

1200m(3937ft) Long Range EPoC Series

EPoC RX Switch

EPoC TX/RX Adapter

EPoC Camera Housing



EPoC series



EPoC (Ethernet & Power over Coax) line is a long-reach solution providing Fast Ethernet and PoE over RG6 coaxial cable up to **1200m(3937ft)** for any brand of PoE IP camera. This product line also is often used to upgrade legacy of CCTV to IP surveillance without changing legacy RG59 coaxial cable. Furthermore, outdoor EPoC solution is a rugged and economical alternative to optical fiber. In addition, the power over coax to remote PoE IP camera is more convenient than optical fiber solution.

Features

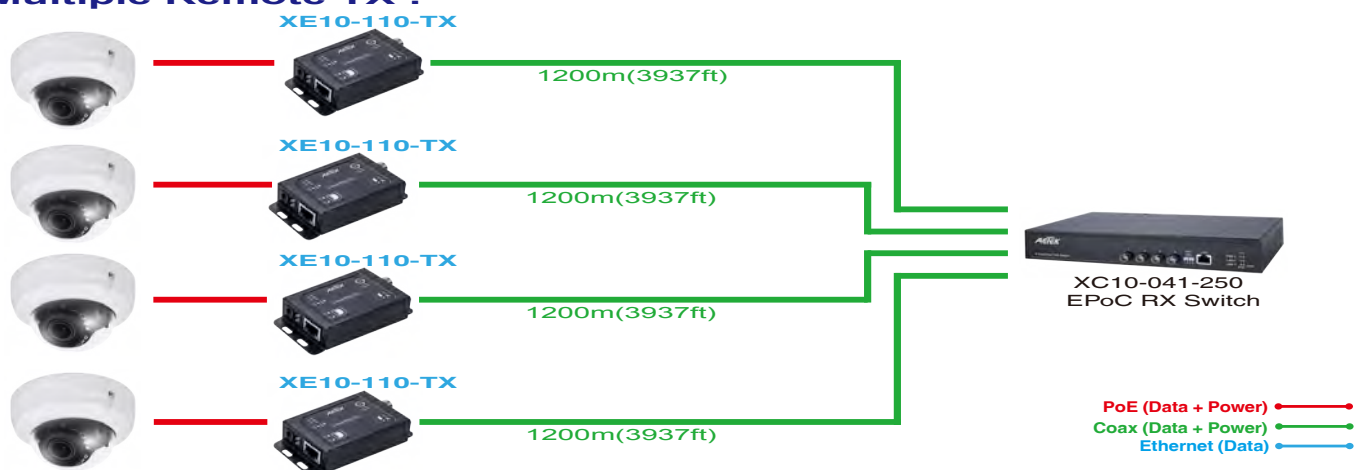
- Extends Ethernet and PoE beyond 100m(328ft) limitation up to 1200m(3937ft) over RG6 coaxial cable
- Upgrades analog CCTV into IP surveillance supporting long range Ethernet and power over legacy RG59 or new RG6/RG11 coaxial cable
- Wall-mount installation

Indoor EPoC Diagram

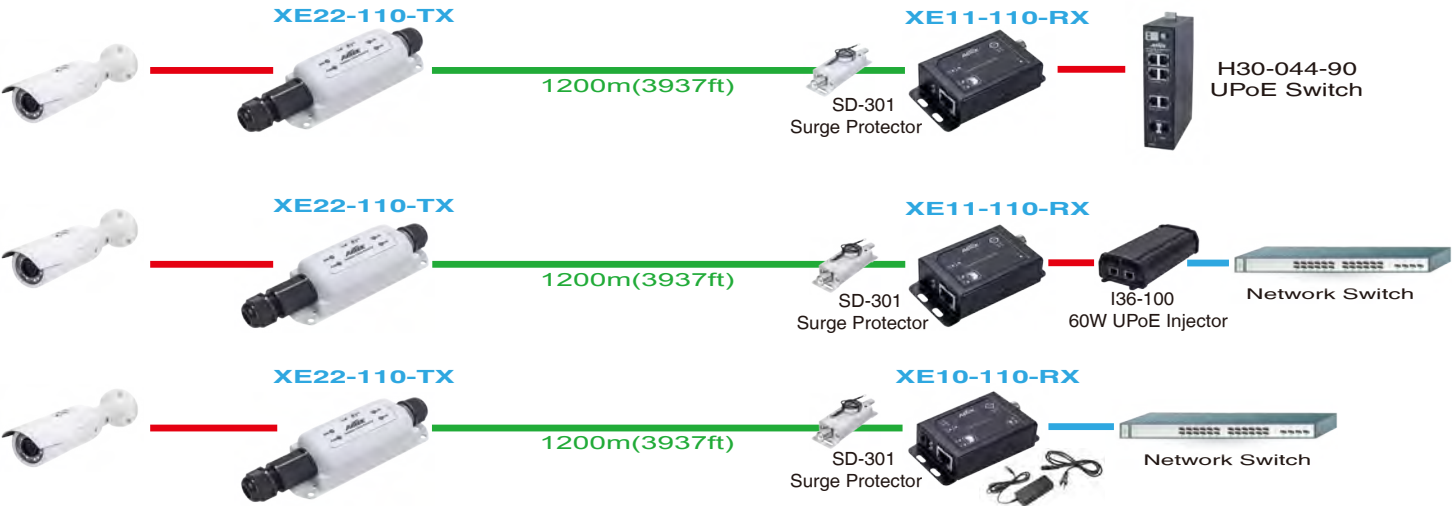
Single Remote TX :



