

GPS高準確信號參考源產生器

GPS High Accuracy Reference Source Generators

Model: WS-GPSPD



快速安裝指南

QUICK INSTALLATION GUIDE

WENSHING ELECTRONICS CO., LTD.

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重要事項

- 本產品是在一般設備的使用上為前提所設計、製造，請勿使用於高安全性要求的設備用途上，如醫療機器材、航空設備、交通相關之設備，以及與生命安全直接或間接相關之系統等。
- 本產品需在本使用說明書內所指示的電源種類及額定電壓電流下正確使用，如違反本說明書所記載的安全電源操作範圍，本公司不負擔任何責任。
- 使用者請勿自行拆卸、分解、改造或維修本產品，有可能會造成火災、觸電、故障等危險。如有違反，因此所造成的故障則不在保固範圍內。
- 本產品請勿在有水的地方使用，並請注意收放。雨、水花、飲料、蒸氣、汗水均可能會造成本產品故障。
- 使用本產品時，請務必根據本使用說明書所記載之方法操作，特別是不可違反注意事項所提醒的使用方法。
- 請遵守本使用說明書所記載的注意事項，使用者如有違反，本公司不負擔任何責任。
- 本產品有非人為因素所導致之瑕疵，可免費更換或維修，本公司不負擔基於該瑕疵而要求的損失賠償之責任。
- 本公司有權保留在不通知使用者的情況下，對本產品的硬體/軟體/韌體（版本升級）隨時進行修改的權利。

聲明

本產品有多種頻率選擇，符合各國電信法規及FCC、CE規範。

保固

本產品保固一年，自購買日起一年之內，在正常使用下發生非人為損壞之功能不良即在保固範圍內，非保固範圍使用下發生功能不良則不在此限。

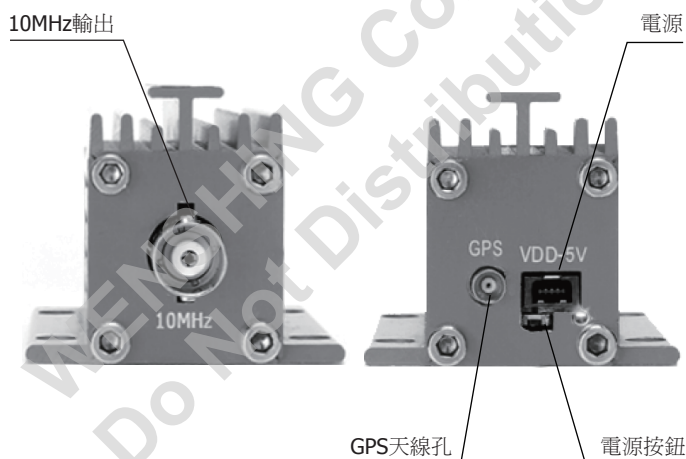
非保固範圍說明：

- 因天災、意外或人為因素造成之不良損壞。
- 違反產品手冊之使用提示，導致產品之損壞。
- 組裝不當造成之損壞。
- 使用未經認可之配件所導致之產品損壞。
- 超出允許使用環境而導致之產品損壞。

聯絡方式

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<http://www.rf.net.tw>

外觀及功能說明



WS-GPSD

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規格

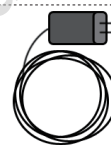
- 輸出訊號: 10MHz
- 輸出功率: -6dBm
- 頻率準確度及飄移度: $\pm 0.1\text{ppm}$ 以內
- 輸出端子: BNC
- 輸入電壓: 5V
- GPS天線端子: MCX
- 鋰電池容量: 300mA

包裝內容

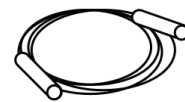
- WS-GPSD x 1



- 變壓器 x 1



- BNC線 x 1



- GPS天線 x 1

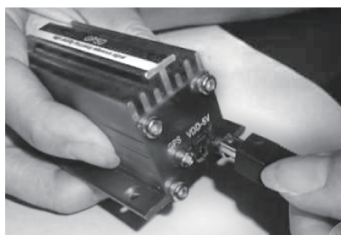


WS-GPSD

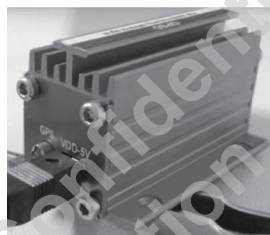
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操作方法

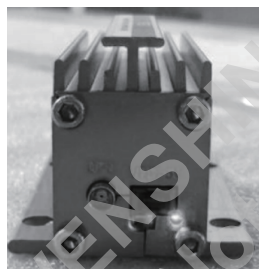
- 將電源插入本產品WS-GPSD(以下簡稱WS-GPSD)(如圖①),再將變壓器插入AC插座,充電過程中紅燈恆亮(如圖②),充飽電後紅燈熄滅轉為藍燈恆亮(如圖③)。



