Rugged Tablet
LDT-101

10 Inch 4G Rugged Android Tablet / In-Vehicle Terminal

User Manual

Version 3.0

Revision History

Version	Release Time	Description
1.0	2023-05	Initial Release
2.0	2023-11	Add Metal bracket
3.0	2026-03	Add LAN bracket

Copyright

About This Manual

This user manual provides the general information and installation instructions for the PaceBlade LDT-101. This manual is created for the experienced users and integrators with hardware knowledge of personal computers. If you are not sure about any description in this manual, consult your vendor before further handling.

We recommend that you keep one copy of this manual for the quick reference and/or any necessary maintenance in the future.
Thank you for choosing PaceBlade.

Safety Precautions

Please charge and discharge the device as one cycle at room temperature when devices are stored for more than 3 months.
Do not attempt to repair, customize, or disassemble the device without the appropriate knowledge and pre-cautions may lead to dangerous situations with chance of damaging the product.

Do not use in extreme (weather) conditions. It can cause damage to the battery and impact the product life time. Please avoid long-time exposure to sunlight.

Table of Contents

Chapter 1: Introduction

1.1 Product Introduction

The LDT-101 is a rugged Android Tablet / In-Vehicle Terminal built for professional mobility across vehicle, field, and fixed-site applications.

Designed to operate reliably in demanding environments, it integrates reliable processing, 4G LTE connectivity, and a durable industrial-grade housing.

The flexible cradle-based design enables use as both an in-vehicle terminal and a docked workstation, supporting diverse operational workflows.

1.2 Key Features and Specifications

- MediaTek Cortex-A55 64-bit Octa-core processor 2.0G
- Android 12 or Android 14 Operating System
- Comply with IP67 rating
- WIFI, Bluetooth, LTE, GNSS and 8000mAh rechargeable battery supported
- 10-Inch MIPI LCD 1920x1200 resolution, multi-point capacitive touch.
- 1.2m / 4 ft. to drop per MIL-STD-810H
- 2-in-1 cradle which can be used as a vehicle cradle or desktop station

1.3 Parts of the Device

This section describes the external components, buttons, and interfaces of the LDT-101.

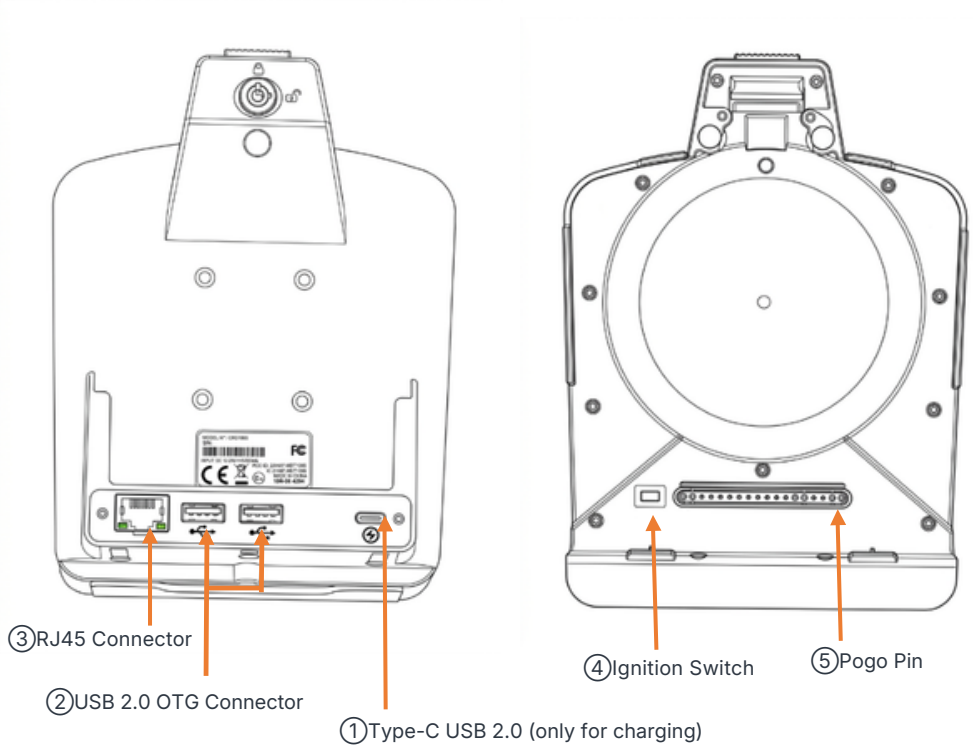
Chapter 2: Accessories and Expansion Options

2.1 Connect Different Cradle

Summary of functions achieved by cradles and cables combination

Links	Cradles	Cables	Features
CRD-101-FF (TYPE-A)		CAB-801-2RS232 CAB-EX-RS232 CAB-BMW-BASIC CAB-EX-BASIC	☐ VCC/IGN DC12~36V input ☐ 2× USB-A (OTG) ☐ 1× USB-C (Charge) ☐ 1× RJ45(Ethernet) ☐ 2× RS232 ☐ 1× RS485 ☐ 4× GPIO
CRD-101-FF (TYPE-B)		CAB-MD-FULL CAB-EX-FULL CAB-EX-HUB Video cable	☐ VCC /IGN DC12~36V input ☐ 2× USB-A (OTG) ☐ 1× USB-C (Charge) ☐ 1× RJ45(Ethernet) ☐ 2× RS232 ☐ 1× RS485 ☐ 4× Camera (Video input)(With Camera Hub) ☐ 1× Camera (Video input)(On Cradle) ☐ 4×Trigger
CRD-101-BC (TYPE-C)		CAB-101-BASIC CAB-BMW-BASIC CAB-EX-BASIC	☐ VCC /IGN DC12~36V input 1× RS232
CRD-101-BC (TYPE-D)		CAB-101-BASIC	☐ Input DC 12V/24V
CRD-101-FF (TYPE-E)		CAB-OTG-BASIC CAB-EX-BASIC	☐ VCC /IGN DC12~36V input ☐ 3× USB-A (OTG) ☐ 1× USB-C (Charge) ☐ 1× RJ45(Ethernet) ☐ 1× RS232
BKT-101-IP		BKT101-BAS-02 (Waterproof connector)	☐ VCC /IGN DC12~36V input ☐ 1× RS232
BKT-101-BMW		CAB-BMW-BASIC CAB-EX-BASIC	☐ VCC /IGN DC12~36V input ☐ 1× RS232
BKT-101-OTG		CAB-EX-BASIC One USB-A OTG female connector on the cradle cable.	☐ VCC /IGN DC12~36V input ☐ 1× RS232 ☐ 1× USB-A (OTG)
BKT-101-LAN-01		CAB-LAN-01 CAB-BMW-BASIC CAB-EX-BASIC M12 to RJ45 female adapter cable.	☐ VCC /IGN DC12~36V input ☐ 1× USB-C (Charge) ☐ 1× M12 connector (Ethernet) ☐ 1× RS232
BKT-101-LAN-02		USB-C to C cable	☐ 1× USB-C (Charge) ☐ 1× RJ45(Ethernet)(optional) ☐ 1× 1D/2D Barcode Scanner

2.1.1 CRD-101-FF Cradle

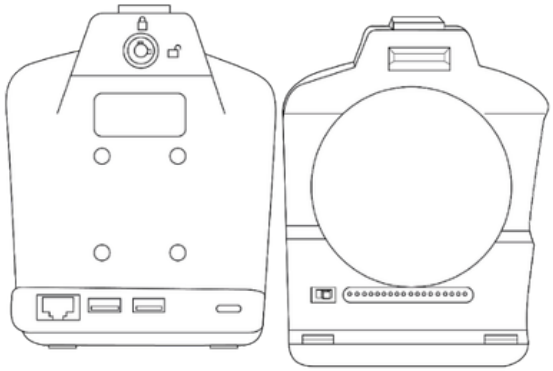


Full features cradle interface

Vehicle Input: DC12V to 36V, ignition control with optional switch in the cradle

① Fast-charging AC adapter or charge input 5V/3A, 9V/2A, 12V/2A with Type-C USB connector.
② USB 2.0 OTG Connector x 2
③ RJ45 connector used for Ethernet
④ Ignition switch: If the ignition switch is switched to the right side, charging is independent of ignition ON/OFF. If the ignition switch is switched to the left side, charging is dependent on ignition ON.

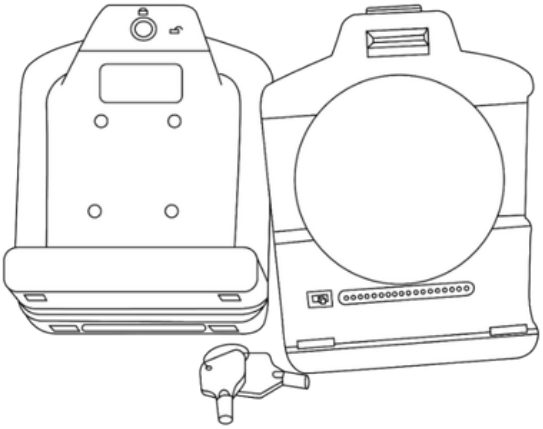
Full features cradle



CRD-101-FF - Full Cradle

With RJ45, USBA OTG (USB2.0) USBC (For charging only)

