

MEIT TRACK[®] AEC101

User Guide



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1 Copyright and Disclaimer

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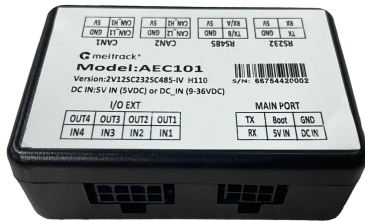
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2 Product Specifications



Type	Scope
size	62*45*20 mm
Input port	One RS232 interface, one RS485 interface; two CAN communication interfaces.
Output port	8 I/O ports
Standard accessories	6-pin to 4-pin connector

3 LED status



Type	Explain
LEDs (one green and one blue)	Green - CAN1 communication status, Blue - CAN2 communication status
LED Status Instructions	Slow flash: 1 second on, 2 seconds off, indicates no CAN message received. Flashing light: 0.1 on, 2.9 off, indicating CAN message received. Extinguish: Indicates dormancy Two LEDs flashing alternately: Indicates an upgrade.

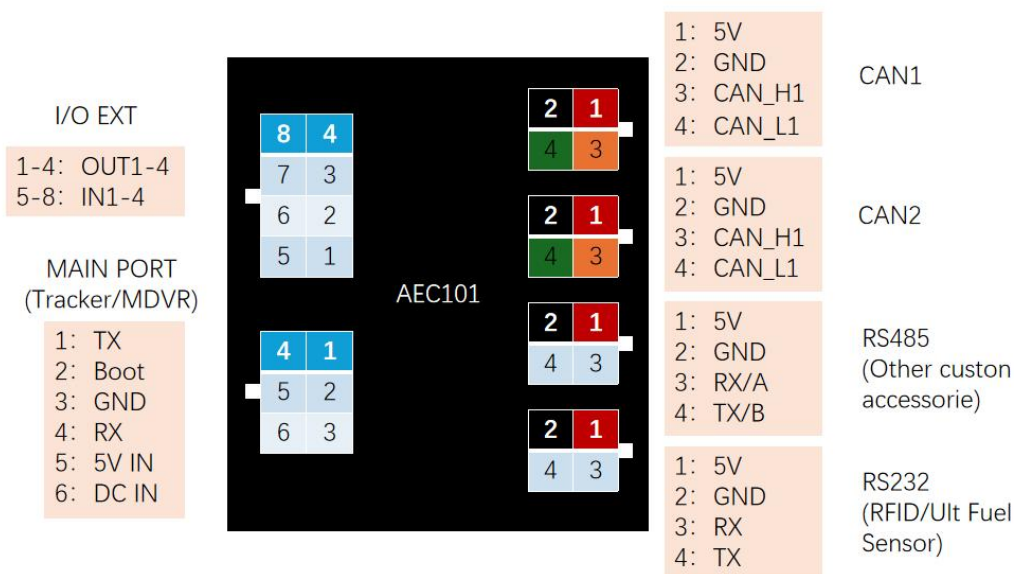
4 AEC101 function

Used to expand RS232/ RS485/CAN serial ports and INPUT/ OUT ports .

5 Installation of AEC101

5.1 Equipment and AEC101 installation diagram

Installation diagram:



CAN port definition

Type		Explain
CAN1/2	5V Power+	Power output Output voltage:5V
	GND	Ground wire
	CAN_H	CAN bus high level (positive line) Used to connect a CAN bus peripheral.
	CAN_L	CAN bus low line (negative line) Used to connect a CAN bus peripheral.

RS495/RS232 port definition

Type		Explain
RS485	5V Power+	Power output Output voltage:5V
	GND	Ground wire
	RX/A	Differential positive signal Used to connect a peripheral accessories.
	TX/B	Differential negative signal Used to connect a peripheral accessories.
RS232	5V Power+	Power output Output voltage:5V
	GND	Ground wire
	RX	Receive data Used to connect a peripheral accessories.
	TX	Transmit data Used to connect a peripheral accessories.

