

MCB-601

1、Product Description

An alcohol tester is a device used to detect alcohol levels. It can be used to prevent drunk driving by drivers of public transportation vehicles, passenger vehicles, private vehicles, etc., monitor driver behavior, and protect the personal safety of vehicle occupants.

The breathalyzer is equipped with alcohol detection and 4G network capabilities, and can be used in conjunction with Dashcam&MDVR via a serial cable. It collects driver information through Dashcam&MDVR to determine whether there has been drunk driving, and then uses Dashcam&MDVR to control whether the vehicle can be started in order to regulate drunk driving behavior.

At the same time, the device is used in the center console of a car, where high temperatures are likely to occur. The overall design needs to take high temperature protection into consideration. The device does not currently support direct charging via the car battery and can only be charged via the car's USB port.

2、product photos

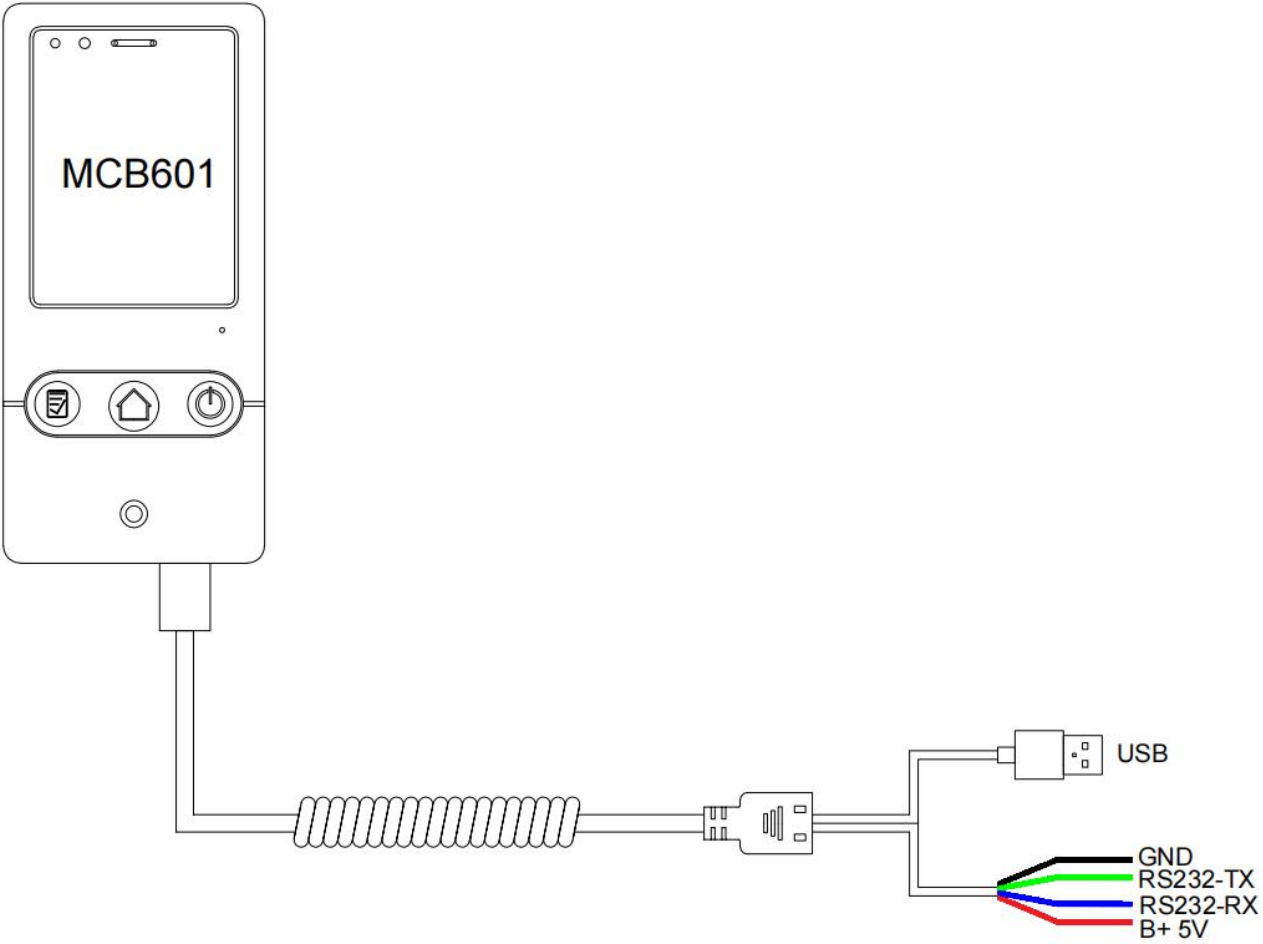


3、Product features

- ① Supports 4G network communication
- ② In-flight upgrade
- ③ External interface communication
- ④ Two ways to report
- ⑤ Alcohol detection app
- ⑥ Local re-upload in case of network failure

