set-up authentication.

Promi-MSP™ transmits data from each Bluetooth terminal to PC via TCP/IP Ethernet.
TCP/IP PCs also respond to each Bluetooth terminal wirelessly via Promi-MSP™.
Without changing non-TCP/IP serial communications software Promi-MSP™ is accessible
via installation of the COM port redirector program.

Technical specification

* Bluetooth Spec. v1.1
* Supported Bluetooth Profiles:
  Serial Port, LAN Access, Dial up Networking
* Range : 10m~100m (Over 100m with High-gain Antenna)
* Data rate : 723Kbps
* Additional Interfaces:
  4 USB A-type ports for Bluetooth & WiFi
  1 Serial Port for a legacy device
* Size : 147 x 112 x 32mm (HxWxD)
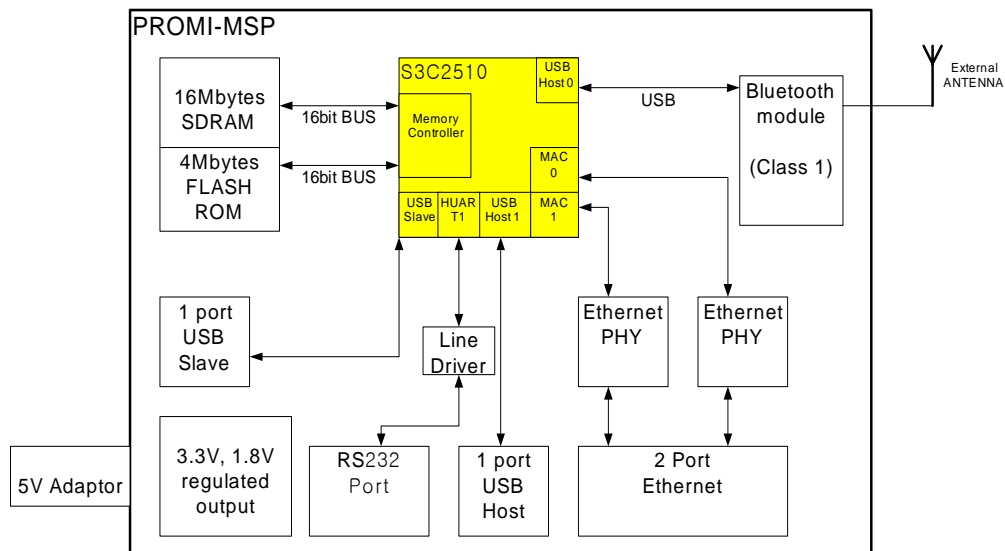* COM port Redirector Supported
Networking supported
  HTTP/FTP/Telnet/IP sharing/DHCP client/PPP server/
  PPP tunneling/User Authentication (RADIUS)/SNMP v1/v2/v3

Circuit description

Promi-MSP's main parts are in this circuit diagram
External DC 5V adaptor and antenna can be plugged into MSP.

PROMI-MSP

16Mbytes SDRAM

4Mbytes FLASH ROM

16bit BUS

16bit BUS

S3C2510

Memory Controller

USB Host 0

MAC 0

USB Slave | HUART1 | USB Host 1 | MAC 1

USB

Bluetooth module

(Class 1)

External ANTENNA

1 port USB Slave

Line Driver

Ethernet PHY

Ethernet PHY

5V Adaptor

3.3V, 1.8V regulated output

RS232 Port

1 port USB Host

2 Port Ethernet

1. MCU(S3C2510) features

· 16/32-bit ARM940T RISC Embedded

· 4K-byte I-Cache and 4K-byte D-Cache

· Memory Controller with 24-bit External Address Pins

 — 2 Banks of SDRAM for 16/32-bit Bus

 — 8 Banks of Flash/ROM/SRAM/External I/O for 8/16/32-bit Bus

 — One External Bus Master with Bus Request/Acknowledge Pins

· Two 10/100 Mbps Ethernet Controllers

· PCI Host/Agent Controller or CardBus (PCMCIA) Host/Agent Controller

 — PCI Host mode: 5 (or more) PCI Slots Interface for PCI Cards

 — PC Card Host mode: 1 PC Card Socket Interface for 16-bit PC Card or CardBus PC Card

· AAL5 SAR and UTOPIA L1/L2

· 2 Port Full/Low Speed USB HOST with Root Hub.

· 1 Port Full Speed USB Function with Transceiver Spec. 1.1

· Six General-Purpose DMAs

· Two High-Speed UARTs

· One Console UART

· DES and 3DES for IP Security

- · IIC Serial Interface
- · Interrupt Controller
- · Six 32-bit Programmable Timers
- · 30-bit Watchdog Timer
- · 64 Programmable I/O Ports
  - — 8 General-Purpose I/O
  - — 6 External Interrupt Request
  - — 6 Timer Output
  - — 4 External DMA Request
  - — 4 External DMA Acknowledge
  - — 21 SAR Signals
  - — 15 UART Signals
- · Four PLLs for each ARM940T (166MHz),System (133MHz), PCI & PC Card Controller Clock (33/66MHz), USB Host/Device Clock (48MHz), and Ethernet PHY (20/25MHz).
- · CPU Operating Frequency: Up to 166MHz
- · AHB Bus Operating Frequency: Up to 133MHz
- · Package Type: 416 PBGA
- · Core Operating at 1.8V $\pm$5 %, -40~85 $_o$C
- · I/O Operating at 3.3V $\pm$5 %, -40~85 $_o$C
- · 3.3V input/output levels, 5V tolerant only for PCI.

2. POWER : 2 linear regulator is used to generator main power DC 3.3V and 1.8V for core of MCU.

3. CLOCK : 3 clock is generated from OSC,
     a. 10Mhz for S3C2510
     b. 25Mhz for Ethernet PHY..
     c. 29.4912Mhz. for serial baud generator

4. Flash memory for data and program storage and SDRAM for MCU operation

5. External port
     a. 1 serial port
     b. 2 port ethernet
     c. 1 USB host port
     d. 1 antenna connector

6. BLUETOOTH

All of the RF circuit except antenna is under the steel can of bluetooth module.
Bluetooth module's simple spec :

Specifications	Supports Bluetooth™ 1.1
Frequency	2.4 GHz ISM Band
Access Range	100M
Speed	1Mbps
Transmit power	Typical 16dBm
Sensitivity	-88dBm
Certification	Bluetooth™ 1.1 SIG