

# Quick Install Guide: EC-Base

EC-Base Extender Solution is designed to supercharge the downlink ports of a standard Ethernet switch delivering 10/100Mbps symmetrical (full duplex) and PoE over Coax infrastructure with distances up to 6,000ft (1,830m). The EC offering is designed specifically to enable easy deployment over Coax for reaches beyond that of standard Ethernet eliminating the costs and disruption associated with IDF closet requirements.

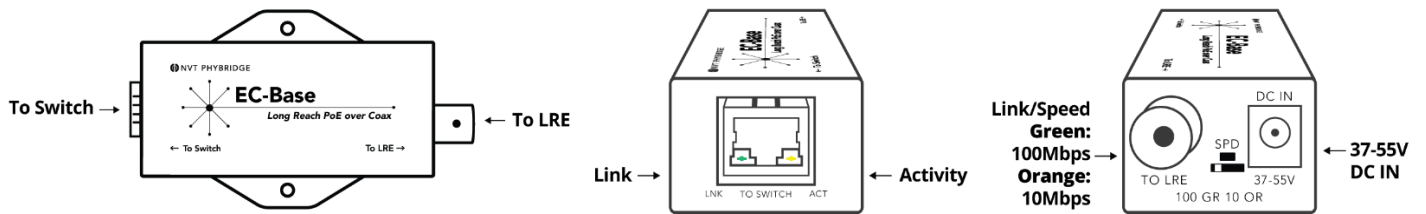
## EC-Base (NV-ECLK-BSE)

- Up to 50W PoE
- Local power option
- IEE compliant
- 802.1x port-based authentication

