

Description of hardware block diagram_GTI-20110622

Power supply:

1. There is a AC-DC power module inside this product to take 90V~240V AC input and transfer it to 5VDC output with 3A maximum current load
2. 5VDC is then fed into U12, U15, U16, U11, U13, U14,U19 on the Board to create all the necessary power rails for system use, including 1.0VDC, 1.2VDC, 3.3VDC, 1.85VDC and 1.1VDC

SDRAM –U6,U3,U4,U5

1. DDR3 SDRAM is used for this application with 800MHZ Frequency
2. 4 units of 2Gb DDR3 with the structure of 8Mbit*8 I/Os *8 bank each,totally there will be **2G** Byte memory size.

EMMC-U7

1. 2G/4G/8G/16Gx 4 bit EMMC is used as the storage memory for the Operating system .It is optional for storage capacity.
2. During power on boot up, the contents will be read out from EMMC and stored to SDRAM for fast operating, **It is optional using EMMC and SD card of USB connector.**

Gb Ethernet-U9

1. There are two 1000Mb/s Ether net MACs built inside the CPU, U9, work as a d Ethernet PHY (Physical Layers) to bring the signals to RJ45 ports
2. There is one ports are running at speed of 10/100/1000 Mb/s

eSATA- J12

1. Two SATA interfaces have been built inside this CPU, You can connect it to eSATA device with eSATA cable..
2. Here we use only one of the ports and connected it to the external eSATA interface.

USB- U11 chip, J10,J11,J13

1. This CPU supports two USB 2.0 high speed host port.
2. U11 is the 1-to-4 USB HUB controller which expands 1 USB port to 4 ports.
3. Here we bring to the edge of the PCB only two USB connectors for use
4. Another USB port will be converted as eMMC interfaces

WiFi -802 11b/g-Bluetooth U8 J1 -extenal ANT -ANT1

1. One WiFi chip with 802.11/b/g compliance and Bluetooth are incorporated for wireless LAN application and Bluetooth application.
2. The broadcast frequency band for this 802.11 b/g is 2.4GHz.
3. J1 is the connector for external instrument connection and ANT1 is the Antenna

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