Basic features cradle

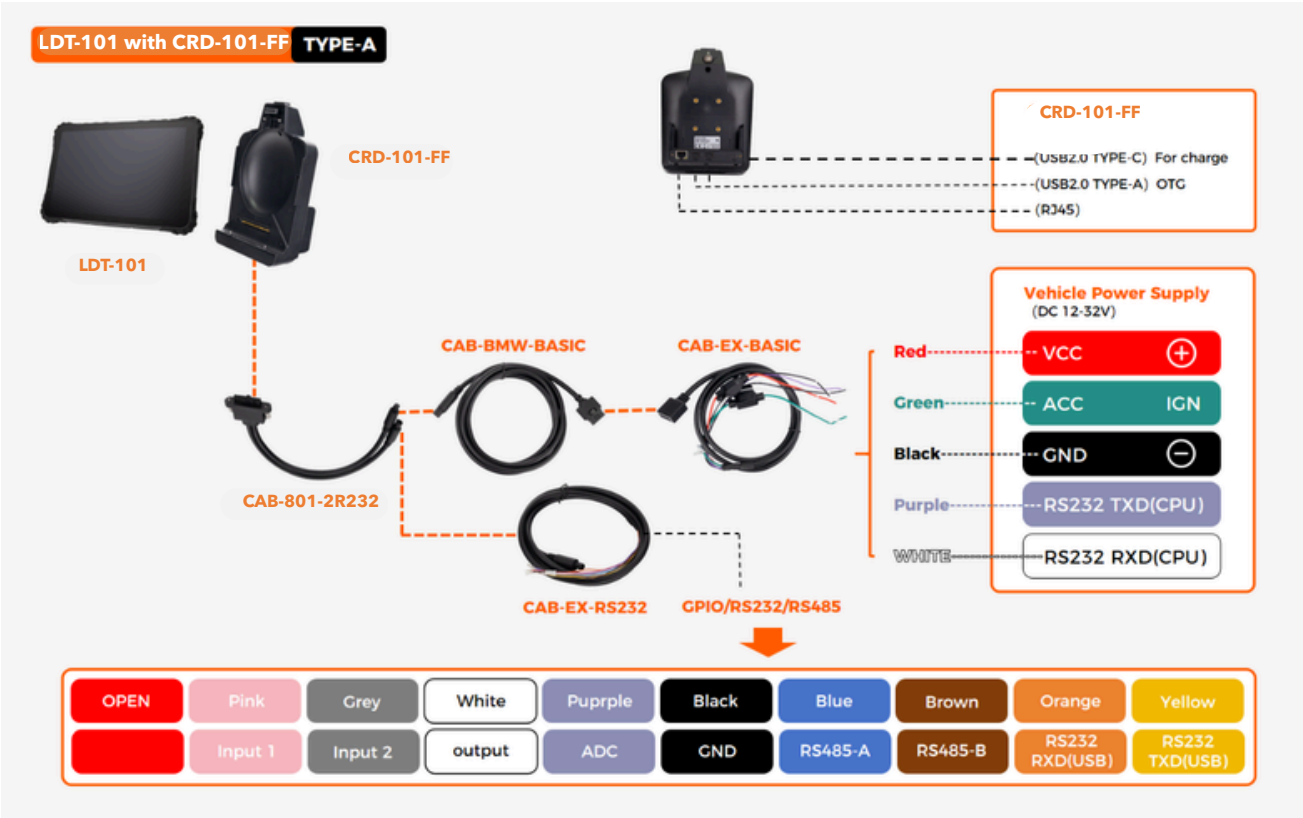


CRD-101-BC - BASIC Cradle

Without RJ45, USBA OTG and USBC charge function

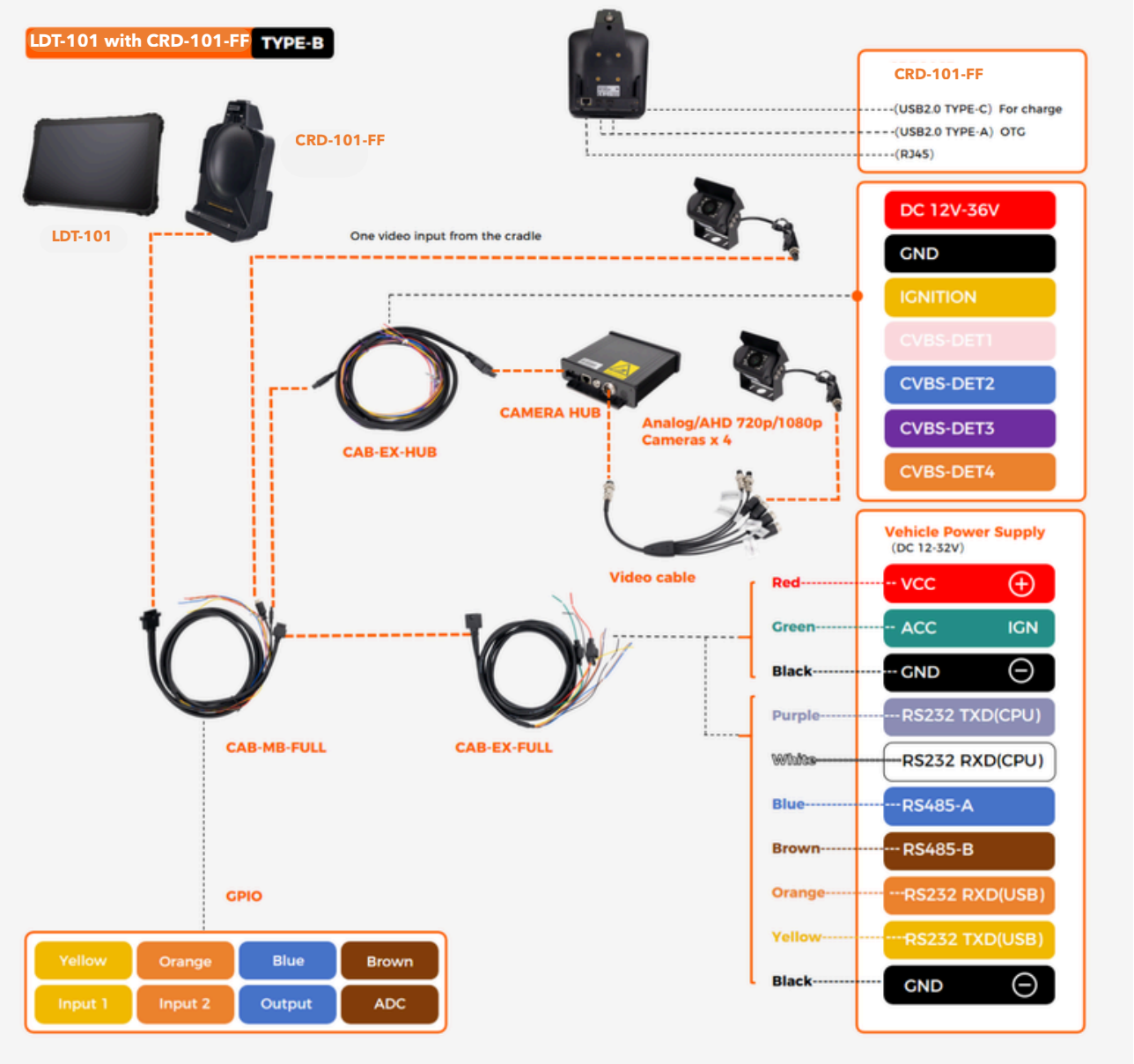
1. Note: Single-channel video input and GPIO are not supported

2.1.1.1 CRD-101-FF - FULL cradle with GPIO and RS232/RS485 cables.
It provides 4 GPIOs, 2 RS232s and 1 RS485.



2.1.1.2 CRD-101-FF - FULL with full features cable

It provides 2 RS232, 1 RS485, 4 GPIO and 1~4 video input.
Connecting to a camera hub can provide four video inputs.

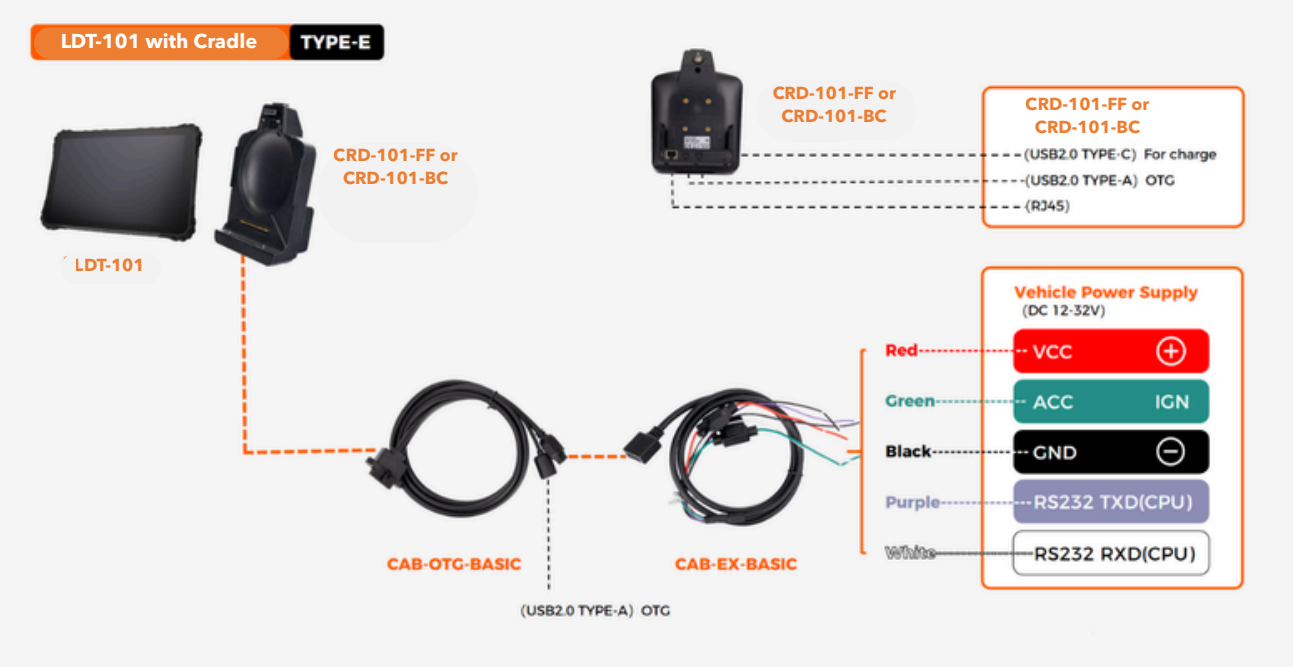


2.1.1.3 CRD-101-BC with BMW basic cables.

It provides one RS232(CPU).

2.1.1.4 CRD-101-BC with BMW-Connector Car Charger

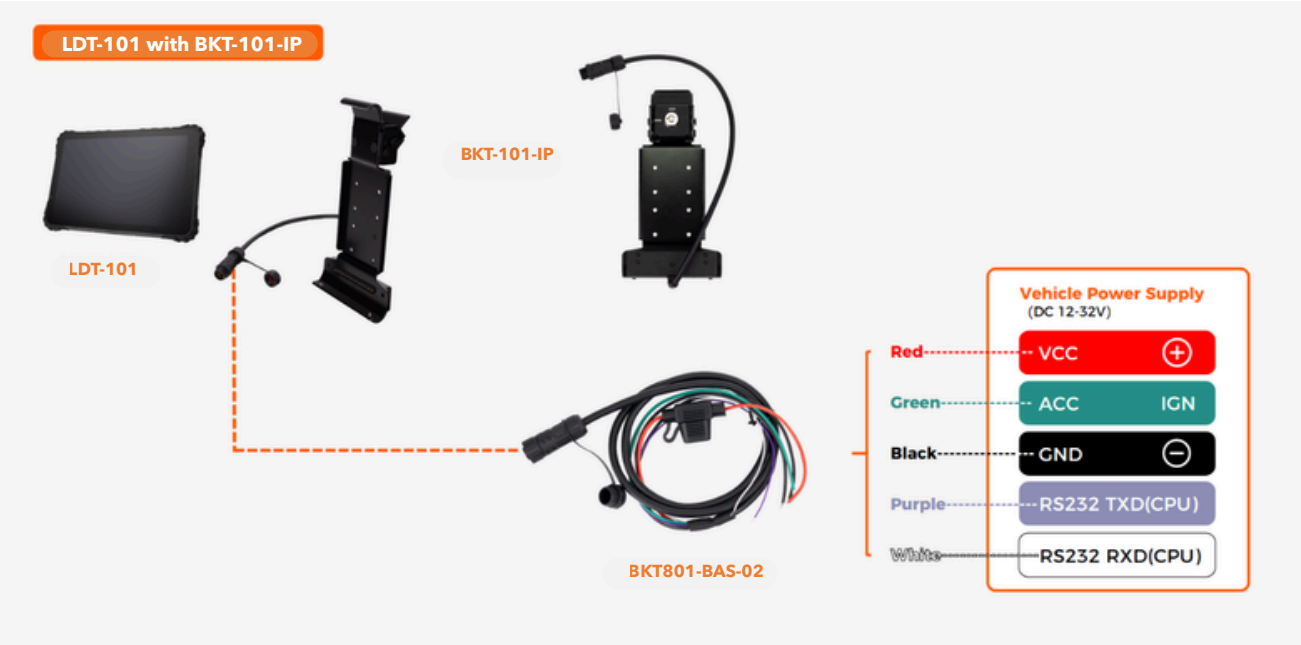
2.1.1.5 CRD-101-FF / CRD-101-BC with USBA OTG cables.
It provides one RS232 and one USBA OTG (USB 2.0).



2.1.2 BKT-101 Metal Bracket

2.1.2.1 BKT-101-IP with waterproof cables

If you require waterproofing, you can use the BKT-101-IP cradle.
It provides one RS232.
Note: without ignition control switch in the bracket.

