

User manual

Foxtron

Figure 1 Writing Diagram

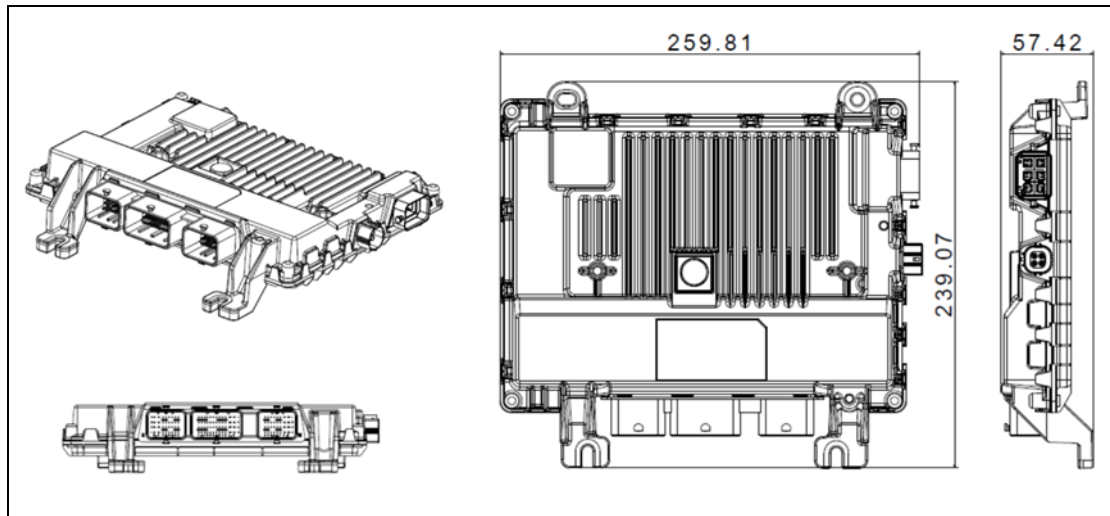
(2) Environmental

The following Table1 shows the FD required value.

