Driver

Connect EVB and PC by USB cable.

Run USBXpressInstaller.exe in "USB Board Drivers" folder

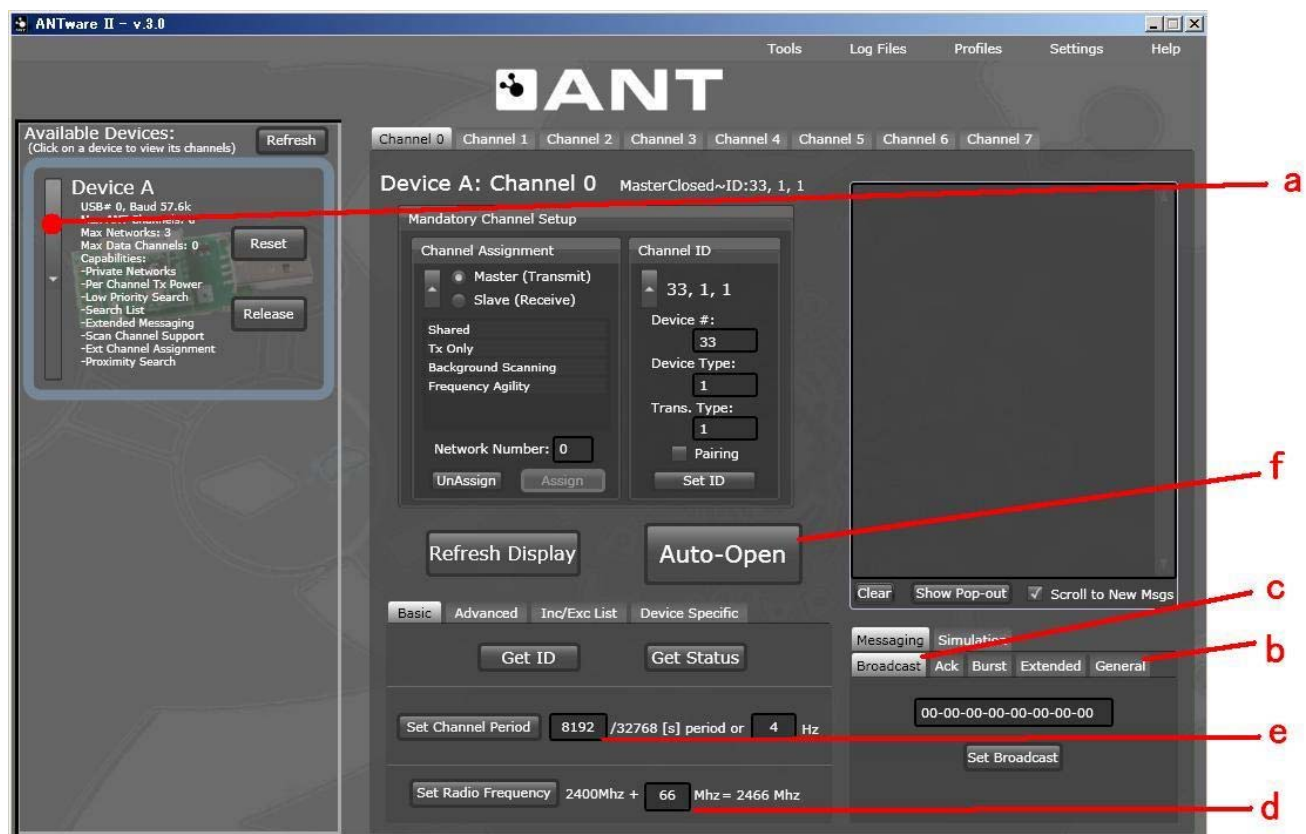
2. ANTware

Run ANTwareII_v3.0.11.msi.