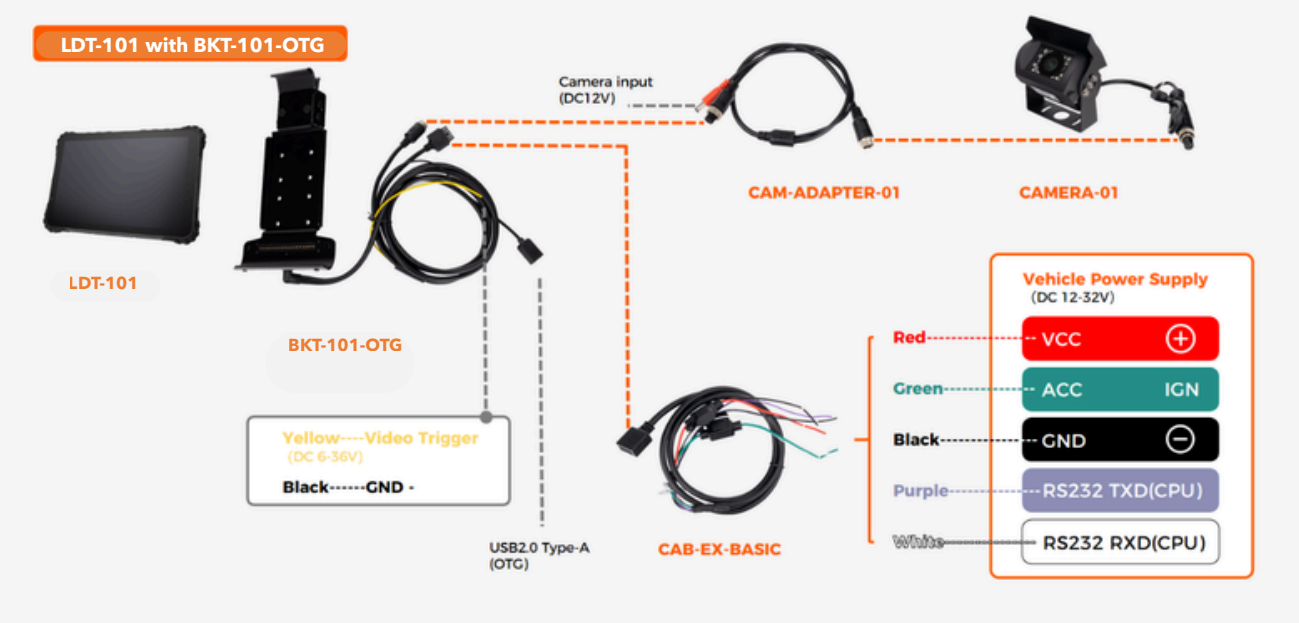


2.1.2.2 BKT-101-BMW with BMW basic cables

It provides one RS232.
Note: Without ignition control in the bracket.

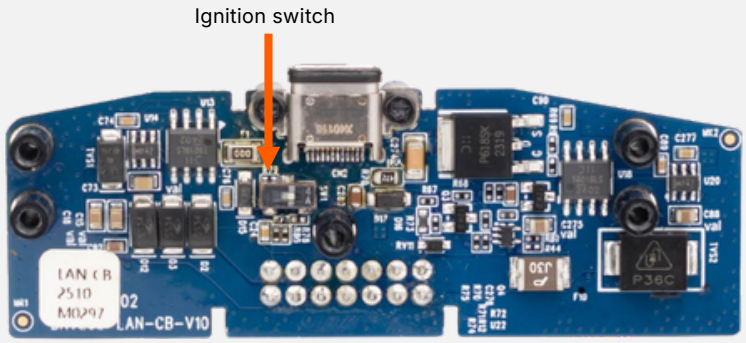
2.1.2.3 BKT-101-OTG with USBA OTG cable

It provides one RS232, one USBA OTG (USB 2.0), and one video input.



2.1.3 BKT-101-LAN Metal Bracket

There is an ignition control switch inside the bracket.
Ignition switch: If the ignition switch is switched to the right side, charging is independent of ignition ON/OFF. If the ignition switch is switched to the left side, charging is dependent of ignition ON.



2.1.3.1 BKT-101-LAN-01 with M12 cable

M12 connector for Ethernet.
It provides one RS232(CPU.)

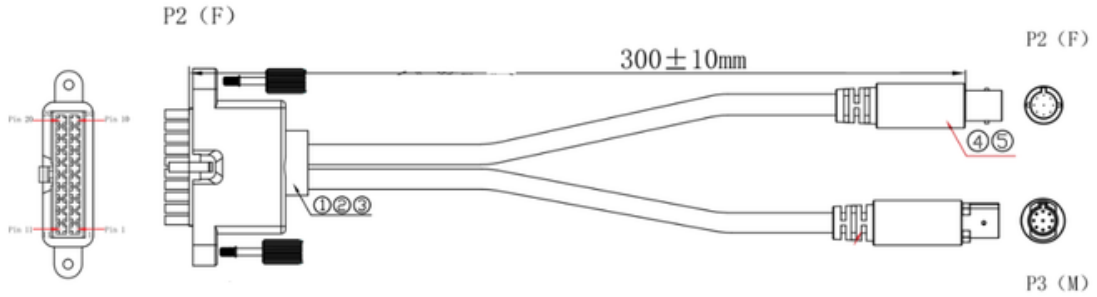
2.1.3.2 BKT-101-LAN-02 with Barcode Scanner

There is a 1D/2D Barcode Scanner on the cradle.
M12 connector for Ethernet (optional).

2.2 Cradle Cable Pin Assignment Overview

2.2.1 CAB-801-2RS232

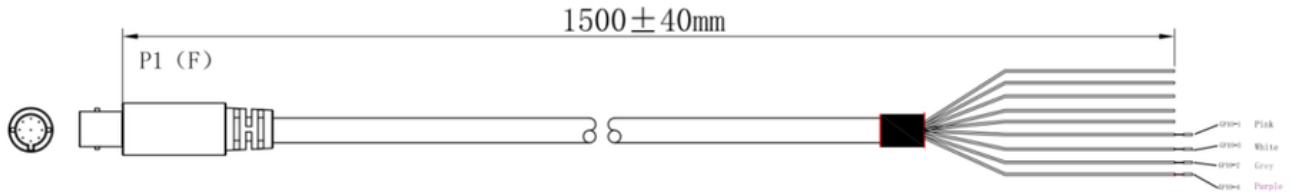
Cradle cable with GPIO, RS232 and RS485.



No	Item	Definition				
P1	20pin connector	Connect to the CRD-101-FF full feature cradle				
P2	9pin BMW Connector (Female)	Connect to the extension cable (CAB-BMW-BASIC + CAB-EX-BASIC)				
		Pin1	Pin2	Pin3	Pin4	Pin5
		VCC 12-36V input	ACC ignition	Video Trigger	Video input	RXD (CPU)
		Pin6	Pin 7	Pin8	Pin9	
		TXD (CPU)	Shield	GND	Camera DC12V output	
P3	9pin BMW Connector (Male)	Connect to the GPIO/RS232/RS485 cable (CAB-EX-RS232)				
		Pin1	Pin2	Pin3	Pin4	Pin5
		GPIO-1 (Input 1)	GPIO-3 (Output)	RS485-A	RXD(USB)	GND
		Pin6	Pin 7	Pin 8	Pin 9	
		GPIO-2 (Input 2)	GPIO-4 (ADC)	RS485-B	TXD(USB)	

2.2.2 CAB-EX-RS232

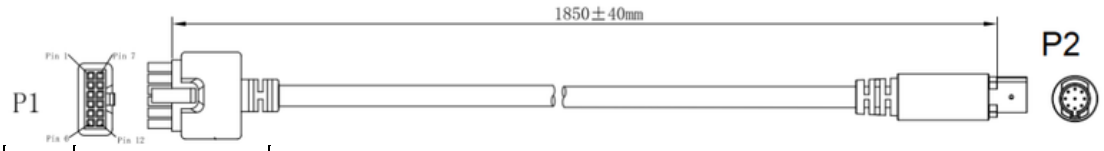
GPIO, RS232 and RS485 extension cable.



No	Item	Definition				
P1	9pin BMW Connector (Female)	Connect to your GPIO/RS232/RS485 devices				
		Pink	White	Blue	Orange	Black
		GPIO-1 (Input 1)	GPIO-3 (Output)	RS485-A	RXD(USB)	GND
		Grey	Purple	Brown	Yellow	
		GPIO-2 (Input 2)	GPIO-4 (ADC)	RS485-B	TXD(USB)	

2.2.3 CAB-BMW-BASIC

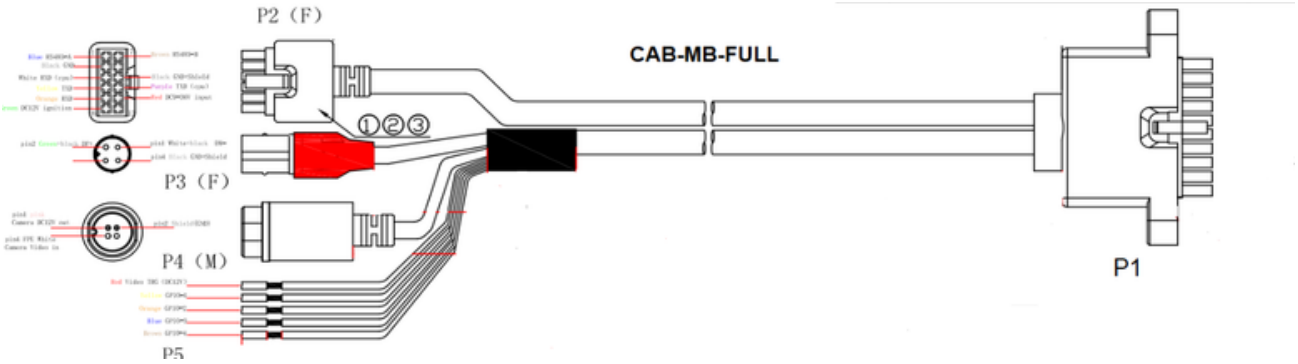
Basic features Cradle cable.



No	Item	Definition							
P1	Power Connector	Pin2	Pin3	Pin6	Pin9	Pin10	Pin11		
		GND	RXD	ACC ignition	Shield	TXD	VCC 12-36V input		
P2	9 pin BMW Connector M	Pin1		Pin2	Pin5	Pin6	Pin7	Pin8	
		VCC 12-36V input		ACC ignition	RXD	TXD	Shield	GND	

2.2.4 CAB-MB-FULL

Full features Cradle cable.

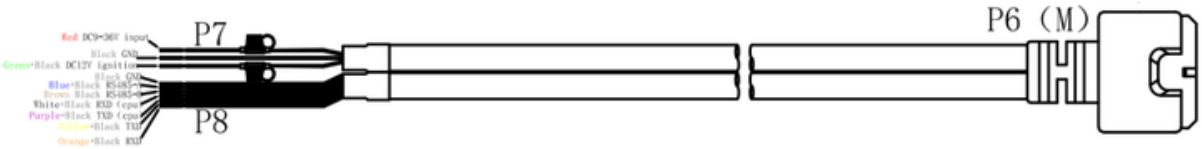


No	Item	Definition				
P1	20pin Micro-Fit connector	Connect to the full feature cradle				
P2	12pin Micro-Fit connector	Connect to the extension cable (CAB-EX-FULL)				
		Pin1	Pin2	Pin3	Pin4	Pin5
		RS485-A	GND	RS232 RXD (CPU)	RS232 TXD (USB)	RS232 RXD (USB)
		Pin6	Pin7	Pin9	Pin10	Pin11
		ACC ignition	RS485-B	GND	RS232 TXD (CPU)	VCC 12-32V input
P3	4pin BMW Connector F	Connect to the 4pin BMW connector on the camera hub cable (CAB-EX-HUB)				
		Pin1		Pin2	Pin4	
		DM-		DP+	GND	

P4	4 pin Circular Connector M	Connect to the camera (Support Analog, AHD720P, AHD1080P camera)				
		Pin1		Pin2	Pin4	
		DC12V output		GND	Camera video input	
P5	GPIO Wires	GPIO-1 (Yellow)	GPIO-2 (Orange)	GPIO-3 (Blue)	GPIO-4 (Brown)	Red wire
		Input 1	Input 2	output	ADC	Video Trigger
		Input 3-32V=High Input 0-2V=Low		Output the voltage from the Tablet. 200mA current.	Analog Digital Converter. Read the Input voltage.	

2.2.5 CAB-EX-FULL

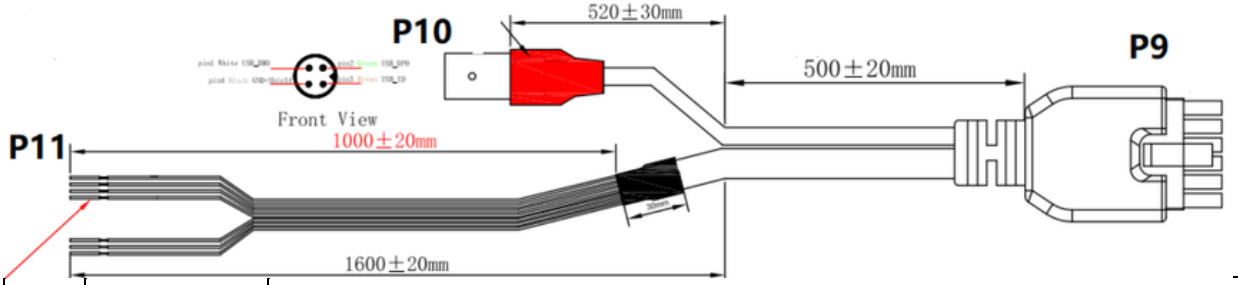
Cradle extension cable.



