# EPoC-V2 series

## Long Range PoE over Coax Products

Ethernet over Coax | Power over Coax | Ethernet Surge Protection | Plug & Play | bt/at/af PoE | IP67 | IK10

AETEK EPoC-V2 series of PoE over Coax Extender is designed to extend IP Ethernet transmission and inject power over an Coax cable for distance up to 1,200m (3,937ft) to PoE IP camera, PoE Wireless AP and any 802.3bt/at/af complied powered device (PD).
The EPoC-V2 Series consists of a TX and RX set which can work in pair without any power adapter and anywhere on your network infrastructure.

## Features

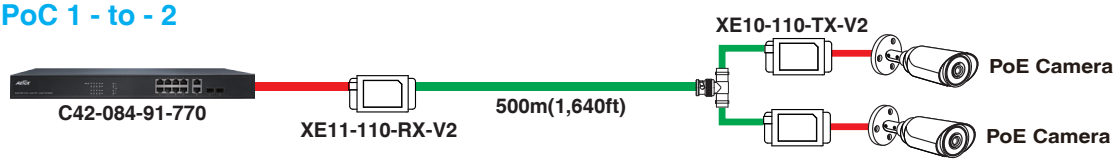
- Long-range IP data & PoE over Coaxial cables
- Delivers up to 16 watts@1,200m(3,937ft) for a PoE IP camera
- Supports peer-to-peer, daisy-chain, and failover Ringtopologies
- Support IEEE 802.3bt/at/af PoE or 48-56VDC Input (XE11-110-RX-V2 only)
- Eliminates the need for intermediate Ethernet switches & power supplies for long-range deployment
- Plug-and-Play connection
- 802.3 bt/at/af PoE Output
- Support IEEE 802.3 bt/at/af PoE Output and Output Voltage Booster (XE22-110-TX-V2 only)
- IP67 rated, IK10 vandal proof (XE22-110-TX-V2 only)

## Applications

### EPoC 1 - to - 1

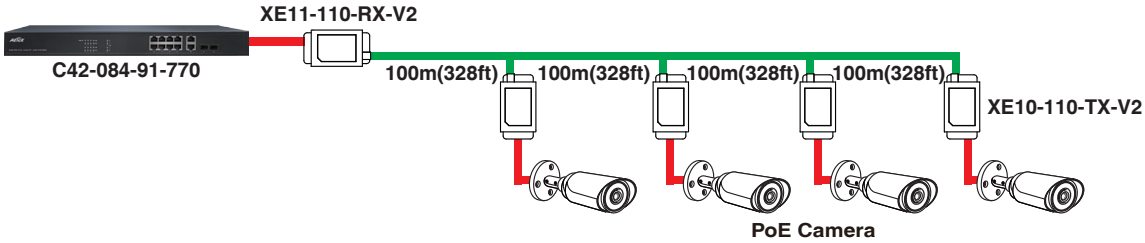
PoE Budget : 8.3W@1,200m / 3,937ft over RG6
Total Camera bandwidth < 100Mbps

### EPoC 1 - to - 2




PoE Budget : 24.8W@500m / 1,640ft over RG6
Total Camera bandwidth < 100Mbps

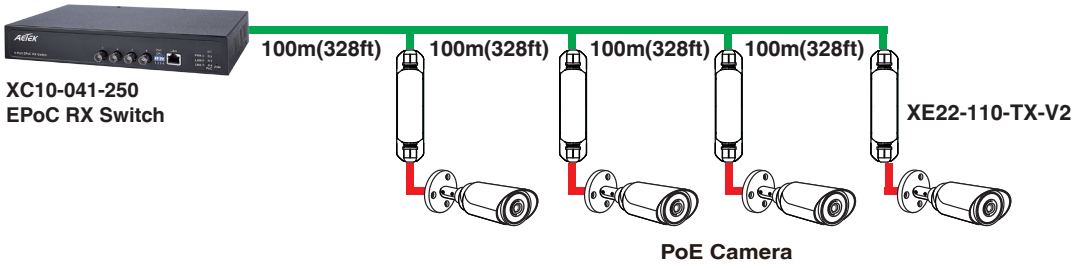
### EPoC Daisy-chain




PoE (Data + Power)
Coax (Data + Power)

