

X-One

ANDROID 7 9 12 14





X-One Android is an all-in-one Mobile Data Terminal (MDT) designed to deliver maximum reliability and high performance in industrial environments, with a specific focus on vehicle management and safety. Engineered for demanding sectors such as transportation, logistics, and fleet operations, X-One Android combines processing power with rugged construction, ensuring full compliance with automotive industry standards.

Its compact, reinforced design makes it ideal for seamless vehicle integration, while industrial-grade materials and sealed connectors provide protection against dust, moisture, and shocks—even in harsh environments.

Equipped with a built-in 4G LTE modem, X-One Android ensures fast, reliable mobile communications—essential for real-time data access and continuous monitoring. The integrated multi-constellation positioning system (GPS/GLONASS/BeiDou) provides accurate and stable location tracking, even in dense urban areas or low-signal environments.

X-One Android features short-range wireless communication, a customizable user interface, and a wide range of I/O ports for connecting external devices and peripherals. These features make it highly adaptable and suitable for various operational needs.

For enhanced flexibility and future upgrades, the optional Chip On Module allows for easy replacement of the chipset and operating system—extending the device's lifecycle and simplifying maintenance.

Available Configurations

X-One Android is available in four hardware/software configurations to meet a range of performance and compatibility requirements:

QuadCore – Android 7.1

QuadCore – Android 12

OctaCore – Android 9

OctaCore – Android 14



CAN BUS INTERFACE



GLONASS/GPS/BeiDou



USB INTERFACE



DIGITAX SDK



SYSTEM ON CHIP MODULE



CAT 4 LTE MODULE



SERIAL PORT INTERFACE



WLAN 2.4G 802.11B/G/N



BT 2.1 + EDR 3.0/4.1 LE



ANDROID 7.1/9.1/12/14



POWERFUL MULTIMEDIA FUNCTION



DEDICATED CPU FOR AUTOMOTIVE INTENSIVE TASK PROCESSOR

Direct Interfaces

Digitax **X-One Android** is a Mobile Data Terminal that is capable of managing a wide range of direct interfaces from the vehicle, making it a highly versatile and powerful device. It supports numerous functionalities, providing seamless integration with various vehicle systems. X-One Android as advanced machine for professional application bring some important new features that are recently added to the functionality of the device.

Some of its key features are highlighted below as for example: **eSim Technology**, **Dead Reckoning Technology**, **Driver Behaviour Merit System** and his direct interfaced with **PIM Monitor headrest Displays**.