Operating procedure

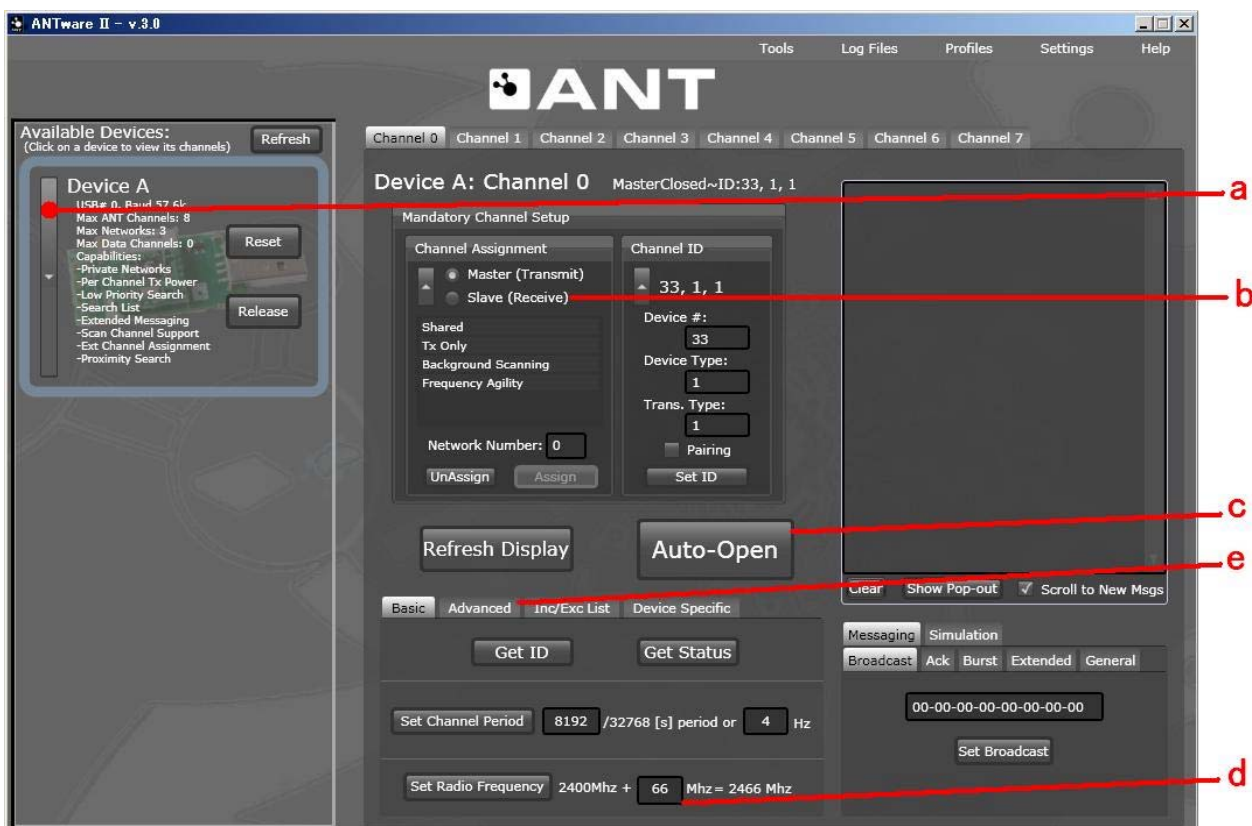
1. Continuous transmission

- a. Connect EVB and PC by USB cable. Run ANTware. Click and open right window.
- b. Click "General" tab and uncheck "Increment last byte every message".
- c. Click "Broadcast" tab. Type in "1ba84b3e1ba84b3e" and click "Set Broadcast".
- d. Set frequency and click "Set Radio Frequency".
- e. Type in "256" instead of 8192 and click "Set Channel Period"
- f. Click "Auto-Open"



2. Continuous reception

- a. Connect EVB and PC by USB cable. Run ANTware. Click and open right window.
- b. Check "Slave (Receive)".
- c. Click "Auto-Open" then click "Close"
- d. Set frequency and click "Set Radio Frequency".
- e. Click "Advanced" tab and click "Open in Scan Mode"