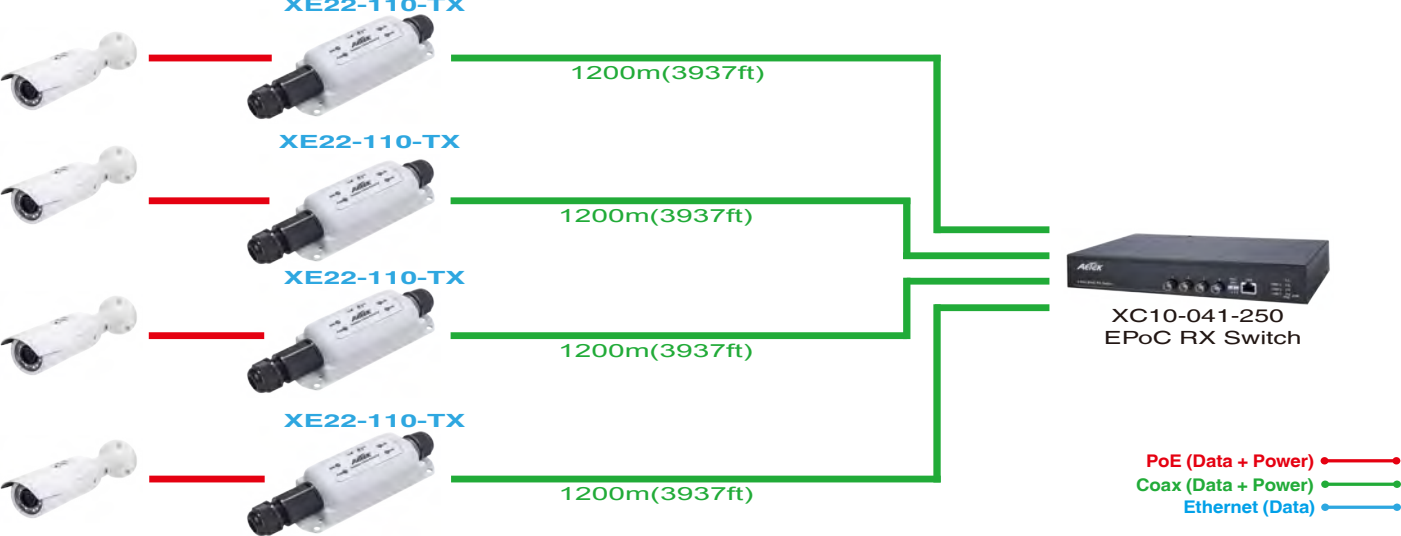
Multiple Remote TX :



Single Remote TX :

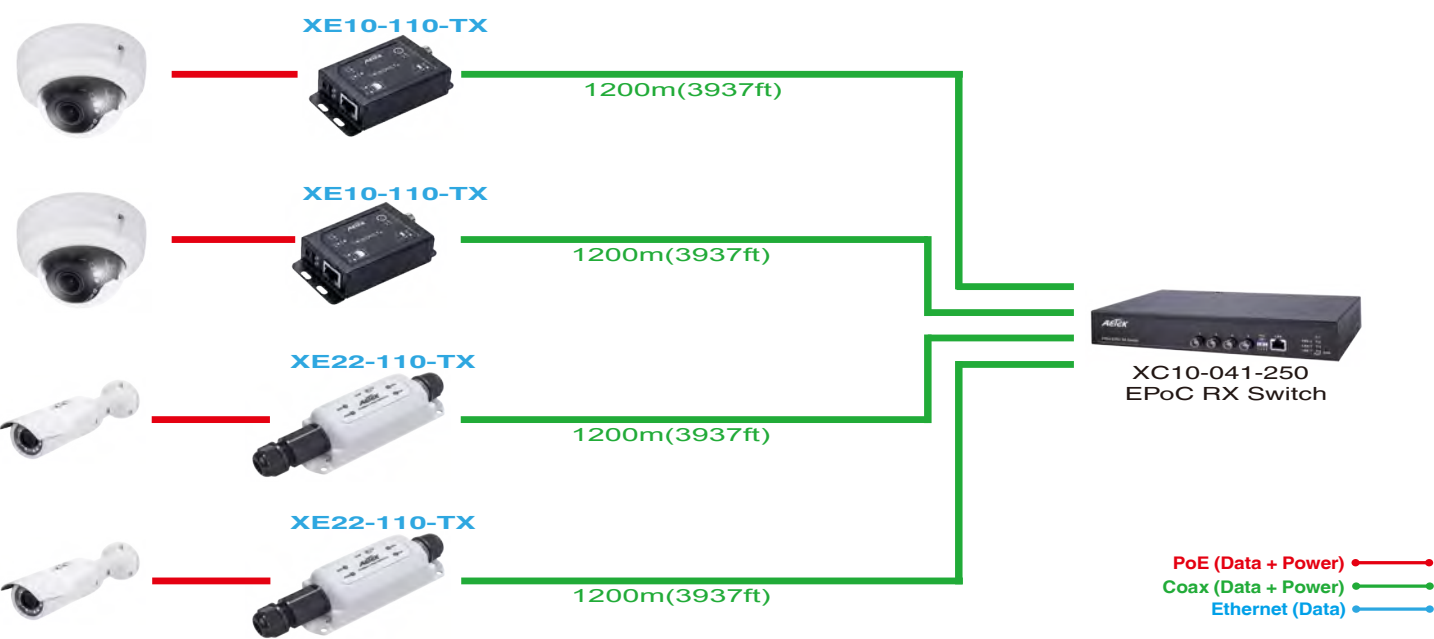


Multiple Remote TX :



Indoor + Outdoor EPoC Diagram

Multiple Remote TX :



EPoC RX Adapter Series			
	XE10-110-RX • XE10-110-RX EPoC adapter(RX) • 65W power adapter@56VDC		XE11-110-RX • XE11-110-RX PoE EPoC adapter(RX) • Supports 30W/60W/95W PoE Input
XE10-110-RX Features • One BNC coax port & one Ethernet port • Playing RX mode • Wall-mount installation • PoE pass through coax to remote PoE IP camera • Includes 65W@56VDC power supply • Optional 19" 4-bay rack mount chassis (CH-100)		XE11-110-RX Features • One BNC coax port & one PoE PD port • Playing RX mode • Wall-mount installation • PoE pass through coax to remote PoE IP camera • Eliminates the need for local site power supply • Optional 60W UPoE Injector (I36-100) • Optional 60W/95W UPoE Switch (H30-044-90) • Optional 19" 8-bay rack mount chassis (CH-110)	

EPoC RX Switch	
	XC10-041-250 • Four BNC coax ports & one LAN port • Playing RX mode • PoE pass through coax to remote PoE IP camera • 6KV surge protection for coax port • 250W power supply, 100~240VAC input • Back-up 56VDC power input • 19" Rack mount bracket

