

EM120 Ethernet Module

Introduction

The EM120 is Tibbo's new **10BaseT Ethernet-to-serial Module** for onboard installation. Pin-to-pin compatible with, but slightly bigger than the [EM200](#) 100BaseT Module, the EM120 offers an advantage of significantly lower power consumption. The EM120 is upward-compatible with Tibbo's original [EM100](#). To achieve smaller dimensions, the Module doesn't have Ethernet magnetics onboard*.



Features

- Compact, dimensions only 35x27.5x9.1mm
- Low power consumption of **50mA@5VDC**
- One 10BaseT Ethernet port; Ethernet magnetics **not built in**
- One serial (TTL) port with full- or half-duplex operation**; baudrates of up to 115200bps; 5 parity modes (none, even, odd, mark, space); 7 or 8 data bits; optional RTS/CTS flow control
- Serial port includes RTS, CTS, DTR, DSR and **five additional lines**; all lines can be used as remotely controlled I/O
- Four LED lines*** provide Module status information
- Two extended **4096-byte** routing buffers
- Onboard EEPROM stores numerous user-definable functioning parameters (Setting)
- Supported network protocols include UDP, TCP, ARP, ICMP (PING) and DHCP
- Module setup can be performed through the serial port or network (over-the-network IP-address configuration is also supported)
- Specialized "on-the-fly" commands for serial port control, "modem" commands to control network connections, status commands for remote status monitoring, etc.
- Internal firmware is upgradeable through the serial port or network
- Supplied with [Device Server Toolkit \(DST\)](#) for *Windows*, including [Virtual Serial Port Driver \(VSPD\)](#) (COM redirector)
- [LINUX version](#) of the VSPD is also available
- Works with [TIBBO.NET](#)
- [EM120-SK Starter Kit](#) available
- CE- and FCC-approved

*** To save space, use RJ45 connector with built-in magnetics. This will also result in significantly lower EMI**

**** Full-duplex mode is suitable for RS232 and RS422 comms., half-duplex mode-for RS485 comms. RS232/422/485 transceivers are not built in**

***** LEDs must be connected externally**

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