

# GPS Time Sync Unit

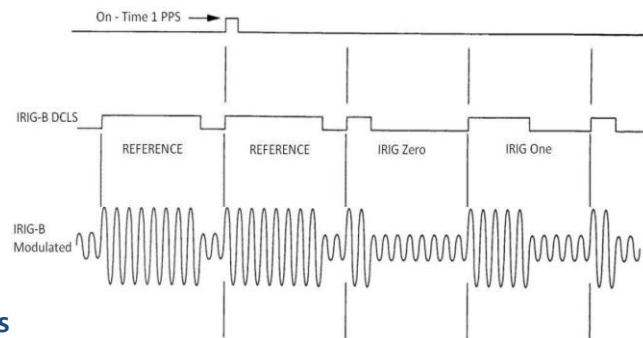


GPS-605

GPS-605 GPS Time Sync Units are the most compact and accurate Time Synchronization Units developed for various industries like the Power and Process industry. It has the options of various output types, required for interface with various systems and devices. GPS Time Sync Unit is designed for Reliability and provides base time accuracy of 150nsec.

## Features

- Cost effective solution
- 6 digits, 0.56" 7-segment LED Display for Time
- 12 Satellite parallel tracking
- Universal (AC/DC) Power supply input
- Supports synchronization of PMU compliant devices via NTP/SNTP protocol
- All weather water proof antenna
- Synchronization software for Server & Client
- Supporting Protocols:
  - o IRIG-B 000
  - o SNTP/NTP



## Applications: Time Synchronization of

- Sequence of event recorders
- Disturbance recorders
- Numerical relays
- UNIX, Linux & Windows servers
- Slave clocks
- PLC/DCS/SCADA
- ABT metering
- EMS system
- Telecommunication
- Synchro phasor measurement
- Fault Locator

## Technical Specifications

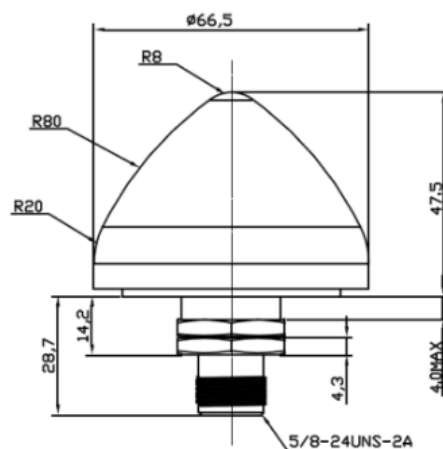
### GPS Receiver

- Timing Accuracy : < 15 ns with GPS Receiver  
(Receiver is locked on fixed position)
- Positioning Accuracy : < 10 m
- Input Frequency : 1575.42 MHz L1 C/A code
- Tracking : 12 parallel channels
- Acquisition time : Hot Start < 5 sec  
Warm Start < 38 sec  
Cold Start < 45 sec
- Power Supply : 85-264V AC, 47 to 63 Hz / 120-300V DC
- Power Consumption : <10 W



### Antenna

- Type : Active L1. GPS, 30 dB gain
- Antenna Cable (to be ordered separately)  
: RG 6(Std) / RG 8 (Optional coaxial cable)
- Operating Temperature : -40 to +85 °C
- Coverage : 360 °C
- Ingress Protection : IP67
- Weight : 150g



### Interface and Configuration

- Display : 6 digits, 0.56" (14mm) Seven Segment LED Display (Red)
- Displayed Data : Local/UTC Time and Date, Lock/Unlock Indication
- Status LEDs : Power, 1PPS, Watchdog, GPS Locked
- Configuration Programming : Ethernet Parameters and Display Parameters using TELNET
- Programmable Parameters
  - o Network Parameters (IP, Gateway, Subnet Mask) - via TELNET only
  - o Global Time Zone correction
  - o Manual Time setting
  - o Date/Time selection
  - o Data format selection (NMEA-GPRMC, NGTS or T-FORMAT)
- NTP / SNTP Client Software
  - o Platform Support: Windows 7/8/10 server synchronization
  - o NTP Client Software is for easy distribution of time across the network

# Certification

8970-EB3D-61B6-E194

## 방송통신기자재등의 적합등록 필증

### Registration of Broadcasting and Communication Equipments

|  |                               |
|--|-------------------------------|
| 상호 또는 성명<br>Trade Name or Registrant           | 주식회사 고려티앤씨                    |
| 기자재명칭(제품명칭)<br>Equipment Name                  | GMS-603 Fault Recorder        |
| 기본모델명<br>Basic Model Number                    | GPS RECEIVER / GPS-605        |
| 파생모델명<br>Series Model Number                   | GMS-603                       |
| 등록번호<br>Registration No.                       | R-R-9jm-GPS-605               |
| 제조사/제조(조립)국가<br>Manufacturer/Country of Origin | 주식회사 고려티앤씨, KoryoTNC / 한국, 한국 |
| 등록연월일<br>Date of Registration                  | 2020-03-10                    |
| 기타<br>Others                                   | GPS-605                       |



위 기자재는 「전파법」 제58조의2 제3항에 따라 등록되었음을 증명합니다.  
It is verified that foregoing equipment has been registered under the Clause 3, Article 58-2 of Radio Waves Act.

2020년(Year) 03월(Month) 10일(Day)

국립전파연구원장



Director General of National Radio Research Agency

※ 적합등록 방송통신기자재는 반드시 "적합성평가표시" 를 부착하여 유통하여야 합니다.  
위반시 과태료 처분 및 등록이 취소될 수 있습니다.

# Time Signal Output

| Output Type         | Description  | Connector  | Accuracy (to UTC) |
|---------------------|--|------------|-------------------|
| PPS                 | <ul style="list-style-type: none"> <li>o 1 Pulse per second</li> <li>o TTL into 250Ω</li> <li>o 200 ms Pulse Width</li> </ul>  | BNC Female | ±150nSec          |
| IRIG-B Modulated    | <ul style="list-style-type: none"> <li>o IRIG-B(127) or IEEE 1344/C37.118-2005</li> <li>o 1 KHz AM Signal</li> <li>o Modulation Ratio - 3:1</li> <li>o 3 Vp-p into 100Ω ±10%</li> </ul>                                | BNC Female | ±10μSec           |
| IRIG-B TTL          | <ul style="list-style-type: none"> <li>o IRIG-B (007) or IEEE 1344/C37.118-2005</li> <li>o TTL into 50Ω</li> </ul>   | BNC Female | ±1.5μSec          |
| NTP (LAN Interface) | <ul style="list-style-type: none"> <li>o Protocol Support: NTP V3, SNTP, SNMP V2</li> <li>o Network Protocol: TCP, Telnet, UDP, IPv4</li> <li>o Mode: Server</li> <li>o Network Interface: RJ45, 10/100Mbps</li> </ul> | RJ45       | ±1mSec            |

## Physical

- Panel Mounting
- Dimensions (mm) H x W x D
  - o 19inch 1U : 44 X 483 X 250
- Weight
  - o 900g