MAIN PORT definition

Type		Explain
MAIN PROT	DC_IN	The default connection is not available; it is used when the host has no 5V power supply.
	5V_IN	Connect the host's 5V output port to power the AEC101.
	RX	RS232_RX input
	TX	RS232_RX output
	BOOT	Used for upgrades, not connected by default.
	GND	Grounding

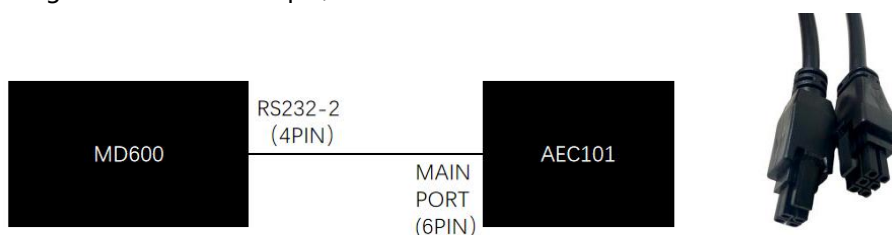
6 AEC101 usage

6.1 AEC101 shipment configuration



6.2 Wiring of AEC101

Taking MD600 as an example, connect RS232-2 of MD600 to AEC101-MAIN PORT.



6.3 AEC101 parameter configuration

AEC101 in Meitrack Manager

To connect the device, open Meitrack Manager, connect to the device, select "Peripherals and Extensions," and then configure the settings according to the connected port, as shown below.

Device base info							
Version	MD600-H141V112.087B1	IMEI	861940076111801	SN	65643820102	Power	<div style="width: 0%;"></div> 0%
Hw version	H141	Model	MD600	Net type	WIFI		

Peripheral

RS232-2 RS232-1 RS485-1

EXT AEC101 Setting Baud rate 115200

AEC101

Periodic report interval(100ms) 10 IO Upward report mode 触发上报

IO

IO_3
Type Input 3 Trigger Mode Negative Active delay time(10ms) 6 Inactive delay time(10ms) 6

IO_4
Type Input 4 Trigger Mode Negative Active delay time(10ms) 6 Inactive delay time(10ms) 6

IO_5
Type Input 5 Trigger Mode Negative Active delay time(10ms) 6 Inactive delay time(10ms) 6

IO_6
Type Input 6 Trigger Mode Negative Active delay time(10ms) 6 Inactive delay time(10ms) 6

IO_7

Ext_1 Ext_2

RS232 RFID Setting Baud rate 9600

type		explain
I/O	IN1	Digital input 1, default negative trigger. It can also be configured as positive trigger or AD1 (0~30V) analog input, with a maximum operating voltage of 45VDC.
	IN2	Digital input 2, default negative trigger. It can also be configured as positive trigger or AD2 (0~30V) analog input, with a maximum operating voltage of 45VDC.
	IN3	Digital input 3, default negative trigger. It can also be configured as positive trigger or AD3 (0~30V) analog input, with a maximum operating voltage of 45VDC.
	IN4	Four digital inputs, default negative trigger. Can also be configured for positive trigger or AD4 (0~30V) analog input, maximum operating voltage 45VDC.
	OUT1	The default output is 1, and it can be configured as positive or negative trigger or AD5 (0~30V) analog input. The maximum output current supported is 0.3A.
	OUT2	The default output is 2, and it can also be configured as positive or negative trigger or AD6 (0~30V) analog input, with a maximum output current of 0.3A.
	OUT3	The default output is 3, and it can also be configured as positive or negative trigger or AD7 (0~30V) analog input. The maximum output current supported is 0.3A.
	OUT4	The default output is 4, and it can also be configured as positive or negative trigger or AD8 (0~30V) analog input. The maximum output current supported is 0.3A.
Trigger Mode		Low trigger, high trigger, and AD input are selectable, with the AD input capable of detecting external voltage.
Active/Inactive delay time		The activation/deactivation delay alarm time for I/O ports can be

adjusted.