No	Item	Definition						
P6	12pin Micro-Fit connector	Connect to the P2 connector on the cradle cable (CAB-MB-FULL)						
P7	Power Supply wires	Connect to the vehicle battery.						
		Red		Green		Black		
		VCC12-36V input		ACC ignition		GND		
P8	Serial port wires	1 x RS485, 2 x RS232 (White/Purple RS232 same as LDT-101/MDT-801 serial port)						
		Blue	Brown	Yellow	Orange	White	Purple	Black
		RS485-A	RS485-B	TXD(USB)	RXD(USB)	RXD(CPU)	TXD(CPU)	GND

2.2.6 CAB-EX-HUB

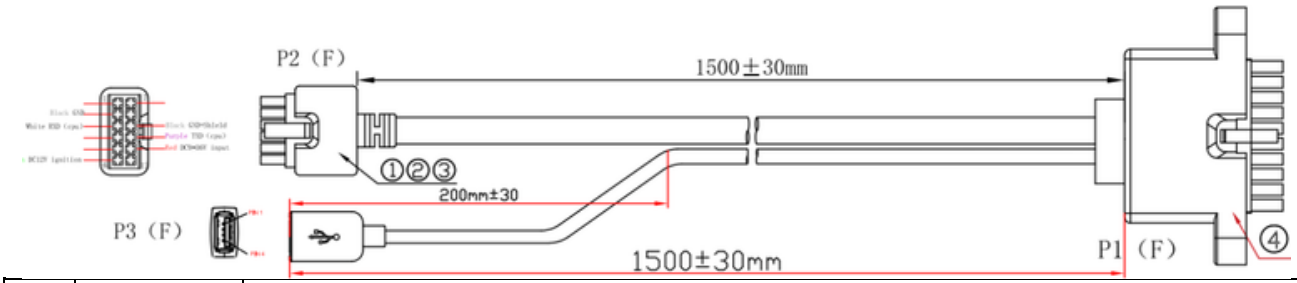
Camera hub cable.



No	Item	Definition						
P9	12pin Micro-Fit connector	Connect to the Camera Hub HH421.						
P10	4pin BMW Connector M	Connect to the 4pin BMW connector on the full feature cradle cable (CAB-MB-FULL).						
		Pin1	Pin2	Pin3	Pin4			
		DM-	DP+	ID	GND			
P11	Trigger wires	4 channels trigger for camera.						
		Pink	Blue	Purple	Orange	Black	Yellow	Red
		CVBS_DET1	CVBS_DET2	CVBS_DET3	CVBS_DET4	GND	ACC ignition	VCC 12-36V input

2.2.7 CAB-OTG-BASIC

Basic features Cradle cable.

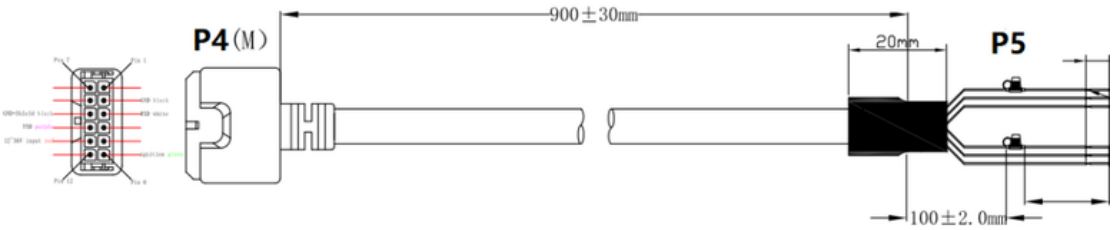


No	Item	Definition							
P1	Cradle Connector	Pin3	Pin8	Pin9	Pin10	Pin13	Pin18	Pin19	Pin20
		ACC ignition	RXD	GND	D+	VCC 12-36V input	TXD	VBUS 5V	D-
P2	Power Connector	Pin2	Pin3	Pin6	Pin9	Pin10	Pin11		
		GND	RXD	ACC ignition	GND	TXD	VCC 12-36V input		

P3	USB	USB Type-A (cannot be used simultaneously with USB Type-C on the device)

2.2.8 CAB-EX-BASIC

Basic features Cradle extension cable.

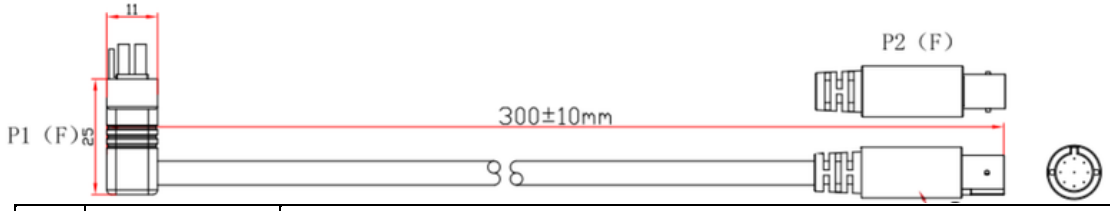


No	Item	Definition				
P4	12pin Micro-Fit connector	Connect to the basic features cradle cable P2 connector.				
P5	Power Supply and Serial port wires	It can be connected to the vehicle battery.				
		Red	Green	Black	White	Purple
		VCC 12-36V input	ACC ignition	GND	RXD	TXD

 Note: These two basic feature cables can also be used with a full features cradle.

2.2.9 CAB-101-BASIC

L-Shape cradle cable.

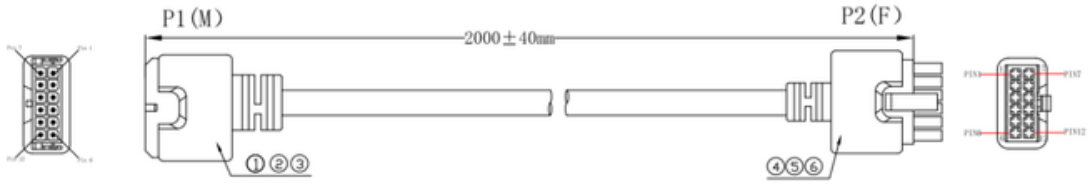


No	Item	Definition					
P1	Cradle Connector	Pin1	Pin2	Pin3	Pin8	Pin9	Pin11
		Shield	Video Trigger	ACC ignition	RXD	GND	Video input
		Pin12		Pin13	Pin18		
		Camera DC12V output		VCC 12-36V input	TXD		
P2	9 pin BMW Connector F	Pin1		Pin2	Pin3		Pin4
		VCC 12-36V input		ACC ignition	Video Trigger		Video input
		Pin5	Pin6	Pin 7	Pin8	Pin9	
		RXD	TXD	Shield	GND	Camera DC12V output	

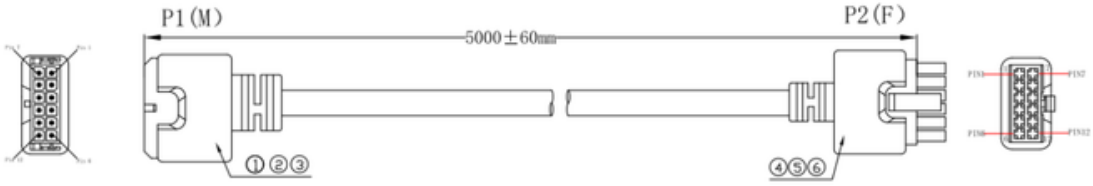
2.2.10 CAB-EX-2M/ CAB-EX-5M

Molex to Molex 2meter and 5meter extension cables.

CAB-EX-2M



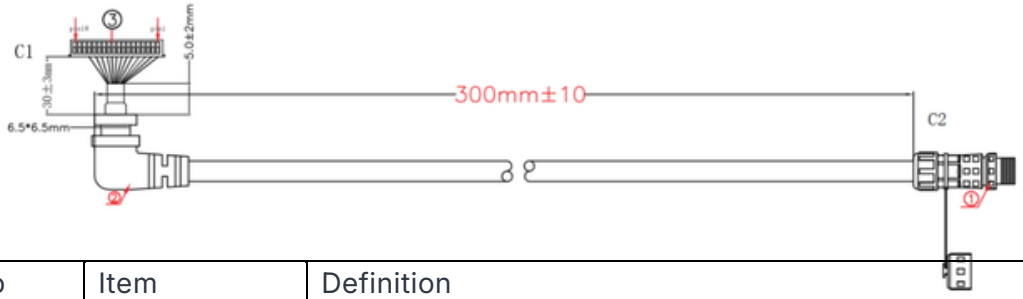
CAB-EX-5M



No	Item	Definition							
P1	12pin Molex Male	Pin2	Pin3	Pin4	Pin5	Pin6	Pin9	Pin10	Pin11
		GND	RXD (CPU)	TXD (USB)	RXD (USB)	ACC IGN	Shield	TXD (CPU)	VCC DC12-36V input
P2	12pin Molex Female	Pin2	Pin3	Pin4	Pin5	Pin6	Pin9	Pin10	Pin11
		GND	RXD (CPU)	TXD (USB)	RXD (USB)	ACC IGN	Shield	TXD (CPU)	VCC DC12-36V input

2.2.11 BKT101-BAS-01

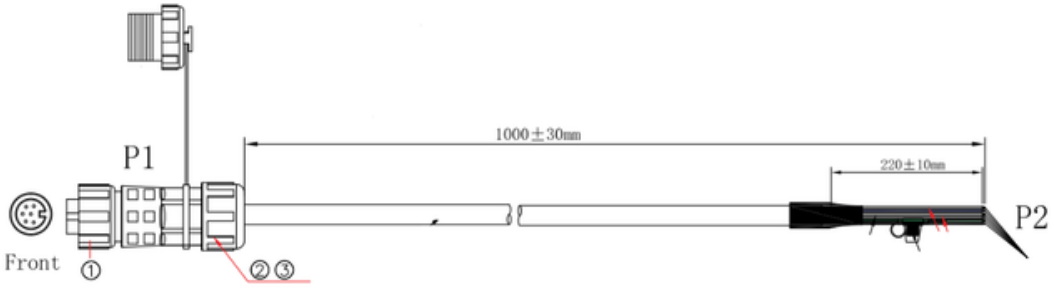
Basic feature cable with waterproof connector.



No	Item	Definition					
C1	Housing 18pin	Pin6	Pin7	Pin10	Pin12	Pin17	Pin18
		TXD	RXD	ACC ignition	VCC input 12-36V	GND	GND
C2	6pin Waterproof Connector M	Pin1	Pin2	Pin3	Pin4	Pin5	Pin6
		GND	TXD	GND	RXD	ACC ignition	VCC

2.2.12 BKT101-BAS-02

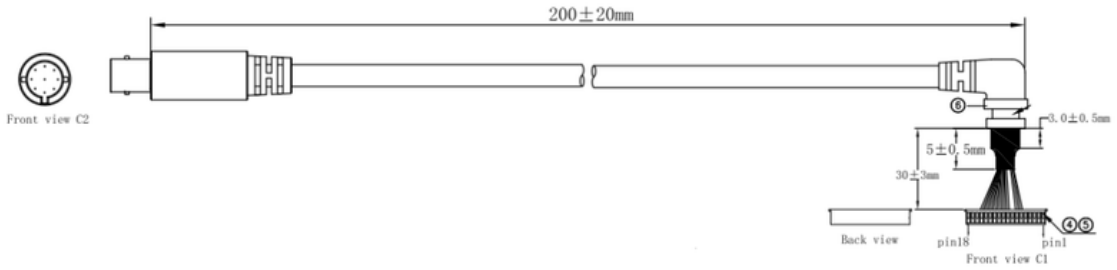
Basic feature cable with waterproof connector for LDT-101.