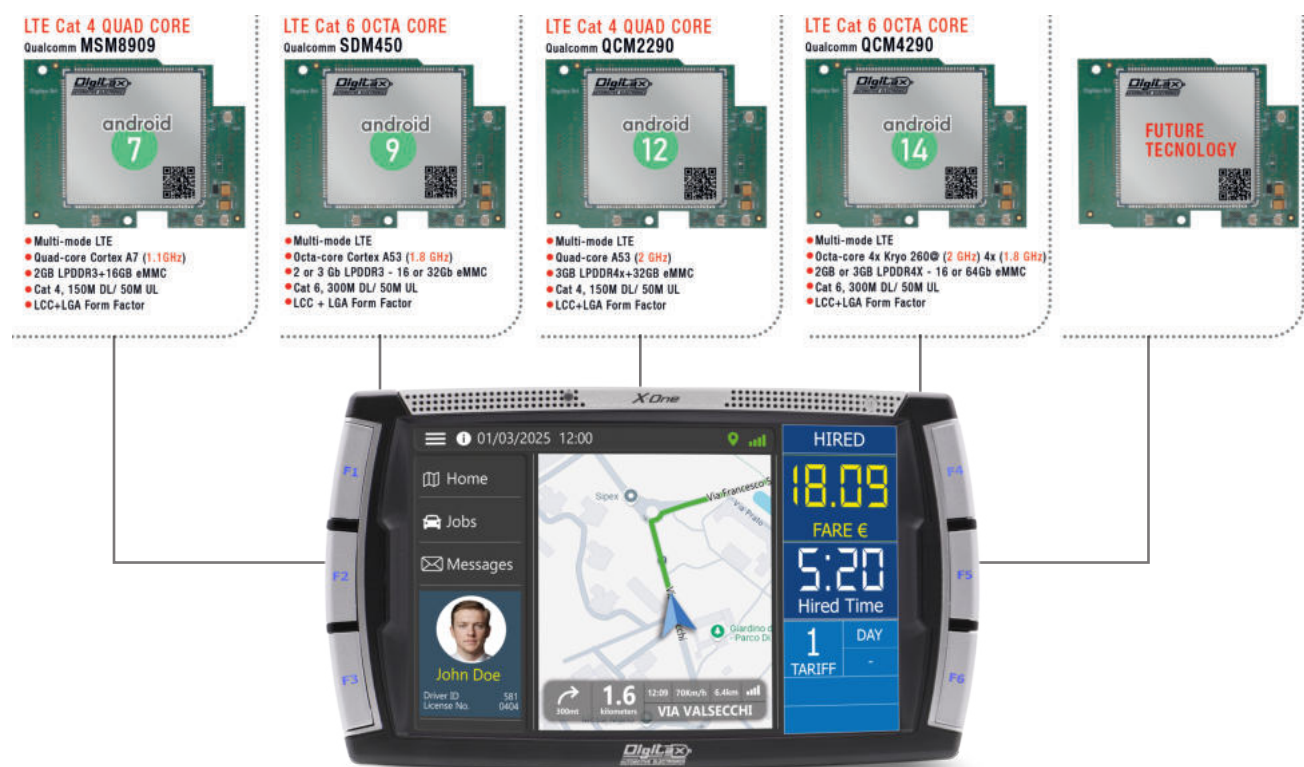
Upgradable Android Platform



Digitax x-One Android device as option could be required with the “system on chip module”. This option permits to upgrade internal CPU to a new one with different features, updated O.S, and characteristics. This feature permits you to keep the device update tune the device your needs and requirements.

Interchangeable current and future Android platforms (SOC) by Module Replacement

- **Qualcomm Quad Core MSM8909 CPU**
with 4G LTE CAT4 modem and Android 7.x OS
- **Qualcomm Octa Core SDM450 CPU**
with 4G LTE CAT6 modem and Android 9.x OS
- **Qualcomm Quad Core QCM2290 CPU**
with 4G LTE CAT4 modem and Android 12.x OS
- **Qualcomm Octa Core SDM4290 CPU**
with 4G LTE CAT6 modem and Android 14.x OS

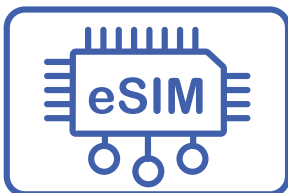


New Features

Digitax is committed to the continuous development and evolution of its product range, with a strong focus on innovation, technological advancement, and customer satisfaction. The company closely follows the latest industry standards and emerging technologies to ensure that its solutions remain at the forefront of the market.

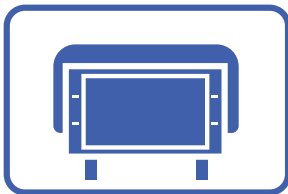
Thanks to its deep expertise and consolidated know-how, Digitax is able to anticipate market trends and proactively integrate new features that respond to the real needs of professionals in the field. This approach allows the company to offer products that are not only reliable and robust, but also smart, flexible, and ready to adapt to the challenges of tomorrow.

Below is an overview of the latest updates and improvements integrated into the X-One Android environment:



eSIM technology integrated

eSIM is the global specification that enables remote SIM provisioning; end-users can change mobile network operators without the need to physically swap SIMs via OTA system from the device.



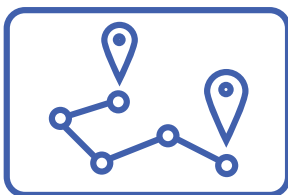
Headrest monitor “PIM” (Public Information Media)

X-One Android is working with integrated EMV POS (point of sale) system for autonomous passenger credit card payment. The PIMs monitor are installed on the headrest of the vehicle allowing the customer to interact with the system, making payments, checking news, weather conditions and more.