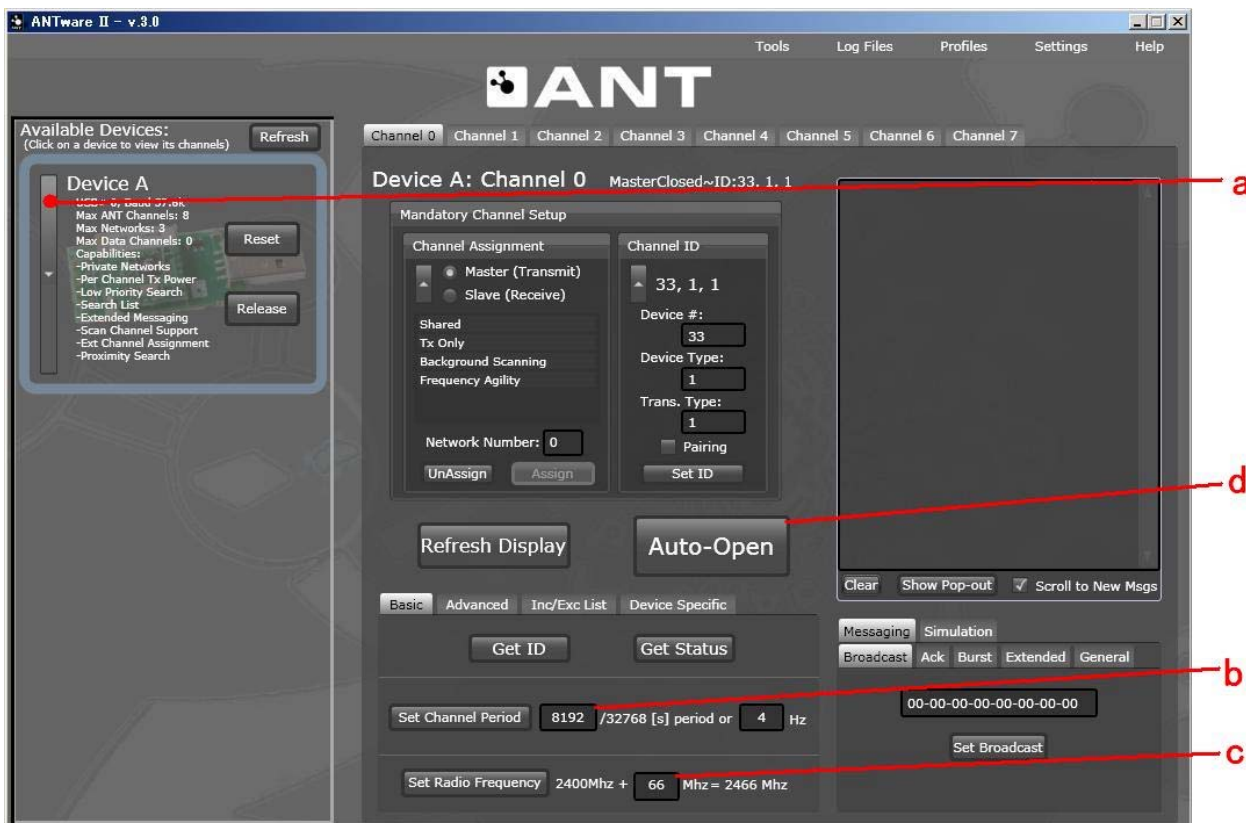


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3. Communication

- a. Connect EVB (TX) and PC by USB cable. Run ANTware. Click and open right window.
 - b. Type in "512" and click "Set Message Period"
 - c. Set frequency and click "Set Radio Frequency".
 - d. Click "Auto-Open".
- e. Connect EVB (RX) and PC by USB cable. Run another ANTware. Click and open right window
 - f. RX - Check "Slave (Receive)".
 - g. Type in "512" instead of 8192 and click "Set Message Period"
 - h. Set frequency and click "Set Radio Frequency".
 - i. Click "Auto-Open".
 - j. You can see received data in window.



Regulatory information

1) Canada regulatory information

- This device complies with Industry Canada license-exempt RSS standards.

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.

- Please display "Contains Transmitter module IC: 8117A-SWAN1", "Contains IC: 8117A-SWAN1" or similar wording expresses same meaning on outside of device into which "SWAN-1" is installed.

2) FCC regulatory information

- This device complies with 47 CFR Part 15 of the FCC rules. Operation is subject to 1) this device may not cause harmful interference and 2) this device must accept any interference received, including interference that may cause undesired operation.

- Please display "Contains Transmitter Module FCC ID: WY7-SWAN1", "Contains FCC ID: WY7-SWAN1" or similar wording expresses same meaning on outside of device into which "SWAN-1" is installed.

[CAUTION] To maintain compliance with FCC's RF exposure guidelines, use only the supplied antenna. Unauthorized antenna, modification, or attachments could damage the transmitter and may violate FCC regulations.

3) CE regulatory information

A large, bold, black CE mark followed by the number 0560. The CE mark consists of a stylized 'C' and 'E' symbol. The number 0560 is in a very large, bold, sans-serif font.