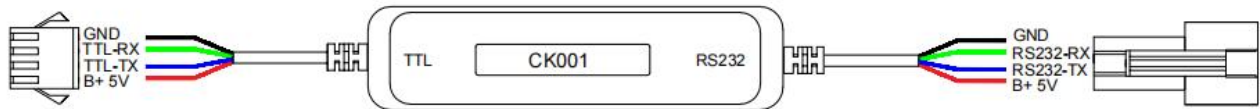
4、Product parameters

Project	Parameters
2G	GSM: 850/900/1800/1900MHz
3G	WCDMA: B1/B5/B8
4G	LTE-TDD: Band38、Band40、Band41
	LTE-FDD: Band1、Band3、Band5、Band7、Band8、Band20
Display screen	TFT, 1.54 inches
Positioning	GPS+AGPS
Battery capacity	1500mA Voltage 3.7V
Charging input	DC 5V/1A
Charging time	Charging time should not exceed 2.5 hours
Operating temperature	-20℃~+70℃
Working humidity	5%~95%, non-condensing
Storage temperature	-40℃~80℃
Dimensions	150*68*23.6mm
Weight	194g



5、Wiring configuration report

1) Wiring Instructions

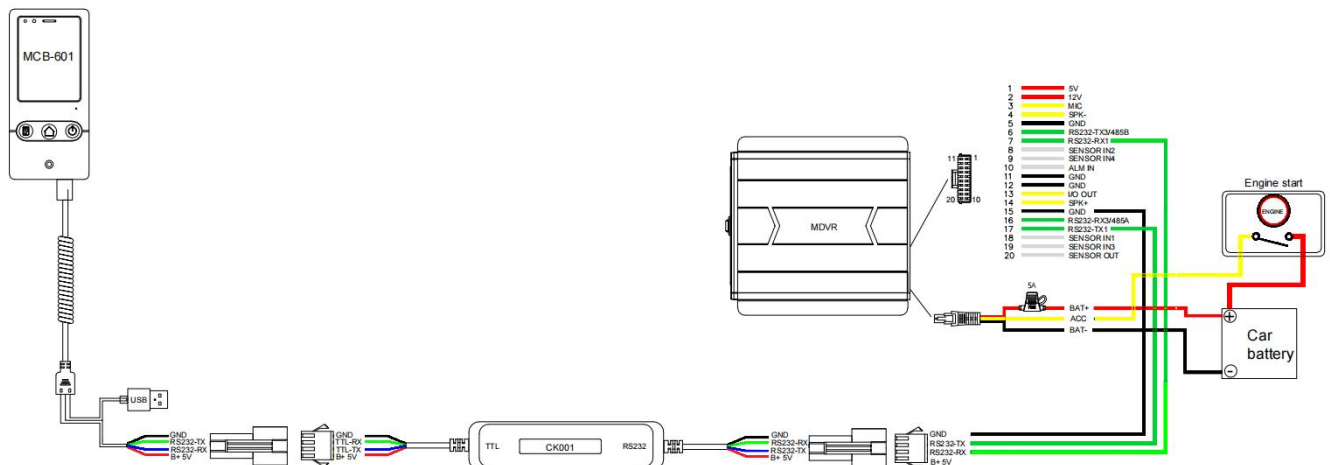


MCB-601 and CK001 wiring

Connect the TTL-TX of MCB-601 to the TTL-TX of CK001, connect the TTL-RX of the MCB-601 to the TTL-RX of CK001, and connect the GND of the MCB-601 to the GND of CK001, Connect the 5V terminal of MCB-601 to the 5V terminal of CK001.

Dashcam & MDVR and CK001 Wiring

Connect the RS232-TX1 of the Dashcam&MDVR to the RS232-RX of the CK001, connect the RS232-RX1 of the Dashcam&MDVR to the RS232-TX1 of the CK001, and connect the GND of the Dashcam&MDVR to the GND of the CK001 for power grounding (common ground).