EPoC RX Series Specifications

	XE10-110-RX	XE11-110-RX	XC10-041-250
Interface/Distance			
75Ω Coaxial BNC	1	1	4
10/100Mbps Ethernet RJ45	1	1	-
10/100/1000Mbps Ethernet RJ45	-	-	1
Transmission mode	RX mode	RX mode	RX mode
MAX.(Power+Data) Distance	9.7W@1200m(3937 ft)	9.7W@1200m(3937 ft)	9.7W@1200m(3937 ft)
Power Specifications			
Power supply	Input: 100-240VAC Output: 65W@56VDC Power Adapter	Optional I36-100 : 60W UPoE Injector H30-044-90 : 60W/95W UPoE Switch	Input: 100-240VAC 280VAC 4hr 300VAC 1min.
Back-up Power Input Voltage	-	-	56VDC
PoE PD	-	v	-
PoE Pass Through	v	v	v
Surge Protection /each Coax Port	Optional extra surge protector : SD-301	Optional extra surge protector : SD-301	Built-in 6KV
Mechanical Specifications			
Dimensions (WxHxD)	85.4 x 47.1 x 23 mm (3.36x1.85x0.91")	85.4 x 47.1 x 23 mm (3.36x1.85x0.91")	276.6 x 178 x 44 mm (10.89x7x1.73")
Weight	0.2 kg (0.44 lb)	0.26 kg (0.57 lb)	1 kg (2.20 lb)
Connectors	BNCx1, RJ45x1, DC Jackx1	BNCx1, RJ45x1	BNCx4, RJ45x1, 100-240VAC power input, 56VDC input
Environmental Specifications			
Operating Temperature	-20°C ~ 60°C (-28°F ~ 140°F)	-20°C ~ 60°C (-28°F ~ 140°F)	0°C ~ 50°C (32°F ~ 122°F)
Storage Temperature	-20°C ~ 85°C (-28°F ~ 185°F)	-20°C ~ 85°C (-28°F ~ 185°F)	-20°C ~ 85°C (-28°F ~ 185°F)
Operating Humidity	5% ~ 95% non-condensing	5% ~ 95% non-condensing	5% ~ 95% non-condensing
Certifications			
EMC	CE, FCC, VCCI, C-Tick	CE, FCC, VCCI, C-Tick	CE, FCC, VCCI, C-Tick
Safety	EN60950-1	EN60950-1	EN60950-1

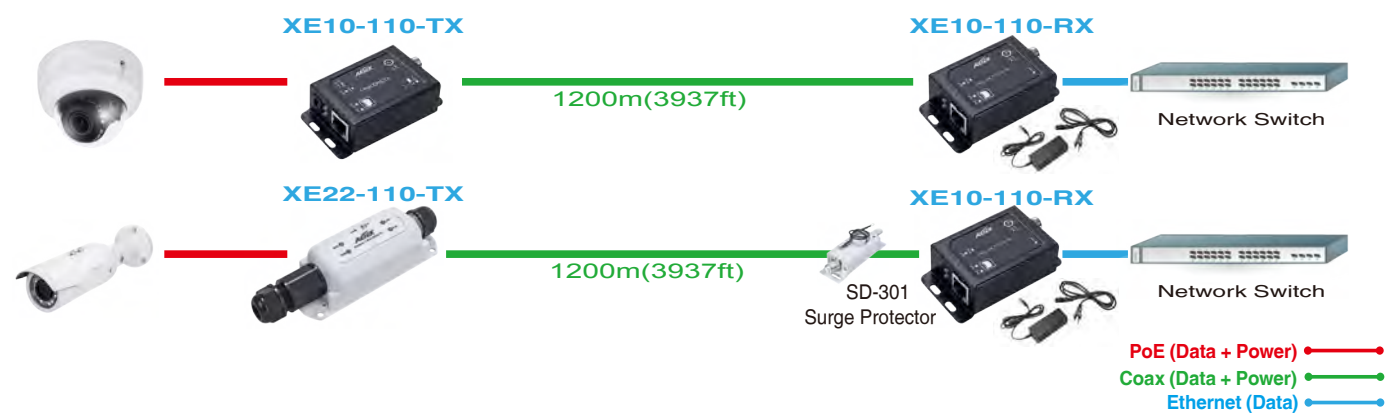
EPoC TX Adapter Series			
	XE10-110-TX • 1-to-1 EPoC adapter(TX)		XE12-120-TX • 1-to-2 EPoC adapter(TX)
XE10-110-TX Features • One BNC coax port & one PoE PSE port • Playing TX mode • Wall-mount installation • Eliminates the need for power supply beside remote PoE IP camera • Delivers up to 9.7 watts @1200m(3937ft) for one PoE IP camera		XE12-120-TX Features • One BNC coax port & two PoE PSE ports • Playing TX mode • Wall-mount installation • Eliminates the need for power supply beside remote PoE IP camera • Delivers up to 25 watts @500m(1640ft) shared between two PoE IP cameras	
	XE22-110-TX • 1-to-1, Outdoor EPoC adapter(TX) with IP67 / IK10 / 6KV Surge protection		XE22-120-TX • 1-to-2, Outdoor EPoC adapter(TX) with IP67 / IK10 / 6KV Surge protection
XE22-110-TX Features • One BNC coax port & one PoE PSE port • Outdoor IP67/IK10 • Playing TX mode • Enclosure with wall-mount • 6KV Surge protection • Eliminates the need for power supply beside remote PoE IP camera • Delivers up to 9.7 watts @1200m(3937ft) for one PoE IP camera		XE22-120-TX Features • One BNC coax port & two PoE PSE ports • Outdoor IP67/IK10 • Playing TX mode • Enclosure with wall-mount • 6KV Surge protection • Eliminates the need for power supply beside remote PoE IP camera • Delivers up to 25 watts @500m(1640ft) shared between two PoE IP cameras	

EPoC TX Adapter Specifications

	XE10-110-TX	XE12-120-TX	XE22-110-TX	XE22-120-TX
Interface/Distance				
75Ω Coaxial BNC	1	1	1	1
10/100Mbps Ethernet RJ45	1	2	1	2
Transmission mode	TX mode	TX mode	TX mode	TX mode
MAX.(Power+Data) Distance	9.7W@1200m(3937 ft)	Two cameras share 25W@500m(1640 ft)	9.7W@1200m(3937 ft)	Two cameras share 25W@500m(1640 ft)
Power Specifications				
Surge Protection	-	-	Built-in 6KV	Built-in 6KV
PoE Pass Through	v	v	v	v
Mechanical Specifications				
Dimensions (WxHxD)	85.4 x 47.1 x 23 mm (3.36x1.85x0.91")	103 x 86.6 x 28.9 mm (4.06x3.41x1.14")	157 x 55.8 x 39.75 mm (6.18x2.2x1.56")	167.5 x 72.8 x 39.8 mm (6.59x2.87x1.57")
Weight	0.2 kg (0.44 lb)	0.26 kg (0.57 lb)	0.3 kg (0.66 lb)	0.36 kg (0.79 lb)
Connectors	BNCx1 , RJ45x1	BNCx1 , RJ45x2	BNCx1 , RJ45x1	BNCx1 , RJ45x2
Environmental Specifications				
Weather Rating	-	-	IP67	IP67
Vandal Proof	-	-	IK10	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)	-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)	-40°C ~ 85°C (-40°F ~ 185°F)
Operating Humidity	10% ~ 95% non-condensing	10% ~ 95% non-condensing	10% ~ 95% non-condensing	10% ~ 95% non-condensing
Certifications				
EMC	CE, FCC, VCCI, C-Tick	CE, FCC, VCCI, C-Tick	CE, FCC, VCCI, C-Tick	CE, FCC, VCCI, C-Tick