Table 1

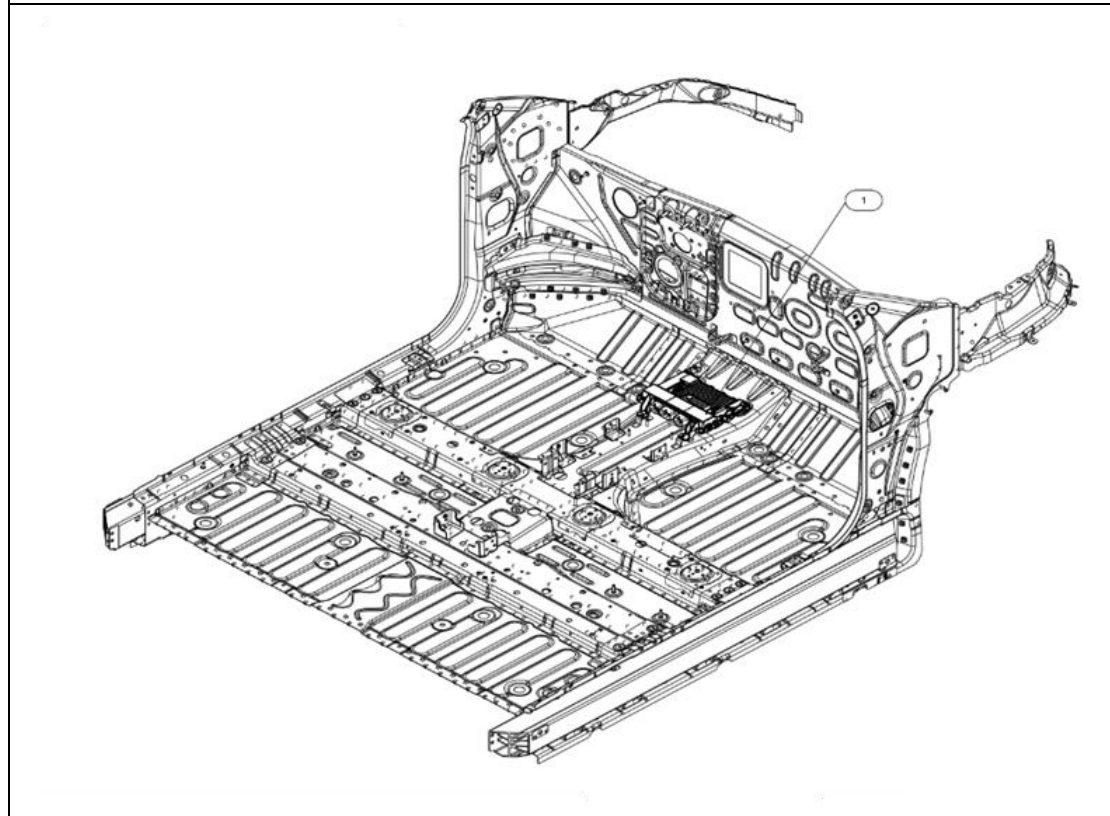
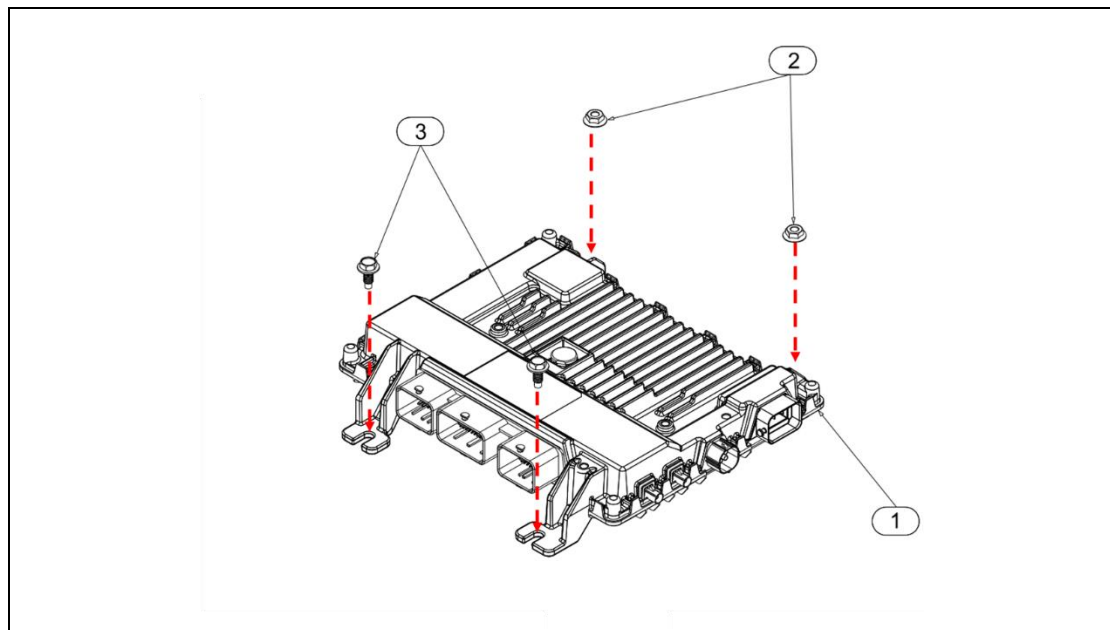
Items	Required value
Rated Voltage	DC 12V
Operating Voltage Range	DC 9~ 16V
Operating Temperature Range	-40 ~ +85°C
Storage Temperature Range	-40 ~ +85°C
Humidity	100
Dust Proof	IP5
Operation Current	<800 mA
Dark Current	<12 mA
Regulation	Refer to TEF95465 / TEF76001

(3) Fusion Domain Outline / Dimension



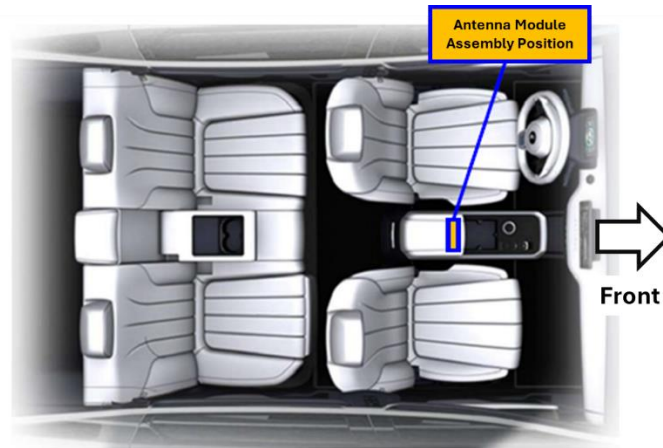
● Weight:	1270g (w/o brackets)
● Maximum Size	L : 259.81mm ; W : 239.07mm ; H : 57.42mm
● PCB:	FR4, 10 layers, follow IPC-6012DA class3
● Housing Bottom:	PC
● Cover Top:	AL

