

1701 vs. CHARIoT

The difference between the offerings and when to use each



UNDERSTANDING THE DIFFERENCES IN CORE TECHNOLOGY CAPABILITIES

Item	CHARIoT Family	1701, 1801 and 1804
Directional Bandwidth:	Bandwidth is symmetrical, full duplex, meaning when the claim is 100 Mbps that means 100Mbps up and 100Mbps down. This is more appropriate for Real-time application and applications that will have traffic both ways.	Bandwidth is dynamically allocated, half-duplex meaning that it is shared between up and down streams and one direction at a time. So, if the claim is 100Mbps that means that 100Mbps is shared up and down and that traffic could only travel in one direction at a time. It is like crossing a bridge that is narrow with a single lane and you need to alternate to get across the bridge. The technology is less appropriate for real-time application and applications that have significant traffic in both directions. As the bandwidth is dynamically allocated it is inevitably asymmetrical.
Bandwidth Distances:	All or nothing. Depending on the distance the CHARIoT offering can provide stated bandwidth at a specific distance. For example, the CLEER product can provide 100Mbps symmetrical to 3,000ft on RG11 cable. But from 3,000ft to 6,000ft the bandwidth drops to 10Mbps symmetrical over the same cable. Beyond 6,000ft this solution will not work.	Declining bandwidth levels at different distances. If using the 1701 technology over RG11 cable at 3,000ft you would get up to 93Mbps dynamically allocated bandwidth and at 6,000ft the bandwidth is estimated at 60Mbps over the same cable. Beyond 6,000ft this solution will continue to deliver connectivity at a reduced rate. Maximum distance at lowest bandwidth is approximately 16,000ft at 10Mbps.
Response Time (Latency):	The CHARIoT Series is straight ethernet so there is no conversion of signal. As a result, the latency is very low (1ms) and more appropriate for voice and real-time video applications.	Our 1701, 1801 and 1804 technology is based on HomePlug AV (HPAV) technology and has signal conversion at both ends resulting in increased latency. Less appropriate for latency sensitive applications like voice.
Performance on different cable types:	When it comes to twisted pair UTP and coax the CHARIoT Series is most stable and better suited to address cross talk. However, on untwisted UTP cable the distance achievable is greatly reduced.	This offering is less suited for multiple pair UTP and environments with many bundles close to each other. It is more susceptible to cross talk impacting performance. Will perform on flat untwisted cable and mixed cable types.
Multicast Support:	Managed switches provide IGMP snooping and unmanaged solutions pass through multicast traffic.	1701/TBus do not natively support Multicast. The network must be configured correctly with IGMP and must be forwarding those IGMP reports to the ports with the 1701/TBus equipment connected.
Portfolio Options:	We have single pair UTP, Multi Pair UTP and Coax solutions available in Managed, Unmanaged and Single Port options. All sharing the same platform.	Only single, two, three and four port extender solutions are available.
Daisy-Chain Configuration:	Not supported.	Supports up to 4 endpoints in series. Please note the bandwidth and power is shared by all endpoints.
Remote PoE:	Up to 50W of PoE to each endpoint is achievable.	Up to 50W of PoE is achievable. However, PoE is shared between all endpoints connected.
Summary:	For most applications, the newer CHARIoT Series will perform better. For those situations where the right cable type is not available, distances beyond 6,000 ft when using coax and for daisy chain deployments our 1701, 1801 and 1804 may perform at acceptable levels.	