No	Item	Definition					
P1	6pin Waterproof Connector F	Pin1	Pin2	Pin3	Pin4	Pin5	Pin6
		GND	TXD	GND	RXD	ACC ignition	VCC
P2	Wires	Black	Purple	Black	White	Green	Red
		GND	TXD	GND	RXD	ACC ignition	VCC

2.2.13 BKT101-BAS-BMW

BMW cable for LDT-101.



No	Item	Definition			
C1	Housing 18pin	Pin7	Pin9	Pin10	Pin11
		VCC input 12-36V	ACC ignition	Camera TRG	Camera input
		Pin12	Pin13	Pin14	Pin15
		RXD	TXD	Shield	GND
C2	BMW Connector M	Pin1	Pin2	Pin3	Pin4
		VCC input 12-36V	ACC Ignition	Camera TRG	Camera input
		Pin5	Pin6	Pin7	Pin8
		RXD	TXD	Shield	GND

2.3 Accessories

2.3.1 Cradles

CRD-101-FF
FULL full feature cradle (Ethernet, OTGx2)

CRD-101-BC
Basic feature cradle

BKT-101-BMW
with BMW connector

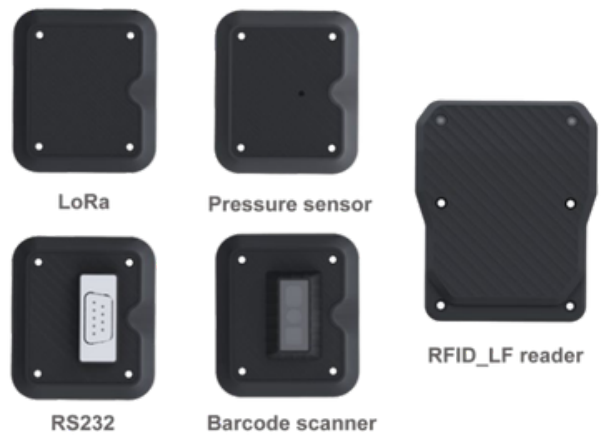
BKT-101-IP
with waterproof connector

These two metal brackets have vehicle charging 12-24V input, IGN, GND and 1 RS232.

BKT-101-LAN-01
with M12 cable (for ethernet) and another M12 connector (for Vcc, IGN, GND and RS232)

BKT-101-LAN-02
metal bracket with 1D/2D barcode at the bottom

2.3.2 Expansion Modules



Barcode Scanner: MDT-LDT-X01-BCR
(SE4107 barcode module)

LoRa Module: MDT-LDT-X01-LOR
(For temperature sensor)

Pressure sensor: MOD-PRE-01
(Air pressure sensor)

RS232 module: MOD-RS232-01

RFID LF Reader: MOD-LF-01
(support 125kHz/134.2kHz)

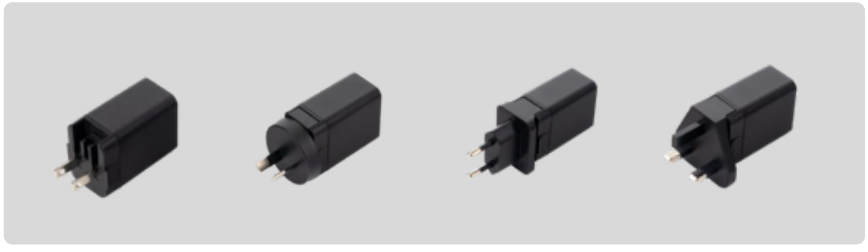
2.3.3 Chargers

ADA-HOME-01
Quick charge home adapter

ADA-CAR-01
Car charger

MDT-LDT-X01-MCC
Car Charger (Cigarette lighter) with BMW connector

ADA-HOME-02
Quick charge home adapter with optional plug



with US plug with AU plug with EU plug with UK plug

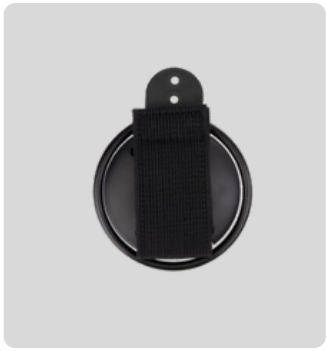
2.3.4 Other Accessories

PB-SCM
(2 x round plate, 6cm arm)

PB-SCM2
(2 x round plate, 9cm arm)

PB-SUM
(1 x round plate, 6cm arm, suction cup)

MET-WALL-02
wall mount plate



STR-HAND-01
Hand strap

MET-BOT-01
Bottom metal plate

SCR-101-AG
7H glass screen protector (Anti-Glare)

PB-101-SP
Stylus pen, tether and holder

ACC-WALKIE-01
Walkie talkie

SCREW-01
Screw driver for SIM card cover

STR-101-01
Shoulder strap

Chapter 3: Getting Started

3.1 Power On/Off and Sleep/Wake

This Chapter is describing how to power on/off the device, put the device into sleep mode (screen saver) and perform a force restart. Proper operation of power on/off the device will be beneficial to ensure the stability of the system. The device status indicated by the color of the indicator is as described in the following table for the standard.

Table 2.1.1 Indicator color and device status table

LEDs Behavior	Device Status
Red light on	Charging
Green light on	Fully charged
Light off	High temperature causes stop charging
Red light on	High temperature causes shutdown
Red or Green light blinking	Notification (Sleep when charging)

1. Power on the Device

a. Power on by pressing the power button: Long press the power button for more than 2 seconds until the boot screen is displayed. It needs around 20 seconds to start the system.
b. Power consumption during operation：15W (typical).

2. Power off the Device

a. Power off by pressing the button: In the status of working on the device desktop, long press the power button for more than 2 seconds until the shutdown prompt pop-up then click the “Power off” option.
b. The consumption during power off (with docking station): around 250mW.

3. Sleep and Wake the Device

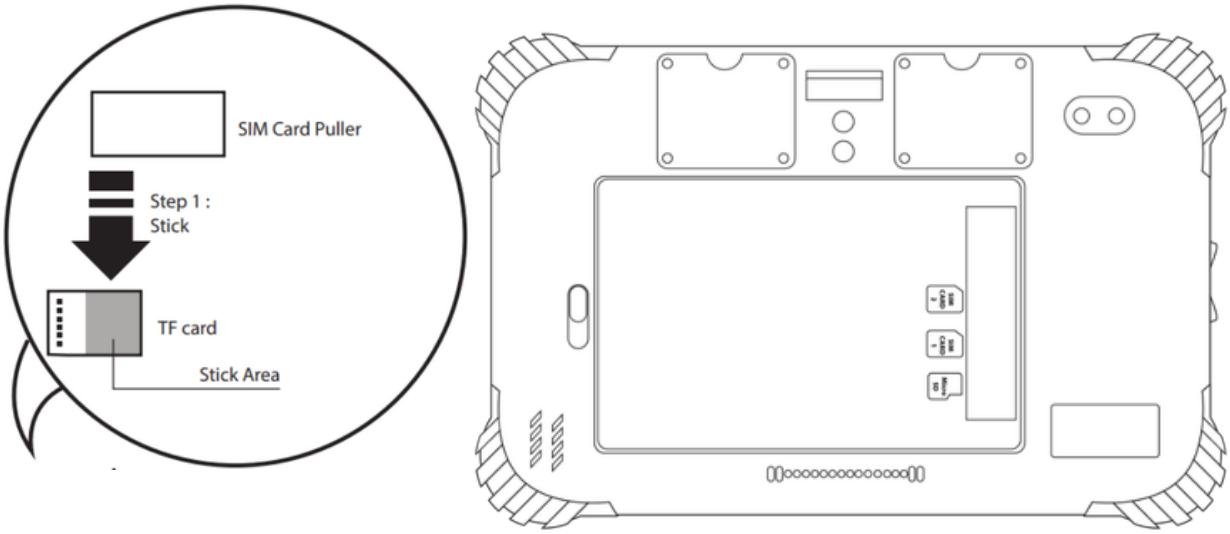
a. Auto sleep, the sleep time can be set up in the settings.
b. Short press button to sleep.
c. Short press to wake.
d. Wake up by ignition ON.

4. Restart the device

Restart by pressing the button: In the status of working on the device desktop, long press the power button for more than 2 seconds until the prompt pop-up then click the “Restart” option.

3.2 Installing Micro SD and SIM Card

To install the Micro SD card and/or Nano SIM card.
a. Find the Nano SIM card slot and the Micro SD card slot. The following graphics illustrates the correct cards orientation.
b. For easier removing the Nano SIM card and Micro SD card from the inside card slot, please assist with the Nano SIM card and Micro SD card tape as shown in the figure.
c. SIM card and Micro SD card cover can be locked by screws in preventing from loss or theft.



3.3 Charging the Battery

The PaceBlade LDT-101 battery is installed in a removable way, which greatly facilitates the user's use of removal and replacement.
（Note: Please shut down before removing the battery).

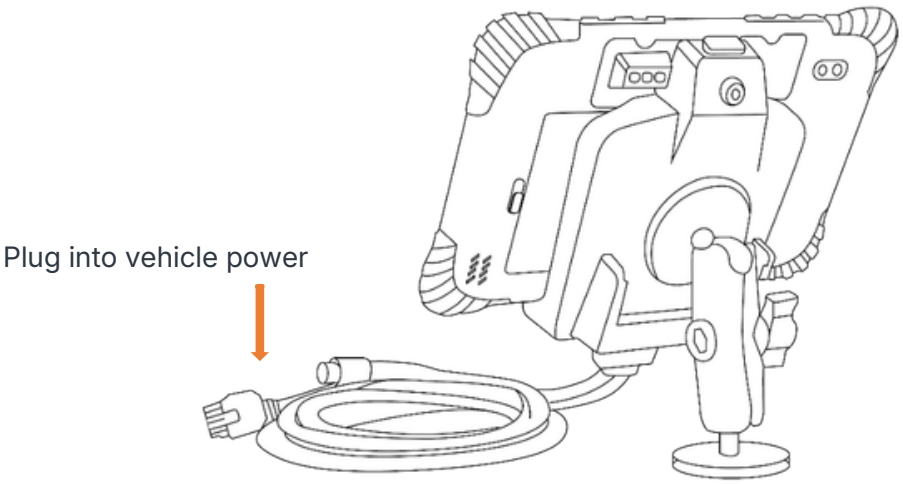
Icon introduction:
1. The switch is on the top to lock the battery.
2. The switch is on the down to unlock the battery, and the battery can be removed.

Tips:
In order to ensure the life and performance of the battery - if your tablet has been stored in the warehouse for more than three months, it is recommended to charge the battery every three months.

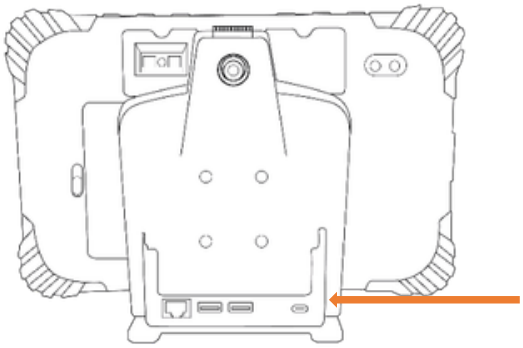
3.4 Charging via Vehicle Power Supply

To charge the battery with the vehicle power supply:

a)If you want to charge the device with an optional cradle, then put the tablet on the cradle and connect the cradle to the vehicle power supply.



b) The LDT-101 could be charged by a PD fast-charging Adapter or car charger (5V/3A,9V/2A,12/2A) by Type C to C USB cable.

