

SOM-C3503/C3530

COM with TI OMAP35 Series Processor

Project-based



Features

- TI Cortex A8 OMAP35 series @ 600 MHz high performance/application processor
- 2D/3D graphics hardware engine (SOM-C3530 only)
- D1 + resolution video utilizing TMS320C64x + DSP and video accelerators (SOM-C3530 only)
- TI's SmartReflex ultra low power technology supports 0.6W power consumption when normal run
- I/O through 3.3V I/O voltage and wide working temperature by industrial design concept
- Supports WinCE 6.0 & Embedded Linux 2.6
- Rich I/O for high expansion capability
- SoC chip support to 2019

Introduction

Industrial Designed I/O intensive COM

SOM-C3500 series Computer On Module (COM) integrates TI OMAP35 series ultra low-power SoC and I/O solution chips together with Windows CE or Linux to create ready-made solutions. TI OMAP3530 supports 2D, 3D graphics acceleration, H/W video acceleration and H/W video encode/decode up to 720p, 30fps high definition. SOM-C3500 series with 3.3V I/O Voltage current and wide range temperature support is specially designed for industrial applications.

Design-in Package Ensures Efficient Evaluation and Implementation

The Design-in Package not only includes all the necessary H/W boards, fixtures and LCD related cables, but also includes the Advantech-customized API, utility & reference codes. And of course, it includes all design-related documentation including, a white paper for detailed technical know-how.

Two supporting mechanisms are included in the Design-in Package:

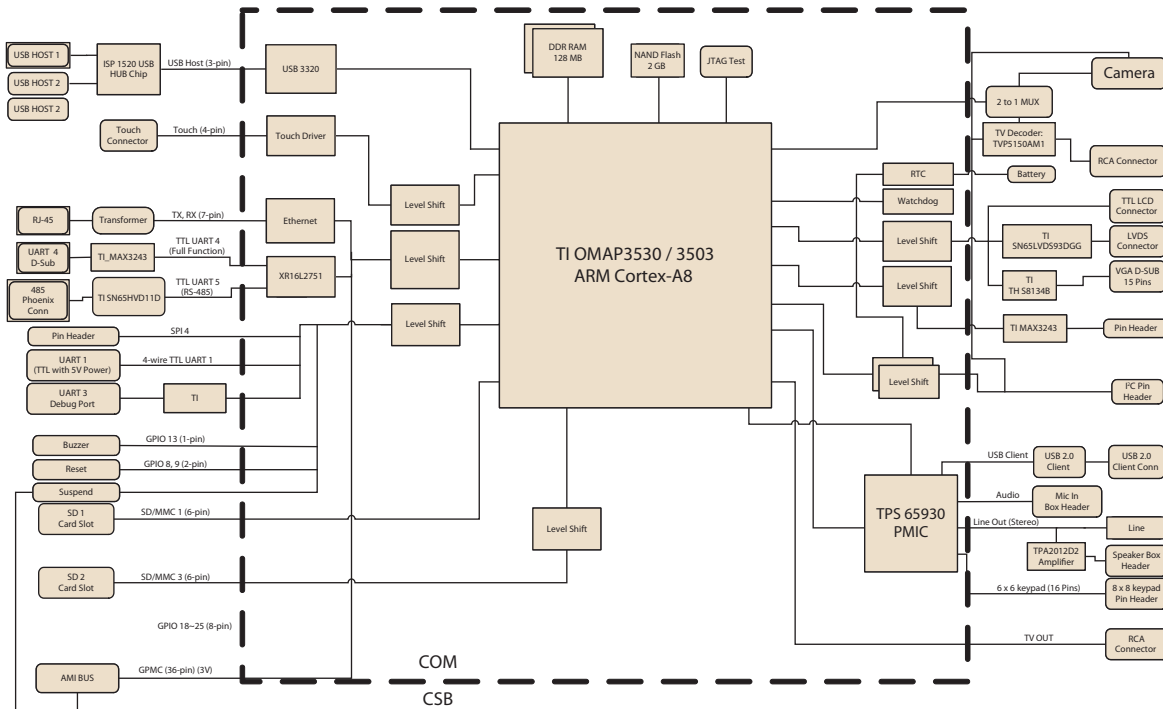
Reference Kit: Includes the Advantech reference Customer Solution Board (CSB) and all documentation relating to CSB design and manufacture. ex : Schematics , and pin definition .etc file.

