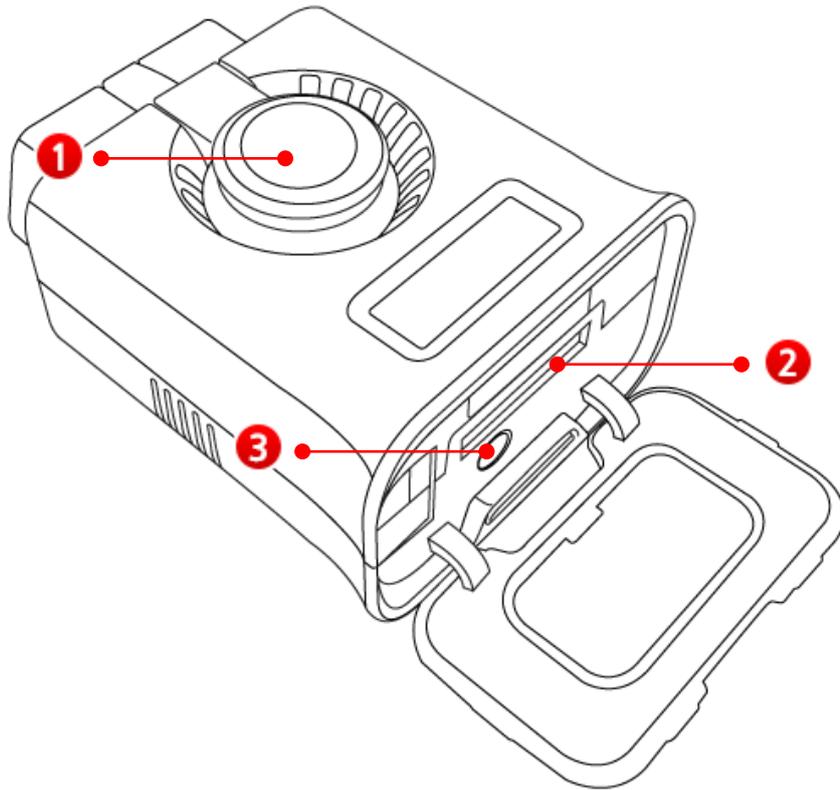# Hardware Specification

VCI II Module

	Module locking disable button	Button to disable locking state when removing VCI II Module from OBD-II Connector
❷	30-pin connector	Connector to be used for wire connection between VCI II Module and tablet (exclusive cable is required)
❸	Bluetooth pairing switch	Button to be used for bluetooth pairing between VCI II Module and Trigger Module

General Specification

| Item		Specification
CPU		ARM 32-bit Cortex™-M3 / 120 MHz
Memory		Flash Memory 1 MByte SRAM 128 KByte
Operating Voltage		7~35V / DC
Temperature	Operating	-10℃ - 50 ℃ (14 ℉ - 122 ℉): wireless mode -10℃ - 55 ℃ (14 ℉ - 131 ℉): USB mode
	Storage	-20 ℃ - 80 ℃ (-4 ℉ - 176 ℉)
Relative Humidity	Operating	Non-condensate @ 0 ℃ - 10 ℃ (32 ℉ - 50 ℉)
		95% RH @ 10 ℃ - 30 ℃ (50 ℉ - 86 ℉)
		70% RH @ 30 ℃ - 55 ℃ (86 ℉ - 131 ℉)
	Storage	Non-condensate @ -20 ℃ - 80 ℃ (-4 ℉ - 176 ℉)
Current Consumption		Approximately 300 mA @ 12 V for general condition
Case		PC + ABS
Product Size		58 X 74 X 36 mm
Weight		90 g

Interface

Item	Specification
Wire	USB 2.0 Full Speed (use 30-pin connector of VCI II module)
Wireless	Wireless LAN IEEE 802.11 a/b/g/n (2.4 GHz / 5 GHz) Bluetooth 2.1 + EDR
Indicator	2 LEDs (front surface/bottom surface)
Button (switch)	Bluetooth pairing button (used when connecting to Trigger Module)

Vehicle Communication Protocol

Item	Specification
Vehicle communication protocol	CAN (High Speed, Low Speed) KWP-2000 (4 channels) Flexray