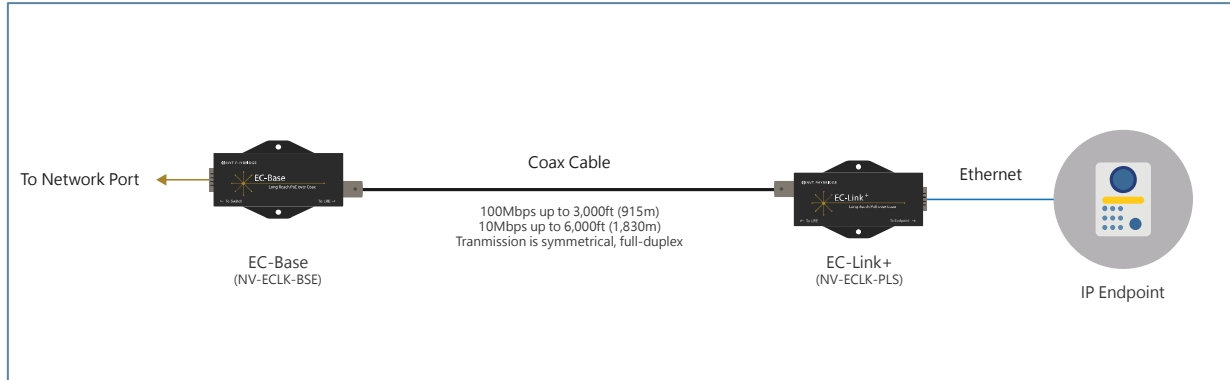
1701 vs. CHARIoT

Coax Solutions



Single Port Extender Solution - Supporting one endpoint

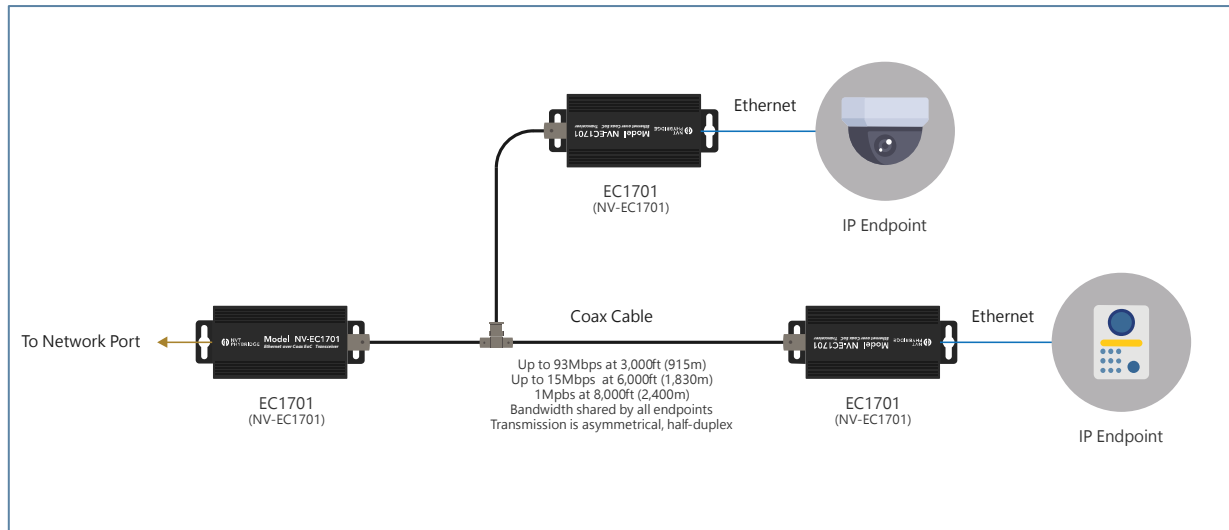
Extending one endpoint, leveraging the downlink port of a data switch, and using Coax cabling infrastructure to extend Ethernet.



Item	EC Extender Kit Alternative	1701 Kit 1	1801 Alternative
List Price:	\$566.00	\$844.00	Will be offered at the same price as the 1701 Kit 1
What is Included:	1 x NV-ECLK-BSE, 1 x NV-ECLK-PLS, 1 x NV-PS55-60W Power Supply.	2 x NV-EC1701, 1 x NV-PS55-60W Power Supply, 2 x NV-PC4PR.	2 x NV-ET1801, 1 x NV-PS55-60W Power Supply.
Bandwidth Capabilities:	Symmetrical Full Duplex 100Mbps to 3,000ft (915m) 10Mbps to 6,000ft (1,830m) Based on RG-11 Coax Cable	Dynamically Allocated Half Duplex Up to 93Mbps to 4,900ft (1,500m) Up to 10Mbps to 16,400ft (5,000m) Based on RG-11 Coax Cable	Dynamically Allocated Half Duplex Up to 150Mbps to 490ft (150m) Up to 93Mbps to 4,900ft (1,500m) Up to 10Mbps to 16,400ft (5,000m) Based on RG-11 Coax Cable
PoE Capabilities:	Capable of providing up to 50W PoE.	Capable of providing up to 50W PoE.	Capable of providing up to 50W PoE.
General Recommendation:	<div>EC Extender Kit for most applications.</div> <div>1701 or 1801 for distances beyond 6,000ft.</div> <ul style="list-style-type: none"> Bandwidth capabilities are better with EC Extender Kit to 6,000ft. Beyond 6,000ft the 1701 can provide connectivity. PoE power is similar. Significantly better pricing for the EC Extender Kits. 1801 available at same price if EC extender kit not a suitable alternative 		

