

ELATEC TCP3

AUTHENTICATION / RELEASE STATION

From secure printing to kiosks to industrial robotics, enable user authentication and access control for devices that lack a USB port

ELATEC's RFID readers enable organizations to extend the use of their employee identification badge to authenticate for applications beyond physical access. This includes most multi-function printers and some single-function printers. Unfortunately, not all printers and devices have support for the direct connection of a USB proximity card reader, such as those with no USB port. In these situations, the ELATEC TCP3 authentication / release station extends ID card-based capabilities such as authentication and pull printing to any printing device regardless of the manufacturer, make or model.



HOW IT WORKS

TCP3 was designed to minimize information technology support costs associated with additional IP or MAC addresses while consuming only one network drop from its Host port. TCP3 has two Ethernet connectors designated as Host and Device. The Device port enables connection of a printer or other peripheral without requiring a second network drop. It is configurable to behave as a network router where the converter and connected device consume only one network address. Much like your home router, anything connected to the device port gets its own internal IP address and communicates through TCP3.

TCP3 was designed around ever-increasing network performance requirements for high speed graphic

printers and engineering plotters allowing simultaneous communication of print data and printer status at gigabit speeds. This design also considers the frequent challenge of finding an open power source in the often-cluttered print room and is optionally available with Power over Ethernet as the source of power.

Up to two USB readers can be connected and their data independently communicated to an authentication server over Ethernet via UDP or HTTPS using either client or server communication modes. This is useful in situations where customers have more than one ID card technology deployed and need to support a mix of RFID, magnetic stripe or optical bar-coded cards.

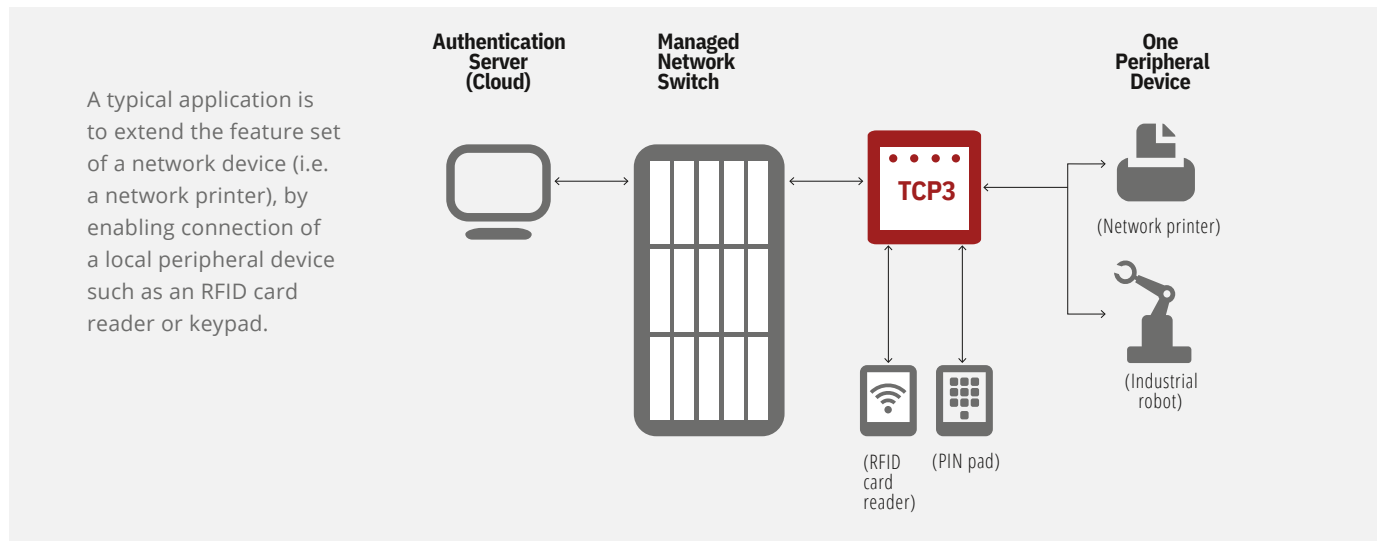
MULTIPLE APPLICATIONS

While primarily designed for the secure printing market, TCP3 can also be used to control access to devices which require special operator training and certification such as sophisticated manufacturing equipment. TCP3

would communicate RFID card data to the authenticator responsible to unlock such equipment.