PoE Budget : 8W@400m / 1,312ft over RG6
Total Camera bandwidth < 100Mbps

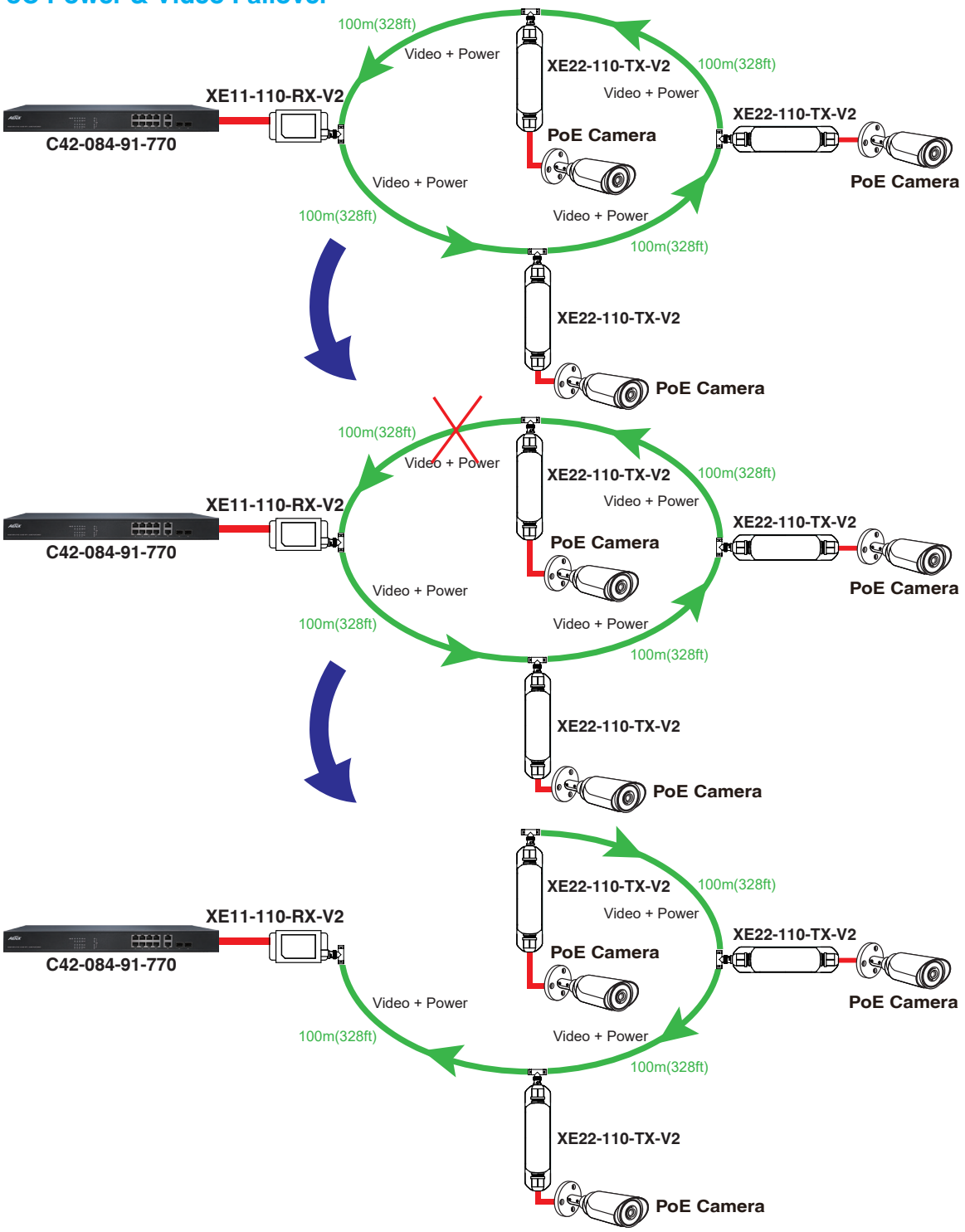
## EPoC Daisy-chain




PoE (Data + Power)
Coax (Data + Power)