The Driver Behaviour Merit System

On the X-One Android is available a system that monitors and evaluates driving habits, encouraging safer, more efficient, and professional driver performance. The data is sent to a data server that tracks the driver behaviour history and helps companies improve the quality and the cost of their fleets.



Dead Reckoning technology

Dead reckoning is a navigational system where an estimated position is determined based on a previously known location, speed, course, and time. That improves navigation accuracy by continuously calculating position based on speed, direction, and elapsed time. It ensures stable and reliable positioning, especially in areas with poor GPS signal, enhancing overall system performance in challenging environments.



Fully Certified Embedded Taximeter

The taximeter operates on a dedicated standalone CPU, allowing it to be certified independently from the Android system and apps. This frees developers to update their Android applications without affecting taximeter certification.

Because the taximeter's hardware and software are entirely separate from Android, it continues to function even in case of Android freezes, reboots, or shutdowns. Mechanical buttons and the printer are directly connected to the taximeter CPU, so even if the Android display or touchscreen fails, the taximeter can still be operated via physical controls and print journey data and fares. The custom Digitax/Android OS prevents any application from overwriting the reserved taximeter display window.

Digitax's new-generation device features a multi-mode LTE Cat.6 module and runs on Android 9.X/14. It supports short-range wireless communication via Wi-Fi 802.11b/g/n and BT 4.1 LE, offering data rates up to 150 Mbps. The device also integrates high-speed connectivity with a built-in multi-constellation, high-sensitivity GPS+GLONASS+BeiDou receiver for accurate positioning.

A comprehensive set of interfaces—including external Ethernet IP cameras, a 7" capacitive touch display at 1024x800 resolution, internal mic and speaker, external audio inputs/outputs, and multiple UART ports—expands its functionality for a wide range of applications.

Dual CPU

QUAD CORE VERSION:

Android 7.1:

Qualcomm Quad-core MSM8909 chipset, ARM Cortex-A7 64-bit CPU @1.1GHz with Adreno 304 GPU, OpenGL ES 3.0, OpenCL, content security and QDSP6 DSP inside, allows this Device to supply a remarkable flexibility and efficiency in computing power, together with reduced power consumption.

Android 12:

Qualcomm QCM2290, Quad-core ARM Cortex-A53 64-bit CPU @ 2.0 GHz, OpenGL ES 3.0, OpenCL, content security and QDSP6 DSP inside, allows this Device to supply a remarkable flexibility and efficiency in computing power, together with reduced power consumption.

OCTA CORE VERSION:

Android 9:

Qualcomm Octa-core SDM450 chipset, ARM Cortex-A53 64-bit CPU @1.8GHz with Adreno 506 GPU, OpenGL ES 3.0, OpenCL, content security and QDSP6 DSP inside, allows this Device to supply a remarkable flexibility and efficiency in computing power, together with reduced power consumption.

Android 14:

Qualcomm QCM4290 Octa-core ARM Cortex 4 x Kryo 260@ 2.0 GHz + 4 x Kryo 260@ 1.8GHz, OpenGL ES 3.0, OpenCL, content security and QDSP6 DSP inside, allows this Device to supply a remarkable flexibility and efficiency in computing power, together with reduced power consumption.

Secondary CPU (for all versions):

AITP (Automotive Intensive Task Processor) dedicated to the embedded taximeter furthermore supplies the necessary functionalities in the automotive field, like power management, Safe Shutdown, Wheel Pulses Odometer, Distance and Speed calculation, Wake-Up on Ring, Over-the-Air services for software and firmware updates. The AITP is OTA programmable for remote automatic firmware and tariff upgrade, and is always powered ON; it can turn-ON and OFF the Device and its peripherals.

Ideal for Fleet Management and Taximeter Job Dispatching

The Device represents the state-of-the-art device for job dispatching certified taximeter, security and fleets management, an ALL-IN-ONE industrial grade and automotive compliant, powerful and compact solution. Its 4G LTE modem allows very reliable communication with operating headquarters. The vehicle is located by the high performance GPS/GLONASS/BeiDo receiver.

Customizable User Interface

The 7 inches 16:9 clear readable TFT Displays with HD 1024x800 @60fp resolution allow to develop versatile and high accessible applications, thanks also to the integrated TouchScreen controller, and to the 6 keys with LEDs available.

