VIZIC TECHNOLOGIES

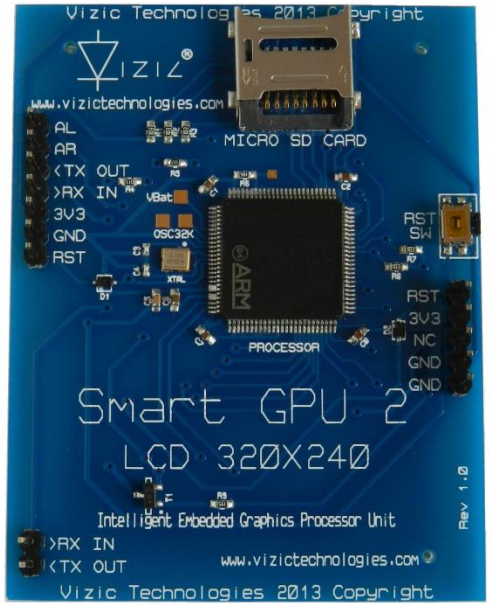
SMART GPU 2
2.4” TOUCH

Description Sheet

Smart GPU 2:

Intelligent Embedded Graphics, Audio and Touchscreen Processor.

Description:



The Smart GPU 2 is a powerful easy to use, intellectual property, embedded graphics, audio and touchscreen processor in a state-of-the-art ARM Cortex-M3 chip; this is mounted on a board with a touchscreen color LCD. It's aimed to help developers to create advanced Graphical User Interfaces (GUIs) in a very easy way. It features high end FAT format data management functions (Data Logger) to create even more advanced applications in just minutes, not days. The Smart GPU 2 processor doesn't need any configuration or programming on itself, it's a slave device that only receives orders, reducing and facilitating dramatically the code size, complexity and processing load in the master host processor.

The Smart GPU 2 offers a simple yet effective serial interface UART to any host micro-controller/microprocessor that can communicate via a serial port(8051, PIC, ATMEL, FREESCALE, STMICRO, ARM, CORTEX, ARDUINO, raspberry PI, FPGA MBED, etc. even PCs(RS232)). All graphics, audio and touchscreen related functions are sent using simple commands via the serial interface.

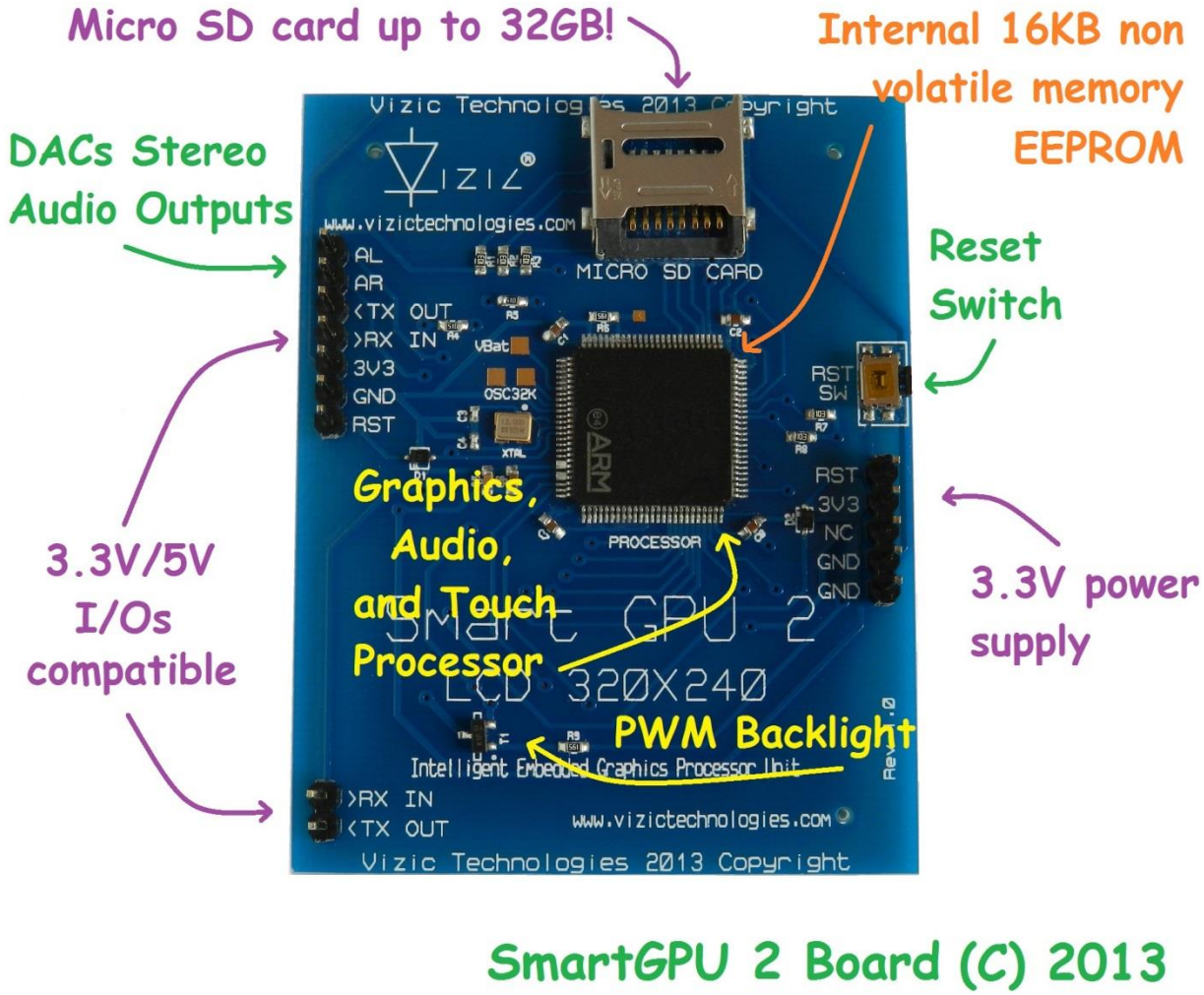
The main goal of the Smart GPU 2 processor it's to bring a very easy way to add colour, audio and touch interfacing to any application or project without the need of having experience in handling LCDs and graphics algorithms. The Smart GPU 2 it's a low power/very high performance processor, it integrates the FAT/FAT12/FAT16 or FAT32 universal PCs file System for data storage (read/write), supporting up to 32 GB of storage with a microSD/HC card, NO special format is required.