PoE Budget : 8W@400m / 1,312ft over RG6
Total Camera bandwidth < 100Mbps

## EPoC Power & Video Failover

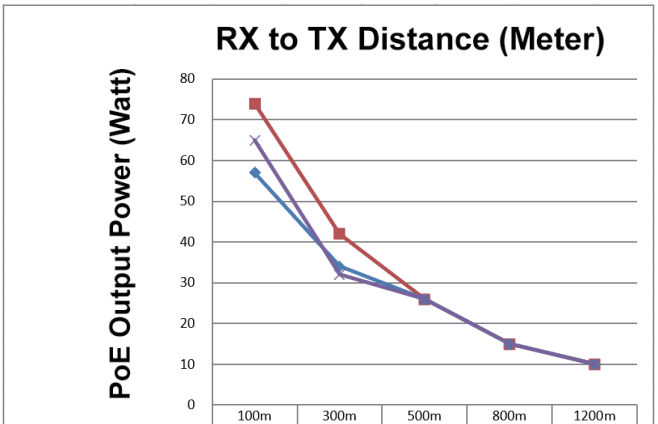



PoE (Data + Power)
Coax (Data + Power)

PoE Budget : 8W@400m / 1,312ft over RG6
Total Camera bandwidth < 100Mbps

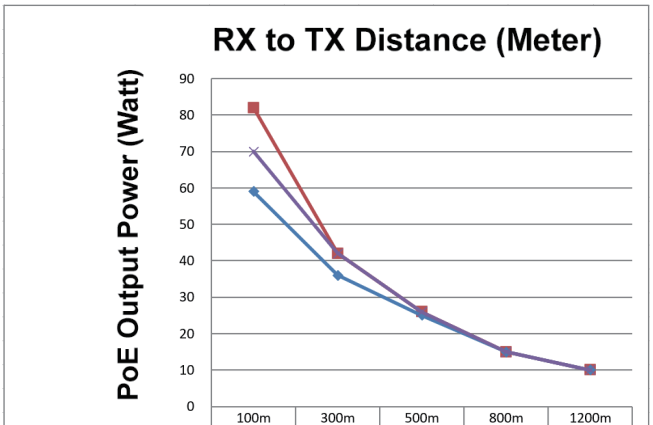
## EPoC Peer to Peer Output Power / Distance Chart

### XE11-110-RX-V2 to XE10-110-TX-V2




| | 100m | 300m | 500m | 800m | 1200m |
|---|---|---|---|---|---|
| RX_56VDC-IN (120W) | 74 | 42 | 26 | 15 | 10 |
| RX_56VDC-IN (65W) | 57 | 34 | 26 | 15 | 10 |
| RX POE-BT-IN (90W) | 65 | 32 | 26 | 15 | 10 |

