

# Micsig

## Automotive Tablet Oscilloscope ATO 1000series



**Shenzhen Micsig Instruments Co.,Ltd.**

ADD: 305 Block A, CLOU Building, Baoshen RD, North Area, Nanshan  
Science&Technology Park, Shenzhen, Guangdong,China. 518000

TEL : +86-0755-88600880

E-mail : sales@micsig.com

Web : www.micsig.com



# Product Introduction



- 2/4 analog channel
- 100MHz bandwidth
- 1GSa/s real time sample rate
- 28Mpts memory depth
- 8" full touch screen
- Inside lithium battery
- Integrated automotive diagnostic software

## Features and Advantages

- Various automotive diagnostic function : Ignition, sensor, Actuators, Networks, combination test and pressure test.
- Easy to use, Convenient to operate in filed, battery included.
- Support APP to operate oscilloscope remotely.
- Support Wi-Fi to transfer waveform data.
- Internal 8G memory to save big waveform data.
- 8 inches full touch capacitive screen, 800\*600 pixels.

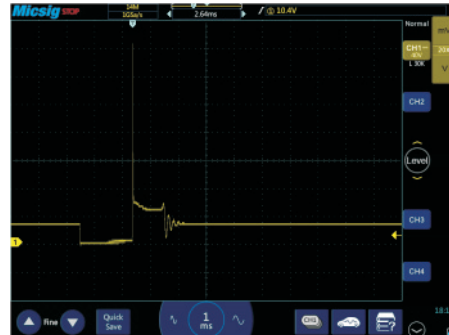
## Technical Specifications

	ATO1102	ATO1104
Bandwidth	100MHz	100MHz
Channel	2	4
Real time sample rate	1G Sa/S (single channel)	1G Sa/S (single channel)
Memory depth	28Mpts (single channel)	28Mpts (single channel)
Support test	Charging circuit, starter circuit, sensor, actuator, ignition test, communication test (including CAN, LIN, Flexray, K, etc.), pressure test (cylinder pressure, intake and exhaust pressure, fuel pressure, etc.)	
Bandwidth limitation	Full bandwidth, low pass	
I/O port	Wi-Fi, LAN, HDMI, USB Host, USB Device, GND, DC Power	
Screen	8" TFT LCD 800*600 pixels display resolution, 14*10 Grids	
Dimensions	250*200*55mm	
Accessories	Lithium battery, adapter, power cord, 2 X BNC banana lines, 2 X alligator clips, 2 X Flexible needle, 2 X P130A probes	Lithium battery, adapter, power cord, 4 X BNC banana lines, 4 X alligator clips, 4 X Flexible needle, 4 X P130A probes

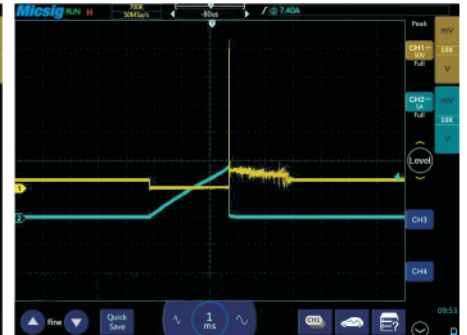
# Various Automotive Diagnostic Function

## Ignition Tests

- Primary Ignition
- Secondary Ignition
- Primary+Secondary Ignition



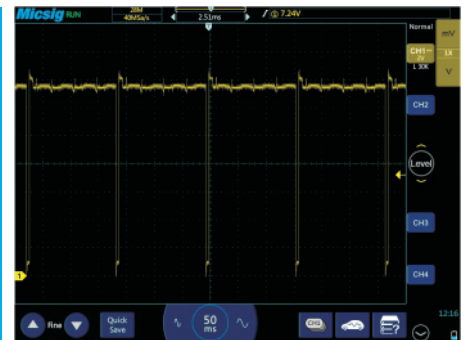
Primary Ignition



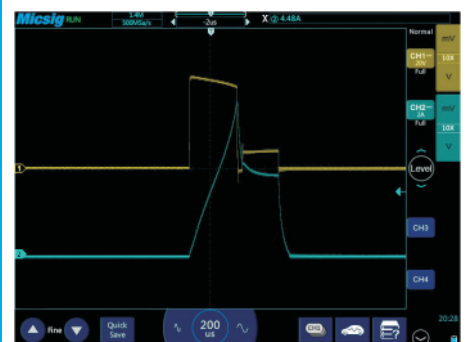
Primary Ignition

## Various Actuator Tests

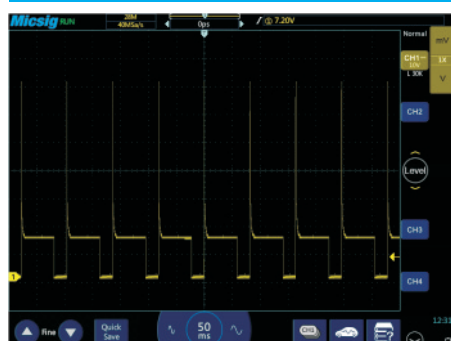
- Carbon Canister Solenoid Value
- Diesel Glow Plugs
- EGR Solenoid Value
- Fuel Plumb
- Idle Speed Control Value (IAC)
- Injector (Petrol)
- Injector (Diesel)
- Pressure Regulator
- Quantity Control Value
- Throttle Servomotor
- Variable-speed Cooling Fan
- Variable Value Timing



