

COMMUNICATIONS EDUCATIONAL BOARD

REQUIREMENTS OF THE BOARD:

1. Board:

- Ø Physical dimensions: Not exceeding 4x4 inches
- Ø Number of Layers: 4
 - 1 Ground layer.
 - 1 Power layer.
 - 2 Signal layers
- Ø One sided (components only on one side).

2. Microcontroller:

ATmega128L

- 128K programmable flash memory.
- 4K internal SRAM.
- 51 programmable I/O lines.
- Two programmable UARTs
- 4.5 to 5.5 V

3. Communication Module:

- Ø **Fiber Optic data communication.**
 - HFBR 5103
 - 4.75- 5.25V
 - 100 Mbps

- Ø **Infrared data communication.**
 - TFDU4100
 - 2.7 – 5.5V
 - 115.2 Kbps

- Ø **Serial RS232 data communication.**
 - MAX202 Driver IC
 - 120 Kbps
 - Connected through the UART0 via selection jumpers

- Ø **Data communication through USB.**
 - FT232BM Driver IC
 - 480 Mbps
 - Connected through the UART0 via selection jumpers