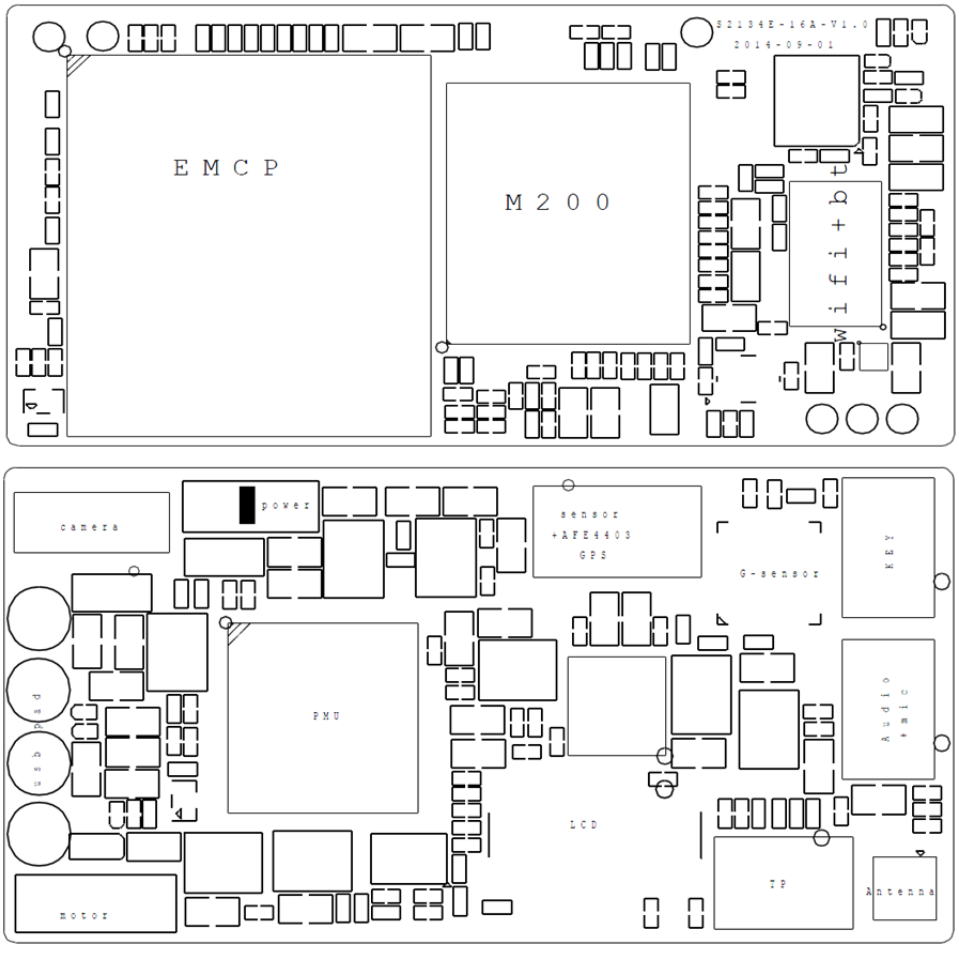
Ingenic Newton2 Development Platform

Introduction

The Ingenic® Newton2 provides a development platform for wearable and Internet of Things (IoT) device manufactures to design and promote to market a differentiated product in a shorter amount of time. The Newton2 has been designed to a modular hardware platform with various external connectors that can fast forward your product development while reducing risk and controlling costs. The Newton2 board uses the high performance and low power Ingenic M200 wearable processor which make it the best-in-class reference development platform for the wearable devices.

Ingenic® Newton2 Features

• Ingenic® M200 wearable processor with dual-cores, up to 1.2GHz.
• Integrated power management IC with DCDC, LDO, battery charger and voltage detection.
• eMCP with 4GB eMMC + 4Gb LPDDR2.
• Broadcom BCM43438 Single-band 2.4GHz IEEE 802.11b/g/n
• Bluetooth 4.1 (Bluetooth Low Energy), 3.0, 2.1 + EDR.
• InvenSense MPU9250, 3-axis gyroscope + 3-axis accelerometer + 3-axis magnetometer.
• 7 connectors for LCD, touchscreen, DMIC, speaker, camera, buttons, GPS, sensors, GPIO and Wi-Fi/BT RF.
• Micro USB device.
• Debug UART port.
• Li-on battery power input.



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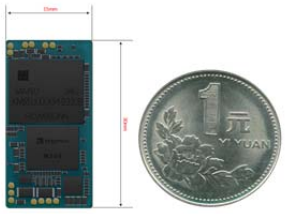
PHYSICAL	
Form factor	A modular board with 7 connectors
Dimensions	15 x 30 x 2.4 mm
COMPONENTS	
Processor	Ingenic dual-cores M200 SoC, one core up to 1.2 GHz, the other core up to 300MHz · GPU: 3D with OpenGL ES 2.0/1.1 and OpenVG 1.1 · VPU: H.264 encoding and decoding 720P@30fps · ISP for image pre-processing
Memory	eMCP H9TP32A4GDCCPR (4GB eMMC + 4Gb LPDDR2)
PMIC	Ricoh RC5T619 power management IC
Wi-Fi	Broadcom 43438 single-band 2.4GHz IEEE 802.11 b/g/n
Bluetooth	Bluetooth 4.1 (Bluetooth Low Energy), 3.0, 2.1 + EDR
Sensor	InvenSense MPU9250, 3-axis gyroscope/accelerometer/magnetometer
USB 2.0	Micro USB device
UART	Serial debug port
Clocks	24MHz, 32.768kHz; 26MHz (Wi-Fi/BT)
EXTERNAL CONNECTORS	
Display (24-pin)	MIPI-DSI and power signals for 240X240 1.63" AMOLED module
Touch (14-pin)	power and interrupt signals for capacitive touch screen
Audio (14-pin)	DMIC and AOHPL/R
Camera (16-pin)	MIPI-CSI and I2C
Button (14-pin)	POWER, BOOT_KEY, BOOT_SEL1
GPS/Sensor (18-pin)	UART, I2C, GPIO
RF Connect (4-pin)	Wi-Fi and 2.4GHz BT antenna
POWER	
Input	Li-on battery: 3.7~4.2V Micro USB: 5.0V
Power consumption	Standby (No radios): 2mW Standby (Wi-Fi): 35mW Standby (Bluetooth 4.0): 21mW
SOFTWARE	
Supported OS	Android 4.4 and Wear, Linux 3.0.8
Code availability	Open source



For more information, please visit **www.ingenic.cn**