(4) Fusion Domain Assembly



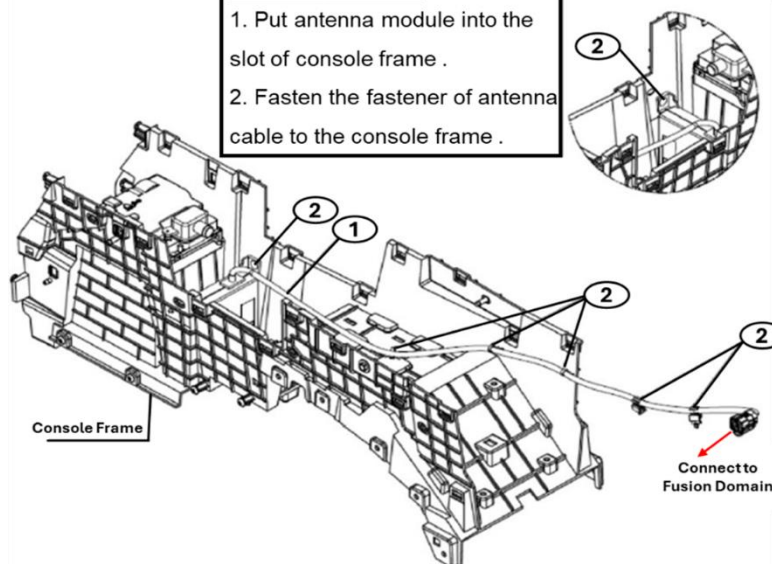
Item	Part Name	Q'ty
1	Fusion Domain	1
2	NUT-FLANGE M6x1.0P 6.0h	2
3	BOLT , HEX HEAD. FLANGE M6x1.0P-20L	2

(5) Antenna Module Assembly



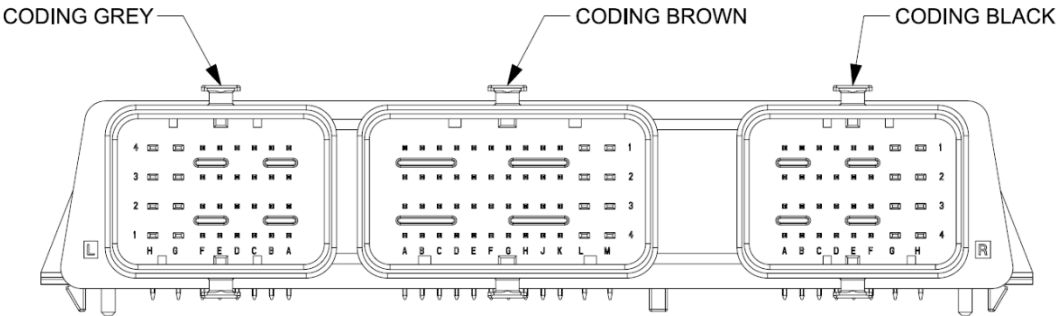
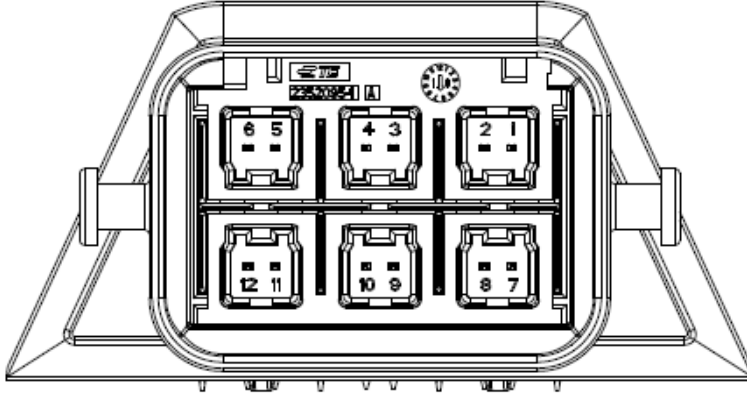
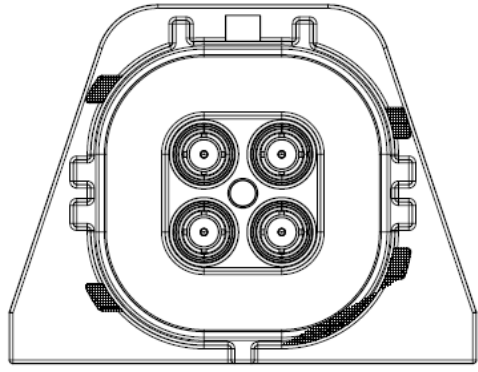
Assembly method

