Image for representation purpose only

Features

- Digital Control Unit: Integrated VCU, Telematics & Cluster
- Edge Analytics Core engine (extensible)
- Supports various Protocols (CAN, Modbus, Serial)
- Built-in 15 kV ESD protection for all serial signals
- Built in AWS RTOS & Security Stack
- Supports OTA and remote management.
- BMS and Motor controller data capture and control
- Ignition detection, Vehicle immobilization
- Supports rechargeable auxiliary battery for upto 24 hrs
- Isolated I/O for event management.
- IMU Sensor (Optional)
- Buzzer alert (Optional)

Introduction

Meli MobiView is an advanced GSM/GNSS/Bluetooth tracker with **integrated CAN data processor and Cluster**. It is compact **3 in 1** solution: GPS tracker and CAN adapter and Cluster inside! Device allows to read CAN and Serial data from a wide range of various vehicles, including light & electric vehicles, trucks, bus, special machinery and display it on cluster as well as push data to cloud also. Depending on exact software version Meli can be used in advanced applications as heavy logistics, delivery services, utility transport. Remote configuration and Firmware updates to BMS, MCU or any ECU in the vehicle can be managed remotely.
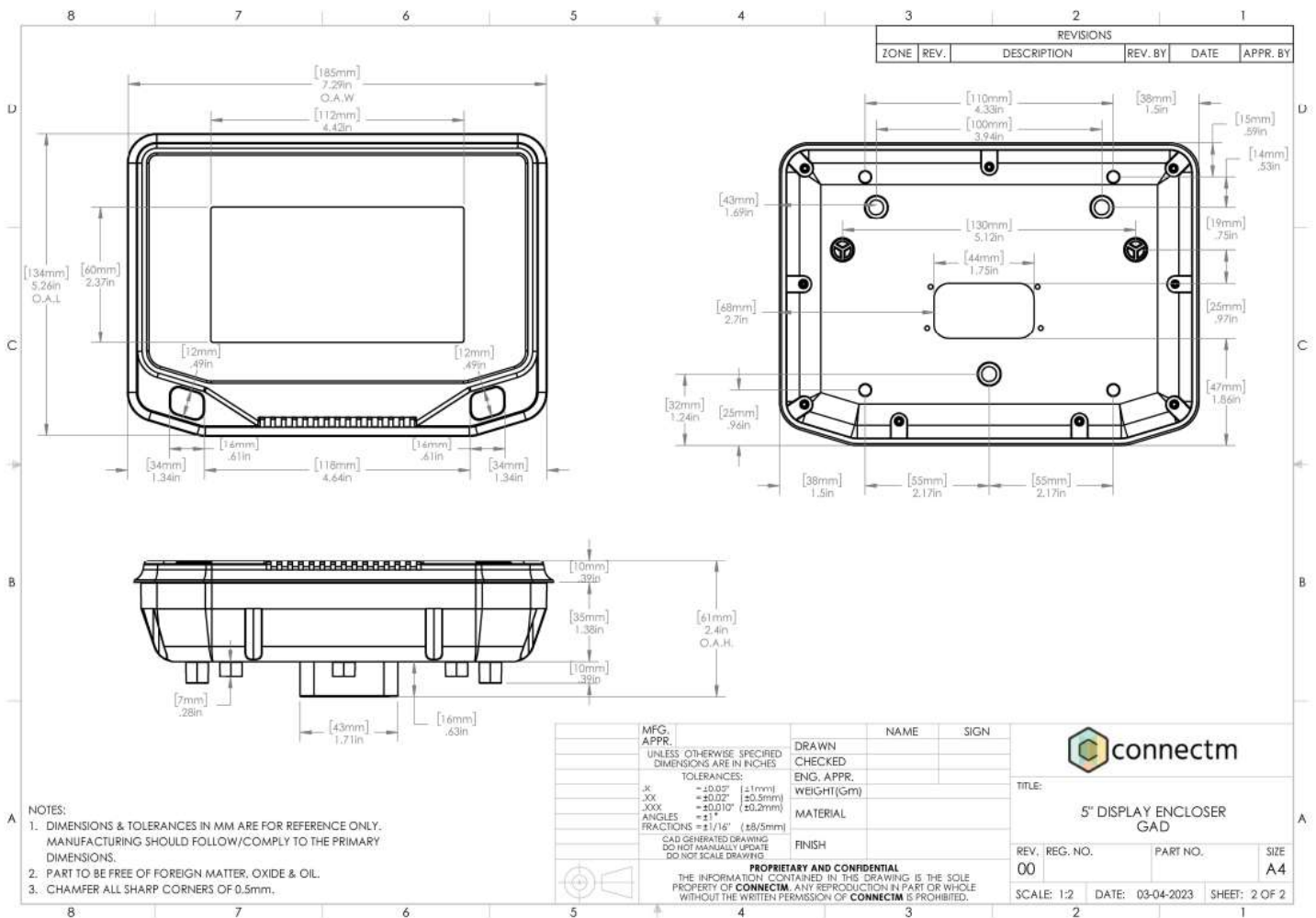
Hardware Specification