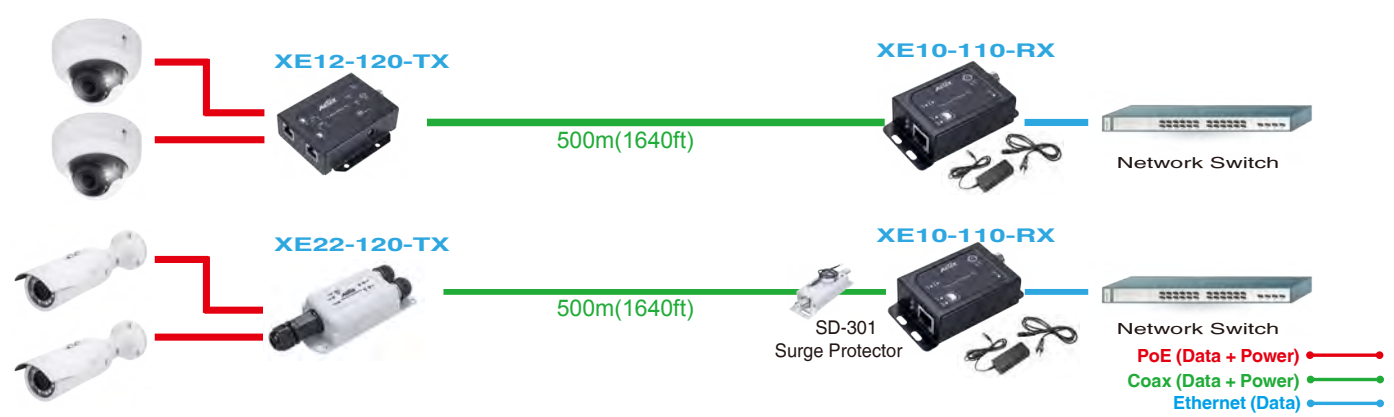
EPoC Extender Solution Guide

1-to-1 EPoC Extender Application (PSU at RX site)



TX	RX	PSU Power Budget	PSU Location	Data Rate	PoE Power Budget at TX end
XE10-110-TX	XE10-110-RX	65W@56VDC Power Adapter	RX site	100Mbps@1200m(3937ft) 100Mbps@1000m(3280ft) 100Mbps@800m(2624ft) 100Mbps@500m(1640ft) 100Mbps@300m(984ft)	9.66W@1200m(3937ft) 10W@1000m(3280ft) 13.1W@800m(2624ft) 25.2W@500m(1640ft) 34.7W@300m(984ft)
XE22-110-TX	XE10-110-RX + SD-301				

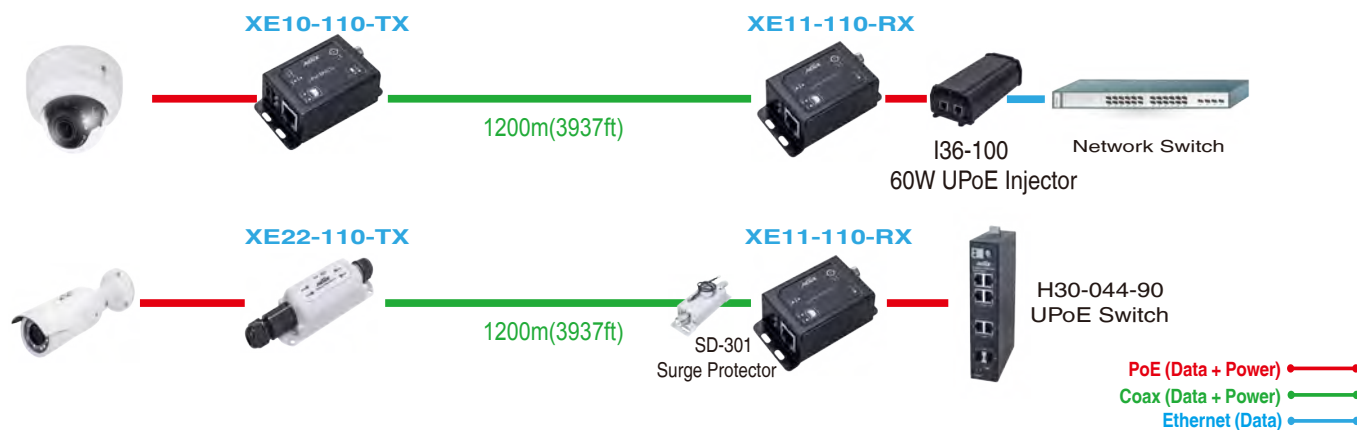
1-to-2 EPoC Extender Application (PSU at RX site)



TX	RX	PSU Power Budget	PSU Location	Data Rate	PoE Power Budget at TX end
XE12-120-TX	XE10-110-RX	65W@56VDC Power Adapter	RX site	100Mbps@500m(1640ft) 100Mbps@400m(1312ft) 100Mbps@300m(984ft)	25.2W@500m(1640ft) 30W@400m(1312ft) 34.7W@300m(984ft)
XE22-120-TX	XE10-110-RX + SD-301				

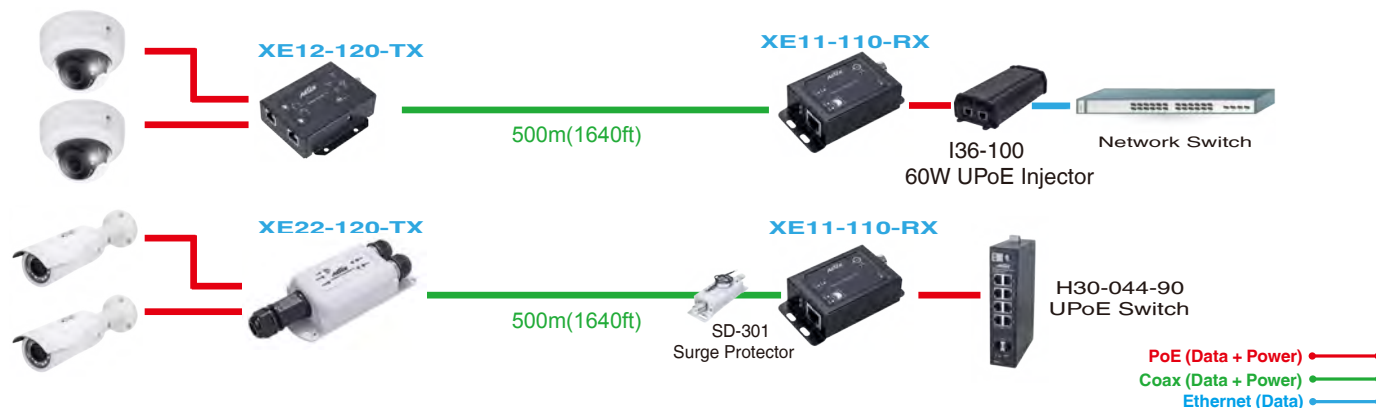
EPoC Extender Solution Guide

1-to-1 EPoC Extender Application (UPoE PSE at RX site)



