

X-One

ANDROID



GLONASS/GPS/BeiDou



USB Interface



DIGITAX SDK



Dedicated CPU for
Automotive Intensive
Task Processor



Cat.4 LTE Module



Serial Port Interface



WLAN 2.4G, 802.11b/g/n
BT 2.1 + EDR/3.0/4.1 LE



Android 6.0/7.1



Powerful Multimedia
Function



The new X-One Android device is an industrial grade and automotive certified mobile data terminal

Digitax's new generation device provided with multi-mode LTE Cat.4 module and Android 6.1/7.1 OS. It includes short-range wireless communication via Wi-Fi 802.11b/g/n and BT4.1 LE, and offers data rates up to 150 Mbps.

The device also combines high-speed wireless connectivity with embedded multi-constellation and high-sensitivity GPS+GLONASS+BeiDou receiver for positioning.

A rich set of interfaces and devices (embedded double Camera 2 MP and 5 MP and or external ethernet IP Camera 7' Graphic display at 1280x800 resolution provided with capacitive Touch Panel, internal mic and speaker and or external microphone inputs and speaker audio outputs, a huge set of UART peripherals), extend its functionalities and permits the use of this devices in a wide range of applications and cases.

DUAL CPU

Primary CPU:

Qualcom Quad Cortex 1.4GHz processor with Adreno 304 GPU, OpenGL ES 3.0, OpenCL, DirectX, 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:

AITP (Automotive Intensive Task Processor) dedicated to 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

The Device represents the state-of-the-art device for 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 16:10 clear readable TFT Display with HD 1280x800 @60fps resolution allows to develop versatile and high accessible applications, thanks also to the integrated TouchScreen controller and to the 6 hardware keys with LEDs available. Hardware Keys avoid consumption and damage of Touch Screen for heavily used operations.

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 button 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 button 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 video or audio.

HIGH AVAILABILITY

The Device has been designed for professional automotive applications, it is fully automotive certified, can withstand glitches at car engine start, over voltages 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.

INPUTS 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 and Ethernet.

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



MAIN FEATURES



Display

Viewing area 7" diagonal
Aspect Ratio 16:10
WXGA 1280x800 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

CPUs

Fanless Device with Primary CPU Qualcomm Quad Cortex 1.4GHz. Adreno 304 GPU: OpenGL ES 3.02, OpenCL3, DirectX, content security, and decreased power consumption4
Secondary M16 CPU for Automotive Intensive Tasks

Ram Memory

+1GB LPDDR3

Storage Solid State Hard Disk Memory

8GB EMMC

External SD

Up to 256 GB for external storage

Communication Modem

LTE Cat 4 Modem with 150Mbit/s downlink and 50Mbit/s uplink data rates based on LTE network (max)
GSM / GPRS Class 12 HSUPA
Warm reset and cold reset (dedicated electronic circuit)
2 Sim Card slots.

GPS Receiver

Multi-constellation GNSS receiver available for applications requiring fast and accurate fixes in any environment.
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Antennas

Internal GPS-WiFi-BT-LTE or External GPS-WiFi-BT-LTE Rugged Combo antenna (option)
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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

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
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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

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 6.0/7.1
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, Hardware Keys, WatchDog, OTA, Stealth Mode Controller, Logs, And Restore, Light Dimmer, Hardware Identification, Alarm, Card Reader

System diagnostic tools

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, 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)

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.

Dust Ingress Protection

All connectors covers sealed, no open holes

Dimension

204 mm x 120 mm x 35 mm (WxHxD)

Weight

400 g



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DIGITAX SDK



- All in One
- Automotive compliance fully certificate
- Extended Temperature Range
- Extended and filtered power supply system.
- Wide range of external interfaces
- Safe and inviolable tamper proof
- Mechanical keyboard for hot switch
- Wide range of software API for specific Hardware and easy user application.
- Extended 10 years supports parts and maintenance program.



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