MODULE	
Name	**MELI MOBILITY-TCQ412X**
Technology	LTE (CAT1))/2G(GSM/GPRS)/GNSS/BLUETOOTH

GNSS	
GNSS	GPS, GLONASS, GALILEO, QZSS

CELLULAR	
Technology	LTE CAT1,GSM
Band	LTE-FDD B1/B3/B5/B7/B8/B20 LTE-TDD B38/B40/B41 WCDMA B1/B5/B8 GSM/EDGE B3/B8
Data transfer	LTE: LTE FDD: Max 10Mbps (DL)/Max 5Mbps (UL) LTE TDD: Max 8.96Mbps (DL)/Max 3.1Mbps (UL) UMTS: WCDMA: Max 384Kbps (DL)/Max 384Kbps (UL) GSM: GPRS: Max 107Kbps (DL)/Max 85.6Kbps (UL)
Data support	SMS (text/data)

BLUETOOTH	
Specification	5.0+LE

POWER	
Input voltage range	4.5 - 42 V DC with overvoltage protection
Nominal Input Voltage	12 Volt
Back-up battery	2500 m Ah Li-Ion,3.6-volt battery (Optional)

CLUSTER	
Display Type	IPS-TFT-LCD (5inch)
Display Size	143.4mm (W)×80.8mm (H)×13.8mm (T)
Display View area	108mm (W)×64.8mm (H)
Resolution	800X480 pixels
Colour	18-bit 6R6G6B
Back Light	LED
Luminance	900 nits

INTERFACE	
Digital Inputs (Opto Isolated)	8 +2 (Optional)
Digital Outputs	2+ 2 (Optional)
Analog Input	2 (Voltage)
CAN interfaces	1+ 1 (Optional)
GNSS antenna	POT GNSS module
Cellular antenna	Internal High Gain

USB	2.0 Micro-USB (Optional)
LED indication	2 status LED lights (Internal)
SIM	Standard
IMU	3 Axis Accelerometer/ 3 Axis Gyroscope (Optional)
Memory	4 M Byte onboard flash memory (Expandable to 8 M Byte)
Buzzer	85db (Optional)

MECHANICAL SPECIFICATION	
Enclosure material	ABS+PC
Mounting	M6 insert (3 No's)
IP Rating	IP67 -Top IP65-Bottom
Connector	23 Pin AMPSEAL On board connector (Waterproof) Male KLS13-CA004-23-S-IP67
Weight	450g

OPERATING ENVIRONMENT	
Operating temperature (without battery)	-40 °C to +85 °C
Storage temperature (without battery)	-40 °C to +85 °C
Operating humidity	5% to 95% non-condensing
Ingress Protection Rating	NA
Battery charge temperature	-0 °C to +45 °C
Battery discharge temperature	-20 °C to +60 °C
Battery storage temperature	-20 °C to +45 °C for 1 month
	-20 °C to +35 °C for 6 months

Enclosure Dimension

ZONE	REV.	DESCRIPTION	REV. BY	DATE	APPR. BY

REVISIONS

NOTES:
1. DIMENSIONS & TOLERANCES IN MM ARE FOR REFERENCE ONLY. MANUFACTURING SHOULD FOLLOW/COMPLY TO THE PRIMARY DIMENSIONS.
2. PART TO BE FREE OF FOREIGN MATTER, OXIDE & OIL.
3. CHAMFER ALL SHARP CORNERS OF 0.5mm.

MFG. APPR.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

TOLERANCES:
.X   ±0.05"   (±1mm)
.XX   ±0.02"   (±0.5mm)
.XXX ±0.010" (±0.2mm)
ANGLES ±1°
FRACTIONS = ±1/16" (±8/5mm)

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	NAME	SIGN
DRAWN		
CHECKED		
ENG. APPR.		
WEIGHT(Gm)		
MATERIAL		
FINISH		

connectm

TITLE:

5" DISPLAY ENCLOSER

REV.	REG. NO.	PART NO.	SIZE
00			A4
SCALE: 1:2	DATE: 03-04-2023		SHEET: 1 OF 2

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DRAWN
CHECKED
ENG. APPR.
WEIGHT(Gm)
MATERIAL
FINISH

CAD GENERATED DRAWING
DO NOT MANUALLY UPDATE
DO NOT SCALE DRAWING

connectm

TITLE:
5" DISPLAY ENCLOSER GAD

REV. 00   REG. NO.   PART NO.   SIZE A4

SCALE: 1:2   DATE: 03-04-2023   SHEET: 2 OF 2

Mounting angle

35° To 45°