TCP3 AUTHENTICATION / RELEASE STATION SUPPORTS USB 3.0 & GIGABIT ETHERNET NETWORKS

Whichever the application, TCP3 provides unmatched security, performance, device management and flexibility—welcome benefits for any IT network and networked devices.



Security

- + Send card data via UDP / SSL / TLS1.2 or HTTP / HTTPS
- + Unique factory-programmed password for each device
- + Built on Linux 4.14 platform with latest security updates
- + Security updates available quarterly

Performance

- + Gigabit Ethernet (GbE) or 1 GigE
- + Faster CPU (64-bit ARM Cortex CPU with v8 core)
- + Memory
 - RAM: 2 Gb
 - Flash: 8 GB
 - SD Expansion: Up to 2TB (SDXC)
- + Improved cross subnet device discovery

Device Management

- + Printer on DHCP or Static IP
- + Remote TCP3 firmware upgrade of the converter
- + Enhanced TCP3 Config Windows discovery and configuration tool
- + Remote configuration of attached TWN4 reader (available with firmware version STD3.0.1.0 and later)

Flexibility

- + Built on Linux platform
- + Private labeling available
- + Tailored to customer needs
 - Able to install customer applications
 - Offered as base platform for customers to build their own product
 - Ability to custom tailor memory footprint (Up to 2 TB)

With its feature set developed directly from ELATEC customer input, TCP3 is ready to connect any device, regardless of make or model, onto the network for user authentication and access control.

Software

- + Software hooks to use the converter as a print server
- + USB whitelist for approved devices
- + TCP, UDP, HTTP, HTTPS, IPV4, DHCP, SSL/TLS1.2, Syslog
- + Extensive status logging

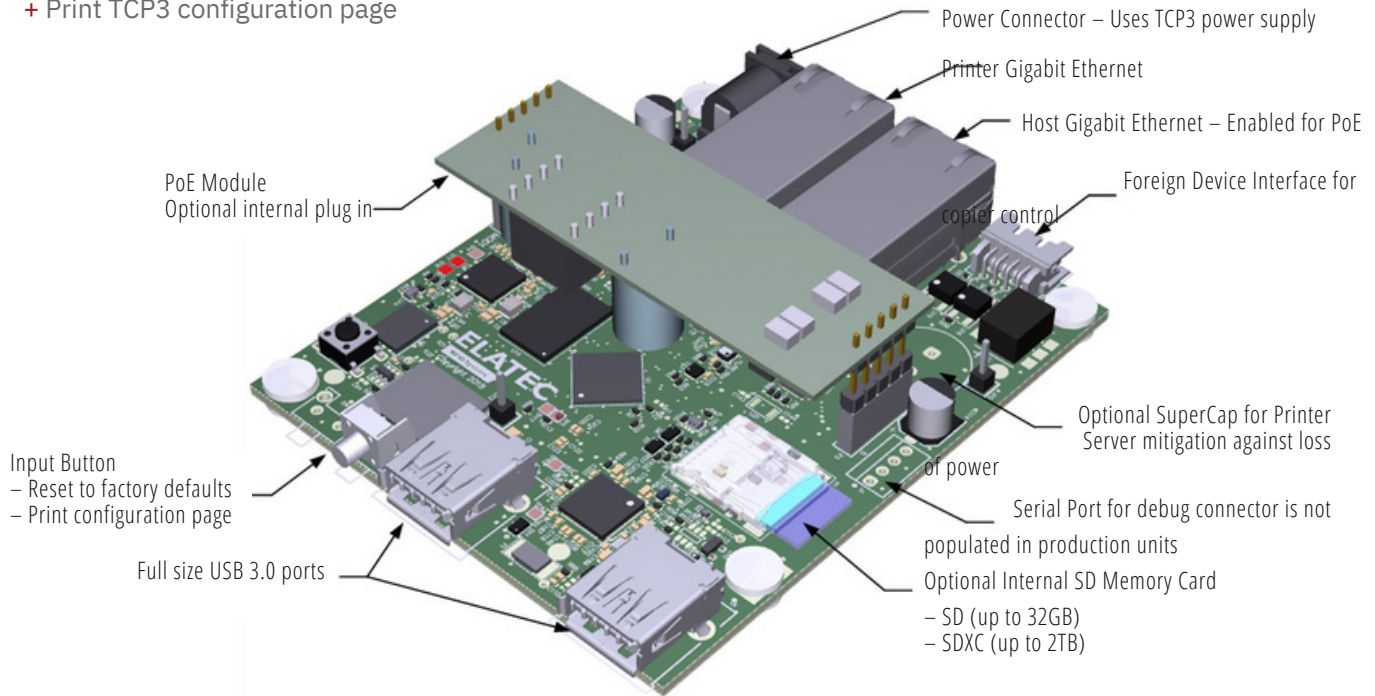
- + 2 Gb SDRAM, 8GB Flash – up from 1 Gb SDRAM, 4 GB Flash
- + Optically Isolated Input and Outputs (Foreign Interface Connection)
- + 4 LEDs which use multi-color to indicate Power, Ready, Busy and Status
- + JTAG, Tag-Connect and serial port for debug