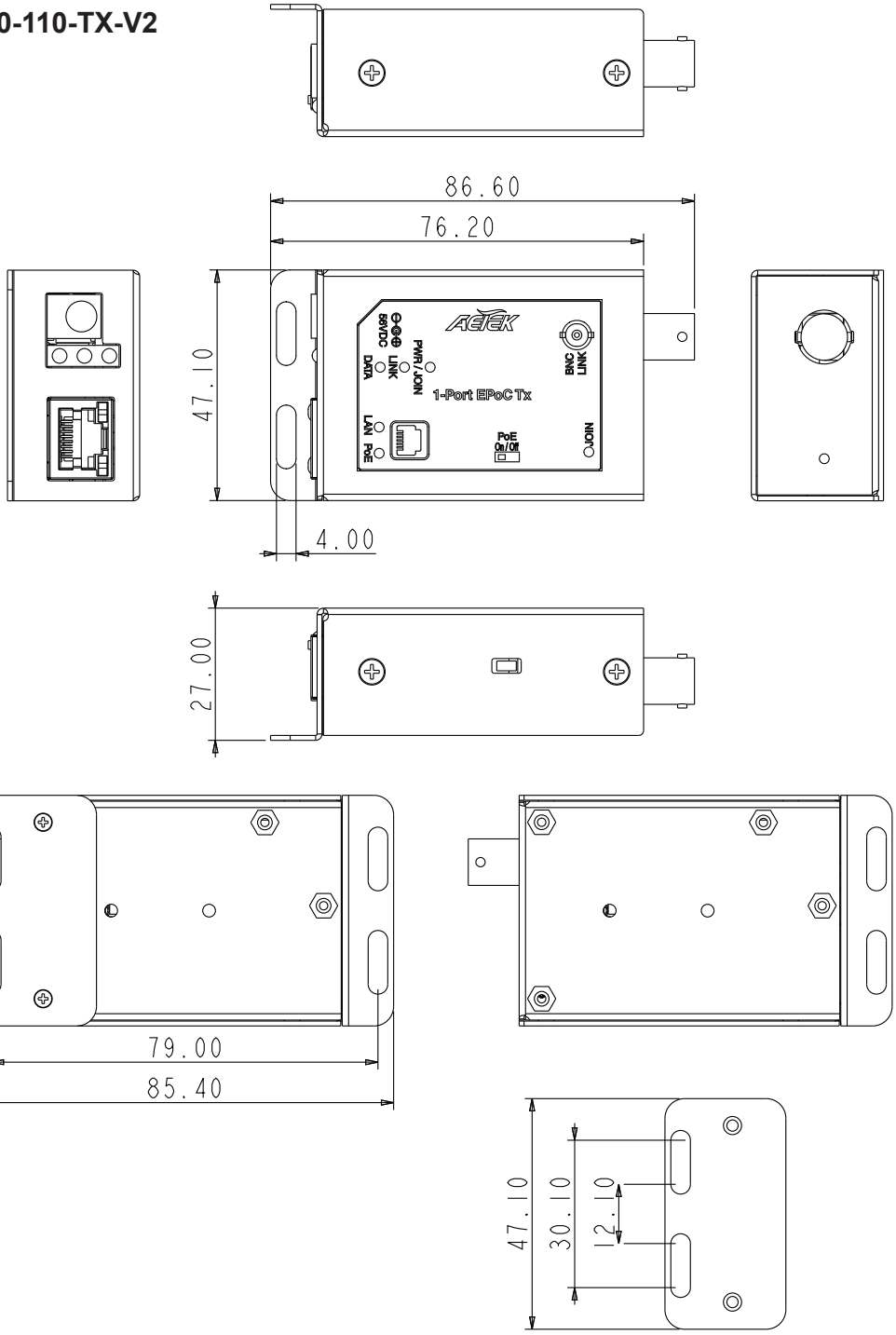
### XE11-110-RX-V2 to XE22-110-TX-V2



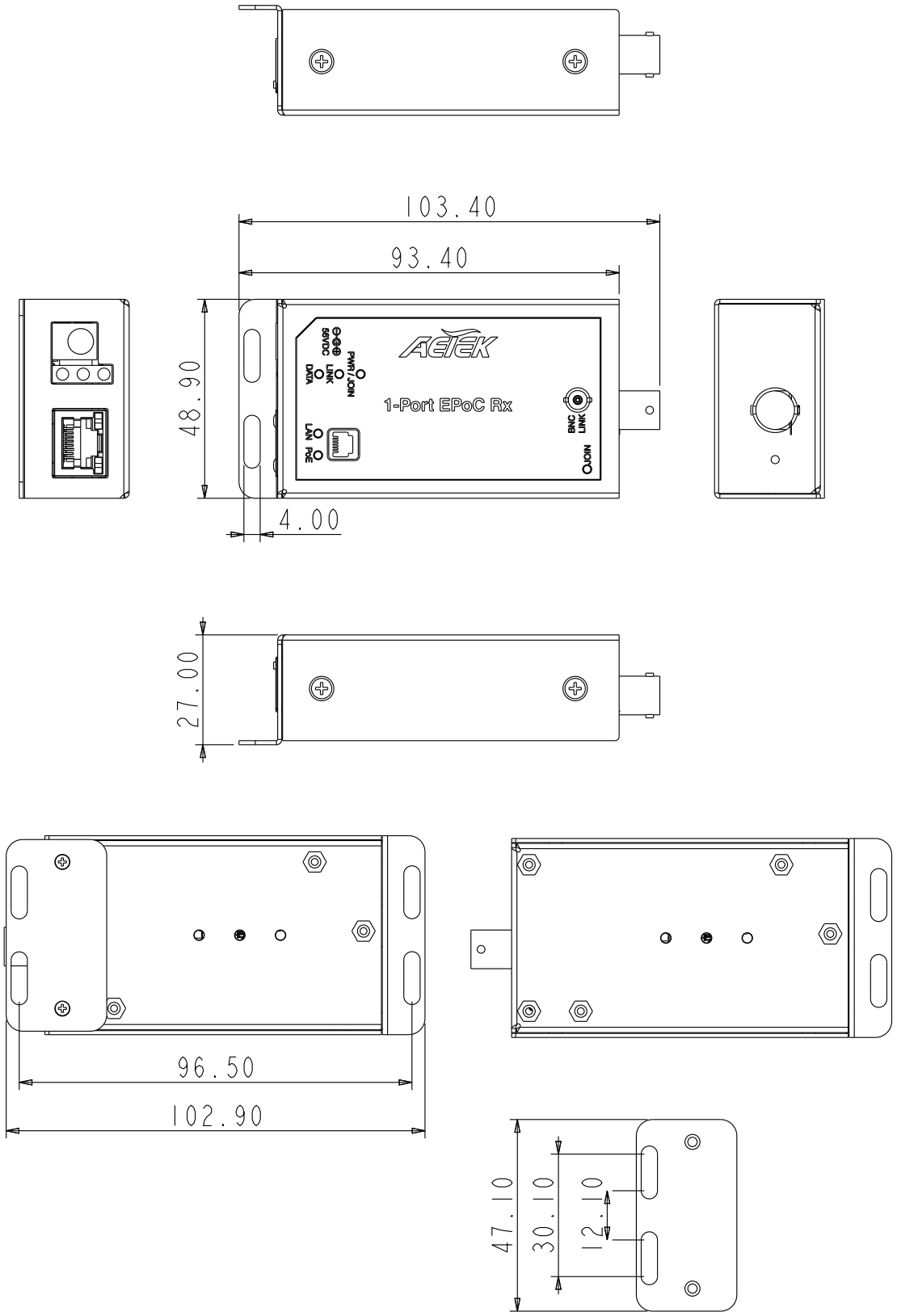

| | 100m | 300m | 500m | 800m | 1200m |
|---|---|---|---|---|---|
| RX_56VDC-IN (120W) | 82 | 42 | 26 | 15 | 10 |
| RX_56VDC-IN (65W) | 59 | 36 | 25 | 15 | 10 |
| RX POE-BT-IN (90W) | 70 | 42 | 26 | 15 | 10 |