▲圖①

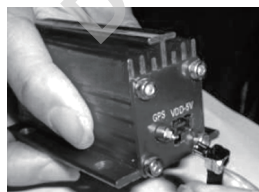


▲圖②



▲圖③

- 連接GPS天線至WS-GPSD(如圖④),需先將GPS天線放置戶外,如戶外無法取得電源,則請將WS-GPSD先充飽電再進行GPS頻率校正。



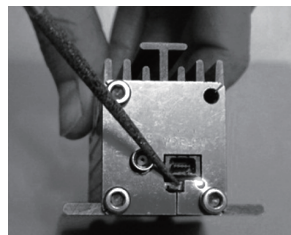
▲圖④

WS-GPSD

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操作方法

- 按電源按鈕(如圖⑤),此時藍燈恆亮(如圖⑥),再持續按3秒以上,直至藍燈急閃。



▲圖⑤



▲圖⑥

- 當藍燈轉為慢閃時,表示WS-GPSD已收到衛星信號並開始校正頻率,校正時間約為10分鐘;校正完畢後會發出3聲“嘟嘟”,同時藍燈停止閃爍轉為恆亮。

- WS-GPSD頻率校正後便可接至儀器後方的10MHz REF外部輸入參考源使用(如圖⑦)。

建議每個月校正頻率一次,以保持設備頻率之準確度。



▲圖⑦

WS-GPSD

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問與答

問: 設備是頻譜儀, 使用WS-GPSD是否以後都不需送原廠校正頻率?

答: 是的, 頻譜就可使用高準度的WS-GPSD產生頻率, 可自行修正頻偏問題, WS-GPSD 也可外接設備端有外部參考源輸入的10MHz。

問: 頻譜儀外接信號參考源是否需要設定?

答: 一般來說外部參考源自動抓取設備端之10MHz後即會使用外部參考源, 不需再設定, 部份日系設備需設定後才可使用外部頻率參考源, 此部份可詢問儀器設備廠有關的設定問題。

問: WS-GPSD是否可以不插AC使用?

答: 是的, WS-GPSD內置之電池已充飽電即可不需外接電源, 方便使用者攜至室外校正頻率。

問: WS-GPSD是否可在室內校正頻率?

答: 不可以, WS-GPSD需在室外或靠近窗戶處校正頻率, 當校正完頻率後就會記憶在WS-GPSD內, 即可在室內使用。已經校正過頻率後WS-GPSD輸出的10MHz就可使用在需要10MHz輸入參考源的設備上。建議每個月校正頻率一次, 以保持備頻率之準確度。

WS-GPSD

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WS-GPSD

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Important Event

- This product is in general use for the equipment on the premise of the development, design, manufacture. Do not use that require high security purposes, such as machinery or medical, aviation equipment, machinery and transport-related deaths are directly or indirectly related to the system.
- This product should be in this brochure by the instructions of the types and rated voltage power under the current proper use. If violation of this statement by the safety records of the supply operation, I am afraid our company cannot afford any of the responsibility.
- Do not self-decomposition, alteration, repair of the products also will cause fire, electric shock, fault, and dangerous. In addition, their decomposition, alteration, repair the product, failure is not within the scope of warranty.
- The products are not waterproof, so please do not use and touch water. Take off and on also please note. Rain, spray, drinks, steam, sweat may be a failure.
- Use of this product, please be sure to use according to the statement recorded by the use of methods to operate. Please do not violate particular attention to the matter reminded to use.
- Please respect this statement recorded by the note. When consumers in contravention of this statement recorded note of the operation, I am afraid our company could not shoulder any responsibility.
- Products are defective, the Company will be responsible for free to amend the flaws, or to the same flawless product or its equivalent products in exchange. However, the Company does not assume based on the requirements of the flaw and loss responsibility.
- The Company reserves the right to retain without notice to users of the cases, the product of hardware / software (version upgrade) is with the right to edit.

Declaration

This product provides different frequency for user selection to meet different telecommunication regulation and FCC/CE on different countries.

Warranty

The warranty time is within one year from purchased date. The warranty scope are used in normal situation and none vandalism. (Some function harmful out of warranty scope and Vandalism are Un-warranty).

Un-warranty Scope Description :

- Because the natural disaster, accident or human factor to cause the bad damage.
- Violate the product instruction manual to cause the damage of the products.
- The improper assemble causes damage.
- The products used the unsanctioned accessory to cause damaged.
- Overstep the allowed used environment to cause the products damaged.

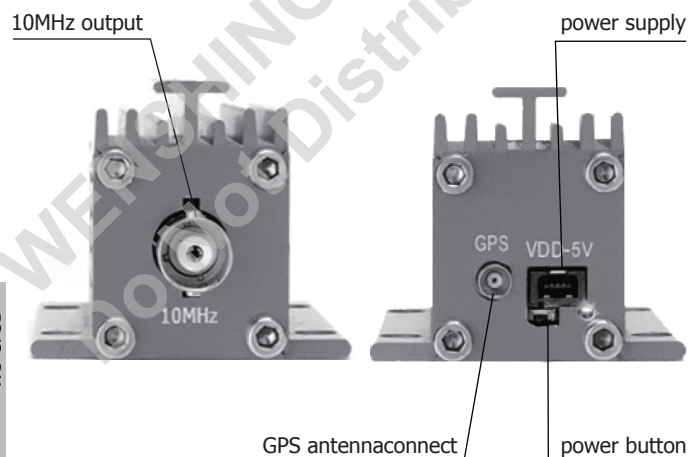
Contact Us

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<http://www.rf.net.tw>

WS-GPSD

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Appearance & Functions



WS-GPSD

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Specifications

- Output signal: 10MHz
- Output power: -6dBm
- Drift free run: Frequency tolerance: within $\pm 0.1\text{ppm}$
- Output connector: BNC
- Supply voltage: 5V
- GPS Antenna connector: MCX
- Li-battery capacity: 300mA