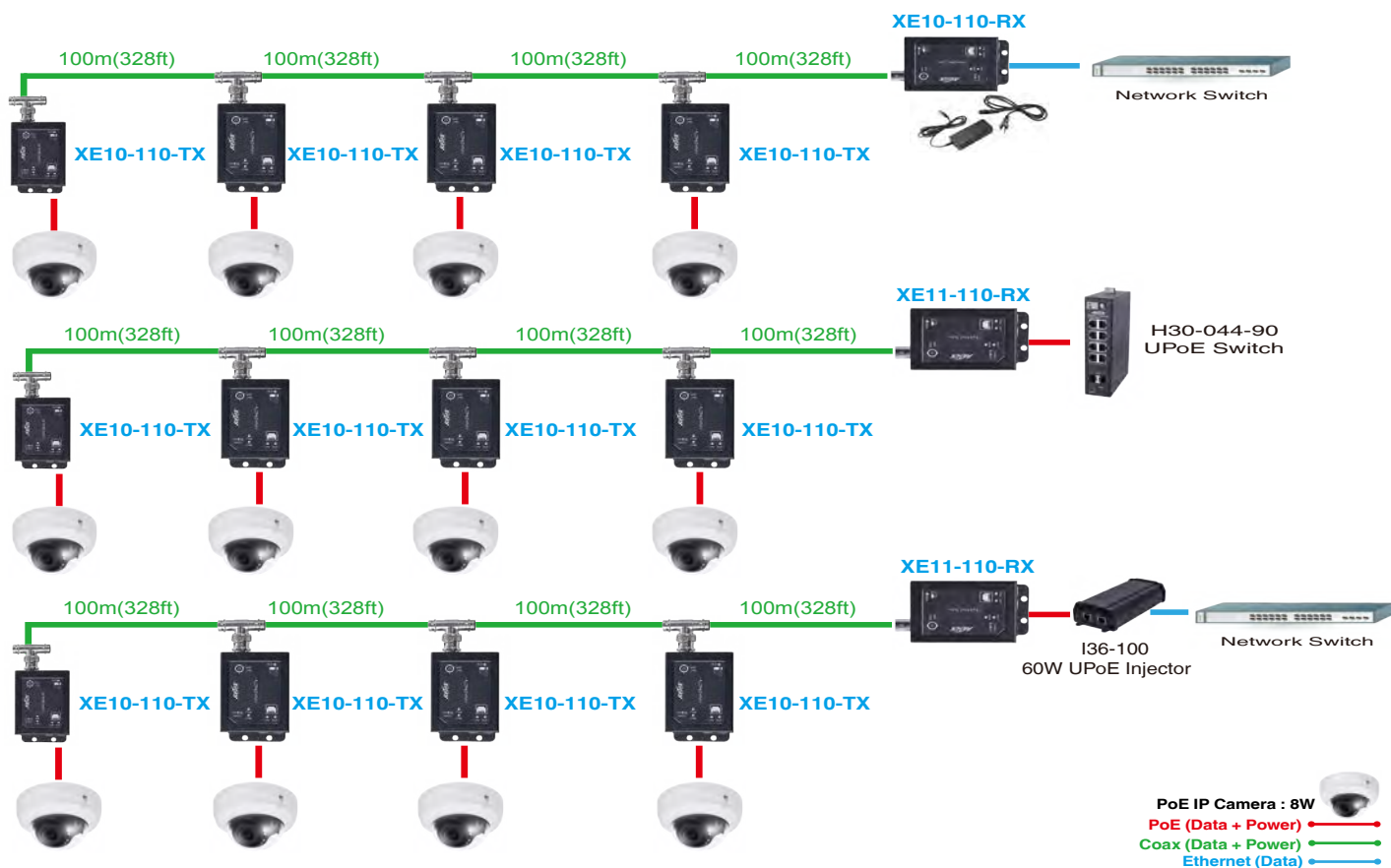
TX	RX	UPoE PSE Power Budget	PSU Location	Data Rate	PoE Power Budget at TX end
XE10-110-TX	XE11-110-RX	I36-100 60W UPoE Injector	RX site	100Mbps @ 1200m(3937ft) 100Mbps @ 1000m(3280ft) 100Mbps @ 800m(2624ft) 100Mbps @ 500m(1640ft) 100Mbps @ 300m(984ft)	9.66W @ 1200m(3937ft) 10W @ 1000m(3280ft) 13.1W @ 800m(2624ft) 25.2W @ 500m(1640ft) 34.7W @ 300m(984ft)
XE22-110-TX	XE11-110-RX + SD-301	OR H30-044-90 60W/95W UPoE Switch			

1-to-2 EPoC Extender Application (UPoE PSE at RX site)