Hardware

- + Host and printer ports support Gigabit Ethernet (GbE)
- + Supports two (2) 3.0 USB ports
- + Input button triggered features
- + Reset to factory defaults
- + Print TCP3 configuration page

OPTIONAL

- + Power over Ethernet (PoE) Module
- + Internal SD memory card for print server (SDHC up to 32GB, SDXC up to 2TB)
- + Supercapacitor (SC) to manage power interruptions



From secure printing to industrial robotics, TCP3 enables user authentication and access control security for devices that lack a USB port.

QUICK AND EASY CONFIGURATION

Configuration of the converter can be accomplished using either the converter's web pages or using the Windows-based configuration tool TCP3Config. This tool was designed with fleet management in mind and can discover all converters on a given subnet. It can also search specific subnets to discover additional converters. Once a configuration has been created and saved, it can be distributed to all selected converters at once.



TECHNICAL DATA

HOUSING	ABS UL94-V0
DIMENSIONS (L X W X H)	115 mm x 95 mm x 35 mm
POWER SUPPLY	External power supply 5 V or Internal Power over Ethernet
CURRENT CONSUMPTION	Max. 3 A depending on external load
TEMPERATURE RANGE	Operating: 0°C to +45°C (32°F to 113°F) Storage: -40°C up to +85°C (-40°F up to +185°F)
RELATIVE HUMIDITY	10% to 90% non-condensing
NETWORK	10 Mbit/s, 100 Mbit/s, 1000 Mbit/s converter to Host or converter to Device 500 Mbit/s between Host & Device, upgradable to 1.2 Gbit/s at additional cost Host: DHCP, Static IP, Device: DHCP, Static IP
MODES OF OPERATION	TCP Server: Device is connected by a TCP client. TCP Client: Device connects automatically to a specified TCP server. Connection may be triggered by incoming flow of data on either USB port. For additional security the connection can be optionally SSL encrypted. Data can be sent via UDP or HTTPS via JSON.
LAN COMMUNICATION PROTOCOLS	TCP, UDP, HTTP, HTTPS, IPV4, DHCP, SSL/TLS1.2, Syslog
USB	Two USB 3.0 Host ports Maximum current: 1.6 A, shared between the two USB ports Supported devices: Elatec TWN3 or TWN4 readers/writers, many magnetic stripe readers, many optical bar code readers and PIN pads via HID keyboard or CDC
OPTICALLY ISOLATED I/O	2 optically isolated outputs and one optically isolated input traditionally used to support Foreign Device Interface or Internet of Things
CONNECTORS	Ethernet: 2 x RJ45, 10/100/1000BaseT. Host connector supports PoE USB: 2 x USB-A receptacle 8 pin connector for optically isolated signals Power: For plug 5.5 mm/2.1 mm
LED INDICATORS	4 LEDs which use multi-color to indicate Power, Ready, Busy and Status
MEMORY	RAM: 2 Gb Flash: 8 GB SDHC Expansion: Up to 2TB
MTBF	500,000 hours
WEIGHT	Approx. 270 g
CERTIFICATIONS	RoHS-II compliant, CE, FCC1, IC1
ORDER CODE(S)	TC3K-BT5EU:TCP3 Kit with 0.5 m patch cable (RJ45) and power supply EU TC3K-BT5US:TCP3 Kit with 0.5 m patch cable (RJ45) and power supply US TC3K-BT5AUS:TCP3 Kit with 0.5 m patch cable (RJ45) and power supply AUS TC3K-BT5UK:TCP3 Kit with 0.5 m patch cable (RJ45) and power supply UK TC3K-BT5JP:TCP3 Kit with 0.5 m patch cable (RJ45) and power supply JP TC3K-BT5E1:TCP3 Kit with 0.5 m patch cable (RJ45) and Power over Ethernet CAB-J7:Prototype harness for optical I/O