## Dimension

### XE10-110-TX-V2

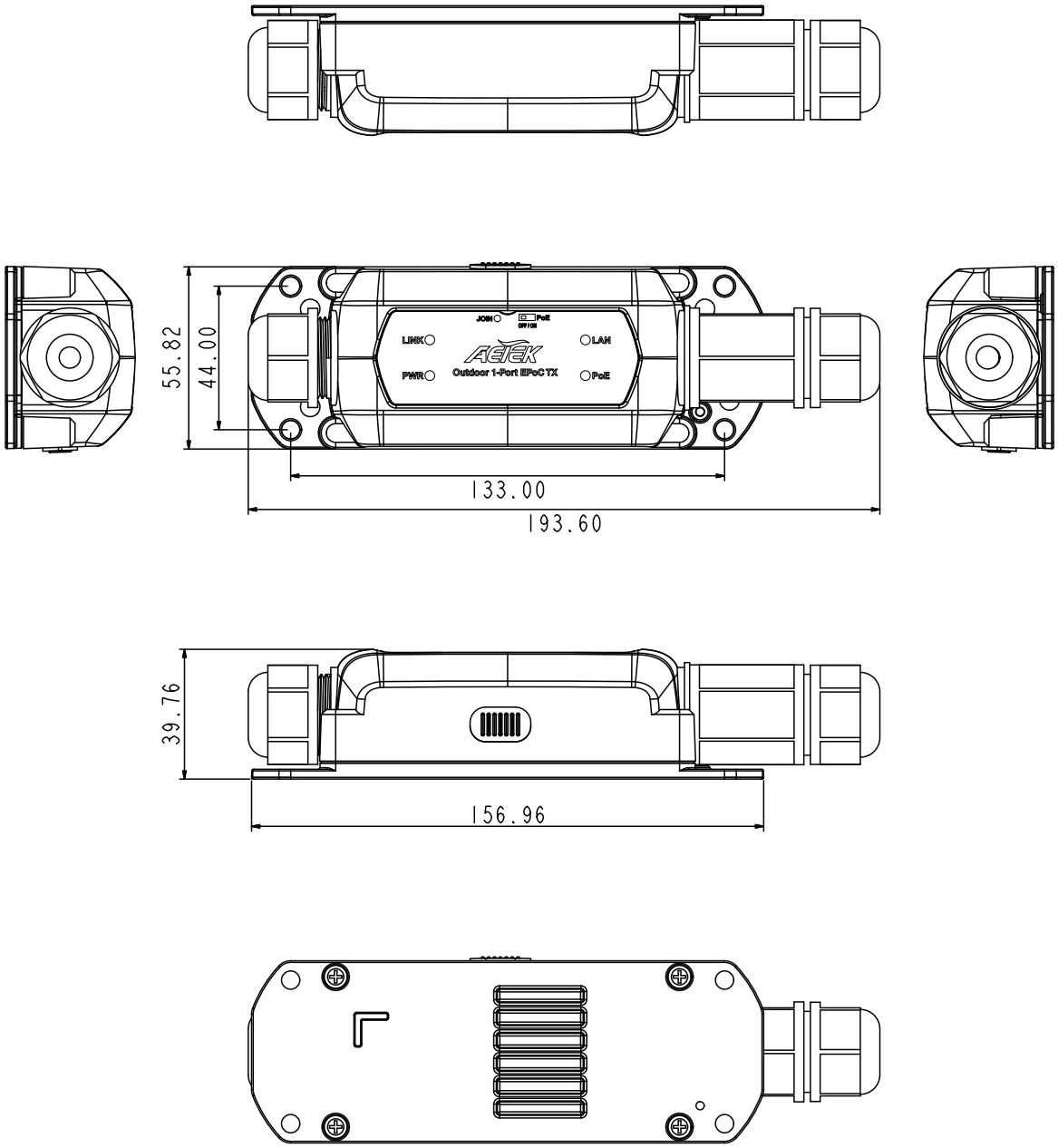


## XE11-110-RX-V2



## Dimension

### XE22-110-TX-V2



## Specifications

| | XE11-110-RX-V2 | XE10-110-TX-V2 | XE22-110-TX-V2 |
|---|---|---|---|
| **Interface / Distance** | | | |
| Coaxial BNC | 75 ohm BNC x1 | 75 ohm BNC x1 | 75 ohm BNC x1 |
| 10/100 Mbps Ethernet | PoE PD RJ45 x1 | PoE PSE RJ45 x1 | PoE PSE RJ45 x1 |
| Transmission mode | Receiver RX mode | Transmitter TX mode | Transmitter TX mode |
| Maximum TX quantity | 7 | -- | -- |
| MAX.(Power+Data) Distance | 100Mbps, 9.7W@1,200m(3,937ft)<br>100Mbps@2,400m(7,874ft) Data only<br>Cable reference: RG6 Coax | 100Mbps, 9.7W@1,200m(3,937ft)<br>100Mbps@2,400m(7,874ft) Data only<br>Cable reference: RG6 Coax | 100Mbps, 9.7W@1,200m(3,937ft)<br>100Mbps@2,400m(7,874ft) Data only<br>Cable reference: RG6 Coax |
| Cable Type | 75 ohm RG59/RG6/RG11 Coax | 75 ohm RG59/RG6/RG11 Coax | 75 ohm RG59/RG6/RG11 Coax |
| Bandwidth | 100 Mbps | 100 Mbps | 100 Mbps |
| Data Rate | Coaxial cable : up to 100 Mbps<br>asymmetrical to full range<br>Ethernet cable : 100 Base-TX Full Duplex | Coaxial cable : up to 100 Mbps<br>asymmetrical to full range<br>Ethernet cable : 100 Base-TX Full Duplex | Coaxial cable : up to 100 Mbps<br>asymmetrical to full range<br>Ethernet cable : 100 Base-TX Full Duplex |
| **Power** | | | |
| Input Power | Support 30W/60W/90W PoE<br>DC power jack: 56VDC | EPoC@50~56VDC<br>DC power jack: 56VDC | EPoC@50~56VDC |
| Output Power | -- | IEEE 802.3bt PoE++ PSE<br>IEEE 802.3at PoE+ PSE<br>IEEE 802.3af PoE PSE | IEEE 802.3bt PoE++ PSE<br>IEEE 802.3at PoE+ PSE<br>IEEE 802.3af PoE PSE<br>Voltage Booster |
| Power Supply | Optional :<br>Input: 100-240VAC<br>Output: 65W@56VDC or 120W@56VDC<br>Power Adapter<br>60W/90W PoE Injector<br>60W/90W PoE Switch | Optional :<br>Input: 100-240VAC<br>Output: 65W@56VDC or 120W@56VDC<br>Power Adapter | -- |
| Unit Power Consumption | 2 watts | 2 watts | 2 watts |
| EPoC Surge Protection | Optional extra surge protector : SD-301 | Optional extra surge protector : SD-301 | 6KV |