Single Port Daisy Chain Solution - Supporting two to four endpoints

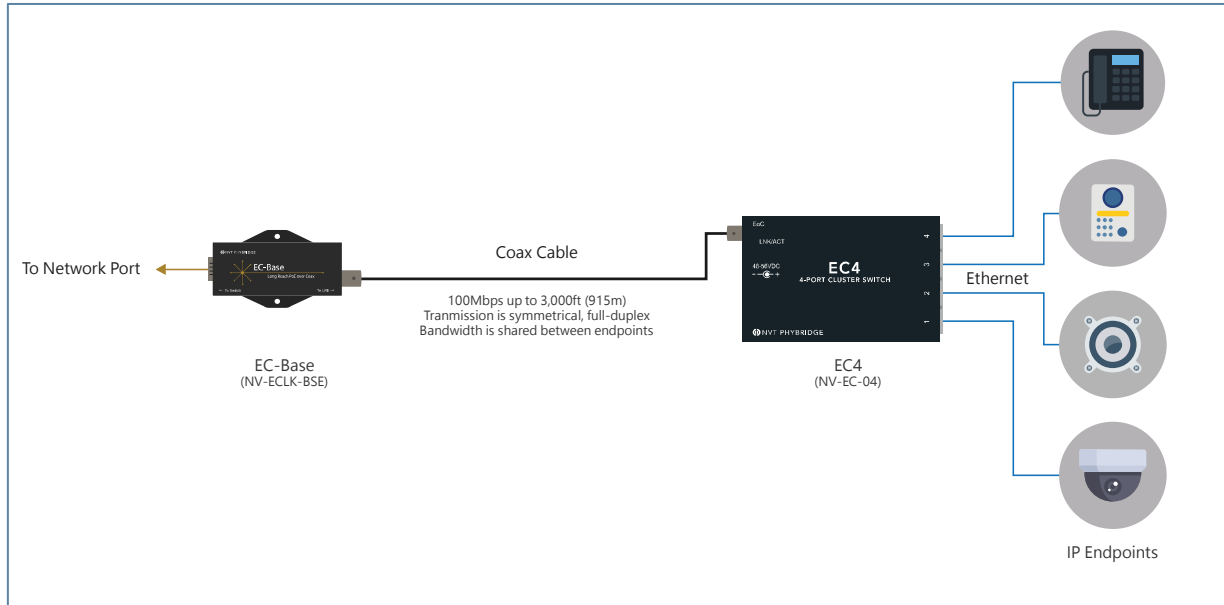
Extending two endpoints, leveraging the downlink port of a data switch, and using Coax cabling infrastructure to extend Ethernet to support two to four endpoints along a single Coax run.



Item	EC Family Alternative	1701 K2H	1801 Alternative
List Price:	N/A	\$1,272.00	Will be made available at the same price of the 1701 K2H
What is Included:	N/A	3 x NV-EC1701, 1 x NV-BNCT, 1 x NV-PS55-110W Power Supply, 3 x NV-PC4PR.	3 x NV-ET1801, 1 x NV-BNCT, 1 x NV-PS55- 110W Power Supply.
Bandwidth Capabilities:	N/A	Dynamically Allocated Half Duplex Up to 93Mbps to 4,900ft (1,500m) Up to 10Mbps to 16,400ft (5,000m) Based on RG-11 Coax Cable Note: Bandwidth available shared by all endpoints	Dynamically Allocated Half Duplex Up to 150Mbps to 490ft (150m) Up to 93Mbps to 4,900ft (1,500m) Up to 10Mbps to 16,400ft (5,000m) Based on RG-11 Coax Cable Note: Bandwidth available shared by all endpoints
PoE Capabilities:	N/A	Capable of providing up to 50W PoE. PoE is shared by all endpoints.	Capable of providing up to 50W PoE. PoE is shared by all endpoints.
General Recommendation:	CHARIoT product range does not support daisy-chained devices. <div> 1701 or 1801 are the only options for this scenario. <ul style="list-style-type: none"> For Daisy Chain deployments the 1701 or 1801 offering is most appropriate. Need to pay attention to shared bandwidth availability and demands of the endpoints being connected. NEW 1701 PLUS WILL BE AVAILABLE SOON WITH LAUNCH DISCOUNTS AVAILABLE FOR THOSE WILLING TO WAIT UNTIL MARCH/APRIL </div>		