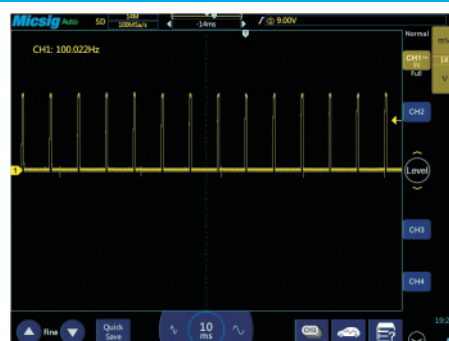
Carbon Canister Solenoid Value



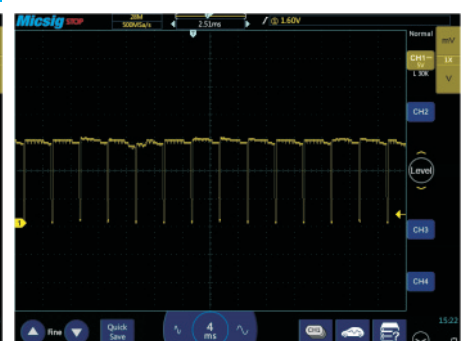
Injector (Petrol)



Quantity Control Value

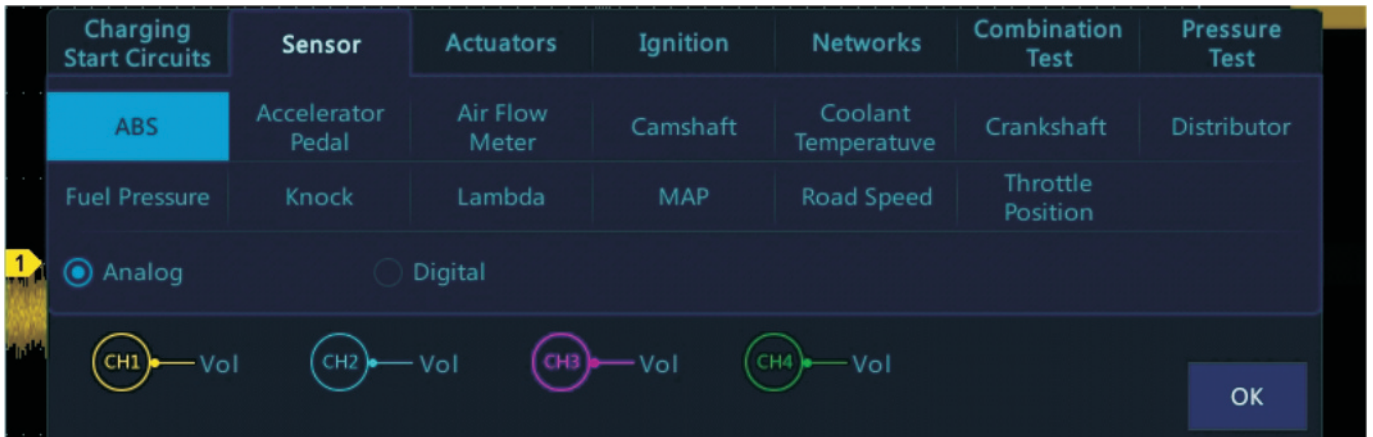


Variable-speed Cooling Fan

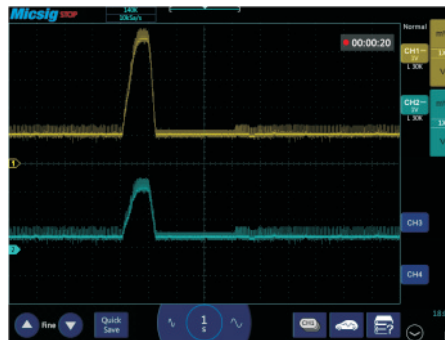


Variable Value Timing

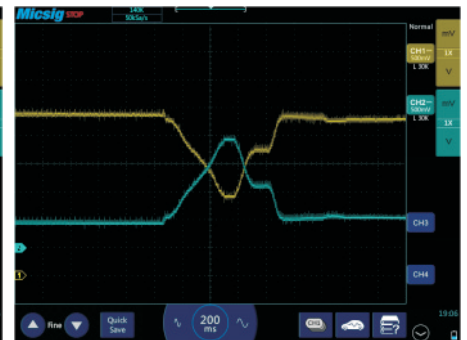
# Various Sensor Tests



- ABS
- Accelerator Pedal
- Air Flow Meter
- Camshaft
- Coolant Temperature
- Crankshaft
- Distributor
- Fuel Pressure
- Knock
- Lambda
- MAP
- Road Speed
- Throttle Position