Hardware Keys avoid consumption and damage of Touch Screen for heavily used operations.

to choose The ambient light sensor allows an optimal brightness of the display in any environmental light.

The power key is a Smart Power Button, completely programmable and used to perform several important tasks. Can be also disabled or programmed to trigger Ghost Mode (fake shutdown).

Stealth Mode

Stealth mode is a special operating mode in which the system is working but the display and audio is OFF.

This feature can be useful in several situations:

Driver Control: System has also the wake up on ring feature, so at the central it is possible to remotely turn-ON the device (also in stealth mode so nobody can see that it is starting) in order to check vehicle position, internal audio listening and other data.

Ghost Mode: It is possible to set the device so that after pressing the shut down but on the system goes on stealth mode instead of turning OFF. This feature is useful if you want the device to remain always ON (it turns OFF only the display, reducing power consumption) or in an alarm situation.

Alarm managing: If system is OFF and alarm but on is pressed the system can be started in stealth mode, so nobody can see that the system starts. On this special start the system can be programmed for example to send an alarm message to the central, GPS position or also screenshots or audio

High Availability

The Device has been designed for professional automotive application, it is fully automotive certified, can withstand glitches at car engine start, over voltage up to 32V and immunity to ESD and EMC interferences

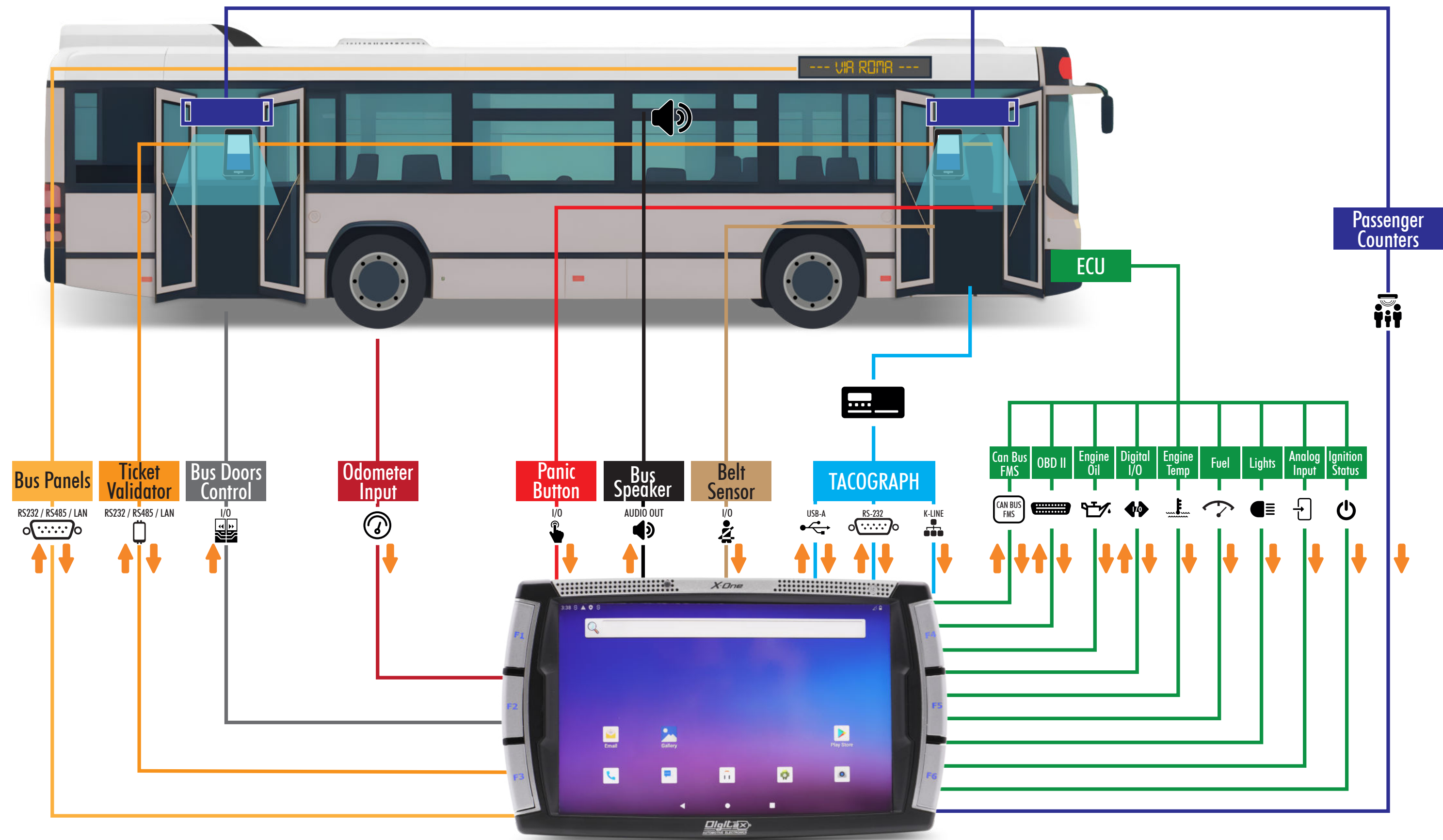
The AITP processor gives time to user applications and Android O.S. to close gracefully and safely in case of sudden disconnection of the Main Power.