Българин[Bulgarian]	С настоящето [SHIMANO INC.] декларира, че [SWAN-1] отговаря на съществените изисквания и другите приложими изисквания на Директива 1999/5/EC.
Česky [Czech]	[SHIMANO INC.] tímto prohlašuje, že tento [SWAN-1] je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.
Dansk [Danish]	Undertegnede [SHIMANO INC.] erklærer herved, at følgende udstyr [SWAN-1] overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.
Deutsch [German]	Hiermit erkläre [SHIMANO INC.], dass sich das Gerät [SWAN-1] in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet.
Eesti [Estonian]	Käesolevaga kinnitab [SHIMANO INC.] seadme [SWAN-1] vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
English	Hereby, [SHIMANO INC.], declares that this [SWAN-1] is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
Español [Spanish]	Por medio de la presente [SHIMANO INC.] declara que el [SWAN-1] cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.
Ελληνική [Greek]	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ [SHIMANO INC.] ΔΗΛΩΝΕΙ ΟΤΙ [SWAN-1] ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/EK.
Français [French]	Par la présente [SHIMANO INC.] déclare que l'appareil [SWAN-1] est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.
Italiano [Italian]	Con la presente [SHIMANO INC.] dichiara che questo [SWAN-1] è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
Latviski [Latvian]	Ar šo [SHIMANO INC.] deklarē, ka [SWAN-1] atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
Lietuvių [Lithuanian]	Šiuo [SHIMANO INC.] deklaruoją, kad šis [SWAN-1] atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.

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Nederlands [Dutch]	Hierbij verklaart <i>[SHIMANO INC.]</i> dat het toestel <i>[SWAN-1]</i> in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.
Malti [Maltese]	Hawnhekk, <i>[SHIMANO INC.]</i> , jiddikjara li dan <i>[SWAN-1]</i> jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 1999/5/EC.
Magyar [Hungarian]	Alulírott, <i>[SHIMANO INC.]</i> nyilatkozom, hogy a <i>[SWAN-1]</i> megfelel a vonatkozó alapvető követelményeknek és az 1999/5/EC irányelv egyéb előírásainak.
Polski [Polish]	Niniejszym <i>[SHIMANO INC.]</i> oświadczam, że <i>[SWAN-1]</i> jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 1999/5/EC.
Português [Portuguese]	<i>[SHIMANO INC.]</i> declara que este <i>[SWAN-1]</i> está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.
Român [Romanian]	Prin prezenta, <i>[SHIMANO INC.]</i> , declară că aparatul <i>[SWAN-1]</i> este în conformitate cu cerințele esențiale și cu alte prevederi pertinente ale Directivei 1999/5/CE.
Slovensko [Slovenian]	<i>[SHIMANO INC.]</i> izjavlja, da je ta <i>[SWAN-1]</i> v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 1999/5/ES.
Slovensky [Slovak]	<i>[SHIMANO INC.]</i> týmto vyhlasuje, že <i>[SWAN-1]</i> spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.
Suomi [Finnish]	<i>[SHIMANO INC.]</i> vakuuttaa täten että <i>[SWAN-1]</i> tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
Svenska [Swedish]	Härmed intygar <i>[SHIMANO INC.]</i> att denna <i>[SWAN-1]</i> står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.

4) Russia regulatory information

Подтверждение соответствия Мининформсвязи России:

Декларация соответствия No.Д-РД-XXXX от DD.MM.YYYY года, действительна до DD.MM.YYYY года, зарегистрирована в Федеральном агентстве связи DD.MM.YYYY года

5) Taiwan regulatory information

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。


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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。

Note:

1. 本模組於取得認證後將依規定於模組本體標示審驗合格標籤
2. 系統廠商應於平台上標示「本產品內含射頻模組:  CCXXXYYyyZzW」字樣

6) Korean regulatory information

“SWAN-1” has been radio-type approved under condition described below.

Applicant name: NANUX Inc.

Equipment name: Wireless Module

Model number: SWAN-1

Manufactured date (Monty, Year) : refer to serial no. on equipment

Manufacturer: SHIMANO INC.

Country of origin: Japan



KCC-REI-ABC-XXXXXXXXXXXXXXXX

해당 무선설비는 전파혼신 가능성이 있으므로 인명안전과 관련된 서비스는 할 수 없음

7) Mexico regulatory information

“SWAN-1” has been radio-type approved under condition described below.

Brand name: SHIMANO INC.

SHIMANO INC.

SWAN-1

Model name: SWAN-1

COFETEL homologation number: XXXXXXXXXXX

Country of manufacturing: Hecho en Japon

8) Singapore regulatory information

**Complies with
IDA Standards**
ID:XXXXXXXX (dealer No)