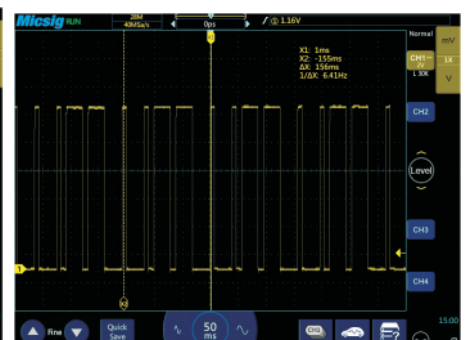
Accelerator Pedal



Throttle Position



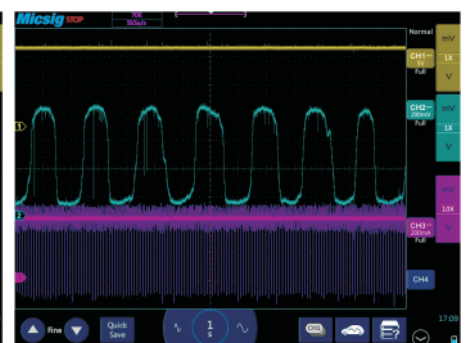
Knock



Camshaft



Crankshaft



Lambda

# Networks

- CAN
- LIN
- Flexray
- K-line



CAN

# Charging/Start Circuits

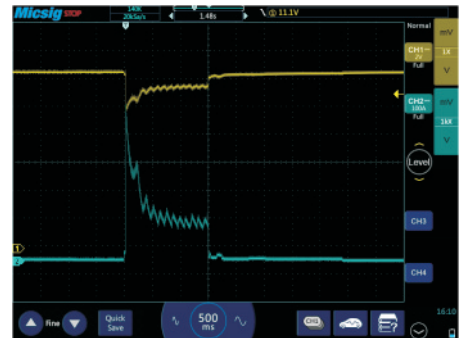
Charging Start Circuits	Sensor	Actuators	Ignition	Networks	Combination Test	Pressure Test
12V Charging	24V Charging	Alternator AC Ripple	Ford smart Alternator	12V Start	24V Start	Cranking Current

CH1 → Vol    CH2 → Cur

⚠ Please connect Ch1 to "+" of battery with BNC-Banana, connect Ch2 with Current Probe

OK

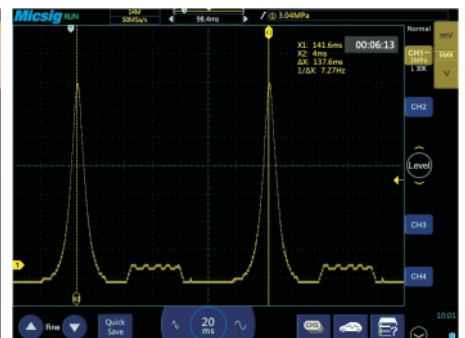
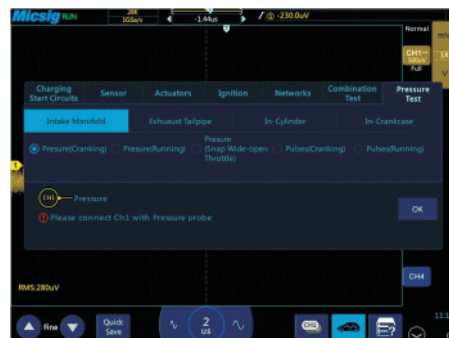
- 12V Charging
- 24V Charging
- Alternator AC Ripple
- Ford smart Alternator
- 12V Start
- 24V Start
- Cranking Current



Cranking Current

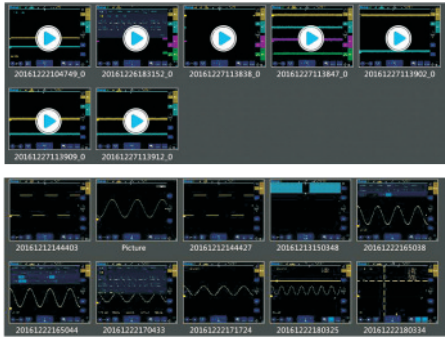
# Pressure test

- Intake Manifold
- Exhaust Tailpipe
- In-Cylinder
- In-Crankcase



In-Cylinder

## Storage



Easy to store waveforms, store pictures, record videos, etc. Won't miss every details.

## APP



Connect the mobile phone through the network, realize the real-time view of the waveform of the mobile phone, control the oscilloscope, connect the computer, and view the saved waveforms and videos on the computer or oscilloscope.

## HDMI



Connect to a computer or projector for easy presentation and research.

# Scene Application

BMW Air flow meter test



Audi LIN bus test



Mazda Air flow meter



Power CAN bus communication



Canister solenoid



Air flow meter + Throttle position sensor