## EC-Base Extender

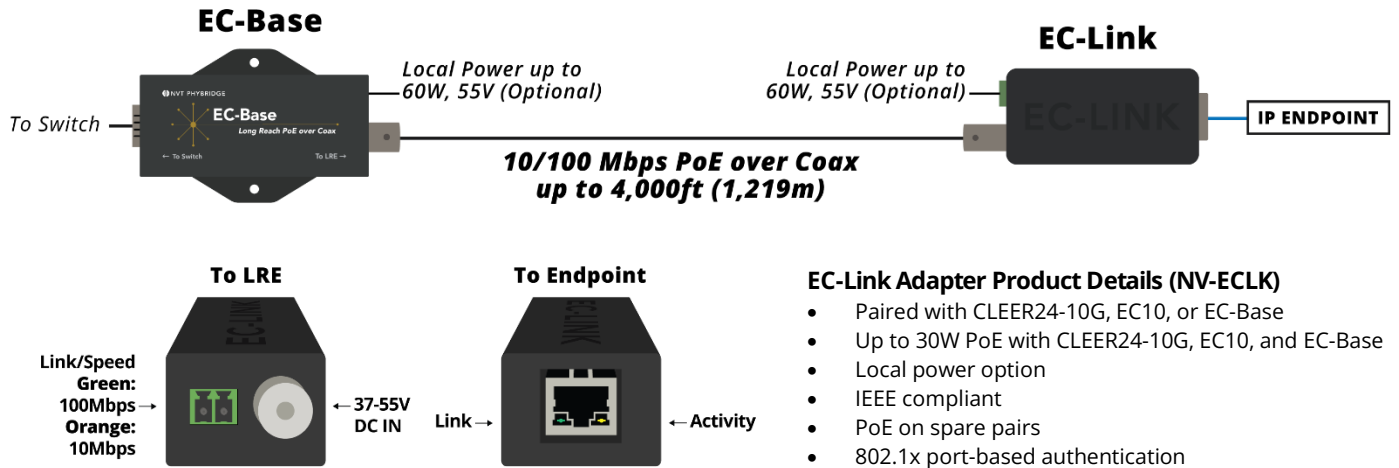


## EC-Base Extender

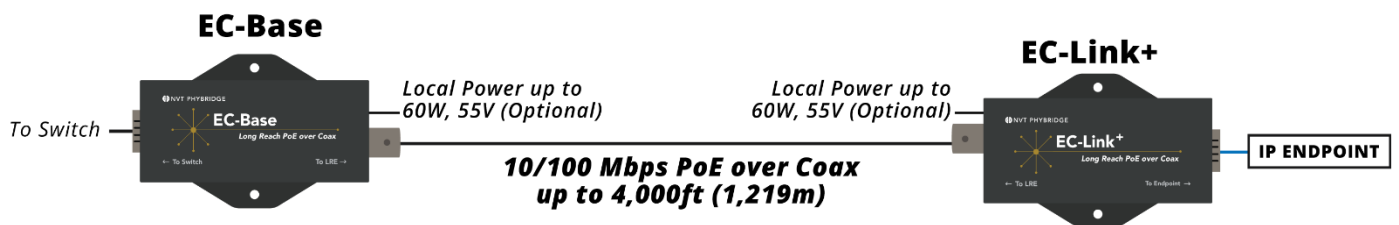


## Hardware Topology

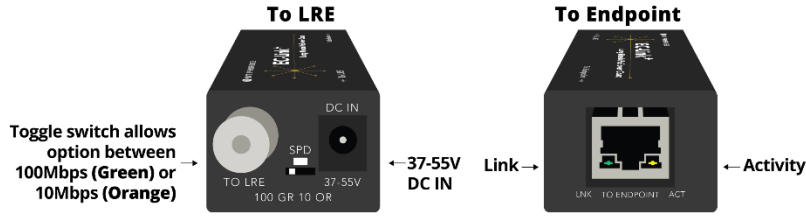
### EC-Base Extender paired with EC-Link Adapter



### EC-Base Extender paired with EC-Link+ Adapter (Available in Kit format. 1-Port Extender Kit Part Number: NV-ECLK-PLS-XKIT)



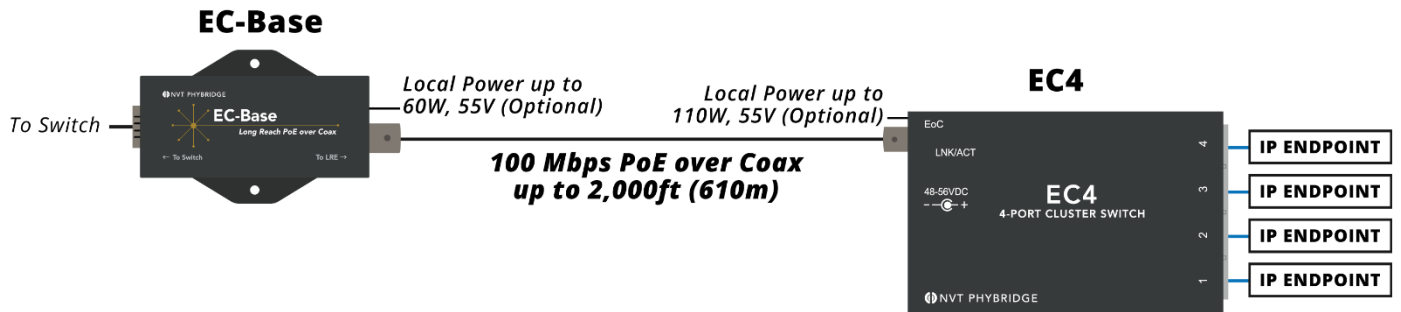
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## EC-Link+ Adapter Product Details (NV-ECLK-PLS)

- Paired with CLEER24-10G, EC10, or EC-Base
- Up to 50W PoE with EC-Base or locally powered
- Up to 50W PoE with CLEER24-10G and up to 30W PoE with EC10
- Local power option
- IEEE compliant
- PoE on 4 pairs
- 802.1x port-based authentication