Trigger Module
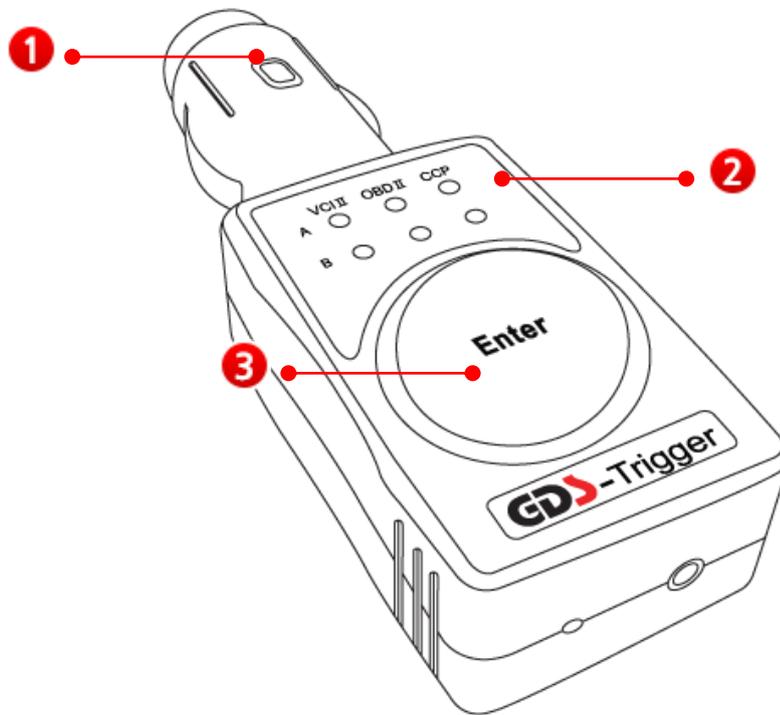
❶	Cigar lighter connector	To supply power for using Trigger Module, Trigger Module should be connected to cigar lighter socket of the vehicle.
❷	Status indicating LED	Indicates pairing status of Trigger Module and VCI II Module, and saving status of driving data.
❸	Enter button	Button to manually configure trigger time point when using the driving data saving function (also used for bluetooth pairing with VCI II Module)

General Specification

Item		Specification
Microcontroller		ARM 32-bit Cortex™-M3 / 120 MHz
Memory		Flash Memory 1 MByte SRAM 128 Kbyte
Operating Voltage		7 - 35 V / DC
Temperature	Operating	-10 ℃ - 50 ℃ (14 ℉ - 122 ℉): Bluetooth mode
	Storage	-20 ℃ - 80 ℃ (-4 ℉ - 176 ℉)
Relative Humidity	Operating	Non-condensate @ 0 ℃ - 10 ℃ (32 ℉ - 50 ℉)
		95% RH @ 10 ℃ - 30 ℃ (50 ℉ - 86 ℉)
		70% RH @ 30 ℃ - 50 ℃ (86 ℉ - 122 ℉)
	Storage	Non-condensate @ -20 ℃ - 80 ℃ (-4 ℉ - 176 ℉)
Current Consumption		Approximately 70 mA @12 V in general condition
Case		PC + ABS
Product Size		39 X 112 X 26 mm
Weight		55 g

Interface

Item	Specification
Wireless protocol	Bluetooth 2.1 + EDR
Indicator	6 LEDs + Backlight LED of Enter button
Button	Enter button

TPMS Module
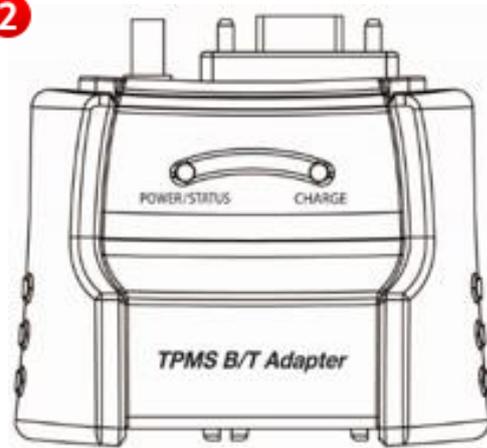
TPMS Module

B/T Adapter

❶ General Specification (TPMS module)

Item		Specification
Microcontroller		8 Bit MCU (MB95F136) @4 MHz
Operating Voltage		7 - 35 V / DC
Communication Port Specification		RS 232, 9600 bps
TPMS LF/RF		LF: 125 kHz RF: 315 MHz or 433 MHz
TPMS Protocol		SIEMENS (FSK), LEAR, TRW, etc.
Charging Battery		Li-Ion Polymer 2100 mAh 1 cell
Temperature	Operating	0 ℃ - 45 ℃ (32 ℉ - 113 ℉) : when charging
		-10 ℃ - 50 ℃ (14 ℉ - 122 ℉) : when discharging
	Storage	-10 ℃ - 70 ℃ (14 ℉ - 158 ℉)
Relative Humidity	Operating	Non-condensate @ 0 ℃ - 10 ℃ (32 ℉ - 50 ℉)
		90% RH @ 10 ℃ - 30 ℃ (50 ℉ - 86 ℉)
		70% RH @ 30 ℃ - 50 ℃ (86 ℉ - 122 ℉)
	Storage	Non-condensate @ -10 ℃ - 70 ℃ (14 ℉ - 158 ℉)
External Indicating Light	POWER	Red
	CHARGE	Red, green
	LF/RF LED	Red, green
Button		Power ON/OFF Key, Enter Key
Module Size		127 X 86 X 36 mm
Weight		255 g
Case		PC+ABS
Shroud		TPE

