

Smart NMEA Tester ZNT-300 (Monitor + Simulator + Oscilloscope)

Introduction

ZNT-300 Smart NMEA Tester is an only 100gram handy-sized tester which has NMEA-0183 Monitor, NMEA-0183 Simulator and general purpose Oscilloscope.

This will replace the carry and use of heavy, large laptops and oscilloscopes in most installation and maintenance of ship navigation and communication equipment in the field.

1) NMEA-0183 Monitor:

Displays NMEA sentences as raw data and summary data format.

Auto baud-rate measurement function notifies baud-rate and display data correctly even if user doesn't know it.



2) Simulator:

Generates and outputs more useful NMEA-0183 sentences, and you can change transmission cycle and data in the sentence.

3) Oscilloscope:

It is easy to analyse the quality of NMEA-0183 signal, and most functions of the oscilloscope are supported.

ZNT-300 screen capture function helps user to check it on a PC via USB after returning to the office. It will be very helpful for analysing problem and making reliable service reports.

Specifications

NEMA Monitor

Rx circuit	<ul style="list-style-type: none"> - Very high sensitive circuit. It can receive very low voltage signal (Min. DC1.5V) - Very high impedance circuits. Connecting this in parallel on existing communication between talker and listener, it has no effect on the existing communication.
View Mode	<ul style="list-style-type: none"> - Raw data: Display raw NMEA 0183 sentences. 14 lines x 37characters at one screen, if more than 14 lines, it is scrolled up. - Summery: Display summary data value of NMEA 0183 Sentence. Also, indicated status and error as colour characters (Red: No data for 3sec, Violet: Checksum error, Yellow: more than 82byte)
Auto Baud-rate	<ul style="list-style-type: none"> - Auto baud-rate measurement and notify. - Manual baud-rate set. - 1,200~115,200bps
Screen Capture	<ul style="list-style-type: none"> - Saving screen data, and user can check and analyse it on a PC via USB. - Up 100 files.

NMEA-0183 Simulator

Generating NMEA-0183 Sentences	- Generate more NMEA-0183 sentences. (GPGLL, GPGLL, GPZDA, GPRMC, GPVTG, GPVHW, HEHDT, HEHDM, HETHS, VMVBW, TIROT, AGRSA, WIMWV, SDDBT, YXXDR) - Continuously added by user requirements.
Transmission cycle	- 0.5Hz ~ 10Hz
Variable data	- Select field and change data in the sentences easily by buttons.
Output signal	- Typically, 3.6V single ended signal (depends on battery voltage). NMEA-0183 (IEC61162-1) receiver requires min. 2V signal

Oscilloscope

Maximum Sample Rate	- 1Msps 12Bits
Horizontal Sensitivity	- 1uS/Div ~ 10S/Div
Horizontal Position	- Adjustable with Indicator
Vertical Sensitivity	- 10mV/Div ~ 10V/Div (with x1 Probe) - 0.5V/Div ~ 100V/Div (with x 10 probe)
Vertical Position	- Adjustable with Indicator
Measurement	- Frequency, Cycle time, Duty cycle. - Peak / RMS / Average / DC voltage. - Precise vertical / horizontal measurement with markers. - Hold/Run
Signal Generator	- 10Hz~1MHz Square Wave

General Specifications

Display	- Full colour 2.8" TFT LCD 65K colour, 320 x 240 pixels.
Input Impedance	- Approx. 500kohm
Maximum Input Voltage	- 80Vpp (by 1x Probe)
Firmware Upgrade	- Via USB
Rechargeable Battery	- 500mAH 3.7V Lithium-ion Battery. - Recharge via USB power.
Screen Captures.	- Saving screen shot, and user can check and analyze it on a PC via USB. - Up 100 files.

Physical Specifications

Dimension	- 91 x 62 x 13 mm (3.58 x 2.44 x 0.51 inch)
Weight	- 100g (0.22 lb)