

BETA Mobile

Mobile configuration of the modular BETA platform featuring 3G, GPS, WiFi, Bluetooth and battery operation for handheld use.

PROCESSOR



OPERATING SYSTEM



I/O



› Stay Connected

WiFi, Bluetooth, Ethernet, 3G and GPS provide connectivity for mobile operation.

› Keep On the Move

The 3400mAh Lithium-Ion battery and low power consumption keeps you operational.

› Pre-Integrated for Simplicity

Single board computer, LCD and touch screen delivered as one pre-integrated unit.

› Easily Connect Your Own Product

Add your own electronics via the 50-pin general purpose connector.

SUMMARY

The BETA Mobile is a pre-integrated touch screen module configuration designed for mobile and automotive applications. The on-board 3G / GSM, GPS, WiFi, Bluetooth and battery operation create a truly mobile embedded system, while the automotive-approved power operation and dual CAN make it ideal for automotive applications.

- 7.1" LCD screen
- Projected Capacitive or Resistive touch overlay
- 1GHz NXP iMX6 ARM Cortex-A9 processor
- 3G / GSM, WiFi and Bluetooth
- Light sensor, accelerometer
- Battery-powered for mobile, handheld use
- Automotive 6-30 volt DC power operation
- Dual CAN, dual RS232 and one RS232/422/485 port
- MicroSD socket or 8GB eMMC flash storage
- USB 2.0 Host & Device
- GPIO, SPI and I²C



BETA Mobile

TECHNICAL SPECIFICATIONS

Core System

Processor	NXP iMX6 SoloLite ARM Cortex-A9 Single Core, 1GHz
Memory	1GB DDR3L (low power)
Storage	MicroSD socket or 8GB eMMC flash
Graphics	OpenVG 1.1 PXP (PiXeL Processing pipeline)
Audio	Mic and Line inputs Class D mono 0.5 watt amplifier
Watchdog	Yes
Real Time Clock	Yes

Display & Touch

Touch Interface Type	Projected Capacitive or Resistive
LCD Size	7.1"
LCD Resolution	800x480
LCD Brightness	425 cd/m ² typical
LCD Contrast	400 typical
LCD Viewing Angles	60, 70, 70, 70 typical

Operating System

OS Support	Android 4.4.3, Linux Ubuntu 14.04 LTS & Windows EC 2013
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I/O

Mobile Communications	UMTS/HSPA - 5.76Mb/s uplink, 7.2Mb/s downlink GSM - 850/1900MHz, 900/1800MHz GPRS - Class 12, CS1-CS4, up to 85.6kb/s EDGE - Class 12, MCS1-9, up to 236kb/s CSD - GSM max 9.6kb/s, UMTS max 64kb/s SMS - MT/MO PDU / Text mode Standard size SIM (optional Dual SIM)
Voice	EU - u-blox SARA-U270 (900/2100MHz, D1) NA - u-blox SARA-U260 (850/1900MHz, D2)
GPS	u-blox MAX7W - GPS/QZSS, GLONASS, Assisted fix
Wireless	Optional WiFi 802.11 a/b/g/n (2.4GHz) with Station and Access Point operation Optional Bluetooth 4.1, BLE 4.0
Accelerometer	3 axis, 14/8-bit (MMA8451QR1)
Light Sensor	16-bit (APDS-9301-020)
Serial	x2 CAN x1 I ² C x2 RS232 (Rx/Tx) x1 RS232/422/485 (factory option) x1 SPI USB 2.0
GPIO	5 signals (1.8v or 3.3v, software controlled)
Camera Interface	USB
Expansion/Other	50-way expansion interface Screw Terminal and Pico Blade adapters available

Power

Input Connector	Screw Terminal or Jack
Input Voltage	Automotive 6 to 30 Volts DC with protection
Battery	Lithium-Ion 3.7 Volts DC 3400mAH (18650)

Power

Battery Features	Charges while powered Monitor battery levels with fuel gauge
Ignition	Dedicated control signal

Physical

Status LEDs	x1 bi-colour LED
Operating Temperature	Standard (0°C to 50°C) or Extended (-20°C to 50°C, also enables 5GHz WiFi)
Battery Limitations	Charging: 0°C to 45°C Discharging: -20°C to 60°C
Storage Temperature	-30°C to 80°C
Humidity	5 to 85% non-condensing
Overall Dimensions	187mm (W) x 124mm (H) x 43mm (D)
Mounting Options	AMPs Panel mount stud fix
Approvals	CE EMC Thermal Radio Equipment Directive

ALTERNATIVE CONFIGURATIONS

We also offer a variety of other configurations of the BETA platform to suit different requirements and applications:



› BETA Lite

Low-cost configuration with a 4.3" LCD and Resistive touch screen.



› BETA Standard

General-purpose configuration featuring a 7.1" LCD and Projected Capacitive touch screen.



› BETA Panel PC

Configuration designed for industrial automation applications, featuring a 9.7" LCD and Windows 10 operating system.



› Create Your Own BETA Configuration

The BETA platform is modular, giving you the flexibility to create your own configuration of screen size, touch interface, processing power, I/O and much more.

For more information, visit bluechiptechnology.com



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