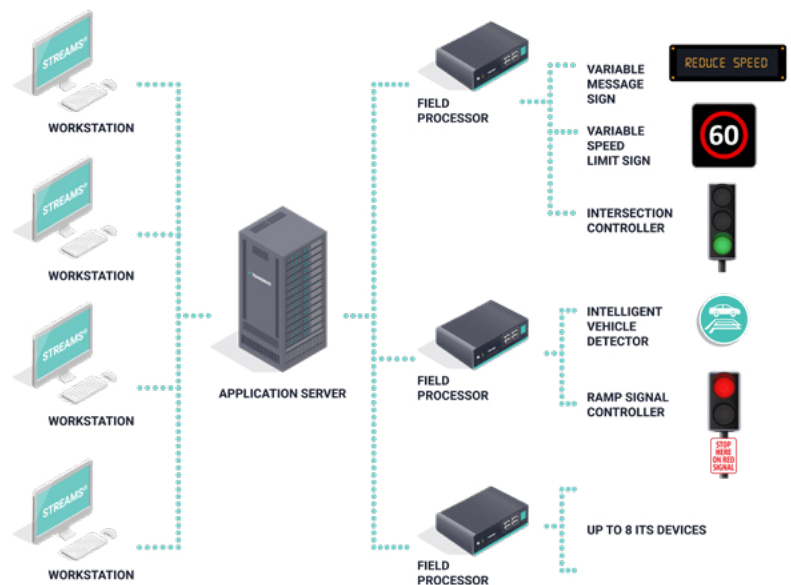# STREAMS®
FP.IT-08

⌀ TRANSMAX

Product Description

The STREAMS FP.IT-08 field processor (FP) is a ruggedized computer designed for use in a suitable roadside enclosure. The FP is designed as part of the STREAMS system to provide local processing and control of field devices. It is not sold as a standalone device. The standard FP is a DIN rail-mounted model. Specific housing needs (e.g. rack mounted) are available.

The FP architecture uses a service-driver model and supports multiple services connecting to multiple, different devices, including those from different manufacturers. Field processor to server communications over an IP-based field network uses Secure Sockets Layer (SSL) for security. Secure logon facilities are provided through certificate-based technology.

Software maintenance and upgrades are generally carried out over the field network to which the FP is connected. The FP configuration is kept on the server so units can be replaced without performing site-specific configuration.

STREAMS ARCHITECTURE MODEL
For a complete list of supported devices, please contact Transmax.

Benefits

Local processing at the site of field devices allows:

➕ **a high level of autonomy in the field**

➕ **reduced load on the Wide Area Network (WAN)**

➕ **removal of the real-time dependency on communications between STREAMS and ITS devices**

➕ **local scripting capability**

All communications from the FP are secured by Public Key Infrastructure (PKI) using SSL with certificate-based authentication providing increased security both for the field devices and for the ITS Application Servers. The use of Linux on the FP keeps licensing costs to a minimum and gives developers a high degree of control over the application.

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Specifications

Power supply requirements	An external power supply is required and ships with the FP: • 5VDC – 28 VDC (rated for extended temperature range) • Power consumption 4.5W (idle), 6W (loaded) **IMPORTANT:** Transmax recommends that external power supply and serial port protection be used to avoid damage caused by transient electrical spikes. Please contact Transmax for options.
Physical specifications	Dimensions: 200mm (W) x 74mm (D) x 120mm (H) Weight: 1.75 kg Flexible mounting options: DIN mounting bracket, flange mounting.
Technical specifications	DM&P Vortex86DX 600MHz to 1GHz 128MB DDR2-800 SDRAM L1 cache: 16K-I, 16K-D L2 cache: 128K Fanless operation Sealed case (IP Rating – IP51)
Interfaces	1 x RS232 console 1 x RS232 site identifier interface 8 x RS232/422 ports with software-controlled terminations 2 x USB 2.0 (full-speed) 2 x 10/100Mbps ethernet 2 x Compact flash interface 2 x watchdog timer (30.5us to 512s timeout) 1 x battery backed real-time clock XGI Z9m display adapter, VGA 1024 x 768 PS/2 mouse and keyboard interface
Operational specifications	Operating temperature -40°C to +75°C Ingress Protection: IP51 Mean time between failures (MTBF) is approximately 100,000 hours
Management and communications	Secure network connection to host via TCP/IP Local serial console maintenance port Secure Remote Management
Supported field devices	• Variable Speed Limit Sign (VSL) • Variable Message Sign (VMS) • Ramp Signal Controller (RSC) • Changeable Message Sign (CMS) • Intelligent Vehicle Detector • Lane Use Management devices • Intersecton Controller **For a more complete list of supported devices, please contact Transmax**
Standard package contents	Field Processor DIN rail-mounted bracket Serial site identifier External power supply 240V AC mains supply power cable (AS/NZS 3112 10A 3 pin plug, flat earth) DC supply power cable Cat 5E ethernet cable RJ45/RJ45
DIO support	Onboard Digital IO (DIO) support is not available on the FP.IT-08. The site identifier supports Door Open DIO signalling and Temperature Sensor. For other DIO requirements, Transmax recommends an external PLC be used. Please contact Transmax for further details.
Warranty	1 year (return to base). Optional extended warranty periods of 1, 2, 3, or 4 years are also available on request.

Further information

The information contained in this brochure is subject to change. Transmax recommends you discuss your requirements with us prior to placing your order.

Contact us

Get in touch with Transmax to place an order or to find out more about the FP.IT-08. More information about terms & conditions and returns & repairs can be found on the Transmax website.

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