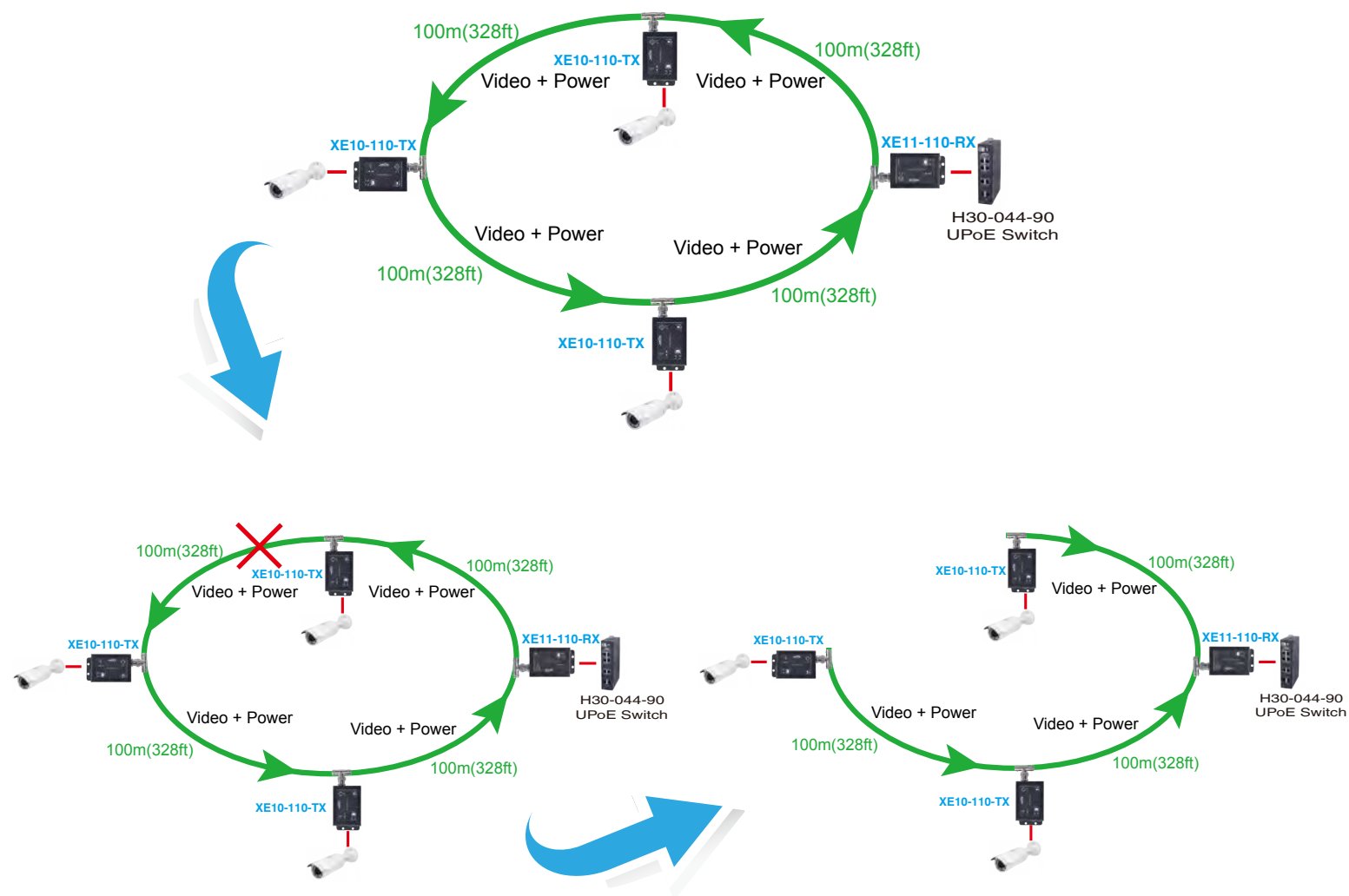


TX	RX	UPoE PSE Power Budget	PSU Location	Data Rate	PoE Power Budget at TX end
XE12-120-TX	XE11-110-RX	I36-100 60W UPoE Injector	RX site	100Mbps @ 500m(1640ft) 100Mbps @ 400m(1312ft) 100Mbps @ 300m(984ft)	25.2W @ 500m(1640ft) 30W @ 400m(1312ft) 34.7W @ 300m(984ft)
XE22-120-TX	XE11-110-RX + SD-301	OR H30-044-90 60W/95W UPoE Switch			