1. Put antenna module into the slot of console frame .
2. Fasten the fastener of antenna cable to the console frame .



Item	Part Name
1	Fasteners
2	Antenna Cable

(6) Connector Type

NO	CONNECTOR TYPE & PIN NO.	
1	UNIT	CODING GREY CODING BROWN CODING BLACK  BAY C BAY B BAY A CMC HEADER ASSY FOR 0643330100
		Molex 0643330100
		
		TE 2351577-1
		
		Hulane 39B304014DAW

(7) Fusion Domain Working Voltage

The function features of Fusion Domain during each voltage range are defined in the following Table 2.

Table 2

Voltage (Vbatt)	Voltage Range	Function feature Description
12V system $0V \leq V_{batt} < 6.5V$	Under Voltage Range	No function is required.
12V system $6.5V \leq V_{batt} < 9V$	Low Voltage Range	No corruption of any non-volatile memory. CAN communication is required and shall be operational. Diagnostics faults (short to ground, short to battery and open circuit) shall not be set due to lower voltage conditions. Reset is not allowed.
$9V \leq V_{batt} \leq 32V$	Normal Voltage Range	Full functional operation 12V system refers to ISO 16750-2 Code C
12V system $16V < V_{batt} \leq 18V$	High Voltage Range	CAN communication is required. Diagnostic faults (short to ground, short to battery and open circuit) shall not be set due to higher voltage condition; The outputs of FD should be turned off; Correct operation of system loads will not be guaranteed under these supply voltage conditions. In the high voltage range, degraded operation may occur. FD shall be able to withstand. $V_{batt} = 18V/36V$ for 60 minutes at 65°C.

12V system $18V < V_{batt} \leq 24V$	Over Voltage Range	FD shall be able to withstand voltage up to 24V for 1 minute without damage at 23°C;
12V system $V_{batt} = -14V$	Reversed Voltage	VCU shall be able to withstand reversed voltage -14V for 1 minute without damage at 23°C;

(8) Operating/Dark Current

The operating and dark current of Fusion Domain are defined in the following Table 3.

Table 3

Parameter	Notation	Conditions	Min	Nom	Max	Units
Operating current from Battery supply	I_{BAT}	Without load currents	TBD	700	TBD	mA
Dark current for Battery supply	$I_{STANDBY}$	Without load currents	TBD	10	TBD	mA

(9) Ground Offset

Ground offset between signals or controllers shall have no effect on the function of the components if the levels specified in Table 4 are not exceeded.

Table 4

Parameter	Notation	Conditions	Min	Nom	Max	Units
Ground difference voltage	V_{diff}	Battery ground connection = 0V	-0.5	0	0.5	Volts

(10) Fusion Domain RF Functions Description

Fusion Domain RF functions are shown as in the following table 6.

Table 6

Item	Type	Operation Frequency (MHz)	TX power setting (dBm)	Function Description
UWB	TX/RX	7737.2 ~ 8237.2	-8	For digital key function
		6239.6 ~ 6739.6	-5.3	For digital key function
BLE	TX/RX	2402~2480	0	For digital key function
TPMS	RX	433	N/A	For receiving wheels information

(11) Warning

- This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: this device may not cause harmful interference, and this device must accept any interference received, including interference that may cause undesired operation.
- Any changes or modifications not expressly approved by the party responsible for compliance could void the authority to operate equipment. This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance. For product available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible.
- This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

- Smart access system device for vehicles. UWB devices may not be employed for the operation of toys. Operation on board an aircraft, a ship or a satellite is prohibited. The use of devices mounted on outdoor structures, e. g. Static Units mounted on the outside of a building or any fixed outdoor infrastructure is prohibited.