❷ General Specification (TPMS B/T adaptor)

Item		Specification
Microcontroller		ARM 32-bit Cortex 120 MHz
Memory		Flash Memory 1 MByte SRAM 128 KByte
Operating Voltage		7 - 35 V/DC
Temperature	Operating	0 ℃ - 45 ℃ (32 ℉ - 113 ℉): when charging
		-10 ℃ - 50 ℃ (14 ℉ - 122 ℉): when discharging
	Storage	-10 ℃ - 70 ℃ (14 ℉- 158 ℉)
Relative Humidity	Operating	Non-condensate @ 0 ℃ - 10 ℃ (32 ℉ - 50 ℉)
		95% RH @ 10 ℃ - 30 ℃ (50 ℉ - 86 ℉)
		70% RH @ 30 ℃ - 50 ℃ (86 ℉ - 122 ℉)
	Storage	Non-condensate @ -10 ℃ - 70 ℃ (14 ℉ - 158 ℉)
Current Consumption		Approximately 180 mA @12V in general condition
Charging Battery		Li-Ion Polymer 1000 mAh 1 cell
Case		PC + ABS & TPE Rubber Shroud
Size		81 X 75 X 45 mm
Weight		145g

Interface

Item	Specification
Wire	RS232 UART
Wireless	Bluetooth 2.1 + EDR
External Indicating Light	2 LEDs (POWER/STATUS, CHARGE)

VCI Module

General Specification

Item		Specification
Microcontroller		ARM9 (S3C2410A) @ 208 MHz
Memory		RAM 32 MByte ROM 32 Mbyte
Operating Voltage		7 – 35 V/DC
Temperature	Operating	-10 ℃ – 70 ℃ (14 ℉ – 158 ℉): USB mode
	Storage	-20 ℃ – 80 ℃ (-4 ℉ – 176 ℉)
Relative Humidity	Operating	Non-condensate @ 0 ℃ – 10 ℃ (32 ℉ – 50 ℉)
		95% RH @ 10 ℃ – 30 ℃ (50 ℉ – 86 ℉)
		70% RH @ 30 ℃ – 50 ℃ (86 ℉ – 122 ℉)
		40% RH @ 50 ℃ – 70 ℃ (122 ℉ – 158 ℉)
	Storage	Non-condensate @ -20 ℃ – 80 ℃ (-4 ℉ – 176 ℉)
Operating Mode		Diagnosis communication (normal)/Driving data record (record)
Current Consumption		Approximately 350 mA @12 V in general condition

Case	ABS & Rubber Shroud
Size	170 × 105 × 33 mm
Weight	350 g

Interface

Item	Specification
Wire	USB 1.1
VSS	Velocity simulation
Voltage Output	5 - 20 V/DC

Vehicle Communication Protocol

Item	Specification
CAN	CAN 2.0B
K-line/L-line	ISO-9141, ISO-9141-2, KWP-2000
Commercial Vehicle Type Response	SAE-J1708, RS-232C
Data/control line	Melco Pull-Down UART

Module Certification Information

VCI II

Model Name	VCI II
Equipment Name	Specific low power wireless device (wireless device for wireless data communication system)
Manufacturer	GIT Co., Ltd.
Name of Certified Business	GIT Co., Ltd.
Country of Manufacturing	Republic of Korea
Manufactured Date	To be indicated separately
Certification No.	MSIP-CMM-TMG-VCI-II

As the wireless device has a possibility of electric wave interference during its operation, it cannot provide services related to personal safety.
This device is an electromagnetic compatible device for domestic use (level B) with the purpose of using it primarily at homes, and it can also be used in all other areas.

Trigger Module

Model Name	Trigger Module
Equipment Name	Specific low power wireless device (wireless device for wireless data communication system)
Manufacturer	GIT Co., Ltd.
Name of Certified Business	GIT Co., Ltd.
Country of Manufacturing	Republic of Korea
Manufactured Date	To be indicated separately
Certification No.	MSIP-CRM-TMG-TRIGGER

As the wireless device has a possibility of electric wave interference during its operation, it cannot provide services related to personal safety.

This device is an electromagnetic compatible device for domestic use (level B) with the purpose of using it primarily at homes, and it can also be used in all other areas.

TPMS B/T Adaptor

Model Name	TMPS B/T Adapter
Equipment Name	Specific low power wireless device (wireless device for wireless data communication system)
Manufacturer	GIT Co., Ltd.
Name of Certified Business	GIT Co., Ltd.
Country of Manufacturing	Republic of Korea
Manufactured Date	To be indicated separately
Certification No.	MSIP-CMM-TMG-TPMSBTA

As the wireless device has a possibility of electric wave interference during its operation, it cannot provide services related to personal safety.

This device is an electromagnetic compatible device for domestic use (level B) with the purpose of using it primarily at homes, and it can also be used in all other areas.