

NIMble™

NIM1000 Touch Module



YOUR Innovation ... **Our TOUCH**

Get your touch product
to market faster



TR Touch
Revolution



The NIMble™ Module is a complete touch subsystem running android that can be used by OEMs to quickly bring high-quality touch devices to market. OEMs can design the NIMble Module into a wide range of networked touch products – phones, medical devices, remote controls, MIDs, PMPs, portable kiosks, and appliances, just to name a few.

NIMble Module (NIM1000)

Integrated Android Touch Module Allows OEMs To:

- Quickly Deliver a High Quality Touch Experience
- Reduce Development Cost and Risk
- Follow an Open, Customizable Standard
- Provide Built-In Upgradability

The Experience

Clear ProCap High Resolution Touch Display

Some people overlook the fact that the key part of a touch system is the touch display because the central element of the touch experience is accurate gesture recognition. We made a beautiful 7” multi-touch screen using a similar type of projective capacitive touch sensor as those used in popular touch-screen mobile phones – that’s a good start. We then use optimized touch firmware to deliver superior multi-touch events to android.



The Touch Revolution touch screen enables a feather light finger touch and critical features such as gesture recognition and synchronized on-screen animations for flick to scroll, drag and drop, pinch to enlarge, or on-screen typing. You can use a lower-cost resistive screen (what we call a “poke” interface), but we really believe that without a high-quality touch screen you will not deliver an intuitive, friendly, usable touch device.

NIMble Architecture

Flexible/Extensible High-Performance Module Design

We designed the NIMble module to be...well... Nimble. The main processor board contains an 806 MHz ARM processor, video acceleration co-processor, memory, touch display and optional MMC/SD,WiFi, USB, Ethernet, and accelerometer components PLUS a bunch of connectors that let you design it into virtually any industrial design. You decide where the I/O connectors, buttons, and LEDs go and put it into whatever enclosure you like. We call it “a jack of all trades and a master of touch.”



We also recognize that Android has key hardware dependencies on buttons and LEDs, so we included Android-specific connectors for hardware features required by android while letting you design their physical implementation.

Integrated Open Solution

Customizable Optimized Android

We have taken the standard Android framework and have done a commercial-grade port to the NIMble Module while optimizing it to shine on our 7" display. We make that ported code available to you to modify. In other words, you can take our NIMble-Optimized android and make it your own!



Design with Ease

Development Systems for Rapid Prototyping and Design

To make it easy for you to develop your products, we created a NIMble Development Kit so you can easily connect your hardware components to the NIM1000 and create fully functional lab prototypes in no time. The NIMble Development Kit lets you integrate device components before you have final component boards, allowing you to verify your design architecture in hardware without waiting for every component to be completed. The main component of the NIMble Development Kit is the NIM1000 Module, which can be removed to create a fully functional mechanical prototype for usability studies or product demonstrations.



Launch-Ready

Tested and Qualified for High Volume Manufacture

Let's launch some products – we're ready when you are! We have gone through rigorous quality assurance testing and compliance pre-certification on the NIMble Module (You can say we made the NIMble Module jump through hoops.) We have also set up high-volume manufacturing lines for the NIMble Module and are ready to deliver quality-manufactured NIMble Modules as volume components to meet your product launch needs.



High-Touch Approach

Touch Drives the Design

We are a touch company that makes electronics products, not an electronics company figuring out how to add touch to a device. Our focus is on integrating the hardware and software to deliver a great touch experience. We've adopted the engineering approach that led to the success of the hottest new touch phones – building products around the breakthrough UI; touch.

Touch Revolution offers touch solutions for your product. We can work with you to create the best touch experience. We know that customer satisfaction of your device rests on a simple and reliable touch experience. We bring you quality, tested products that ensure you will get your touch product right.



NIM1000 - NIMble Module Specifications

STANDARD BOARD COMPONENTS

CPU	PXA310 ARM Processor - 624MHZ or 806MHZ
Operating System	Integrated Customizable Android Framework
RAM	128 MB or 256MB Mobile LPDDR
Storage	512 MB NAND Flash (<i>Expandable through MMC/SD</i>)
EEPROM	1K I2C EEPROM

OPTIONAL BOARD COMPONENTS

Accelerometer	MEMS motion sensor 3-axis $\pm 2g/\pm 8g$
Battery Support	Charger and Fuel Gauge
Wireless Connectivity	WiFi 802.11 b/g (with 802.11e QoS, 802.11i)
Wired Connectivity	Ethernet 10/100 Controller
Bluetooth	Bluetooth 2.1 + EDR
USB (Device, Host, Hub)	USB 2.0 Device Full speed and High Speed USB 1.1 Host Controller Low Speed and Full Speed 3-Port Hub supports Low-Speed and Full-Speed
I/O Support	SD/SDHC, SDIO Controller
Audio	2.1W Stereo Amplifier

BOARD CONNECTORS

Power	5V Power Connector
Battery	Battery Connector
Speakers	L and R Stereo Speaker Connector
Microphone	Microphone Connector
WiFi Antenna	WiFi Antenna Connector (<i>On-board antenna available</i>)
Android Button Connector	Android Buttons (Home, Back, Menu) plus device-specific LED x 3
Android Volume/LED Connector	Volume Controls (Vol Up, Vol Down, Mute), Power Button and 2 Android Charging/Notification LEDs
Expansion Connectors (4)	SD, USB Client, USB Host, Stereo Headphone, I2C, LEDs, Power, SD, UART, SSP, PWM, GPIO, Line in/out, L/R Audio Out Vibrate, Camera (CIF), Ethernet, LED, Hook, SSP
Debug Connector	JTAG, UART, LED, Reset

PHYSICAL

Board Footprint	121 x 104.9 mm (4.76 x 4.13 inches)
Board Depth	1.58 mm (0.0622 inches)

TOUCH DISPLAY

Sensor Type	Projective Capacitive – Clear Glass
Surface Treatment Options	Chemically Strengthened Glass, Anti-Glare, Anti-Smudge
Display	7" Diagonal LCD - 153.6(H) x 86.64(V) mm (6.0 X 3.4 inches)
Resolution	800 x 480 pixels
Colors	262K
Contrast Ratio	500:1
Viewing Angle	140/110
Physical Dimensions	177.8 x 114.3 mm (7 x 4.5 inches)

MOUNTING FRAME (Optional)

Material	PC-ABS
Physical Dimensions	179 x 139 mm (7.04 x 5.47 inches)

Specifications Subject to Change Without Notice