Input and Outputs

The Device supplies a wide range of communication channels with the external environment: Hi-Speed USB 2.0 Host, one USB Device and up to 7 RS232 and RS485 Serial Ports.

The special programmable digital inputs and outputs allow to control devices and read signals coming from generic external equipment's.

Available Configurations



Main Features

Display	Viewing area 7" diagonal Aspect Ratio 16:9 WVGA 1024x800 Resolution Colour TFT LED Display Display clearly viewable with 500 cd/m2 Ambient Light Sensor with Automatic Regulation
Touchscreen	Capacitive Touch screen Extended Temperature Range
CPU (QuadCORE Version)	Android 7.1: Fanless Device with Primary CPU Qualcomm MSM8909 chipset, Quad-core ARM Cortex-A7 64-bit CPU @1.1GHz. Adreno 304 GPU: OpenGL ES 3.02, OpenCL3, content security, and decreased power consumption4 Android 12: Qualcomm QCM2290, Quad-core ARM Cortex-A53 64-bit CPU @ 2.0 GHz Secondary M16 CPU for Taximeter and Automotive Intensive Tasks
CPU (OctaCORE Version)	Android 9: Fanless Device with Primary CPU Qualcomm SDM450 chipset, Octa-core ARM Cortex-A53 64-bit CPU @1.8GHz. Adreno 506 GPU: OpenGL ES 3.02, OpenCL3, content security, and decreased power consumption4 Android 14: Qualcomm QCM4290 Octa-core ARM Cortex 4 x Kryo 260@ 2.0 GHz + 4 x Kryo 260@ 1.8GHz Secondary M16 CPU for Taximeter and Automotive Intensive Tasks
Ram Memory	+2GB LPDDR3
Storage Solid State Hard Disk Memory	16GB EMMC
External SD	Up to 256 GB for external storage
Communication Modem	LTE Cat 4 GSM / GPRS Class 12 HSUPA Modem with 150Mbit/s downlink and 50 Mbit/s uplink data rates based on LTE Network (max) Warm reset and cold reset (dedicated electronic circuit) available through API calls 2 Sim Card Slots
GPS Receiver	Multi-constellation GNSS receiver available for applications requiring fast and accurate fixes in any environment.
Antennas	Internal GPS-WiFi-BT-LTE External GPS-WiFi-BT-LTE Rugged Combo antenna (option)
USB Ports	2 USB 2.0 Host (with USB Support for Mouse and Keyboard) Hi-Speed 1 USB 2.0 / OTG Host/Device
Serial Ports	1 External Full Modem RS232 Port. 2 External TX/RX RS232 / RS485 Port 4 External RS232 Serial Ports (option)
I/O ports connection	3 Digital Inputs. 3 + 5 Power Output Ports. Dedicated Ignition input. 2 Analog Ports input. External Speakers output. External Microphone input.
Can Bus	Can Bus Interface OBD-II OBD2
Alarm and Security	Panic Button input / Emergency Switch input Stealth Mode Controller (system ON display, audio and lightings off)
Hardware Keys	6 Lighted and Software programmable Hardware Buttons