## EC-Base Extender paired with EC4 Adapter (Available in Kit format. 4-Port Extender Kit Part Number: NV-EC-04-XXKIT)



## EC4 Adapter Product Details (NV-EC-04)

- Paired with CLEER24-10G, EC10, or EC-Base
- Up to 50W PoE
- PoE on 4 pairs
- Local power option
- Devices must be IEEE
- 802.3 af/at compliant

**Extender Kits: The EC-Base can be purchased individually and is also available in two kit options.**


<p><b>1-Port Extender Kit (NV-ECLK-PLS-XXKIT)</b> Includes:</p> <ul style="list-style-type: none"> <li>• EC-Base Extender</li> <li>• EC-Link+ Adapter</li> <li>• 60W, 55V external power supply</li> </ul>	
<p><b>4-Port Extender Kit (NV-EC-04-XXKIT)</b> Includes:</p> <ul style="list-style-type: none"> <li>• EC-Base Extender</li> <li>• EC4 Adapter</li> <li>• 110W, 55V external power supply</li> </ul>	

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## Installation Overview

1. Remove the EC-Base from its packaging.
2. Must ensure cable is properly terminated before connecting any EC product.
3. Remove all legacy equipment from the Coax cable infrastructure. **Note:** *In order to avoid damage to endpoints, it is important that non-IP devices are not connected when you connect the EC-Base.*
4. Connect EC-Base (Switch side) to downlink port on switch.
5. Connect the Network Infrastructure cable from the EC-Base (Adapter side) to EC-Link, EC-Link+ or EC4 (LRE side). **Note:** *Single port adapters will establish a connection with the head end switch after an IP end point is connected.*
6. Using CAT5 or higher category cable, connect the endpoint to the EC-Link, EC-Link+ or EC4 (Endpoint/Device side). **Note:** *EC-Base can be used with EC-Link, EC-Link+ or EC4*

## Technical Specifications

<b>Model</b>	<b>EC-Base</b>
<b>Part Number</b>	NV-ECLK-BSE
<b>802.1x Support</b>	Supported
<b>Dimensions</b>	10.09cm x 5.03cm x 2.57cm (LxWxH); 3.97" x 1.98" x 1.01" (LxWxH)
<b>Weight</b>	108g (3.81oz.)
<b>Interface: Network Infrastructure side (CLEER)</b>	1 BNC port: Coax cable (RG59, RG6, RG11)
<b>Interface: IEEE Side (IP Device)</b>	(For General/PoE Switch) 1 RJ45 port: supports negotiation with IEEE 802.3 af/at switches
<b>Power Supply</b>	PoE from standard PoE switch, or external power supply; maximum 50W if locally powered
<b>Power Consumption</b>	1W
<b>Humidity</b>	10% to 95% (non-condensing) at 35° C
<b>DC IN</b>	Optional (sold separately) 48-56VDC via an external AC/DC Power Adapter (IEC Class II isolated only) NOTE 1: Local power supply used must have its output isolated from Earth potential. NOTE 2: If voltage of local power supply is lower than the power voltage provided from the PoE switch, then power on the PoE switch should be turned off
<b>Operating Temperature</b>	-40°C to +70°C (-40°F to +158°F) <i>Tests conducted against international safety standard at maximum ambient temperatures of 60°C at 30W and 55°C at 50W</i>
<b>Mean Time Before Failure (MTBF)</b>	20+ years
<b>Rack Mount</b>	Model NV-RMEXT 

## Note the Following:

All of the above instructions provide basic installation information necessary for the proper and safe functioning of this equipment. Persons installing or maintaining this product must read all of the safety instructions and the parts of system grounding, which are applicable to the system being maintained. Only trained, qualified service personnel shall install or maintain this product.

