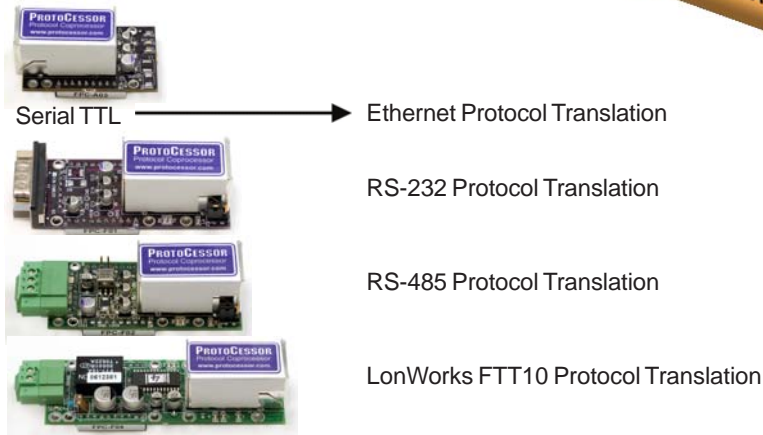


PROTOCESSOR

OEM Industrial Protocol Modules

ProtoCessors are a family of low cost TTL to RS-232, RS-485, Ethernet, and LonWorks Embedded Coprocessor modules enabling OEM's to rapidly implement various Industrial, Building, and Machine Automation protocols in their products.

FFP ProtoCessor Family



Implementing the Power of ProtoCessor:

- ◆ One minimal sized common TTL (TX/RX-5Vdc) hardware footprint on the OEM's PCB hardware (2x10 pin ProtoCessor Socket) can be used for any version of ProtoCessor, thus enabling the OEM to easily switch protocols as necessary.
- ◆ ProtoCessor translates from a common Host Protocol to a desired Field Protocol using most protocols found in the extensive FieldServer Driver Library or FieldServer can develop a protocol driver to meet the OEM's needs.
- ◆ ProtoCessor supports a wide range of legacy Host Protocols (like Modbus), but for OEM devices that do not have a Host Serial Protocol, ProtoCessor has simple ASCII and Binary protocols that can be implemented.
- ◆ Once the ProtoCessor Socket and Host Protocol is implemented on the OEM's hardware, the OEM has complete support for the widest range of proven Serial and Ethernet Field Protocols in the industry.
- ◆ ProtoCessor's are field programmable. The Host Protocol's memory registers get mapped to each particular Field Protocol via a CSV file downloaded to each ProtoCessor. ProtoCessor technical support works with the OEM to complete the mapping.
- ◆ If an OEM cannot add a ProtoCessor socket on their hardware, they can still take advantage of the power of ProtoCessor via the ProtoCarrier and ProtoNode product lines without modifying their hardware.

ProtoCessor Benefits

- ◆ **Penetrate new markets - Increase sales:** OEMs can easily offer their customers the protocol necessary to meet their interface specifications. Supporting these industry standard protocols will enable market expansion to new arenas in building, industrial or machine controller applications.
- ◆ **Expanded capabilities with minimal development and in-house protocol support costs:** No need to reinvent the wheel when FieldServer Technologies has invested decades of experience developing their proven protocols to become a leader in protocol translation. The extensive FieldServer knowledge base and technical resources provide complete support for any protocol need.

- ◆ **Rapid Time-to-Market:** Minimal coding and hardware demands or changes to current OEM design required. Even less time and costs to add in additional protocols!
- ◆ **Minimal Impact to application hardware and software design:** Only a single socket needs to be added to the OEM's design to enable access to any ProtoCessor module. ProtoCessor is compatible with 8/16/32 bit Microcontrollers.
- ◆ **Compliance "built-in":** FieldServer Technologies' leadership in protocol translation means full protocol compliance through continuous testing and certification of the protocols via the various standards governing groups.
- ◆ **Reduced costs:** Once the socket is installed, ProtoCessors are only needed where necessary, avoiding delivery of unnecessary capability and cost.
- ◆ **Dramatically reduced NRE:** No costly purchase of source code and/or significant engineering time is required. All required source code and hardware is provided.

ProtoCessor Supported Protocols

OEM's Host Serial Protocols	Serial Field Protocol	Ethernet Field Protocols	LonWorks
Modbus RTU BACnet MSTP Metasys N2 Open DF1 LonWorks DNP 3.0 ProtoCessor PSP or PSP Your own custom Serial Driver *	Allen Bradley DF1 BACnet MSTP BACnet PTP J-Bus Modbus ASCII Modbus RTU DNP 3.0 Metasys N2 Open And many more	Modbus TCP BACnet/IP BACnet EtherNet EtherNet/IP Allen Bradley CSP GE-SRTP GE-EGD SNMP XML And many more	LonWorks FTT-10

Choose any of the protocols in the first column to act as the interface between the Host System and the ProtoCessor. Then, choose a protocol in the subsequent columns to be supported by your equipment for the Field Protocol.

Connections on FFP ProtoCessors:

Field Connections

FFP-ETH: Ethernet RJ-45 (8-pin)
FFP-232: RS-232 DB9 Male
FFP-485: RS-485 3 way Phoenix connector

Host connections

Standard Serial TTL Interface-TX and RX
Socket on Board: 2 x 10 20-pin
(Header Pins Samtec Part # TLW-110-05-G-S)

Temperature:

Ambient: -40° to 185° F (-40° to 85° C)
Storage: -40° to 257° F (-40° to 125° C)
Humidity: 5 to 90% RH

Power consumption

FFP-ETH 5VDC@208 mA
FFP-232/485 5VDC@252 mA
FFP-LON 5VDC@470 mA
ASP-485 5VDC@62 mA

Dimensions (LxWxH)

FFP-ETH 1.8 x 1.2 x 0,8 inches
45.7 x 30.5 x 20.3 mm
FFP-485/232 2.7 x 1.2 x 0,8 inches
68.6 x 30.5 x 20.3 mm
FFP-LON 3.35 x 1.2 x 0,8 inches
85.0 x 30.5 x 20.3 mm
ASP-485 1.55 x 1.2 x 0,35 inches
39.4 x 30.5 x 8.93 mm

ProtoCessor meets your OEM protocol interface needs. Also check out the ProtoCarrier, ProtoNode, and ProtoCessor's Semi-Custom product lines:

- for applications that require an external solution instead of implementing a ProtoCessor socket.
- if an OEM has an Ethernet or LonWorks Host Protocol need to translate to a different Field Protocol such as serial/Ethernet/LonWorks protocols.
- for OEM devices that need our protocols and have a custom form factor.