SmartGPU2 chip is also sold as "bare chip" for high end applications and can be adapted to drive any LCD with parallel 8080 interface.

Board Features:

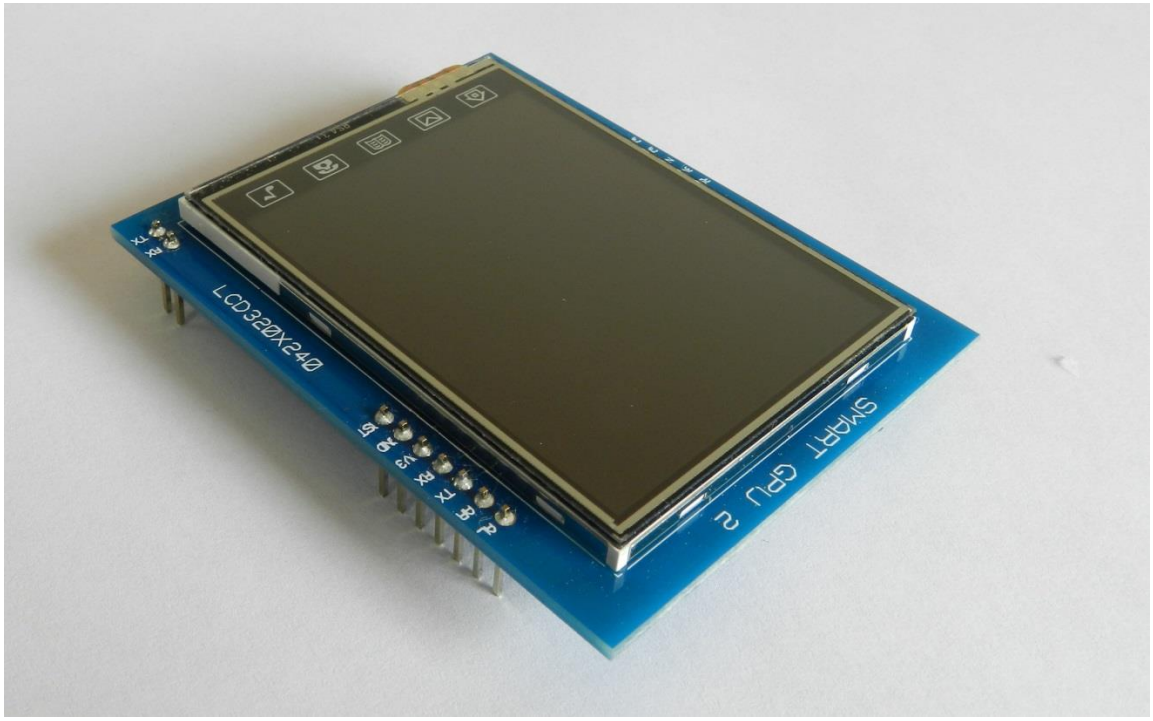
- 2.4“, 320x240 pixels resistive touchscreen LCD, capable of displaying 262,144 colours.
- Easy 5 pin interface to any host device: **VCC, TX, RX, GND, RESET.**
- On-board uSD/uSDHC card adaptor, FAT(windows PC) Support up to **32GB** for storing images and text, **Data Logger functions (read-write)** and LFN(long File Names).
- BMP and JPG images support.
- Video and Audio(CD quality) capable.
- Integrated 2 channel DACs outputs can play **stereo** audio.
- Integrated Touch screen driver, 12 bit accuracy touch.
- 5 general purpose Icons on touchscreen panel.
- Integrated RTC - Real Time Clock with battery back-up.
- PWM controlled display brightness.
- Sleep mode.
- UART/USART Baud Rate speeds from 9600bps up to 2000000bps, 8 bits, no parity, 1 stop bit.
- 5V and 3V3 I/O compatible, 3V3 power supply.

