



**CUE-113**  
**CUE-113E**

## Features

- ✓ **High Performance Network Switching Technology**
- ✓ Comply with IEEE 802.3, IEEE 802.3u, IEEE 802.3x, IEEE 802.3af
- ✓ Provides 1 x 10/100 Mbps Ethernet ports with RJ-45 connector
- ✓ Provides 1 x 100 Mbps single-mode SC type fiber port
- ✓ Embedded 1 port PoE injector function classified as PSE
- ✓ Supplies 15.4 watts of power per port full load with PoE
- ✓ Supports Link Loss Forwarding function
- ✓ RJ-45 port supports auto MDI/MDI-X crossover
- ✓ Provides broadcast storm protection
- ✓ Supports IEEE 802.3x flow control on full duplex, back pressure on half duplex
- ✓ **Robust Industrial Design**
- ✓ Robust aluminum case complying to IP-30 housing standard
- ✓ Supports operating temperature -10 to 70°C & extended temperature -40 to 80°C
- ✓ DIN-Rail, panel mount or desktop installation
- ✓ High level of immunity to electromagnetic interference & power supply surges typically found in industrial plant environments or external curb side enclosures
- ✓ **Reliable Power Design**
- ✓ Supports redundant 48VDC power input
- ✓ Supports 4,000 VDC Ethernet ESD protection
- ✓ Provides surge (EFT) protection 3,000 VDC for power line
- ✓ Overload current reset-table fuse
- ✓ Power polarity reverse protection
- ✓ Removable terminal block



## Overview

The Cobra CUE-113 is an Industrial 2-port Slim Unmanaged Power over Ethernet Switch with one single-mode fiber port. It supports one PoE injector port classified as power source equipment (PSE). With the fiber optic port, CUE-113 transmits data at high speed for long distances up to 30 km with an SC connector. CUE-113 provides 15.4 watts of power per port and can be used to power IEEE802.3af compliant powered devices (PD) by CAT5 cable and eliminates the need for additional power wiring. The compact, slim line switch is equipped with a relay output for an event alarm for easy troubleshooting. It offers 48 VDC redundant powers input design and is secured with power polarity reverse protection and an overload current reset-table fuse. The IP-30 housing protection, wide operating temperature of -10 to 70°C and DIN-Rail mounting makes CUE-113 suitable for an industrial environment. The E version has wider temperature range of -40 to 80°C. The CUE-113 is a plug-and-play solution for your Power over Ethernet applications.

## Hardware Specifications

### Interface

**RJ-45 Ports:** 1 10/100Base-TX auto-negotiation speed, Full/Half duplex, auto MDI/MDI-X

**Fiber Ports:** 1 100Base-FX single-mode port (SC connector)

**LEDs:** Per unit - Power 1 (Green), Power 2 (Green), Fault(Red)  
TX: Link/Active (Green), 100M(Yellow), Feeding Power (Green)  
Fiber: Link/Active (Green), Full duplex/Collision (Yellow)

**Alarm:** Relay output for port break and power failure

**Power Input:** VDC 48V  
Redundant power with removable terminal block

**Power Protection:** Power reverse polarity

**Power Consumption:** 18.7 watts (full load)

**Dimensions:** IP-30 standard, 30 mm (W) x 140 mm (H) x 95 mm (D)

**Installation:** DIN-Rail, panel mounting or desktop

### Environmental

**Operating Temp:** Regular: -10 to 70°C  
Extended: -40 to 80°C

**Storage Temp:** -40 to 85°C (-40 to 185°F)

**Operating Humidity:** 5% to 90% RH (non-condensing)

## Technical Specifications

### Standard:

IEEE802.3 10BASE-T  
IEEE802.3u 100BASE-TX  
IEEE802.3x Flow Control and Back pressure  
IEEE802.3af Power over Ethernet

### Network Media:

10Base-T: 2-pair UTP/STP Cat. 3, 4, 5 cable  
EIA/TIA-568 100-ohm (100m)  
100Base-TX: 2-pair UTP/STP Cat. 5/5e cable  
EIA/TIA-568 100-ohm (100m)

**Protocol Technology:** CSMA/CD

**Switching Architecture:** Store and Forward

### Link Loss Forward:

TX > Fiber: If TX port link down, the media converter will force Fiber port to link down  
Fiber > TX: If Fiber port link down, the media converter will force TX port to link down

## Performance

### Data Transfer Rate:

14,880 pps for Ethernet port  
148,800 pps for Fast Ethernet port

**MAC Address:** 1k

### DIP Switch 1:

OFF Disables Port /Power Alarm  
ON Enables Port /Power Alarm

### DIP Switch 2:

OFF Disables LLF (Link Lose Forwarding) & LFP (Link Fault Pass-Through)  
ON Enables LLF (Link Lose Forwarding) & LFP (Link Fault Pass-Through)

### DIP Switch 3:

OFF 100Base-FX Full-mode  
ON 100Base-FX Half-mode

### DIP Switch 4:

OFF Switching mode  
ON Media mode (100TX to 100FX)

## Regulatory Approvals

**EMI:** FCC Class A

### EMS:

EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5,  
EN61000-4-6, EN61000-4-8, EN61000-4-11

**Safety:** UL, cUL, CE/EN60950

**Shock:** IEC60068-2-27

**Vibration:** IEC60068-2-6

**Memory Buffer:** 512Kbytes

**Back-plane:** 1.0 Gbps

**Transfer Packet Throughput:** 1.19Mpps @ 64bytes

**Free Fall:** IEC60068-2-32

**Class 1 DIV 2:** Pending\*

**DNV:** Pending\*

**Environmental:** WEEE, RoHS

**MTBF:** 325,000 hrs based on Mil-Hdbk-217F, GB

**Warranty:** 5 years

## PoE Specifications

**PoE Compliance:** 100% IEEE 802.3af compliant

**PoE Classification:** Power Sourcing Equipment (PSE)

**PoE Voltage:** 48 VDC

**PoE Power:** Up to 15.4 watts per port

### PoE Protection:

Over-temperature, over-current, over/under-voltage and transient

### PoE Pin Assignment:

RJ-45 port # 1-# 8 support IEEE 802.3af End-point, Alternative B mode

Per port provides 15.4W ability

Positive (VCC+): RJ-45 pin 4,5

Negative (VCC-): RJ-45 pin 7,8