Single Port Extender Solution - Supporting up to four endpoints

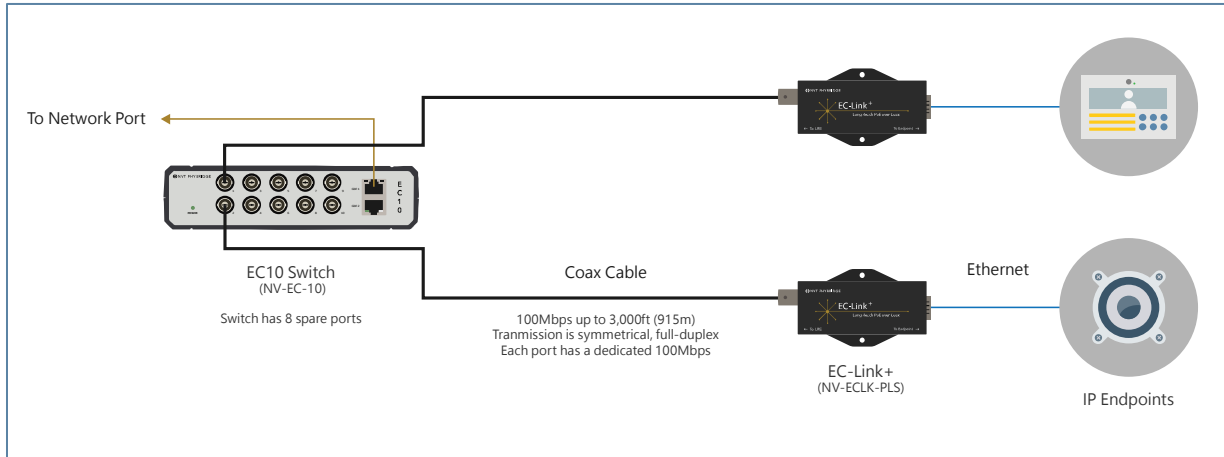
Extending one endpoint, leveraging the downlink port of a data switch, and using Coax cabling infrastructure to extend Ethernet to support up to four endpoints with a single Coax run.



Item	EC4 Extender Kit	1701 K2H, K3H or K4H	1801 Alternative
List Price:	\$775.00	\$1,272.00/\$1,660.00/\$2,048.00	Will be offered at same price of the 1701 offering
What is Included:	1 x NV-ECLK-BSE, 1 x NV-EC-04, 1 x NV-PS55-110W Power Supply.	3, 4 or 5 x NV-EC1701, 1 x NV-BNCT or 1 x NV-EC4BNC, 1 x NV-PS55-110W Power Supply, 3, 4 or 5 x NV-PC4PR.	1 x NV-ET1801, 1 x NV-ET1804, 1 x NV-PS55-110W Power Supply.
Bandwidth Capabilities:	Symmetrical Full Duplex 100Mbps to 3,000ft (915m) Based on RG-11 Coax Cable. Note: Up to 4 endpoints will share the 100Mbps bandwidth.	Dynamically Allocated Half Duplex Up to 93Mbps to 4,900ft (1,500m) Up to 10Mbps to 16,400ft (5,000m) Based on RG-11 Coax Cable Note: Bandwidth available shared by all endpoints.	Dynamically Allocated Half Duplex Up to 150Mbps to 490ft (150m) Up to 93Mbps to 4,900ft (1,500m) Up to 10Mbps to 16,400ft (5,000m) Based on RG-11 Coax Cable Note: Bandwidth available shared by all endpoints
PoE Capabilities:	Capable of providing up to 50W PoE to EC4. EC4 can provide up to 50W per port.	Capable of providing up to 50W PoE. PoE is shared by all endpoints.	Capable of providing up to 50W PoE. PoE is shared by all endpoints.
General Recommendation:	EC4 Extender Kit for most applications. 1701 or 1801 for distances beyond 3,000ft. <ul style="list-style-type: none"> Bandwidth capabilities are better with EC4 Extender Kit to 3,000ft. For distances beyond 3,000ft the 1701 or 1801 can provide connectivity. PoE power is similar. Significantly better pricing for the EC4 Extender Kits. NEW 1701 PLUS WILL BE AVAILABLE SOON WITH LAUNCH DISCOUNTS AVAILABLE FOR THOSE WILLING TO WAIT UNTIL MARCH/APRIL 		