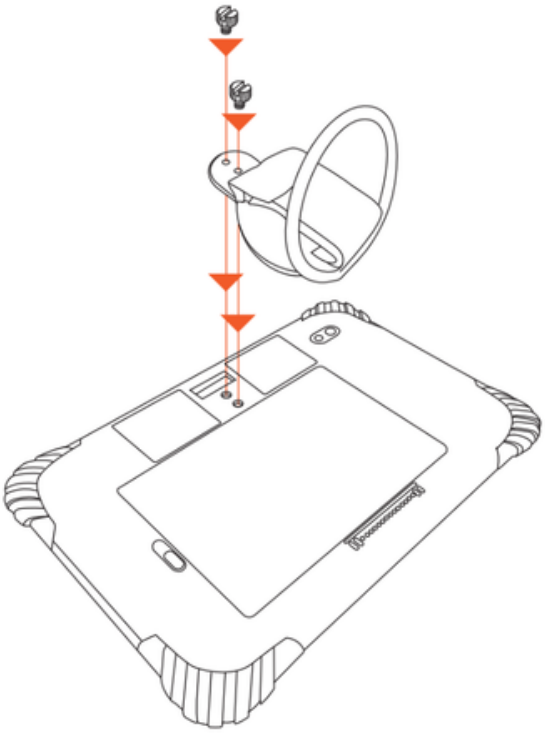


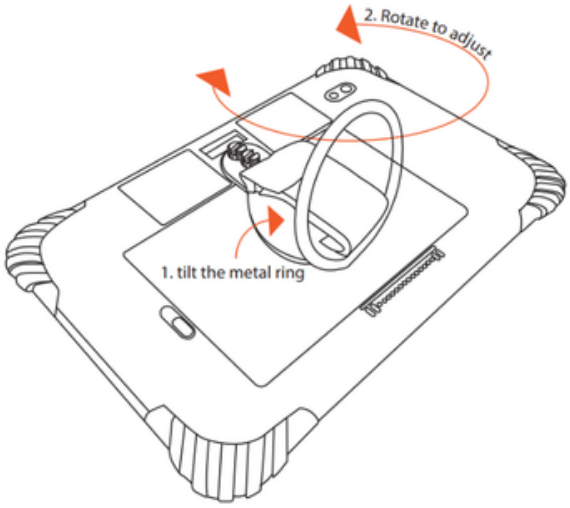
Warning:
Please ensure that the input voltage of the cradle is within the range of 12V~36V. If the input voltage of the cradle is outside this range, the LDT-101 may be unable to charge and get damaged. It may cause the warranty to be invalid.

Chapter 4: Hand strap and shoulder strap mode

4.1 Hand strap

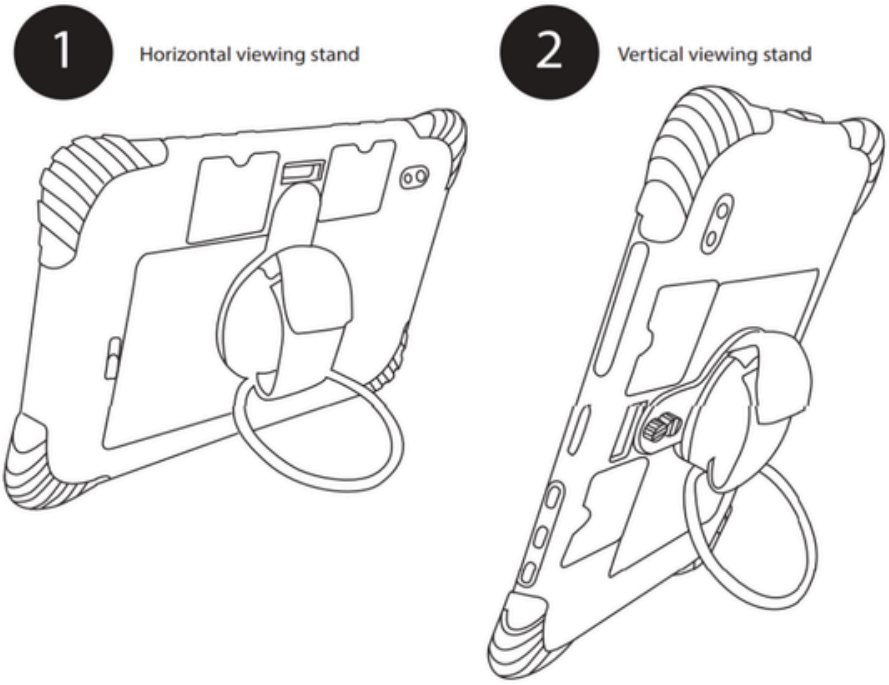
1. How to install

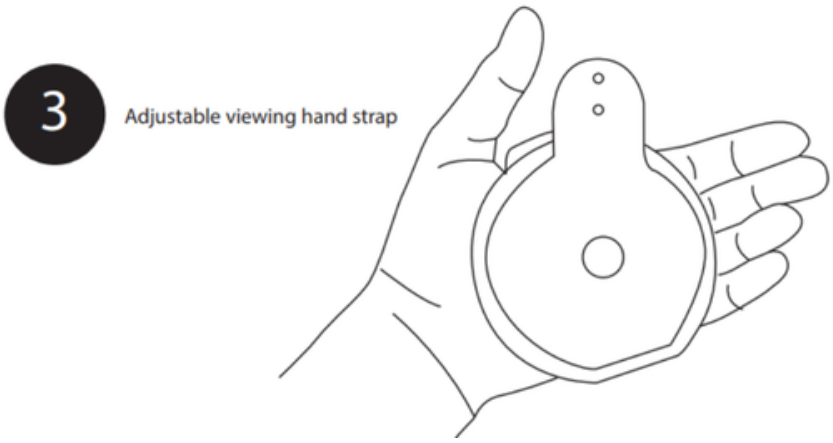


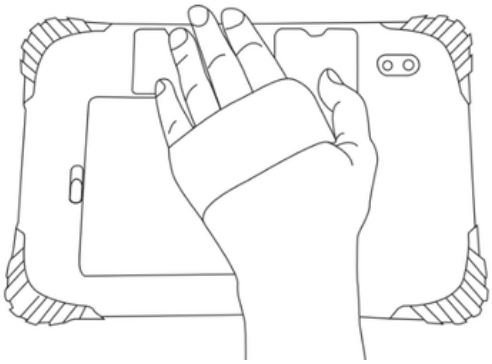


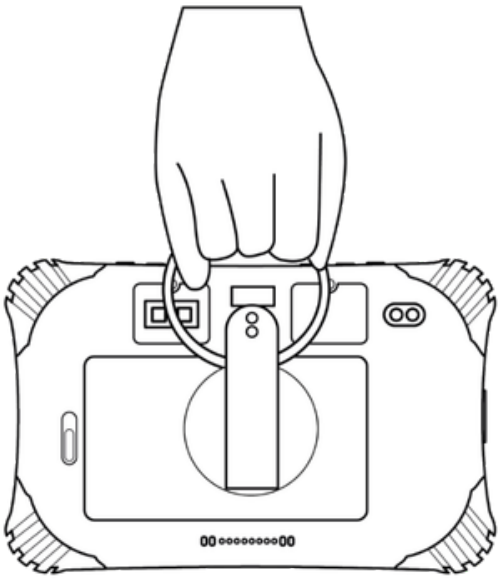
2. How to use

Easy to carry

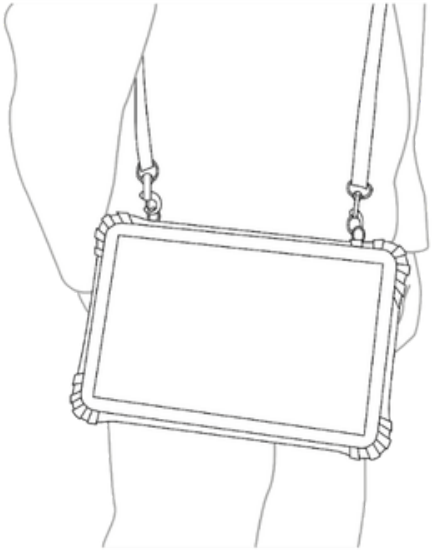








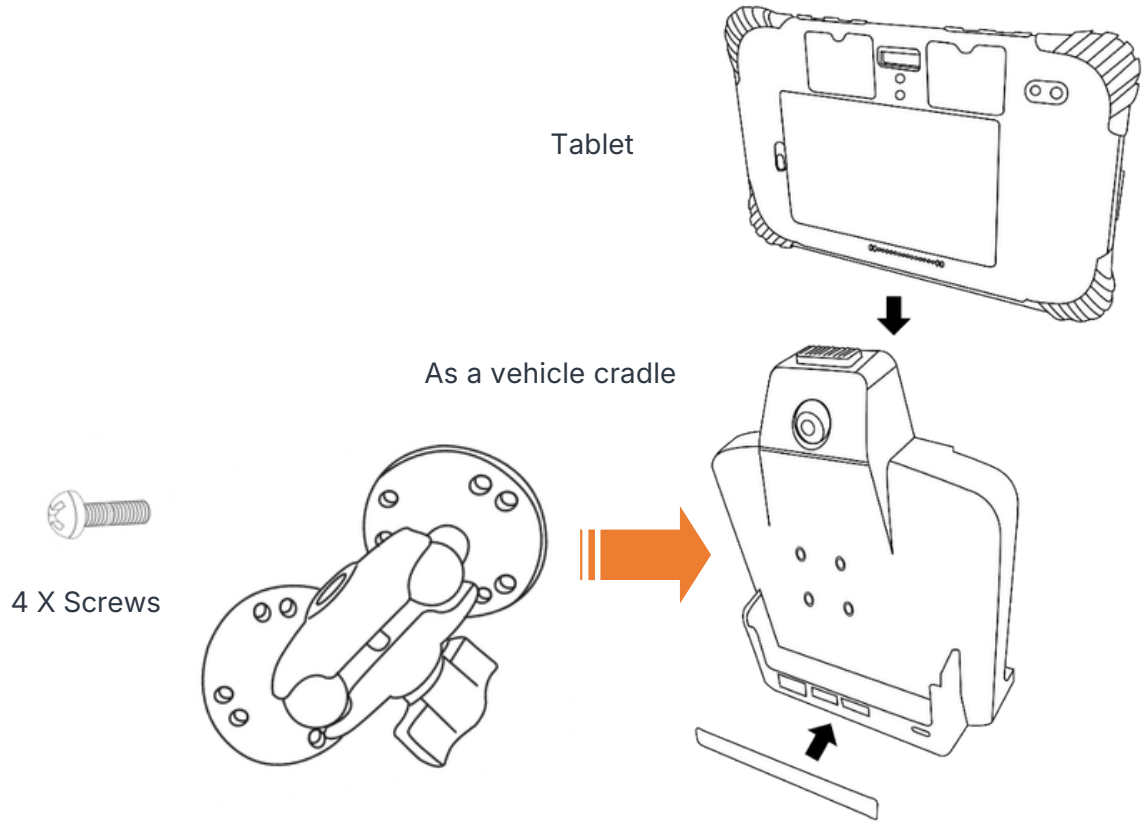
4.2 Shoulder strap mode



Chapter 5: Docking Station Using Instruction

5.1 To be a vehicle cradle

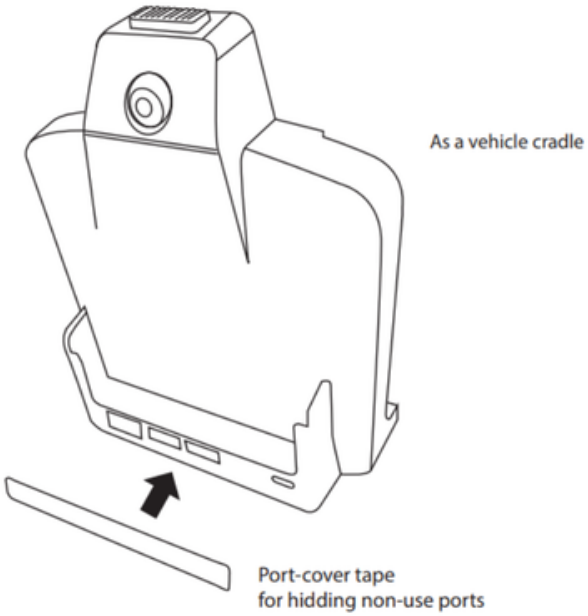
2. Mounting the Screw Mount and Cradle.
Assemble with cradle (Be a vehicle cradle).



Port-cover tape for hiding ports that aren't being used.