Ext_1 Ext_2

RS232 RFID Setting Baud rate 9600

Ext_1 Ext_2

RS485/RS232 Customized 1 Setting Baud rate 9600

type	explain
Ext_1	You can choose either an RFID or an ultrasonic fuel level sensor.
Ext_2	For connecting to other custom accessories (including RS485/RS232)

6.4 AEC101 CAN parameter configuration

AEC101 CAN List

CAN List Direct Writing Conditional Writing CAN 1 Model: Normal Silent CAN 2 Model: Normal Silent

NO.	Enable	CAN ID	Check Mask	Checksum	Upload Mask	Data source
1	<input type="checkbox"/>		FF:FF:FF:FF:FF:FF:FF:FF	FF:FF:FF:FF:FF:FF:FF:FF	FF:FF:FF:FF:FF:FF:FF:FF	CAN1 CAN2
2	<input type="checkbox"/>		FF:FF:FF:FF:FF:FF:FF:FF	FF:FF:FF:FF:FF:FF:FF:FF	FF:FF:FF:FF:FF:FF:FF:FF	CAN1 CAN2
3	<input type="checkbox"/>		FF:FF:FF:FF:FF:FF:FF:FF	FF:FF:FF:FF:FF:FF:FF:FF	FF:FF:FF:FF:FF:FF:FF:FF	CAN1 CAN2
4	<input type="checkbox"/>		FF:FF:FF:FF:FF:FF:FF:FF	FF:FF:FF:FF:FF:FF:FF:FF	FF:FF:FF:FF:FF:FF:FF:FF	CAN1 CAN2
5	<input type="checkbox"/>		FF:FF:FF:FF:FF:FF:FF:FF	FF:FF:FF:FF:FF:FF:FF:FF	FF:FF:FF:FF:FF:FF:FF:FF	CAN1 CAN2
6	<input type="checkbox"/>		FF:FF:FF:FF:FF:FF:FF:FF	FF:FF:FF:FF:FF:FF:FF:FF	FF:FF:FF:FF:FF:FF:FF:FF	CAN1 CAN2
7	<input type="checkbox"/>		FF:FF:FF:FF:FF:FF:FF:FF	FF:FF:FF:FF:FF:FF:FF:FF	FF:FF:FF:FF:FF:FF:FF:FF	CAN1 CAN2
8	<input type="checkbox"/>		FF:FF:FF:FF:FF:FF:FF:FF	FF:FF:FF:FF:FF:FF:FF:FF	FF:FF:FF:FF:FF:FF:FF:FF	CAN1 CAN2
9	<input type="checkbox"/>		FF:FF:FF:FF:FF:FF:FF:FF	FF:FF:FF:FF:FF:FF:FF:FF	FF:FF:FF:FF:FF:FF:FF:FF	CAN1 CAN2
10	<input type="checkbox"/>		FF:FF:FF:FF:FF:FF:FF:FF	FF:FF:FF:FF:FF:FF:FF:FF	FF:FF:FF:FF:FF:FF:FF:FF	CAN1 CAN2
11	<input type="checkbox"/>		FF:FF:FF:FF:FF:FF:FF:FF	FF:FF:FF:FF:FF:FF:FF:FF	FF:FF:FF:FF:FF:FF:FF:FF	CAN1 CAN2
12	<input type="checkbox"/>		FF:FF:FF:FF:FF:FF:FF:FF	FF:FF:FF:FF:FF:FF:FF:FF	FF:FF:FF:FF:FF:FF:FF:FF	CAN1 CAN2
13	<input type="checkbox"/>		FF:FF:FF:FF:FF:FF:FF:FF	FF:FF:FF:FF:FF:FF:FF:FF	FF:FF:FF:FF:FF:FF:FF:FF	CAN1 CAN2

Set

type	explain	
CAN list	CAN ID	Used to detect a specific CAN identifier; multiple different CAN ID identifiers can be entered.
	Check Mask	Used to compare, filter, and match specific bytes in the received CAN data.
	Checksum	Used to verify data integrity , this function checks whether the selected bytes in the received Check Mask match the configured verification. If they match, the data is valid.
	Upload Mask	This is used to control which data needs to be uploaded . Based on the Upload Mask , it extracts the corresponding bytes of data from

		the original data and uploads them.
	Data source	Select data source, select CAN1/CAN2

AEC101 CAN List

CAN List **Direct Writing** Conditional Writing CAN 1 Model: Normal Silent CAN 2 Model: Normal Silent

