



Main Features

- TI-AM3354, ARM® Cortex® A8 up to 720MHz
- Graphic accelerator SGX530
- Onboard 512MB DDR3, 4GB eMMC
- Single channel LVDS/ TTL 24-bit Display interface
- Gigabit Ethernet, USB, USB-OTG, SDIO, 2UART, SPI, DCAN, I2S, 3x I2C and 8x GPIO
- SMARC STD 1.0 compliance with MXM3.0/314pins, 82 x 50mm

Product Overview

NEXCOM ACES 3354 is based on TI Sitara™ AM3354 ARM® Cortex™ A8 technology. ACES 3354 is designed as building blocks for tiny, small portable and stationary embedded systems. It support DRAM onboard, boot flash, power sequencing management, CPU power supplies, gigabit Ethernet and a single channel LVDS display transmitter are connected onto 314pins edge card as bus interfaces.

The ACES 3354 features include parallel LCD display interfaces, serial and parallel input; multiple I2C, I2S and serial port options; USB client/ host mode (OTG) operation; eMMC and SD card operation. ACES 3354 help device makers or product builder together with NEXCOM in house design carrier board ACEB 35 as completed evaluation platform.

NEXCOM provide ARM® based developer starter-kit by ACEK 3354-7P, build-in 7" LVDS LCD and capacitive touch panel with application BSP-ready for Win CE 7.0.

ACES 3354 module features lower power that enables fanless solution system designs, drives to smaller size equipment, and tough enclosures for shock protection. It is the ideal ARM® based solution human machine interfaces platform for industrial automation, industrial control, remote monitoring devices.

Specifications

Form factor

- SMARC STD 1.0 compliance with MXM3.0/314pins, 82 x 50mm

Processor

- Build-in Texas Instruments AM3354 ZCZ 324-pin PBGA Cortex™ A8 up to 720MHz

Power Management IC

- PMIC TPS65910A3 integrated w/ 4 DC/DCs, 8 LDOs and RTC in 6x6mm QFN

System Memory

- SDRAM : DDR3 512MB
- Flash : eMMC 4GB
- SPI Flash : 8Mbit

Multimedia

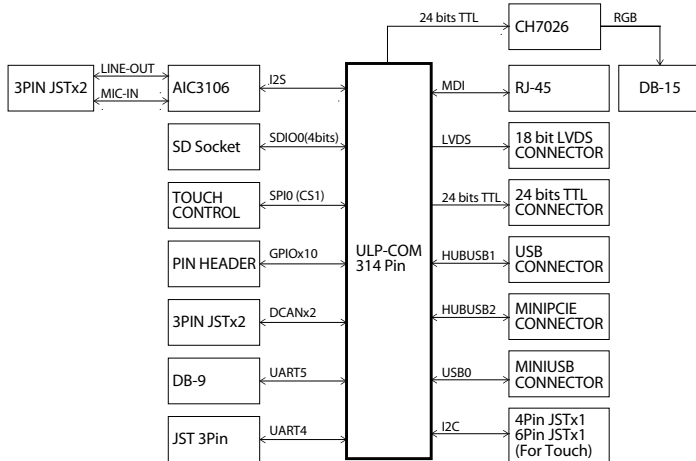
- Graphic Accelerator : SGX530
- Display Interfaces :
 - LVDS : Default 800 x 480 (24bit) for 7" LCD/ LVDS
 - TTL : Reserved design interface for resolution up to 1024x 768@60Hz
- Audio: I2S

Connectivity

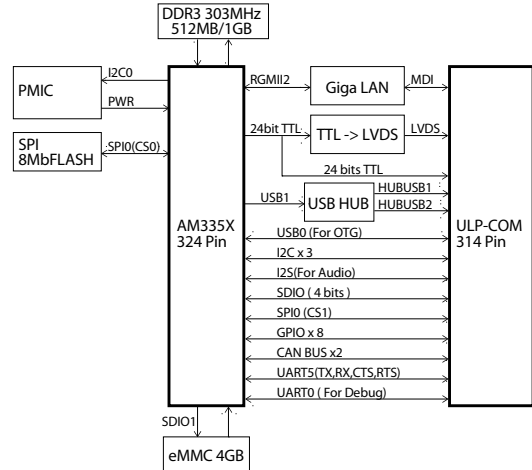
- Network : 1x EMAC 10/100/1000 RGMII Ethernet interface
- USB#0 : Added onboard USB Hub GENESYS: GL850G for 2x USB 2.0 Host
- USB#1 : USB-OTG
- SDIO : up to 2x MMC/ SD
- UART : (TX, RX, CTS#, RTS#) 1x for Debug

Dimension Drawing

Block diagram of ACEB 35/ ULP-COM Carrier Board (146 x 105mm)



Block diagram of ACES 3354/ ULP-COM module (82 x 50mm)



- SPI : One Serial Peripheral Interface (SPI) interfaces
- I2C : two Inter-Integrated circuit interfaces
- General Purpose I/O : 8x GPIO signals
- DCAN : Dual CAN interfaces support bitrates up to 1 Mbit/s CAN 2.0B protocol.
 - Logic level signals from Module based CAN bus protocol controllers
 - RXD, TXD only
 - Two module GPIOs reserved for optional use as CAN bus error status
- Watchdog timer interface

Boot Source Select

- Module SPI flash
- Module eMMC flash
- Carrier SD card

System Environment

- Power Input : 5VDC $\pm 5\%$ (supply by ULP-COM/ MXM3.0 interface)
- Power Consumption : DC + 5V/ 0.4A typical 2W to 6W during active operation
- Dimensions : 82 x 50mm
- Environment
 - Module operating temperatures : 0°C to 60°C
 - Storage temperature : -20°C to 85°C
 - Relative humidity : 10% to 90%, (Non-condensing)
- Certifications : Meet CE/ FCC class A

Ordering Information

- **ACES 3354 (P/N : SMARC module are subject to request)**
SMARC module, AM3354 Cortex™ A8 720MHz, 512MB DDR3, 4GB eMMC, GbE, USB, USB-OTG