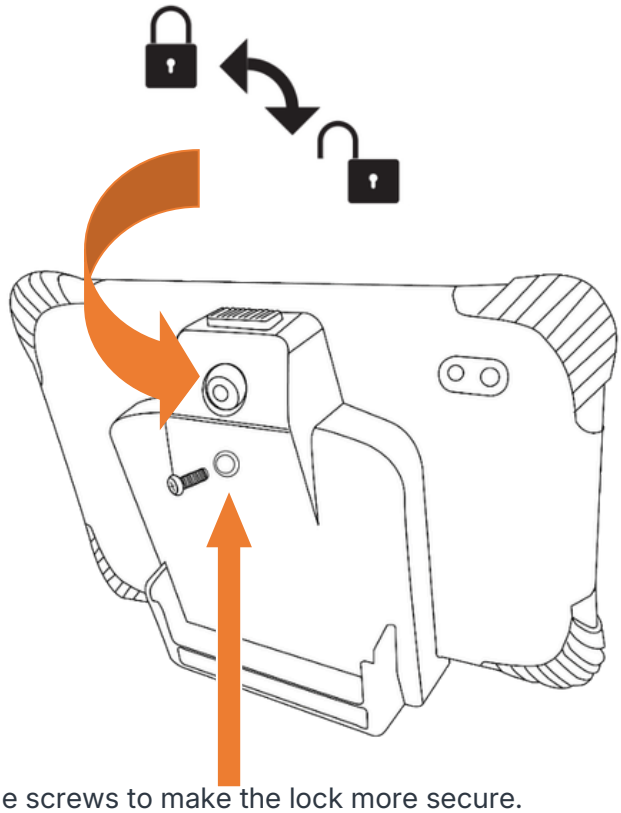
For full-feature vehicle cradle or desktop dock, port cover tape is used to hide ports that aren't being used.

For full-feature vehicle cradle or desktop dock, port cover tape is used to hide ports that aren't being used.



3. Locking Device & Unlocking device

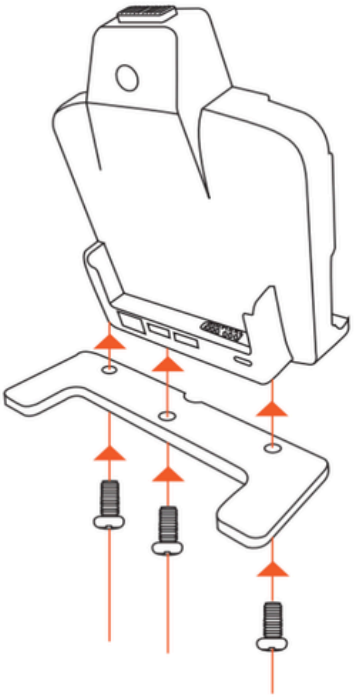
Insert the key to locking or unlocking the device.



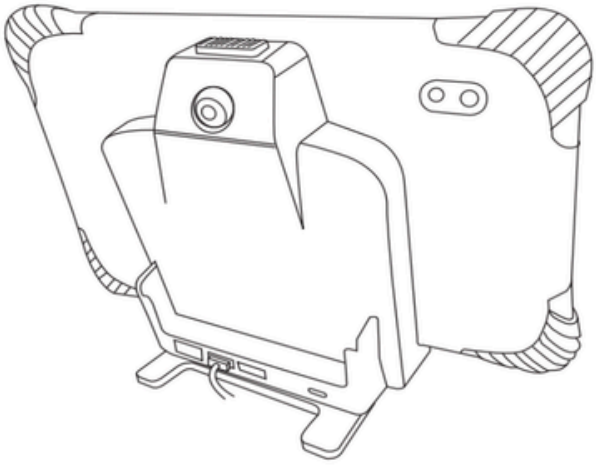
Screw-in the screws to make the lock more secure.

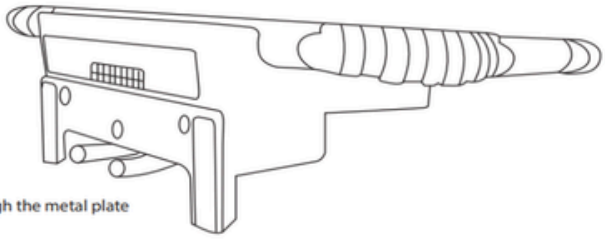
5.2 To be a desktop dock station

1. Install the Metal Stand.



2. Assemble with cradle (Be a desktop dock station).



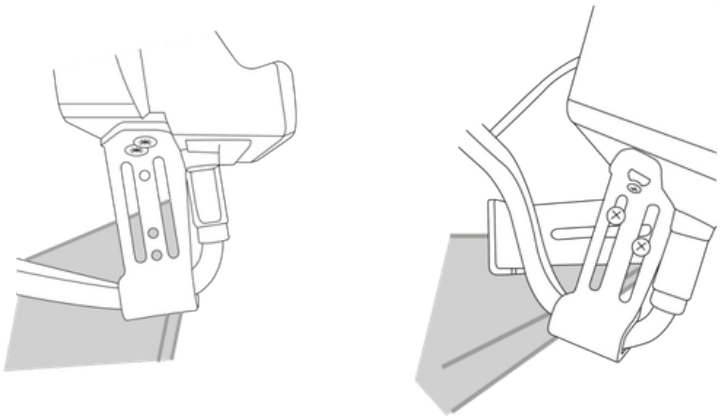


Cables go though the metal plate

3. Fixed cable

When installing in the vehicle, please use below metal parts, it has 2 purposes.

1. Direct the cable toward the back side.
2. It helps supporting the weight of the device. It will not shake even when the car has vibration.
There are two options regarding installation. Please see the videos below.



The length can be adjusted from 50mm to 80mm.

https://drive.google.com/file/d/1ybp_Ji3AL1t94PQ_KVtJO9mk_J8UiY8Q/view?usp=sharing
https://drive.google.com/file/d/1etWxYVJcbXDs8J-GP0dq8IVuBiYc0t3S/view?usp=sharing

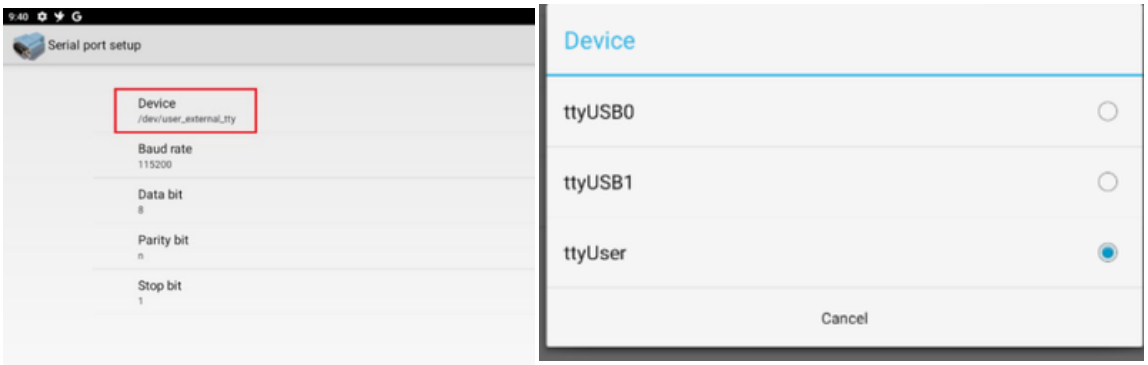
Chapter 6: Using Hardware Interface

6.1 Using Serial Port

1. RS232 purple/white wires are from CPU, it's same as LDT-101 and MDT-801. This works even without the use of an external power supply.

2. RS232 orange/yellow wires and RS485 blue/brown wires are converted from USB Hub and will only work if there is an external power supply.

Wires color	Definition	Device tty ports
White	RS232 RXD (CPU)	/dev/user_external_tty
Purple	RS232 TXD (CPU)	
Orange	RS232 RXD (USB)	/dev/ttyUSB0
Yellow	RS232 TXD (USB)	
Blue	RS485-A	/dev/ttyUSB1
Brown	RS485-B	



6.2 Using GPIO

1. GPIO Tail Lines Instruction

Regarding the definition diagram of GPIO interface, please see the details in Chapter 2 “2.2 Cradle Cable definition”.

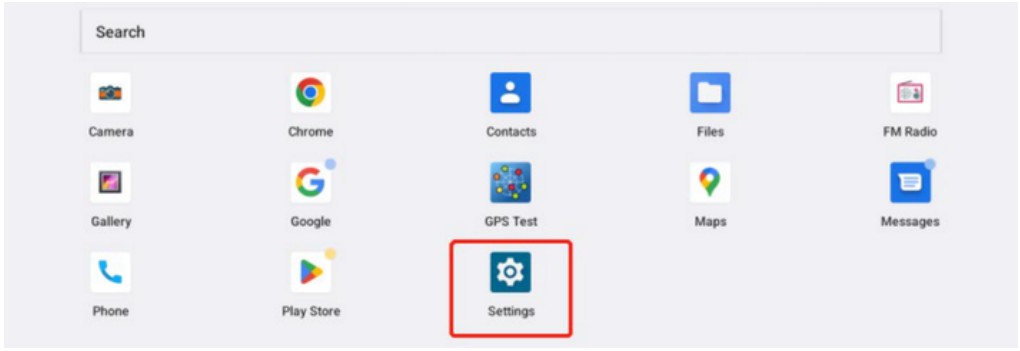
2. GPIO_DEMO Instruction

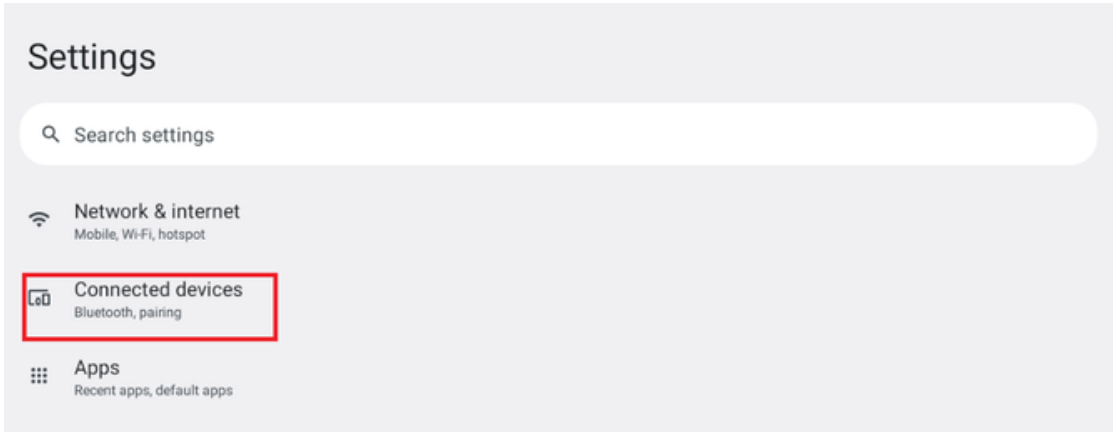
This software is only used for testing GPIO functions of device, and it isn't suitable for user's standard software.
a. If the input1 or input2 is connected to a high power, key1 or key2 will display “true”
b. Press set output button to open output, and press reset output button to close output.
c. Press get adc button to read the input voltage.
d. Press upgrade button to update the MCU firmware.

