

10/100BaseT/TX Ethernet Extender Media Converter



Signamax Connectivity Systems' model 065-1167 is a point-to-point Ethernet Extender that efficiently extends 10/100 Ethernet circuits to over 1,960 feet (600 meters) at 30 Mbps using existing straight pair copper wire. The 065-1167 allows Ethernet connectivity in existing facilities without pulling extra cable. This is the perfect solution to Ethernet on the factory floor where systems have been upgraded from slower serial data communication to Ethernet networking. The 065-1167 is used in pairs to extend Ethernet connectivity over existing voice grade copper wire. Installation is easy; a single switch setting allows each unit to be set either for local operation at the near side of the circuit, or remote operation when used at the other end of the circuit.

KEY FEATURES

- Operates transparently to higher layer protocols such as TCP/IP.
- Ethernet Port: 10/100 Mbps; Full/Half-duplex operation with Auto-Negotiation and Auto-MDI/MDIX.
- Ethernet Extender (RJ-11) Port: Eight speeds with speed indicator LEDs on top of unit; Up to 30 Mbps @ 1,968 feet (600 meters) down to 1 Mbps @ 6,233 feet (1,900 meters); supports symmetrical VDSL operation.
- High-speed full-duplex 30 Mbps communications link capability over existing copper wire.
- Single configuration DIP switch for local or remote operation on RJ-11 Ethernet Extender port.
- -4° F to 140° F (-20° C to 60° C) operating temperature range.
- Hardened aluminum case; compatible with Signamax 065-1185 Rack Mount Chassis for multiple or mixed media converter type installations.
- Also supports DIN-Rail or wall mounting installation.

ORDERING INFORMATION

PART NUMBER	DESCRIPTION
065-1167	10/100BaseT/TX Ethernet Extender Media Converter
065-1167DIN	10/100BaseT/TX Ethernet Extender Media Converter with preattached DIN-rail mount

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SPECIFICATIONS

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- **APPLICABLE STANDARDS**

- IEEE 802.3 (10BaseT Ethernet);
- IEEE 802.3u (100BaseTX Fast Ethernet);
- Ethernet over VDSL

- **PORTS**

- 1 x RJ-45 Twisted Pair; 10/100BaseT/TX
- 1 x RJ-11 Ethernet Extender

- **DATA RATES & DISTANCES SPANNED**

- Twisted Pair Ethernet Port:** 10 Mbps or 100 Mbps; 100 meters

- Ethernet Extender Port:** Up to 30 Mbps @ 1,968 feet (600 meters) down to 1 Mbps @ 6,233 feet (1,900 meters); supports symmetrical VDSL operation. Cable: Telephone line 24 AWG (0.5mm diameter, 1-pair wire) or larger.

- **STATUS LEDs**

- End Panel:**

- Per Unit:**

- PWR (green):** Illuminates under normal operation.

- 10/100BaseT/TX Port (labeled *Ethernet*):**

- Lnk/Act (green):** Illuminated when receiving link pulses from compliant devices; flashing when data packets are being transmitted or received.

- Fdx (green):** Illuminated when the Ethernet port has auto-negotiated to full-duplex operation.

- Ethernet Extender Port (labeled *Line*):**

- Lnk (green):** Illuminated when receiving link pulses from the device at the opposite end of the circuit.

- Err (green):** Illuminated when the Ethernet Extender port has detected an errored packet.

- Loc (green):** Illuminated when the converter has been switch-selected as the LOCAL device.

- Rmt (green):** Illuminated when the converter has been switch-selected as the REMOTE device.

- Top Panel:**

- Ethernet Extender (*Line*) Port Speed:**

- LED 1 (green/amber):** Illuminates green @ 1 Mbps (1,900 m / 6,232 ft.), amber @ 3 Mbps (1,800 m / 5,904 ft.); not illuminated at other speeds.

- LED 2 (green/amber):** Illuminates green @ 5 Mbps (1,600 m / 5,249 ft.), amber @ 10 Mbps (1,400 m / 4,593 ft.); 40 Mbps when amber *and* LED 4 is also illuminated amber (600 m / 1,968 ft.).