Power on Key	1 Smart Power On/Off button
Multimedia	Audio: MP3, AAC+, eAAC, AMR-NB, -WB, G.711, WMA 9/10 Pro
	Video Encode: 30fps 720P (H.264), 30fps WVGA (MPEG-4/VP8)
	Decode: 30fps 1080P (H.264/MPEG-4/VP8/H.265 DivX4/5/6), 30fps WVGA (H.263)
	Internal and external Speaker and Microphone
	Supports wave speaker volume control
API Provided	Soft/Hard Reset
	Soft Reset available through HW switch
	Soft Reset available through API calls
Connectivity	Ethernet: 10/100 Mbps LAN Controller
	Wi-Fi Connection 2.4G/5.8G, 802.11 a/b/g/n
	Bluetooth class 2 BT2.1+EDR/3.0/4.1 LE
Operating System	Android 7.1/12 (QuadCORE Version)
	Android 9.x/14 (OctaCORE Version)
	Development Tools
	Adb/Android Studio IDE with USB debugging support
	SDK for Android O.S.
	Sample code for SDK
	Digitax Framework (Digitax Libraries): GPS, Odometer, Taximeter, Hardware Keys, WatchDog, OTA, Stealth Mode Controller, Logs, And Restore, Light Dimmer, Hardware Identification, Alarm, Card Reader and
	Windows Status
System Diagnostic Tools	Serial port driver and test tools
	Digital I/O driver
	On Field Test (OFT) OnBoard Diagnostic Utilities included, with Customizable CheckList to make tests of GPS Fix, GPS Antenna, GPRS Connectivity and Base Station Signal Quality, Odometer, Ignition, Panic Button, TouchScreen calibration, Hardware Keys, Ambient Light Sensor, Device version, OS Version, AITP Version, Taximeter, UPS and Battery Status, Roof Light, Navigation Software
	All On Field Tests and enrolling features can be used during first installation and swap of devices
OS Image Loader	Over The Air (OTA) OS image loader or microSDHC Card Image Loader
System Update Fleet Management	Professional OTA (Over The Air) CLIENT allows the update of the whole Operating System and all the CPUs Firmware (option).
	Professional OTA (Over The Air) SERVER with vehicles enrolling, group management and selective update, remote debugging and logging. Web based user interface (option)
Taximeter	Embedded Taximeter (Full Firmware and TARIF OTA Programmable)
Power Supply	8 - 32 V with Surge Protector
Battery	Internal Battery Package (option)
Mounting	All the External Connectors, Accessible slots (such as SIM Card, Micro SDHC, USB, etc.) and Screws are Mechanically Sealed
Operating Temperature	-20°C to 75°C
Humidity	Humidity up to 95% non-condensing.
Vibration	Vibration Sine wave, 10 ~ 500 ~ 10Hz, 1.5G, 0.37oct/min 3 axis, 1hour/axis.
Dimension & Weight	204 mm x 120 mm x 35 mm (WxHxD)- 545g

Product Views



CUSTOMIZABLE TAXIMETER window color



4 DIFFERENT TAXIMETER window positions



Left Side



Bottom Side



Top Side



Right Side

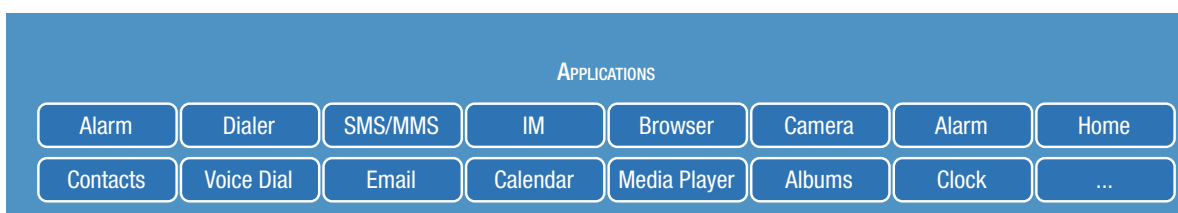
Software Customization

Digitax R&D Team can customize and keep updated every System software module.