Single Port Extender Solution - Supporting two endpoints with two cable runs

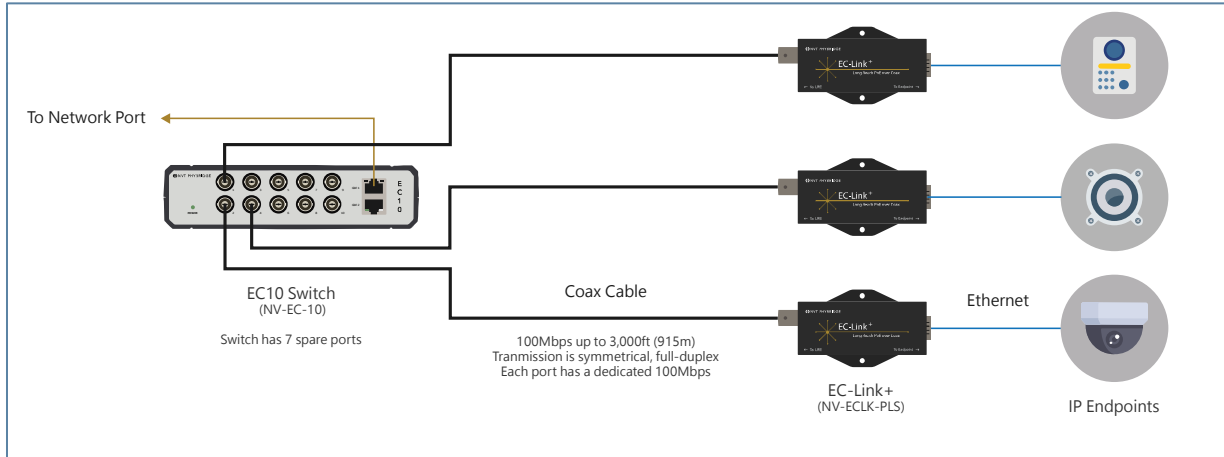
Extending two endpoints, leveraging the downlink port of a data switch, and using Coax cabling infrastructure to extend Ethernet to support two endpoints with two Coax runs.



Item	EC-10 & EC-Link+	1701 K2H	1801 Alternative
List Price:	\$1,696.00	\$1,272.00	Offered at same price as 1701 K2H
What is Included:	1 x NV-EC-10 with 1 x NV-PS55-165W Power Supply, 2 x NV-ECLK-PLS. (Not sold as a kit).	3 x NV-EC1701, 1 x NV-BNCT, 1 x NV-PS55-110W Power Supply, 3 x NV-PC4PR.	3 x NV-ET1801, 1 x NV-BNCT, 1 x NV-PS55-110W Power Supply.
Bandwidth Capabilities:	Symmetrical Full Duplex 100Mbps to 3,000ft (915m) Based on RG-11 Coax Cable. Note: Each port supports 100Mbps full duplex with no sharing of bandwidth.	Dynamically Allocated Half Duplex Up to 93Mbps to 4,900ft (1,500m) Up to 10Mbps to 16,404ft (5,000m) Based on RG-11 Coax Cable Note: Bandwidth available shared by all endpoints.	Dynamically Allocated Half Duplex Up to 150Mbps to 490ft (150m) Up to 93Mbps to 4,900ft (1,500m) Up to 10Mbps to 16,404ft (5,000m) Based on RG-11 Coax Cable Note: Bandwidth available shared by all endpoints
PoE Capabilities:	Capable of providing up to 30W PoE to each EC-Link+ and endpoint.	Capable of providing up to 50W PoE. PoE is shared across all EC1701 and endpoint devices.	Capable of providing up to 50W PoE. PoE is shared across all ET1801 and endpoint devices.
General Recommendation:	EC-10 & EC-Link+ for most applications. 1701 or 1801 for distances beyond 6,000ft. <ul style="list-style-type: none"> Bandwidth Capabilities are better with EC-10 & EC-Link+ to 3,000ft. Beyond 3,000ft the EC Extender kits can be used; however, a network port is required for each kit. Beyond 6,000ft the 1701 or 1801 can provide connectivity. PoE is better with the EC-10 as 30W per port can be delivered. With the 1701 and 1801 the PoE is shared. Pricing is better with the 1701 kit. However, the EC-10 provides far better scalability. NEW 1701 PLUS WILL BE AVAILABLE SOON WITH LAUNCH DISCOUNTS AVAILABLE FOR THOSE WILLING TO WAIT UNTIL MARCH/APRIL 		