- LED 3 (green/amber):** Illuminates green @ 15 Mbps (1,200 m / 3,936 ft.), amber @ 20 Mbps (1,000 m / 3,280 ft.); 50 Mbps when amber *and* LED 4 is also illuminated amber (300 m / 984 ft.).

- LED 4 (green/amber):** Illuminates green @ 25 Mbps (800 m / 2,624 ft.), amber @ 30 Mbps (700 m / 2,296 ft.); see above for speeds when amber and LED 2 or 3 is also illuminated amber.

- **PERFORMANCE**

- Ethernet Port Throughput @ 100Base:** 148,810 pps (64-byte packets)

- Ethernet Extender (*Line*) Port Throughput:** Distance-dependent; please see above.

- **ENVIRONMENT**

- Operating:**

- Temperature:** -4° F to 140° F (-20° C to 60° C)

- Relative Humidity:** 10% to 95%, non-condensing

- Non-Operating/Storage:**

- Temperature:** -4° F to 158° F (-20° C to 70° C)

- Relative Humidity:** 10% to 95%, non-condensing

- **ELECTRICAL REQUIREMENTS**

- Power Supply:** 12 Volts DC, 800 mA

- Power Consumption:** 2.4 Watts Maximum; 200 mA @ 12 Volts DC

- **PHYSICAL CHARACTERISTICS**

- Dimensions:** 4.30 x 3.16 x 0.94 inches [D x W x H]
(109.2 x 80.3 x 23.8 mm)

- Weight:** 0.33 lbs. (150 grams)

SPECIFICATIONS (continued)

• CERTIFICATIONS

Safety: UL508, EN60950-1, IEC60950-1; CE Mark

EMI: FCC Part 15 Class A; EN61000-6-3; EN55022; EN61000-3-2; EN61000-3-3

EMS:

ESD Standards (IEC 61000-4-2):

Enclosure Contact: + / - 4KV; Criteria B;

Enclosure Air: + / - 8KV; Criteria B

Radiated FRI Standards (IEC 61000-4-3):

Enclosure Ports: 10V/m, 80 to 1000MHz, 80% AM; Criteria A

Burst Standards (IEC 61000-4-4):

Enclosure Ports: + / - 4KV @ 2.5 KHz; Criteria B

D.C. Power Ports: + / - 4KV; Criteria B

A.C. Power Ports: + / - 4KV; Criteria B

Surge Standards (IEC 61000-4-5):

Signal Ports: + / - 1KV; Line-to-line; Criteria B

D.C. Power Ports: + / - 0.5KV; Line-to-earth; Criteria B

A.C. Power Ports: + / - 2KV; Line-to-earth; Criteria B

Induced RFI Standards (IEC 61000-4-6):

Signal Ports: 10V RMS @ 0.15-80MHz, 80% AM; Criteria A

D.C. Power Ports: 10V RMS @ 0.15-80MHz, 80% AM; Criteria A

A.C. Power Ports: 10V RMS @ 0.15-80MHz, 80% AM; Criteria A

Earth Ground Ports: 10V RMS @ 0.15 - 80MHz, 80% AM; Criteria A

Magnetic Field Standards (IEC 61000-4-8):

30A/m @ 50, 60Hz; Criteria A

Voltage Dip Standards (IEC 61000-4-11):

A.C. Power Ports: 30% Reduction for 0.5 period; Criteria B

Environmental Test Compliance:

Vibration Resistance (IEC 60068-2-6fc): 5G @ 150Hz, Amplitude 0.35 mm (Operation/Storage/Transport)

Shock (IEC 60068-2-27 Ea): 25G @ 11ms (Half-Sine Shock Pulse; Operation);

50G @ 11ms (Half-Sine Shock Pulse; Storage/Transport)

Free Fall (IEC 60068-2-32 Ed): 1 Meter (3.281 ft.)

• WARRANTY

Lifetime