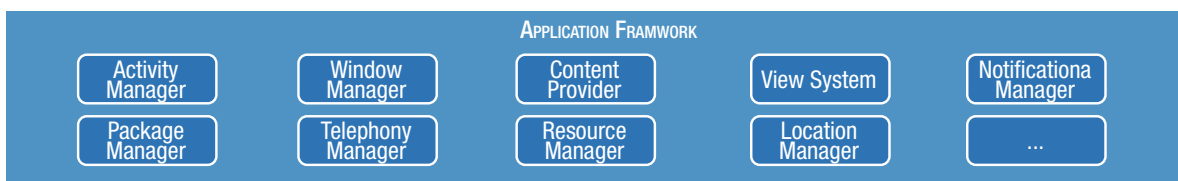
Together with the technical support, Digitax also provides Libraries, Code Samples and anything is required to let the customers to develop customized and proprietary applications by their own.

Digitax will provide technical support

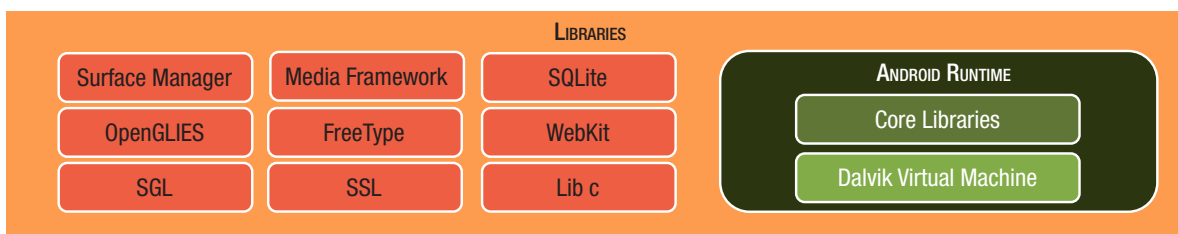
APP LAYER



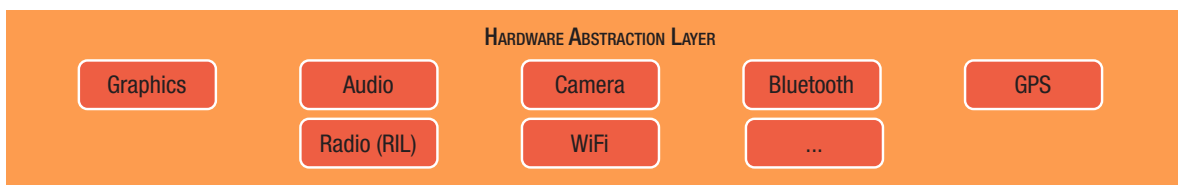
JAVA LAYER



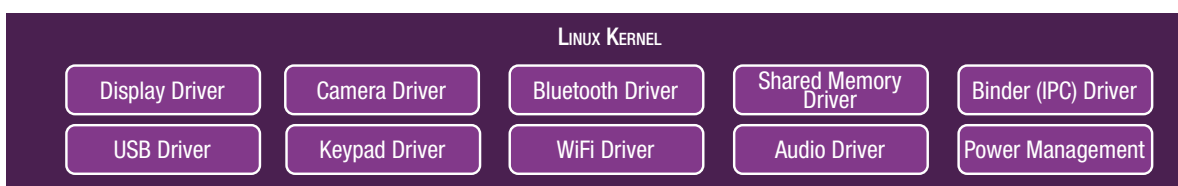
NATIVE LAYER



HAL



LINUX KERNEL





Navigation device display:

11/12/2024 15:59

HIRED
5.65
Hired Time
15.59
Time
DAY
Tariff 2 Pass.
min. 11.50
3.45 km

Central infotainment screen display:

17:06 "ARANCIA TP"

On-board computer

- CD/Multimedia
- Radio
- Telephone
- Navigation
- Office
- ConnectedDrive
- Vehicle Information
- Settings

644 km
8.1 l/100 km
44.4 km/h



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