2) Dashcam & MDVR Host Configuration

After completing the wiring, power on the main unit and accessories, connect your mobile phone to the main unit's Wi-Fi, and use the configuration app (MCTool) to configure the parameters. The specific configuration is as follows:

① MCTool > Setting > Peripheral > COM1

Function selected as 808-UT

Type selection is 232

Baud rate selected as 115200

Others remain as default values.

 **COM1**

peripheral

Function	808-UT	>
Type	232	>
Baud Rate	115200	>
Data Bit	8	>
Stop Bit	1	>
Parity	None	>

Save

② MCTool > Setting > Serial Information

Check whether the status of COM1 is normal.

 **Serial Information**

Name	COM1
Function	808-UT
Status	normal
Remarks	

3) MettaXIOT Platform configuration

① Monitor

Please first ensure that the device has been launched on the MettaXIOT platform and has valid location information.

② Devices > IMEI > Search > Edit

Find the device you need to configure in the platform and edit it.

The screenshot shows the MettaXIOT platform interface. The top navigation bar includes 'Dashboard', 'Customers', 'Users', 'Devices' (highlighted), 'Monitor', 'Video', and 'Reports'. The 'Devices' section is active, showing a search filter for 'IMEI' with the value '5679'. Below the search filters, there is a table of devices. The first device is highlighted, and the 'Edit' button in the 'Operation' column is highlighted with a red box.

No.	Device Name	IMEI	Model	Activation Time	Expiration Time	ICCID	Assigned customer	Operation
1	MC202-75679	940077775679	MC202	2024-11-26 19:35:08	2035-01-25	-	DevTest	Edit Command

③ Sensor Configuration > Add Sensors

Add a new Sensor

MC202-75679(940077775679)

Basic Information Calculation Rules **Sensor Configuration** License Data Daylight Saving Time

[Add Sensors](#)

Sensor No. is set to 1 by default

Sensor Name can be customized as needed

Sensor Type can be selected as needed (alcohol detector is used as an example in this article), select Breathalyzerr

Sensor Model selected as Breathalyzer

BAC can be set to the standard value for alcohol detection.

Sensor Configuration



Basic Information

* Sensor No.

1

Send

* Sensor Name

Breathalyzer

* Sensor Type

Breathalyzer

* Sensor Model

Breathalyzer

Sensor Information

* Calculation

BAC(1)

Calibration Rules

Save

Sensor Configuration



Sensor Information

* Calculation

BAC(1)

Calibration Rules

Current Values

MAC

Please enter MAC

Key

Generate

Please enter Key

0/20

QR Code

* BAC(mg/100ml)

24

Save

4) MettaXIOT Platform Information Display

View historical records in the alcohol testing report

19:13:48(UTC+08:00)

小瓶

DashboardUsersDevicesMonitorVideoReports

My Report

My Report

Report Type

Breathalyzer Report

Report Name

Breathalyzer Report_20250731191250

Time Type

Time Range

Customize

Time Range

Today

Device

+

MC403-58100

Current Values

Select

Alarm Status

Select

My Report

My Report

Report Type

Breathalyzer Report

Report Name

Breathalyzer Report_20250731191250

Time Type

Time Range

Customize

Time Range

Today

Device

+

MC403-58100

Current Values

Select

Alarm Status

Select

My Report

My Report

Report Type

Breathalyzer Report

Report Name

Breathalyzer Report_20250731191250

Time Type

Time Range

Customize

Time Range

Today

Device

+

MC403-58100

Current Values

Select

Alarm Status

Select

Export

No.	Device Name	IMEI	Current Values	Comparison Value	Alarm Status	Time	Location Type	Coordinates	A
1	MC403-58100	291071858100	0.0 mg/100ml	24.0 mg/100ml	No	2025-08-01 13:50:03	GPS	113.943026/22.576381	518000 China
2	MC403-58100	291071858100	0.0 mg/100ml	24.0 mg/100ml	No	2025-08-01 13:40:47	GPS	113.943002/22.576361	518000 China
3	MC403-58100	291071858100	0.0 mg/100ml	24.0 mg/100ml	No	2025-08-01 09:13:54	GPS	113.942988/22.57662	518000 China
4	MC403-58100	291071858100	0.0 mg/100ml	24.0 mg/100ml	No	2025-08-01 09:13:54	GPS	113.942988/22.57662	518000 China