LCD Kit: Includes the LCD, T/S and related cables. All goods are pre-verified and supported in Advantech's reference S/W package.

Specifications

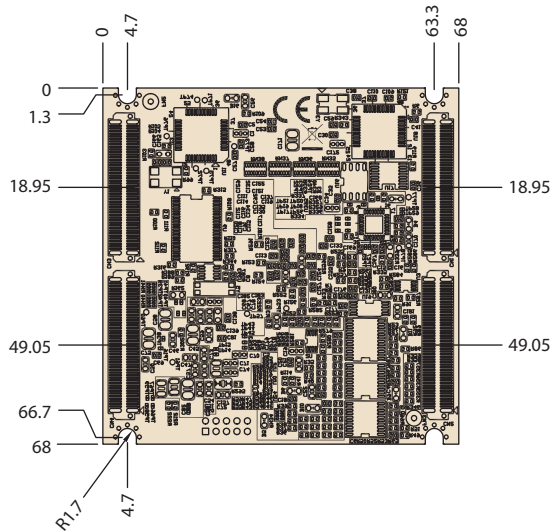
Kernel	M/B	SOM-C3503	SOM-C3530
	CPU	TI-OMAP 3503 Cortex A8 600 MHz	TI-OMAP 3530 Cortex A8 600 MHz
	RAM	128 MB DDR	256 MB DDR
	Image/AP Flash	None	2 GB
	Graphics chip	24-bit LCD out by CPU	
	RTC	Yes	
	Watchdog	Yes	
	Reset	H/W reset & S/W reset(by register setting)	
I/O (All interfaces with industrial TTL 3.3V level.)	COM	TTL level COM 4 wire x3	TTL level COM x 5 (FF x 2 & 4 wire x 3)
	Ethernet LAN	10/100 Mbps	
	USB Host	1	
	USB Client	1 (OTG supported)	
	SD/MMC	SD/MMC x 2	
	Touch	4-wire Resistive type	
	SPI	1	
	Keypad	6 x 6 matrix keypad support	
	I ² C Interface	2	
	GPIO	20 x pins 3.3V TTL level GPIOs	
Multimedia	Graphics Chip	CPU internal 24-bit LCD controller	
	Resolution	Default 800 x 480, 320 x 240 ~ 1280 x 800 (optional)	
	LCD Output	24-bit buffered 3.3V TTL level	
	Audio	Line-in, Line-out, MIC-in	
Power	DC-input	3.3V ±5% & 3.6V±5%	
	Idle	~ 0.6 W	
Power Consumption	Full Run	~ 1.2 W	
	Board Size	68 x 68 x 7.5 mm	
Mechanical and Environmental	Operating Temperature	0 ~ 60° C (32 ~ 140° F) (-20 ~ 70° C, -40 ~ 85° C by project base)	
	Operating Humidity	5% ~ 95% Relative Humidity, non condensing	
	Other	RoHS	Yes
	Certifications	CE/FCC Class A	

Block Diagram



Dimensions

Unit: mm



Ordering Information

SOM-3530DK-B00E Design-in Package

Part No.	Description
SOM-C3530DK-B00E	Evaluation kit for TI OMAP3530 w/ Windows CE 6.0, 256 MB DDR SDRAM, 2 GB NAND flash.
Power cord	1700001947 for 2-pin USA standard power cord 1700001948 for 2-pin power cord for Europe standard 1700001949 for 2-pin power cord for UK standard

SOM-C3503/C3530 COM (Module only)

Part No.	Description
SOM-C3503-650B0E	TI OMAP3503, 128 MB DDR RAM, None onboard flash, WinCE 6.0 Pro, ROHS
SOM-C3503-650BAE	TI OMAP3503, 128 MB DDR RAM, None onboard Flash, ROHS
SOM-C3530-668B0E	TI OMAP3530, 256 MB DDR RAM, 2 GB NAND flash, WinCE 6.0 Pro, ROHS
SOM-C3530-668BAE	TI OMAP3530, 256 MB DDR RAM, 2 GB NAND Flash, ROHS

Packing List

Bulk packing with 20 pcs in one box

**Sample image and related documentation included with Design-in kit only.