NO.	Enable	CAN ID	Value	Length	Interval of writes(100ms)	Numbers of writes	Data source
1	<input type="checkbox"/>		FF:FF:FF:FF:FF:FF:FF:FF	0	0	0	CAN1 CAN2
2	<input type="checkbox"/>		FF:FF:FF:FF:FF:FF:FF:FF	0	0	0	CAN1 CAN2
3	<input type="checkbox"/>		FF:FF:FF:FF:FF:FF:FF:FF	0	0	0	CAN1 CAN2
4	<input type="checkbox"/>		FF:FF:FF:FF:FF:FF:FF:FF	0	0	0	CAN1 CAN2
5	<input type="checkbox"/>		FF:FF:FF:FF:FF:FF:FF:FF	0	0	0	CAN1 CAN2
6	<input type="checkbox"/>		FF:FF:FF:FF:FF:FF:FF:FF	0	0	0	CAN1 CAN2
7	<input type="checkbox"/>		FF:FF:FF:FF:FF:FF:FF:FF	0	0	0	CAN1 CAN2
8	<input type="checkbox"/>		FF:FF:FF:FF:FF:FF:FF:FF	0	0	0	CAN1 CAN2
9	<input type="checkbox"/>		FF:FF:FF:FF:FF:FF:FF:FF	0	0	0	CAN1 CAN2
10	<input type="checkbox"/>		FF:FF:FF:FF:FF:FF:FF:FF	0	0	0	CAN1 CAN2
11	<input type="checkbox"/>		FF:FF:FF:FF:FF:FF:FF:FF	0	0	0	CAN1 CAN2
12	<input type="checkbox"/>		FF:FF:FF:FF:FF:FF:FF:FF	0	0	0	CAN1 CAN2
13	<input type="checkbox"/>		FF:FF:FF:FF:FF:FF:FF:FF	0	0	0	CAN1 CAN2

设置

type	explain	
Direct Writing	CAN ID	Used to detect a specific CAN identifier; multiple different CAN ID identifiers can be entered.
	Value	Enter the specific data to be sent.
	Length	Length of data sent as Value
	Interval of writes	Interval between repeated data writes
	Number of writes	Number of times data is repeatedly written
	Data source	Select data source, select CAN1/CAN2

AEC101 CAN List

CAN List Direct Writing **Conditional Writing** CAN 1 Model: Normal Silent CAN 2 Model: Normal Silent

NO.	Enable	CAN ID	Conditional CAN ID	Value	Length	Checksum	Upload
1	<input type="checkbox"/>			FF:FF:FF:FF:FF:FF:FF:FF	0	FF:FF:FF:FF:FF:FF:FF:FF	FF:FF:FF:FF
2	<input type="checkbox"/>			FF:FF:FF:FF:FF:FF:FF:FF	0	FF:FF:FF:FF:FF:FF:FF:FF	FF:FF:FF:FF
3	<input type="checkbox"/>			FF:FF:FF:FF:FF:FF:FF:FF	0	FF:FF:FF:FF:FF:FF:FF:FF	FF:FF:FF:FF
4	<input type="checkbox"/>			FF:FF:FF:FF:FF:FF:FF:FF	0	FF:FF:FF:FF:FF:FF:FF:FF	FF:FF:FF:FF

type	explain	
Conditional Writing	CAN ID	Used to detect specific CAN identifiers, the CAN list can accept multiple different CAN ID identifiers.
	Conditional CAN ID	Data transmission will only be triggered when the device receives this conditional CAN ID .
	Value	Enter the specific data to be sent.
	Length	Length of data sent as Value
	Checksum	This is used to verify the received data . If consistent data is found, it will be uploaded.