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Total 4

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6、Online submission

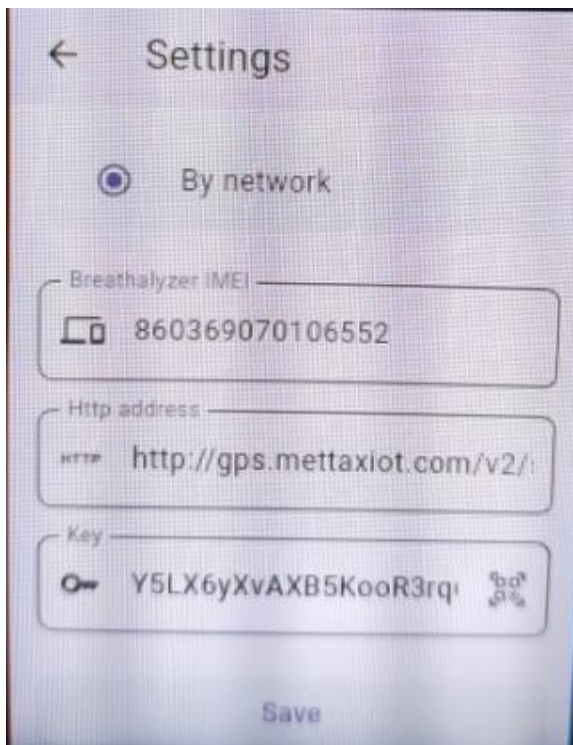
1) MCB-601 Wireless Reporting Configuration

Settings > By network

Breathalyzer IMEI: Default

Http address: <http://gps.mettaxiot.com/v2/sensor/breathalyzer>

Key : Host Key on the platform (or scan the QR code)



2) MettaXIOT Platform configuration

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Sensor Type can be selected as needed (alcohol detector is used as an example in this article), select Breathalyzerr

Sensor Model selected as Breathalyzer

MAC:MCB-601 IMEI

Key: Click Generate to automatically generate the Key. Click QR Code to produce the Key's QR code.

BAC: can be set to the standard value for alcohol detection

Sensor Configuration



Basic Information

* Sensor No.

1

Send

* Sensor Name

Breathalyzer

* Sensor Type

Breathalyzer



* Sensor Model

Breathalyzer



Sensor Information

* Calculation

BAC(1)

Calibration Rules

Save

Sensor Configuration

Sensor Information

* Calculation

BAC(1)

Calibration Rules

MAC

860369070106610

Key

Generate

E7ep9fhS2BIEX0IM4q' 20/20

QR Code

Current Values

* BAC(mg/100ml)

24



Save

④ MettaXIOT Platform Information Display

View historical records in the alcohol testing report

MettaXIOT

DashboardUsersDevicesMonitorVideoReports

19:13:48(UTC+08:00)

Cancel

Search

Save

小薇

My Report

Auto Report

CAN总线_20250723155729

Report Type: CAN Bus Data

Time Range: Today

配置规则报表_20250721175341

Report Type: Configuring Rules Report

Time Range: 2025-07-21 00:00:00 - 2025-07-21 23:59:59

IO报表_20250717135119

Report Type: IO Report

Time Range: Today

Breathalyzer Report_202507031...

Report Type: Breathalyzer Report

Time Range: Today

告警详情_20250616153108

Report Type: Alerts Details

Time Range: Today

My Report

* Report Type

Breathalyzer Report

* Report Name

Breathalyzer Report_20250731191250

* Time Type

Time Range

Customize

* Time Range

Today

* Device

MC403-58100

Current Values

Select

Alarm Status

Select

Export

No.	Device Name	IMEI	Current Values	Comparison Value	Alarm Status	Time	Location Type	Coordinates	A
1	MC403-58100	291071858100	0.0 mg/100ml	24.0 mg/100ml	No	2025-08-01 13:50:03	GPS	113.943026/22.576381	518000 China
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3	MC403-58100	291071858100	0.0 mg/100ml	24.0 mg/100ml	No	2025-08-01 09:13:54	GPS	113.942988/22.57662	518000 China
4	MC403-58100	291071858100	0.0 mg/100ml	24.0 mg/100ml	No	2025-08-01 09:13:54	GPS	113.942988/22.57662	518000 China

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