| ESD | Contact ±4 KV, Air ±8 KV | Contact ±4 KV, Air ±8 KV | Contact ±4 KV, Air ±8 KV |
| **Mechanical** | | | |
| Dimensions (LxWxH) | 103.4 x 48.9 x 27.0 mm<br>(4.07 x 1.93 x 1.06 in) | 86.6 x 47.1 x 27.0 mm<br>(3.41 x 1.85 x 1.06 in ) | 193.6 x 55.8 x 39.76 mm<br>(7.62x2.2x1.56 in) |
| Weight | 0.2 kg (0.44 lb) | 0.2 kg (0.44 lb) | 0.3 kg (0.66 lb) |
| Connectors | BNC x1, RJ45 x1, DC Jack x1 | "BNC x1, RJ45 x1, DC Jack x1,<br>PoE On/Off Switch x1" | "M25 x1(BNC), M25 x1(RJ45),<br>PoE On/Off Switch x1" |
| Mounting | Wall mount / Din-rail(optional) | Wall mount / Din-rail(optional) | Wall mount |
| Casing | Metal | Metal | Aluminum |
| DIP Switch | -- | PoE On/Off switch | PoE On/Off switch |
| Join Button | 1~3 sec.: Link RX and TX<br>5~8 sec.: Disconnect RX and TX<br>10~15 sec.: Reset to default | 1~3 sec.: Link RX and TX<br>5~8 sec.: Disconnect RX and TX<br>10~15 sec.: Reset to default | 1~3 sec.: Link RX and TX<br>5~8 sec.: Disconnect RX and TX<br>10~15 sec.: Reset to default |
| **Environmental limits** | | | |
| IP Rating | -- | -- | IP67 |
| IK Rating | -- | -- | IK10 |
| Operating Temperature | -20°C ~ 60°C (-28°F ~ 140°F) | -20°C ~ 60°C (-28°F ~ 140°F) | -30°C ~ 60°C (-22°F ~ 140°F) |
| Storage Temperature | -20°C ~ 85°C (-28°F ~ 185°F) | -20°C ~ 85°C (-28°F ~ 185°F) | -40°C ~ 85°C (-40°F ~ 185°F) |
| Relative Humidity | 5% to 95% non-condensing | 5% to 95% non-condensing | 5% to 95% non-condensing |
| **Regulatory/ Approvals** | | | |
| EMC | CE, FCC, VCCI, C-Tick | CE, FCC, VCCI, C-Tick | CE, FCC, VCCI, C-Tick |
| Safety | EN62368-1 | EN62368-1 | EN62368-1 |
| MTBF | >50000 hours | >50000 hours | >50000 hours |
| **LEDs** | | | |
| LAN | Ethernet status | Ethernet status | Ethernet status |
| PWR | Power status | Power status | Power status |
| LINK/BNC | EPoC RX and TX connection status | EPoC RX and TX connection status | EPoC RX and TX connection status |
| POE | PoE status | PoE status | PoE status |
| DATA | Data transmission status over coax | Data transmission status over coax | -- |