### Warnings

**FAILURE TO FOLLOW ALL INSTRUCTIONS MAY RESULT IN IMPROPER EQUIPMENT OPERATION AND/OR RISK OF ELECTRICAL SHOCK.**

**ANY CONNECTION TO AN OUTSIDE PLANT LEAD, AN OFF-PREMISE APPLICATION, OR ANY OTHER EXPOSED PLANT APPLICATION MAY RESULT IN A FIRE OR SHOCK HAZARD, AND/OR DEFECTIVE OPERATION, AND/OR EQUIPMENT DAMAGE.**

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Keep these instructions with the equipment.

Do not attempt to install or service this equipment unless you are skilled in the installation and maintenance of electronic telecommunications equipment and have successfully completed specific training for this equipment.

## ⚠ Safety Warnings and Precautions

- Refer to the CLEER24-10G or EC10 Quick Install Guides under "Safety Warnings" for the EC adapters
- Reportez-vous aux Quick Install Guides CLEER24-10G ou EC10 sous "Safety Warnings" pour les adaptateurs EC
- Beachten Sie die CLEER24-10G- oder EC10- Quick Install Guides unter "Safety Warnings" für die EC-Adapter
- Consulte las Quick Install Guides CLEER24-10G o EC10 bajo "Safety Warnings" para los adaptadores EC
- Katso CLEER24-10G- tai EC10 Quick Install Guides EC-sovittimien "Safety Warnings" alla
- Raadpleeg de CLEER24-10G of EC10 Quick Install Guides onder "Safety Warnings" voor de EC-adapter
- Se CLEER24-10G eller EC10 Quick Install Guides under "Safety Warnings" för EC-adaptrarna
- Se CLEER24-10G eller EC10 Quick Install Guides under "Safety Warnings" for EC-adaptare
- Ανατρέξτε στους οδηγούς CLEER24-10G ή EC10 Quick Install Guides στην ενότητα "Safety Warnings" για τους προσαρμογείς EC
- Fare riferimento alla sezione CLEER24-10G o EC10 Quick Install Guides sotto "Safety Warnings" per gli adattatori EC
- Consulte o CLEER24-10G ou EC10 Quick Install Guides em "Safety Warnings" para os adaptadores EC
- Irreferi għall-CLEER24-10G jew EC10 Quick Install Guides taht "Safety Warnings" għall-adapters EC
- Vaadake CLEER24-10G või EC10 Quick Install Guides alusel "Safety Warnings" EC adapterid
- A EC adapterek "Safety Warnings" című részében olvassa el a CLEER24-10G vagy a EC10 Quick Install Guides című részt
- Nanašajo na CLEER24-10G ali EC10 Quick Install Guides pod "Safety Warnings" za EC adapterji
- Další informace naleznete v příručkách CLEER24-10G nebo EC10 Quick Install Guides v části "Safety Warnings" pro adaptéry EC
- Kreiptis į CLEER24-10G ar EC10 Quick Install Guides pagal "Safety Warnings" Už EC adapteriai
- Skatiet CLEER24-10G vai EC10 Quick Install Guides zem "Safety Warnings," lai EC adapteri
- Pozrite si CLEER24-10G alebo EC10 Quick Install Guides v časti "Safety Warnings" pre adaptéry EC
- Sjá CLEER24-10G eða EC10 Quick Install Guides undir "Safety Warnings" fyrir EC-millistykki
- Zobacz CLEER24-10G lub EC10 Quick Install Guides w sekcji "Safety Warnings" w przypadku adapterów EC
- Se CLEER24-10G eller EC10 Quick Install Guides under "Safety Warnings" for EC-adaptare
- Consultați ghidurile CLEER24-10G sau EC10 Quick Install Guides din secțiunea "Safety Warnings" pentru adaptoarele EC
- Обърнете се към CLEER24-10G или EC10 Quick Install Guides в "Safety Warnings" за адаптери EC

