Zigbee©
Wireless Digital Clock System

Introduction:

The master clock receives a time signal from a GPS, NTP (via internet) or from it's own internal crystal. A synchronising signal is then sent to all slave clocks wirelessly.

The advanced ZigBee wireless transmission technology enables transmission using a transmitting power from master clock of only around 0.06W at frequency 2.450~2.480Ghz which is a worldwide approved frequency. While low powered, this signal can be sent over very large distances, with each slave clock acting as a repeater (up to 19 clocks. This signal is sent once per second for complete synchronisation and accuracy. The transmission range for each repeater is approx. 150-200 meters. Although the Loss of Signal range can be up to 500 meters.

When the slave clock is receiving the Master clock signal the colon will stay constantly lit, but if no data has been received from the wireless module for more than10 minutes, the slave clock will run on its own time base (crystal) and a flashing colon will be displayed on the clock.

MASTER CLOCK

Model: SDC-OC3B

- 19" Rack mount available. Metal case, 435mm(W)x295mm(D)x45mm(H),
- wall mount (option)
- I/P power: 240V AC
- Time base: (1). GPS receiver, (2) NTP Ethernet card required, (3) Internal crystal
- A visual synchronization status indicator for GPS receiver
- O/P : (1) 4 x RS422 ports---------- to wired RS422 clocks or equipment
- "RESET" + "CLOCK" pulses to wired secondary digital clock
- Wireless RF signal to all wireless clocks (Antenna 480mm)
- Automatic Time Zone & DST adjustment
- For Ethernet card equipped master clock, all the setting can be done on web base.

GPS RECEIVER

MR350 GPS receiver is designed with 100% water proof , utilizing SiRF star III IC chip.

Features

- SiRF Star III high efficacy GPS IC chips
- High Sensitivity
- Fast response
- Support NMEA0183 communication protocol
- Internal memory equipped for data storage
- Built-in ceramic antenna
- RS232 interface
- 100% water proof
- suitable for timing, location retrive
- WAAS ENGOS is supported.

DIGITAL SLAVE CLOCK

Specifications :

- LED digit height :4" ,6 digits Color: RED
- Time accuracy: ±0.3sec per day (25°C off line)
- Synchronized to Master clock wired or wireless, Keeps running when off line , synchronization time <2 seconds when recovered.
- 12/24 hours format selectable, LED brightness adjustable according to environments.
- During power failure the LED will be blank but internal clock is still working
- Humidity : 10~90%
- Temperature : 0°C to +50°C
- Aluminium case with non-glare acryl-face
- I/P power : 240V AC , 50 / 60HZ