*** Note: When powering the XE11-110-RX-V2 via a PoE Switch, electrical isolation is mandatory between the two devices to prevent direct electrical contact.**

## Ordering Information

| EPoC-V2 RX Adapter | | | |
|---|---|---|---|
| | **XE11-110-RX-V2**<br>• One BNC coaxial port & one 10/100Mbps PoE PD port<br>• Supports 30W/60W/90W PoE or 56VDC Input | | |
| **EPoC-V2 TX Adapter Series** | | | |
| | **XE10-110-TX-V2**<br>• One BNC coaxial port & one PoE LAN port<br>• 802.3 bt/at/af PoE output<br>• Optional 56VDC Input | | **XE22-110-TX-V2**<br>• One BNC coaxial port & one PoE LAN port<br>• 802.3 bt/at/af PoE output<br>• IP67/IK10<br>• Output voltage booster |

## Optional Accessories

| | | | |
|---|---|---|---|
| | **PA-151-065**<br>• 100 ~ 240 VAC input, 56VDC/65W output | | **CH-100-V2**<br>• 19", 1U 4-bay rack mount chassis<br>• Support 4 set XE11-110-RX-V2 with PA-150-065 power adapter only |
| | **PA-150-120**<br>• 100 ~ 240 VAC input, 56VDC/120W output | | **CH-110-V2**<br>• 19", 1U 8-bay rack mount chassis<br>• Support 8 pcs XE11-110-RX-V2 only |
| | **BNC-Y**<br>• Y -type BNC Adapter | | **BNC-T**<br>• T -type BNC Adapter |
| | **BNC-YC cable**<br>• Outdoor Y type BNC Cable | | **SD-301**<br>• 6KV EPoC Surge Protection<br>• Support XE11-110-RX-V2 only |

## Related Product

| EPoC RX Switch | | | |
|---|---|---|---|
| | **XC10-041-250**<br>• 4-port BNC coax ports & 1-port Gigabit LAN port<br>• 6KV surge protection for coax port<br>• 250W power budget<br>• 100~240VAC input | | **XC60-084-91-770**<br>• Supports NTS<br>• 8-port BNC coaxial ports, 2-port Gigabit RJ45 port, 2-port Gigabit SFP port<br>• 720W power budget<br>• 100-240VAC input |
| **90W bt PoE Switch** | | | |
| | **C42-042-91-380**<br>• 4-port Gigabit 90W bt PoE + 2-port Gigabit RJ45<br>• 380W power budget | | **C42-084-91-770**<br>• 8-port Gigabit 90W bt PoE + 2-port Gigabit RJ45 + 2-port Gigabit SFP<br>• 770W power budget |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