

# Ethernet 241™

## Serial to Ethernet two port switch



### Overview

RF Ideas' pcProx® card readers, part of the WaveID® family, are perfect for customers seeking to leverage their existing card systems with Multi-Function and Single-Function Printer capabilities. In some network applications, it is not practical to add a network drop to accommodate the card reader. In these such cases, the preferred solution is to utilize a device that provides two Ethernet ports, acting as a two port switch, thus eliminating the need for an additional network drop installation and the associated costs.

Utilizing Secure Printing features saves time and money through out your operation -

**Security/Compliance:** Sensitive documents are no longer left visible to anyone walking up to a printer.

**Day-to-Day Cost Savings:** The amount of paper and toner are reduced as the amount of print jobs goes down.

**Green:** No longer are print jobs abandoned or forgotten at printers, wasting resources.

**Flexibility:** Print jobs are no longer limited to the local printer. A print job can be printed in one location and picked up at any other location, even across country. No more carrying heavy bundles of presentations from office to office.

### Description

RF Ideas designed the Ethernet 241 to allow the card reader and application device to simultaneously communicate via an Ethernet connection, using a single network drop. The Ethernet 241 is designed to act as a two-port switch that provides a pass-thru Ethernet port for a printer and a second Ethernet port that is built into the device.

The 241 has two Ethernet connectors designated as the Network port and Printer port. The device also provides one RS-232 DB9 port that is intended for RF Ideas' pcProx card readers that are powered through Pin 9 connectors (part numbers ending in AK5) and one 5 VDC port that is used to supply power to the unit via the supplied power adapter.

### Applications



Secure Printing



Attendance Management



OEM



PLC & Embedded Controllers  
Manufacturing

**WaveID®** is the standard that enables badge-based reader solutions throughout the workplace. It gives a name to the many badge-based authentication and identification solutions powered by RF Ideas readers. In today's business environment, most employees carry badges for building access. WaveID in action is both the physical place for employees to wave their badge for identification, as well as a visual cue that an RF Ideas reader powers a specific device or solution.

# Ethernet 241™

## Features

**Network Addresses:** Two: one for reader, one for printer

**Address Assignment:** DHCP or Static

**Power:** LPS-5V1.2 AM multi-plug (included)

**Reader Configurability:** Through pcProx Config Utility

## Details

The Ethernet mode of operation will be configurable as: auto-negotiate 10 Mbps half duplex, 10 Mbps full duplex, or 100 Mbps full duplex. The Printer port will provide no management access to the 241, nor will it be assigned a MAC address. The Ethernet mode will be set to auto-negotiate.

The 241 has two configurable ports: One for tunneling to the RF IDEas' configurable serial reader, the other for the 241 configuration.

The following rules will be applied:

1. If the packet contains an ARP request for an IP address that matches that of the 241, the packet will be responded to by the 241 and not forwarded to the Printer port.
2. If the packet contains an IP header matching the 241's IP address AND there is a TCP header having a destination port number matching the serial tunnel port, the packet will be passed to the serial tunnel process. The packet will not be forwarded to the Printer.
3. If the packet contains an IP header matching the 241's IP address AND there is a TCP header having a destination port number matching the telnet port, the packet will be passed to the telnet process. The packet will not be forwarded to the Printer.
4. All other packets will be forwarded to the Printer without being processed by the 241.

Please feel free to call, email or visit our website for a full list of applications, products, configuration options, supported cards and form factor specifications. Our website includes application videos, support materials, case studies and detailed information about our product line.

# RF IDEAS

Single Badge Solutions for Identification and Access

## Specifications

**Power:** 5 VDC 150 ma

**LED Indicator:** Power condition and error faults

**Size:** 2.5 x 2.5 x 1 in.

**Weight:** 2.5 oz. (70.76 g)

**Ports:** (2) RJ 45; (1) RS-232 DB9 for RF IDEas card readers only; (1) 5 VDC power supply input.

### Part Number:

PN: C-N02NAK4 (Ethernet 241 switch)

PN: KT-80581AK4 (Ethernet 241 switch & pcProx Plus reader Kit)

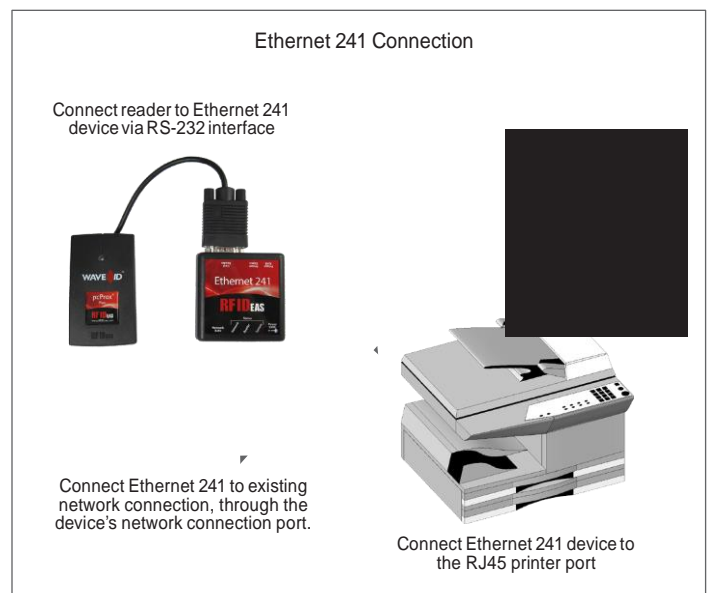
\*Other Ethernet 241 switch kits available

**Mounting:** Super Velcro tabs (included)

**Certifications:** FCC, United States; CE Mark, Europe; C-TICK, Industry Canada

## Typical Application

The user presents a door access card to the RF IDEas reader. The secure print software on server obtains the employee ID and performs a look up, and per policies, releases print jobs to the printer via the Ethernet 241.



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