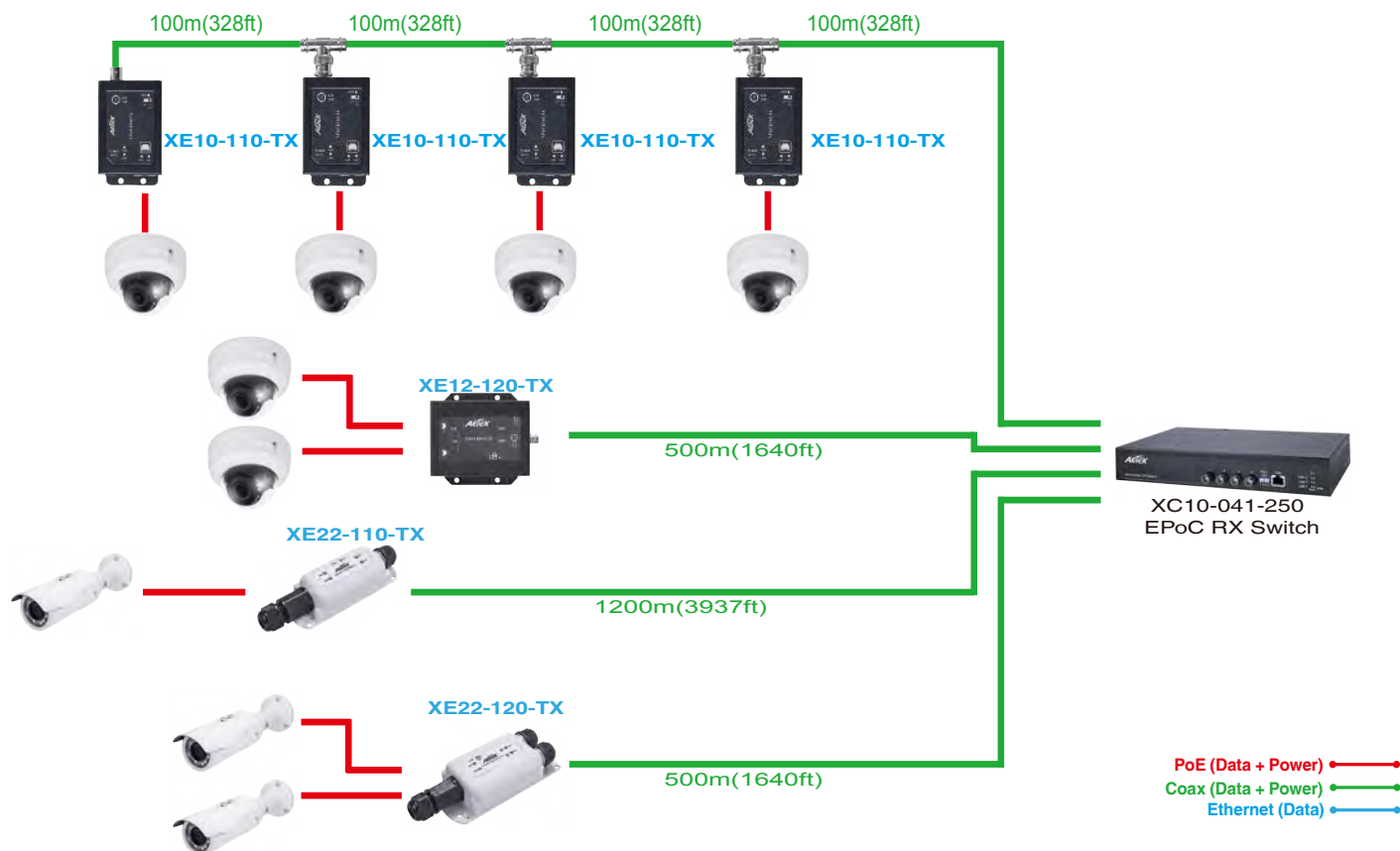
Daisy Chain EPoC Application



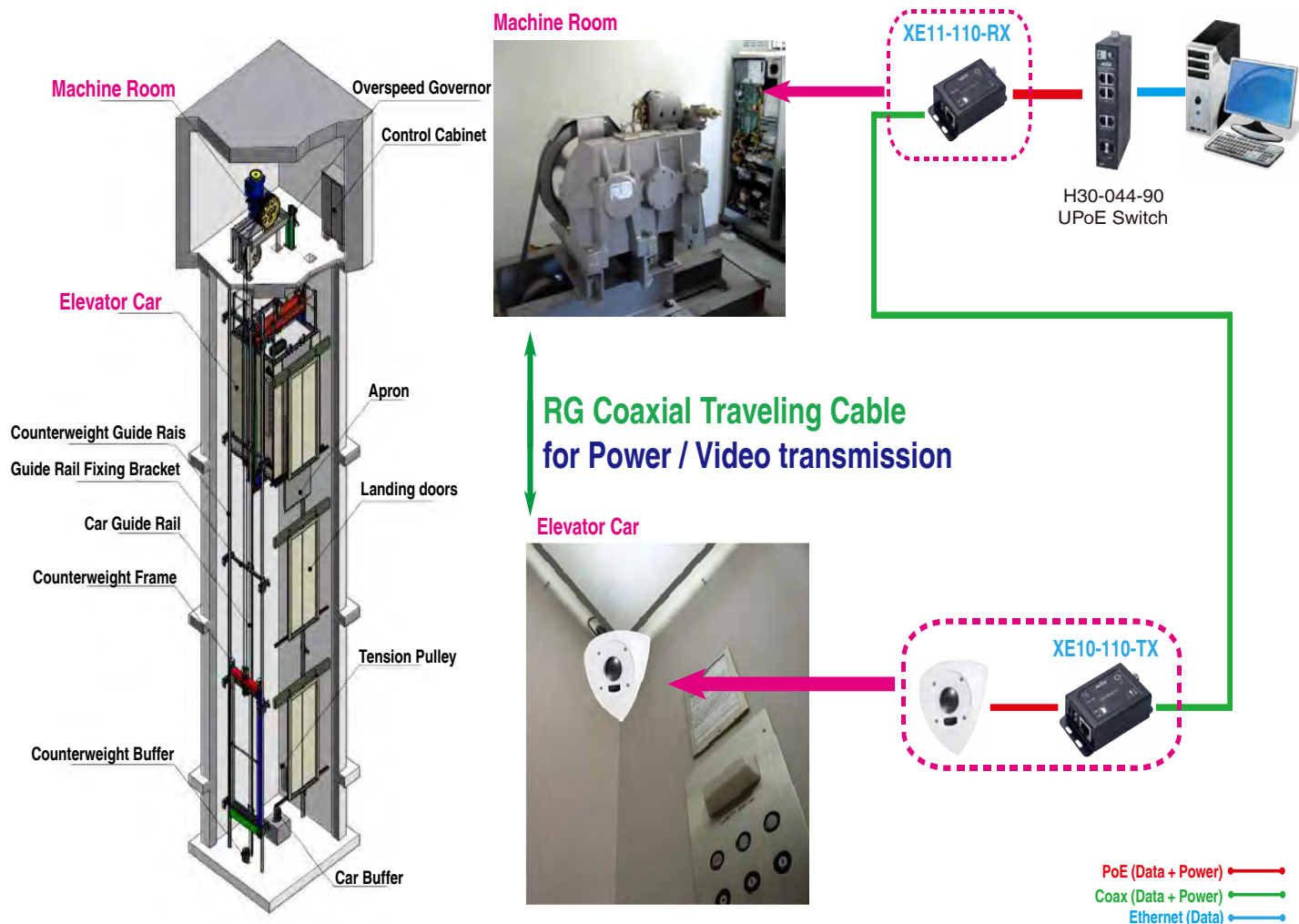
Ring EPoC Application



Multiple EPoC Application



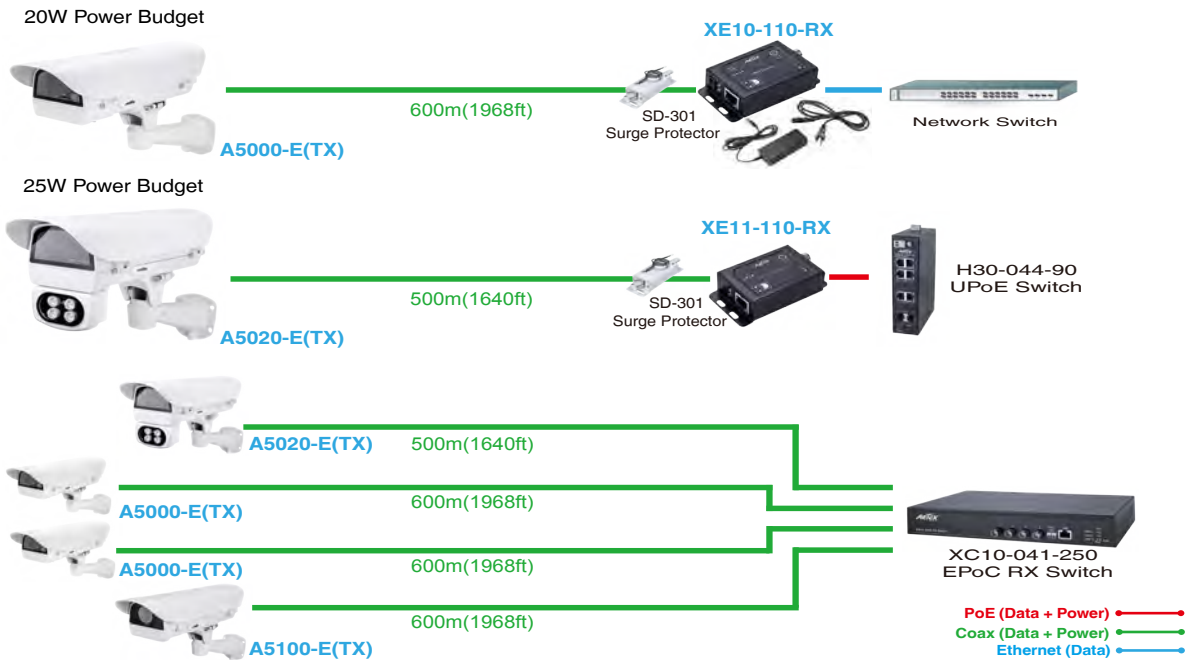
Elevator EPoC Application



Long Range EPoC Camera Housing



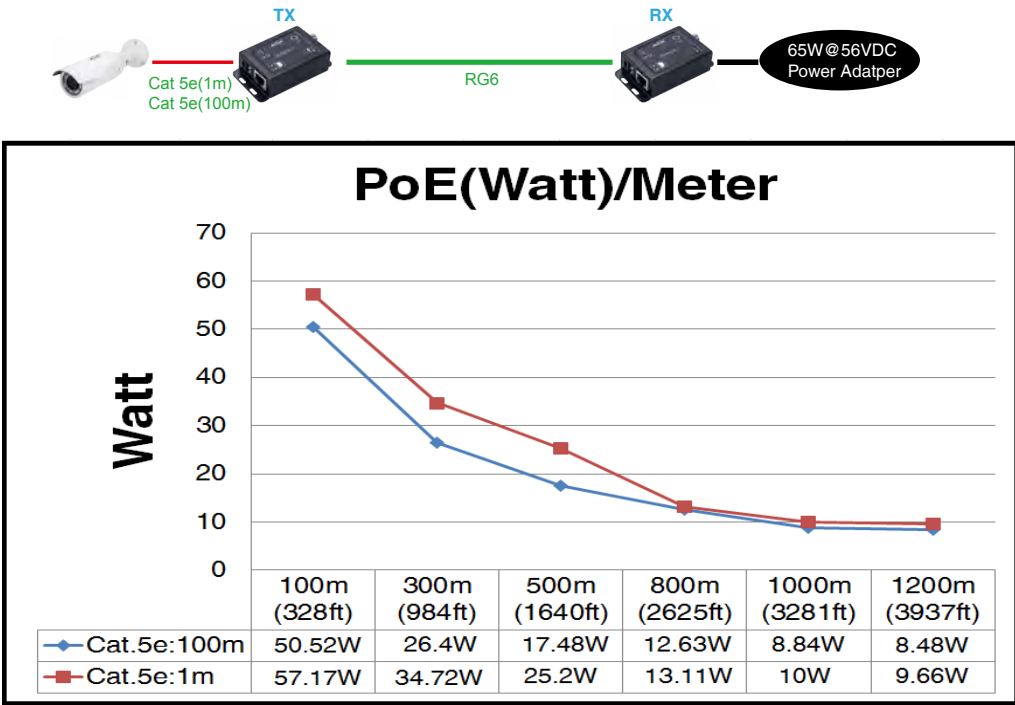
EPoC (Ethernet & Power over Coax) Camera Housing is a long-reach solution providing Fast Ethernet and PoE over coaxial cable up to 20W@600m(1968ft) or 25W@500m(1640ft) for any brand of PoE IP box camera. A5x-E Camera Housing also is often used to upgrade legacy of CCTV to IP surveillance without changing pre-deployed RG59-U/RG6/RG11 coax. Built-in 6KV surge protection is standard specification in A5x-E Camera Housing for outdoor environment



A5x-E Series Matrix Table

	EPoC In	MAX Distance	Output Power Budget	Germanium window	Window Heater	Adjustable Sunshield	Blower	Built-in 6W Fixed IR	6KV Surge Protection	IK10	IP66	IP68
A5000-E	v	600m(1968ft)	20W	-	v	v	v	-	v	v	-	v
A5020-E	v	500m(1640ft)	25W	-	v	v	v	50m (164ft)	v	v	v	-
A5100-E	v	600m(1968ft)	25W	v	-	v	v	-	v	v	-	v

Power / Distance Chart



EPoC RX Adapter Series			
	XE10-110-RX • XE10-110 EPoC adapter(RX) • 65W @56VDC power adapter		XE11-110-RX • XE11-110 PoE EPoC adapter(RX) • Supports 30W/60W/95W PoE Input
EPoC RX Switch			
	XC10-041-250 • Four BNC coax ports & one LAN port • Playing RX mode • PoE pass through coax to remote PoE IP camera • 6KV Surge Protection for coax port • 250W Power Supply, 100~240VAC input • Back-up 56VDC power input • 19" Rack mount bracket		