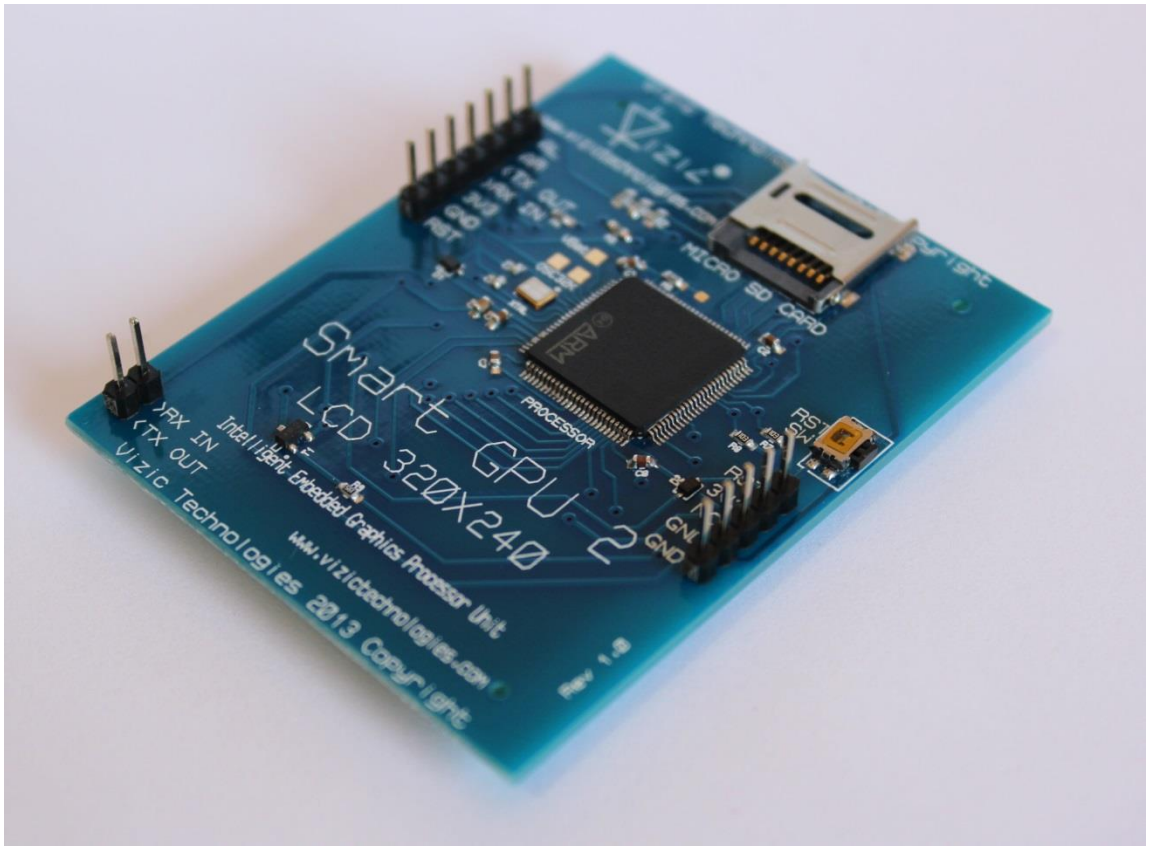
Smart GPU 2 Board – EXPLAINED



SmartGPU 2 Board (C) 2013

Smart GPU 2 – Suggested Application


LCD320X240
SMART GPU 2


Smart GPU 2
LCD 320X240
MICRO SD CARD
PROCESSOR
RST SW
GND
Intelligent Embedded Graphics Processor Unit
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