Upload Mask	This is used to control which data needs to be uploaded . Based on the Upload Mask , it extracts the corresponding bytes of data from the original data and uploads them.
Data source	Select data source, select CAN1/CAN2

AEC101 Upload ID

Select/Unselect all

<input checked="" type="checkbox"/> clutch pressed down	<input type="checkbox"/> driver 2 time relative states	<input type="checkbox"/> axle weight 6	<input type="checkbox"/> time-date seconds	<input type="checkbox"/> below pressure front left axle
<input checked="" type="checkbox"/> brake pressed down	<input type="checkbox"/> vehicle speed based on the rotati	<input type="checkbox"/> parking brake active	<input type="checkbox"/> time-date minutes	<input type="checkbox"/> below pressure rear right axle
<input checked="" type="checkbox"/> cruise control active	<input type="checkbox"/> accelerator pedal position	<input type="checkbox"/> engine load percentage	<input type="checkbox"/> time-date hours	<input type="checkbox"/> below pressure rear left axle
<input type="checkbox"/> requests supported	<input type="checkbox"/> tank fuel level	<input type="checkbox"/> ambient air temperature	<input type="checkbox"/> time-date months	<input type="checkbox"/> instantaneous fuel economy
<input type="checkbox"/> diagnostics supported	<input checked="" type="checkbox"/> engine speed (rotation per minute)	<input type="checkbox"/> position of doors	<input type="checkbox"/> time-date days	<input type="checkbox"/> at least 1 PTO engaged
<input type="checkbox"/> techograph vehicle speed	<input checked="" type="checkbox"/> vehicle speed	<input type="checkbox"/> ramp status	<input type="checkbox"/> time-date years	<input type="checkbox"/> high resolution total fuel used
<input type="checkbox"/> vehicle overspeed	<input type="checkbox"/> engine coolant temperature	<input type="checkbox"/> status of doors	<input type="checkbox"/> time-date minutes offset	<input type="checkbox"/> diesel exhaust fluid
<input type="checkbox"/> direction indicator	<input type="checkbox"/> service distance	<input type="checkbox"/> lock status of door 1	<input type="checkbox"/> time-date hours offset	<input type="checkbox"/> gross combination vehicle weight
<input type="checkbox"/> techograph performance	<input type="checkbox"/> high resolution total vehicle distan	<input type="checkbox"/> lock status of door 2	<input type="checkbox"/> service brake air pressure circuit 1	<input type="checkbox"/> retarder torque mode
<input type="checkbox"/> handling information	<input type="checkbox"/> total fuel used	<input type="checkbox"/> lock status of door 3	<input type="checkbox"/> service brake air pressure circuit 2	<input type="checkbox"/> retarder percent torque
<input type="checkbox"/> system event	<input type="checkbox"/> total engine hours	<input type="checkbox"/> lock status of door 4	<input type="checkbox"/> alternator status 1	<input type="checkbox"/> retarder selection
<input type="checkbox"/> driver 1 card	<input type="checkbox"/> FNS SW version	<input type="checkbox"/> lock status of door 5	<input type="checkbox"/> alternator status 2	<input type="checkbox"/> indicated torque percentage
<input type="checkbox"/> driver 2 card	<input type="checkbox"/> axle weight1	<input type="checkbox"/> enable status of door 1	<input type="checkbox"/> alternator status 3	<input type="checkbox"/> on demand torque percentage
<input type="checkbox"/> PTO state	<input type="checkbox"/> axle weight2	<input type="checkbox"/> enable status of door 2	<input type="checkbox"/> alternator status 4	<input type="checkbox"/> fuel rate
<input type="checkbox"/> driver 1 working state	<input type="checkbox"/> axle weight3	<input type="checkbox"/> enable status of door 3	<input type="checkbox"/> selected gear	<input type="checkbox"/> seatbelt driver
<input type="checkbox"/> driver 2 working state	<input type="checkbox"/> axle weight 4	<input type="checkbox"/> enable status of door 4	<input type="checkbox"/> current gear	<input type="checkbox"/> side lamp
<input type="checkbox"/> driver 1 time relative states	<input type="checkbox"/> axle weight 5	<input type="checkbox"/> enable status of door 5	<input type="checkbox"/> below pressure front right axle	<input type="checkbox"/> dimmed lamp

type	explain
AEC101 Upload ID	You can select up to 15 CAN IDs of events to upload.Data is uploaded based on the event types detected via the CAN serial port and can be viewed on the platform.

7 AEC101 attached vehicle model list

AEC101 supports a vehicle model database, covering a wide range of vehicle types. The attached "Meitrack Vehicles Support List" lists a detailed list of compatible models.

If you have any further inquiries, please send an email to our mailbox info@meitrack.com. We are dedicated to providing you with assistance.