EPoC TX Adapter Series			
	XE10-110-TX • 1-to-1 EPoC adapter(TX)		XE12-120-TX • 1-to-2 EPoC adapter(TX)
	XE22-110-TX • 1-to-1, Outdoor EPoC adapter(TX) with IP67 / IK10 / 6KV Surge protection		XE22-120-TX • 1-to-2, Outdoor EPoC adapter(TX) with IP67 / IK10 / 6KV Surge protection
EPoC TX Enclosure Series			
	A5000-E • EPoC Camera Housing A5020-E • EPoC Camera Housing with IR illuminator(MAX: 50m)		A5100-E • EPoC Camera Housing • Germanium window
EPoC Kit Series			
	XE10-110 kit A • XE10-110-TX EPoC adapter x1 • XE10-110-RX EPoC adapter x1 • 65W @56VDC power adapter x1		XE11-110 kit A • XE11-110-RX PoE EPoC adapter x1 • XE10-110-TX EPoC adapter x1

Accessories

Accessories			
	CH-100 19", 1U 4-bay rack mount chassis - Works with XE10-110-RX & 65W power adapter CH-110 19", 1U 8-bay rack mount chassis - Works with XE11-110-RX		I36-100 60W UPoE Injector - works with XE11-110-RX
	SD-301 - EPoC Surge Protector 6KV Surge Protection		H30-044-90 60W/95W UPoE Switch - works with XE11-110-RX

BNC Adapters

BNC Adapters	
	
BNC-T T-Typer BNC Adapter	BNC-Y Y-Typer BNC Adapter

EPoC Camera Housisng Brackets

Wall Mount		Ceiling Mount		Standing Mount
				
BK-101 Wall Mount Bracket Safety Wire Concealing Cable	BK-102 Wall Mount Bracket	BK-200 J-type Ceiling Mount Bracket	BK-201 Flexible J-type Ceiling Mount Bracket	BK-300 Standing Mount Bracket

EPoC Camera Housisng Adapters

Pole Mount	Corner Mount	
		
AT-100 Pole Mount Adapter	AT-101 Pole Mount Adapter	AT-200 Corner Mount Adapter

EPoC Camera Housisng
Junction Box

Junction Box

JB-100 Junction Box