Contents

- WS-GPSD x 1



- Adapter x 1



- BNC Cable x 1



- GPS Antenna x 1



WS-GPSD

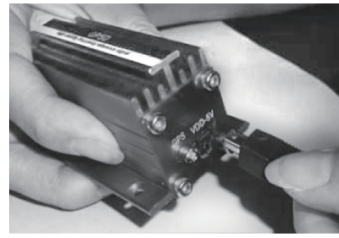
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WS-GPSD

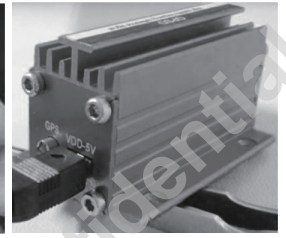
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Installation

- Plug in power supply to this product WS-GPSD (Figure 1), and then plug in AC adaptor to charge battery. During the process of charging the battery, the indicator light will turn to red all the time (Figure 2). When the battery is fully charged, the red indicator light will turn to blue (Figure 3).



▲ Figure 1

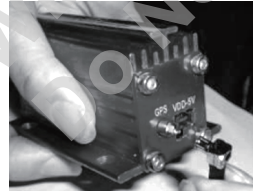


▲ Figure 2



▲ Figure 3

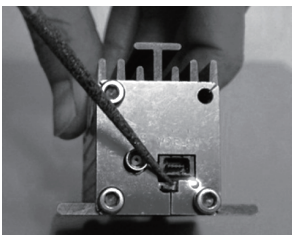
- Connect GPS antenna to WS-GPSD (Figure 4). It is necessary to move GPS antenna to outdoors. If no power supply is available outdoors, please fully charge WS-GPSD prior to start frequency calibration.



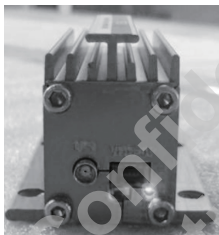
▲ Figure 4

Installation

- Press the power button (as shown in Figure 5). At this time the indicator light turns blue (as shown in Figure 5). Continue to press the power button for another 3 seconds or longer until the blue indicator light turns from blue to blink rapidly in blue.

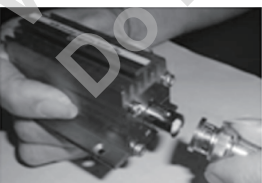


▲ Figure 5



▲ Figure 6

- When the indicator light turns from blink rapidly to blink slowly, it indicates that the satellite signal has been received and the frequency calibration starts. The time to take the frequency calibration is about 10 minutes. When the frequency calibration is completed, the user will hear "du dudu" sound 3 times. At this time, the indicator light stops blinking slowly in blue and turns to blue continuously.
- After WS-GPSD finished the frequency calibration, the user can now connect WS-GPSD to the 10 MHz Reference Frequency Output at the back of the testing instrument (as shown in Figure 7). It is suggested that the frequency calibration be performed every month so that the accuracy of the frequency of the testing instrument can be maintained.



▲ Figure 7

WS-GPSD

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WS-GPSD

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Q&A

- Q: If the testing instrument is Spectrum, does it mean by using WS-GPSD there is no need to send the testing instrument back to the original manufacturer for frequency calibration?
- A: Yes, spectrum can utilize highly accurate WS-GPSD to produce frequency and adjust out of frequency problem automatically. WS-GPSD can also connect 10MHz Reference Frequency Output for frequency calibration.
- Q: Is it necessary to set up when Spectrum connects to Reference Frequency Output?
- A: Generally speaking, when the Reference Frequency Output automatically default 10MHz from the testing instrument, it will start using the Reference Frequency Output. It is not necessary to set up again. Some of Japanese made equipment needs to set up first before it can use the Reference Frequency Output. It is suggested that the user asks the instrument equipment manufacturer regarding set up problem.
- Q: Can WS-GPSD be utilized without using AC power adapter for frequency calibration?
- A: Yes, there is no need to use external power supply if WS-GPSD's internal battery is fully charged. It is convenient for the user to conduct frequency calibration outdoors.
- Q: Can WS-GPSD be used indoors for frequency calibration?
- A: No, WS-GPSD needs to be used outdoors or close to window in order to conduct frequency calibration. When frequency calibration is completed, the data will be stored in WS-GPSD's memory so it can be used indoors thereafter. For WS-GPSD which finished frequency calibration, the 10MHz Reference Frequency Output can be utilized by the testing instrument which requires 10 MHz Reference Frequency Output. It is suggested that the user perform frequency calibration on a monthly basis in order to maintain the accuracy of the testing instrument frequency.