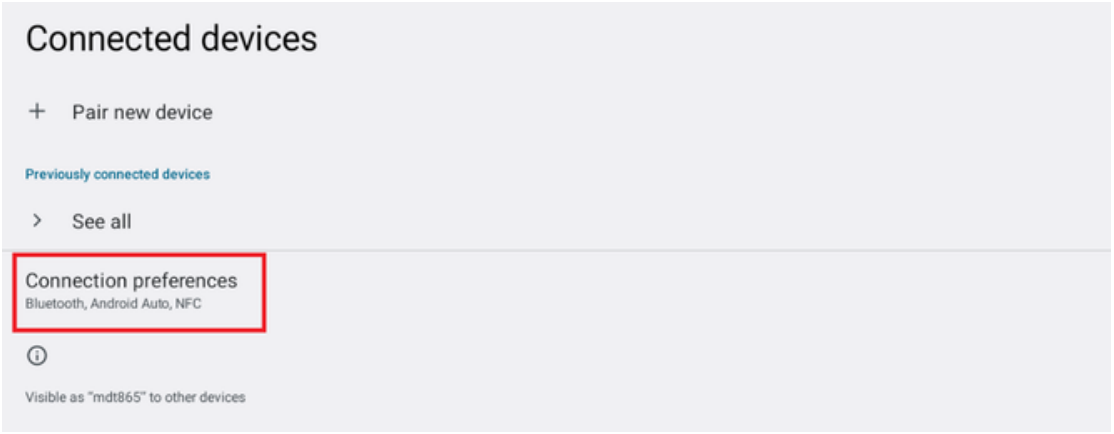
6.3 Using NFC Function

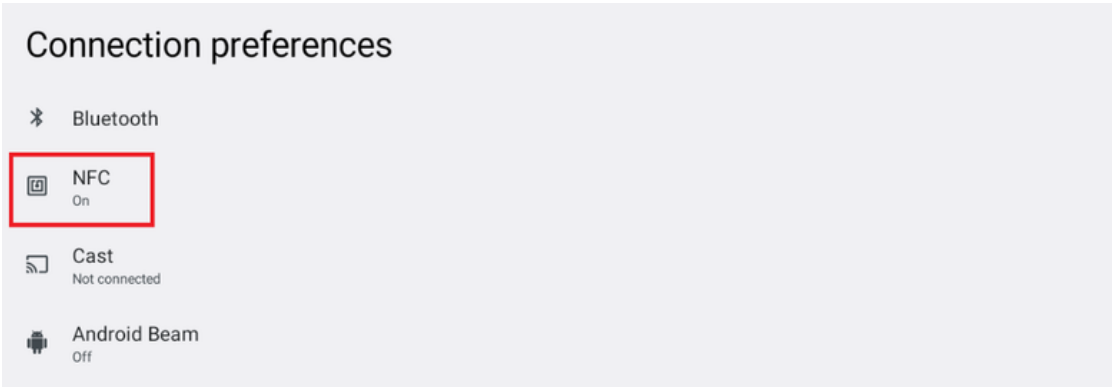
1. NFC Activation Method

Activate the NFC function according to the below screenshots.





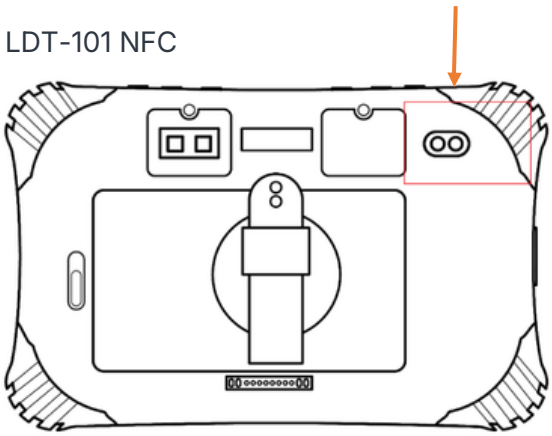




2. NFC Usage Demo

After activating NFC function, place the NFC card close to the induction area. A prompt tone would be heard if the card is successfully identified. If the card contains some information (such as manufacturer's information), there will be an interface popping up.

LDT-101 NFC



Chapter 7: Software Support

Demo application and source code available

Wecanprovide demo applicationssuchas reading ignition status, AVIN camera, Serial port, GPIO, barcode scanner and NFC etc. Please contact our Sales for details.

Supplementary APIs

https://www.paceblade.eu/web/content/955891

Example source code and applications are provided.

Serial port access

Package installation

Power management

Cradle detection

Notification blocker

Additional IOs

Programmatic firmware upgrade and configuration

How to use the hotspot proxy

GPIO of Cradle CRD801 and CRD101

How to Prevent Repeated USB Permission Pop-ups - Android Application Configuration Guide

Enable Roaming Proxy

UnmountProxy APK (moun/unmount SD card)

Customization Services

PaceBlade's device management server is developed to allow customers to update different firmware and create a kiosk mode function:

- BOOT ANIMATION
- INSTALL APK
- ADD APN
- DEFAULT SETTING
- CUSTOMIZED BUTTON

For more details, please refer to Remote control server manual and Kiosk mode quick start guide.

Remote control server manual

Kiosk mode quick start guide

Chapter 8: Radio Parameters

Model No: LDT-101	
Technical Characteristics of EUT	
2G	
Support Networks:	GSM, GPRS, EDGE
Support Bands:	GSM900, DCS1800
Frequency Range:	GSM900: Tx: 880-915MHz, Rx: 925-960MHz
	DCS1800: Tx: 1710-1785MHz, Rx: 1805-1880MHz
RF Output Power:	GSM900: 32.80dBm, GSM1800: 31.06dBm EDGE900: 26.89dBm, EDGE1800: 26.97dBm
Modulation Type:	GMSK, 8PSK
Type of Antenna:	Integral Antenna
Antenna Gain:	GSM900: 0.7dBi, DCS1800:1.42dBi
GPRS/EDGE Class:	Class 12
3G	
Support Networks:	WCDMA, HSDPA, HSUPA
Support Bands:	WCDMA Band 1, WCDMA Band 8
Frequency Range:	WCDMA Band 1: Tx: 1920-1980MHz, Rx: 2110-2170MHz
	WCDMA Band 8: Tx: 880-915MHz, Rx: 925-960MHz
RF Output Power:	WCDMA Band 1: 24.03dBm, WCDMA Band 8: 22.95dBm
Modulation Type:	BPSK, QPSK, 16QAM
Antenna Type:	Integral Antenna
Antenna Gain:	WCDMA Band 1: 1.72dBi, WCDMA Band 8: 0.7dBi
4G	
Support Bands:	FDD-LTE Band1, 3, 7, 8, 20, 28 TDD-LTE Band 38, 40
Frequency Range:	FDD-LTE Band 1: Tx: 1920-1980MHz, Rx: 2110-2170MHz
	FDD-LTE Band 3: Tx: 1710-1785MHz, Rx: 1805-1880MHz
	FDD-LTE Band 7: Tx: 2500-2570MHz, Rx: 2620-2690MHz
	FDD-LTE Band 8: Tx: 880-915MHz, Rx: 925-960MHz
	FDD-LTE Band 20: Tx: 832-862MHz, Rx: 791-821MHz
	FDD-LTE Band 28: Tx: 703-748MHz, Rx: 758-803MHz
	TDD-LTE Band 38: Tx: 2570-2620MHz, Rx: 2570-2620MHz
	TDD-LTE Band 40: Tx: 2300-2400MHz, Rx: 2300-2400MHz
Max.RF Output Power:	FDD-LTE Band 1: 23.65dBm, FDD-LTE Band 3: 23.31dBm, FDD-LTE Band 7: 24.11dBm, FDD-LTE Band 8: 23.44dBm , FDD-LTE Band 20: 23.31dBm , FDD-LTE Band 28: 23.34dBm , TDD-LTE Band 38: 24.19dBm, TDD-LTE Band 40: 23.68dBm
Modulation Type:	QPSK, 16QAM
Antenna Type:	Integral Antenna

Antenna Gain:	FDD-LTE Band 1: 1.72dBi, FDD-LTE Band 3: 1.42dBi, FDD-LTE Band 7: 0.08dBi, FDD-LTE Band 8: 0.7dBi, FDD-LTE Band 20: 0.6dBi, FDD-LTE Band 28: -2.28dBi, TDD-LTE Band 38: -0.34dBi, TDD-LTE Band 40:0.56dBi,
Bluetooth	
Bluetooth Version:	Bluetooth V5.0
Frequency Range:	2402-2480MHz
Max.RF Output Power:	9.46dBm (EIRP)
Type of Modulation:	GFSK, π/4 DQPSK, 8DPSK
Data Rate:	1Mbps, 2Mbps, 3Mbps
Quantity of Channels	79/40
Channel Separation:	1MHz/2MHz
Type of Antenna:	Integral Antenna
Antenna Gain:	2.59dBi
Wi-Fi (2.4GHz)	
Support Standards:	802.11b, 802.11g, 802.11n-HT20/40
Frequency Range:	2412-2472MHz for 802.11b/g/n(HT20) 2422-2462MHz for 802.11n(HT40)
Max.RF Output Power:	15.39dBm (EIRP)
Type of Modulation:	CCK, OFDM, QPSK, BPSK, 16QAM, 64QAM
Quantity of Channels	13 for 802.11b/g/n(HT20), 9 for 802.11n(HT40)
Channel Separation:	5MHz
Type of Antenna:	Integral Antenna
Antenna Gain:	1.46dBi
NFC	
Frequency Range:	13.56MHz
Radiated H-Field:	14.49dBuA/m(@3m)
Type of Antenna:	Integral Antenna
Antenna Gain:	0dBi
Transmitter Product Class	1
LORA	
Frequency Range:	868.00MHz-868.6 MHz 869.4MHz-869.650 MHz
RF Output Power:	868.1MHz: 13.04dBm(ERP) 868.3MHz : 13.03dBm(ERP) 868.5MHz: 13.02dBm(ERP) 869.525MHz: 13.06 dBm(ERP)
Type of Modulation:	FSK
Type of Antenna:	Integral Antenna
Antenna Gain:	2dBi
Receiver Categories:	2
GPS	
Frequency Range:	1575.42MHz

Chapter 9: Safety and regulatory compliance

FCC RF Exposure Information and Statement

This devicemeets the government's requirements for exposure to radio waves.
The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies.
The standards include a substantial safety margin designed to assure the safety of all persons regardless of age or health.
The SAR limit of USA (FCC) is 1.6 W/kg averaged.
Device types: portable device has also been tested against this SAR limit.
SAR information on this and other tablets can be viewed on-line at http://www.fcc.gov/oet/ea/fccid/.
Please use the device FCC ID number for search.
This device was tested simulation typical 0mm to body.
To maintain compliance with FCC RF exposure requirements, the use of accessories should maintain a separation distance between the user's bodies mentioned above.

FCC Warning

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference.
(2) This device must accept any interference received, including interference that may cause undesired operation.

NOTE 1: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.
This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

NOTE 2: Any changes or modification to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

CE

The product shall only be connected to a USB interface of version USB2.0 and that the connection to a power USB is allowed. Use caution when using earphones maybe possible excessive sound pressure from earphones and headphones can cause hearing loss.

CAUTION
RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.
DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS

IC Warning

This device contains license-exempt transmitter(s) that comply with Innovation, Science and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following two conditions:
(1) This device may not cause interference.
(2) This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence.
L'exploitation est autorisée aux deux conditions suivantes:
1. L'appareil ne doit pas produire de brouillage;
2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons regardless of age or health. The SAR limit of IC is 1.6 W/kg averaged.
Device: Tablet (IC: 21087-LDT-101) has also been tested against this SAR limit.
This device was tested simulation typical 0 mm to body. To maintain compliance with RF exposure requirements, the use of accessories should not contain metallic components in its assembly, the use of accessories that do not satisfy these requirements may not comply with RF exposure requirements, and should be avoided. The highest reported SAR value for body condition for separate function is 1.183W/kg respectively.

L'équipement est conforme aux limites d'exposition aux rayonnements ambiants non contrôlés spécifiées dans le document IC RSS - 102. Ces lignes directrices sont fondées sur des critères établis par des organisations scientifiques indépendantes par le biais d'évaluations périodiques et approfondies de la recherche scientifique. Ces normes comportent une marge de sécurité importante et visent à assurer la sécurité de tous, quel que soit leur âge ou leur état de santé. La limite SAR pour IC est en moyenne de 1,6W/ kg. Équipement: Tablet (IC: 21087-LDT-101) a également été testée conformément à cette limite SAR. L'appareil a fait l'objet d'essais de simulation, généralement à une distance de 0 mm. Afin de maintenir la conformité aux exigences en matière d'exposition aux radiofréquences, les composants qui utilisent des accessoires ne doivent pas contenir de pièces métalliques et les accessoires qui ne satisfont pas à ces
exigences peuvent ne pas être conformes aux exigences en matière d'exposition aux radiofréquences et doivent être évités. Les valeurs SAR les plus élevées rapportées pour l'état physique des fonctions individuelles étaient respectivement de 1.183W/kg.