## EC-Base

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|---|--|---|
| • <b>CAUTION</b> , Hot surface              | • <b>ΠΡΟΣΟΧΗ</b> , Καυτή επιφάνεια     | • <b>POZOR</b> , Horký povrch             |
| • <b>ATTENTION</b> , Surface chaude         | • <b>ATTENZIONE</b> , Superficie calda | • <b>ATSARGIAI</b> , Karštas paviršius    |
| • <b>VORSICHT</b> , Heiße Oberfläche        | • <b>CUIDADO</b> , Superficie quente   | • <b>UZMANĪBU</b> , Karstā virsma         |
| • <b>PRECAUCIÓN</b> , Superficie caliente   | • <b>ATTENZJONI</b> , Wiċċ sħun        | • <b>POZOR</b> , Horúci povrch            |
| • <b>VAROITUS</b> , Kuuma pinta             | • <b>ETTEVAATUST</b> , Kuum pind       | • <b>VARÚÐ</b> , Heitt yfirborð           |
| • <b>VOORZICHTIGHEID</b> , Heet oppervlakte | • <b>VIGYÁZAT</b> , Forró felület      | • <b>PRZESTROGA</b> , Gorąca powierzchnia |
| • <b>VARNING</b> , Varm yta                 | • <b>PREVIDNOST</b> , Vročá povrchšina | • <b>FORSIKTIG</b> , Varm overflate       |
| • <b>ADVASEL</b> , Varm overflade           |  | • <b>PRUDENTĀ</b> , Suprafata fierbinte   |

## Compliance and Environmental Information

All the compliance and environmental information is available on our website [www.nvtpybridge.com](http://www.nvtpybridge.com)

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## PoE Power Available from EC-Base

EC-Base used with EC-Link+ (measurements below are in Watts)												
	300ft (92m)	600ft (183m)	900ft (275m)	1,200ft (365m)	1,500ft (457m)	2,000ft (610m)	2,500ft (762m)	3,000ft (915m)	3,500ft (1,067m)	4,000ft (1,220m)	5,000ft (1,524m)	6,000ft (1,830m)
<b>RG11 14AWG</b>	44	41	39	36	32	28	23	19	16	14	11	9
<b>RG6 18AWG</b>	39	31	23	17	13	10	8	6	5	4	3	3
<b>RG59 20AWG</b>	35	22	15	11	8	6	5	4	3	2		
EC-Base used with EC-Link (measurements below are in Watts)												
<b>RG11 14AWG</b>	30	29	27	26	25	23	21	18	16	14		
<b>RG6 18AWG</b>	28	24	20	17	13	10	8	6	5	4		
<b>RG59 20AWG</b>	26	20	14	11	8	6	5	4	3	2		
EC-Base used with EC4 (measurements below are in Watts)												
<b>RG11 14AWG</b>	44	41	38	35	32	28	23	19				
<b>RG6 18AWG</b>	39	31	22	17	13	10						
<b>RG59 20AWG</b>	35	22	14	11	8							

<b>100Mbit</b>	<b>10Mbit</b>
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**Power & Distances are based on the following cable specs:**

Cable Spec	Core Type	AWG	Diameter	Wire Resistance (m)	Wire Resistance (ft)
RG-11	Solid Copper	14 AWG	1.63 mm	1.21Ω/100m	0.37 Ω/100ft
RG-6	Solid Copper	18 AWG	1.01 mm	3.60Ω/100m	1.10 Ω/100ft
RG-59U	Solid Copper	22 AWG	0.64 mm	7.87Ω/100m	2.40 Ω/100ft

## Support and Warranty

### Technical Support

The NVT Phybridge Technical Support Group is available to assist you with product installation, configuration, monitoring and troubleshooting procedures. Should you experience trouble with this equipment or for repair or warranty information, please contact NVT Phybridge at [www.nvtphybridge.com/support/](http://www.nvtphybridge.com/support/) or directly through email at [support@nvtphybridge.com](mailto:support@nvtphybridge.com)

### Warranty

The EC-Base extender is backed by NVT Phybridge's award-winning customer support and 5-year warranty.