Single Port Extender Solution - Supporting three endpoints with three cable runs

Extending three endpoints, leveraging the downlink port of a data switch, and using Coax cabling infrastructure to extend Ethernet to support three endpoints with three Coax runs.

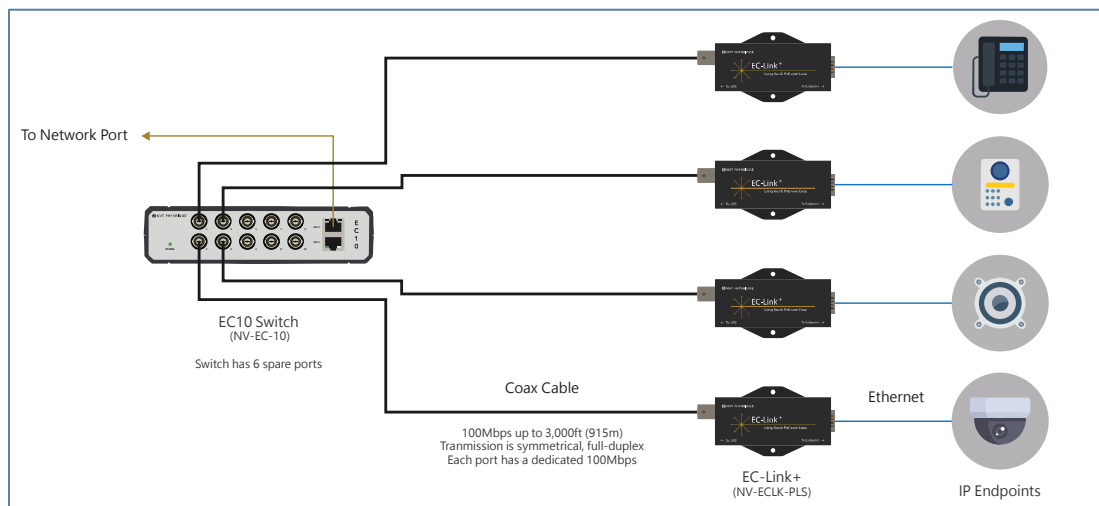


Item	EC-10 & EC-Link+	1701 K3H	1801 Alternative
List Price:	\$1,944.00	\$1,660.00	Offered at same price of 1701 K3H
What is Included:	1 x NV-EC-10 with 1 x NV-PS55-165W Power Supply, 3 x NV-ECLK-PLS (Not sold as a kit).	4 x NV-EC1701, 1 x NV-EC4BNC, 1 x NV-PS55-110W Power Supply, 4 x NV-PC4PR.	1 x NV-ER1804, 3 x NV-ET1801, 1 x NV-PS55-110W Power Supply.
Bandwidth Capabilities:	Symmetrical Full Duplex 100Mbps to 3,000ft (915m) Based on RG-11 Coax Cable. Note: Each port supports 100Mbps full duplex with no sharing of bandwidth.	Dynamically Allocated Half Duplex Up to 93Mbps to 4,900ft (1,500m) Up to 10Mbps to 16,404ft (5,000m) