MODAT-210

Order Entry PDA

- Texas Instruments Sitara ARM Cortex A8 CPU
- Android 2.3 Operating System
- 3.5" TFT LCD 375 cd/m² with Resistive Touch
- Wi-Fi 802.11 b/g/n and Bluetooth 2.1 + EDR
- GPS and HSDPA or GPRS

Cortex
Intelligent Processors by ARM®

TEXAS INSTRUMENTS

ANDROID | Bluetooth | Wi-Fi | USB 2.0 | GPS GPS | IP64

Point-of-Service Application

Order Management

Home Automation

Inspection

Remote Monitor

Power Saving and Trendy Platform

▌TI Cortex A8 CPU

- ■ TI's Sitara family of highly-integrated ARM9™ and ARM Cortex™-A8 microprocessors offers various combinations of high-performance and low power levels, providing the ability to create an array of products using a common hardware and software platform.
- ■ Reduce system risks and accelerate time-to-market using standard and comprehensive ARM-based software development tools.
- ■ TI is the largest ARM core licensee supporting all major high-level operating systems such as Android and Window CE.

Sitara™ offers

Performance
- ● Up to 450MHz ARM9 to 1.5GHz Cortex A8 devices
- ● Industry's first widely available Cortex-A8 devices - 2DMIPS per MHz
- ● Graphics acceleration up to 27M polygons/s performance for advanced user interface
- ● High speed DDR2 and DDR3 memory performance

Connectivity
- ● 10/100/1000 Ethernet
- ● CAN 2.0 and High speed USB interface
- ● Multiple serial port options per device
- ● Cost effective processor with SATA interface
- ● Flexible LCD controller for up to 720p displays and moving to 1080p in future devices
- ● Industrial peripheral support

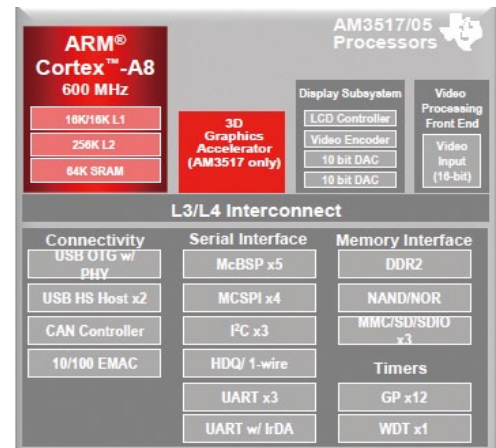### AM3517/05 Cortex™ -A8 based processors

Benefit
- ■ Supports OS such as Linux, Win CE, RTOS
- ■ 10M polygons/second for robust GUIs
- ■ Multi window overlay for hardware accelerated user

Power
- ■ Total Power: L700mW
- ■ Standby Power: 12mW

Suggested Application
- ■ Industrial/Home Automation
- ■ Point-of-service

▌Android 2.3.4 Operating System

- ■ Android is an operating system for mobile devices such as smartphones and tablet computers. It was developed by the Open Handset Alliance led by Google.
- ■ Android was listed as the best-selling smartphone platform worldwide in Q4 2010 by Canalys with over 200 million Android devices in use by November 2011.
- ■ 2.3 Gingerbread refined the user interface, improved the soft keyboard and copy/ paste features, improved gaming performance, added SIP support (VoIP calls), and support for Near Field Communication.

Android Market is the online software store developed by Google for Android devices. An application program called "Market" is preinstalled on most Android devices and allows users to browse and download apps published by third-party developers, hosted on Android Market.
As of December 2010 there were about 200,000 applications and widgets available on the Android Market.

Android Security Issue
Android applications run in a sandbox, an isolated area of the operating system that does not have access to the rest of the system's resources, unless access permissions are granted by the user when the application is installed. Before installing an application, Android Market displays all required permissions

Rich Wireless Communication

The MODAT-210 keeps mobile workers connected with the back-office and peripherals through built-in 3.5G, Wi-Fi, and Bluetooth wireless technologies.

▌Local-Area Communication

Complies with the 802.11 b/g/n standard this feature allows fast data transfers for near field or ad-hoc data communications.

▌Peripheral Communication

Complies with the Bluetooth 2.1+EDR specification, this feature ensures easy and quick access to nearby peripherals.

▌Wide-Area Mobile Communication

Provides up to 3.75G wireless technology, mobile out-field workers can maintain constant contact with the back office.

▌Built-in GPS

GPS is a mature technology that allows users with GPS antennas to locate their current location with respect to other landmarks.

Semi-Rugged Design

Designed specifically for out-field applications, the MODAT-210 has been tested and approved for its semi-ruggedness:

IP64

IP 64 Rating
Dust tight and protected against water splashed against the component from any direction

Operating Temperature -10°C~50°C

Operating Temperature -10°C ~ 50°C
Can be operated under a wide range of temperatures

Drop Protection

1.2M Drop Test
Passed the 1.2M drop test on all sides 26 times

Audio Jack & Reset button

microSD Slot

SIM card Slot

Separate IO covers prevent water from entering the MODAT-210, allowing it to have IP 64 grade protection.

Specifications

Model		MODAT-210
Display	LCD Size	3.5" TFT LCD
	Brightness (cd/m²)	375 cd/m²
	Max Resolution	320(H) x 480(V) HVGA
	Viewing Angle	80/58/80/80 Deg.
	Touch Screen	4-Wire Resistive Type Touch
System	CPU	TI Sitara AM3715
	OS	Android 2.3
	Memory	4GB eMMC Flash + 512MB SDRAM
	Storage	microSD Slot
Communication	Wireless LAN	Wi-Fi 802.11 b/g/n
	Bluetooth	Bluetooth 2.1+EDR
	Modem	WCDMA/HSUPA or GPRS
	GPS	GPS w/internal antenna
AIndicators & Buttons	LED Indicators (from left to right)	Charging Status / Full LED (Orange / Green)
		Wi-Fi / BT enable / disable LED (Green / Blue)
		3.5G or 2.5G enable / disable LED (Green)
	Keys	Power On / Off Switch
		Reset Key
		5 x Function Key (Home / Menu / Back / Up / Down)
I/O Interface	Audio	1 x Headset
		1 x 1W Speaker
		1 x Built-in Digital Microphone
	Expansion	1 x Micro USB Host 1.1 / Client
Power	Power Adapter	Input : 100 V AC to 240 V AC ~ 50-60 Hz 0.2A
		Output : 5V / 2.1A
	Battery	3.7V 1,800 mAh battery
Environment	Operating Temperature	-10°C~50°C
	Storage Temperature	-20°C~70°C
	Humidity	5%~95% non-condensing
	Drop Survival	1.2M
	Environment Protection	IP 64
	Certification	CE / FCC
Physical Characteristics	Dimensions (LxWxH) (mm)	127 x 70 x 16
	Weight	197g

Dimensions
(Unit: mm)

78.79

139.52

130.44

24.46

13.5

21

94.8

64.8
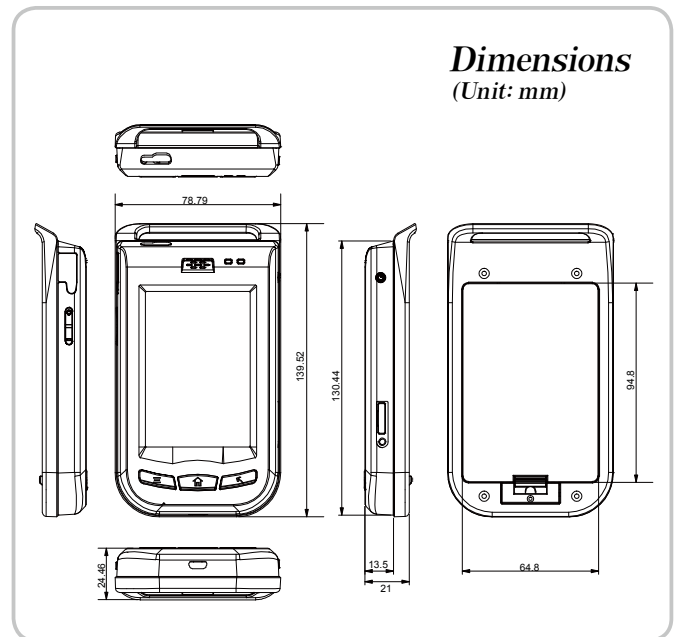
Ordering Information

Part No.	Description
MODAT-210	3.5" TFT-LCDQVGA Enterprise PDA with TI Cortex A8 CPU, 802.11 b/g/n, Bluetooth, GPS, Android 2.3 OS, RoHS.

I/O cover

HSUPA LED

WI-FI/BT LED

System/Battery LED

Menu   Home   Back

Power Button

Direction Keys Up/Down

3.7V 1,800 mAh battery

Micro USB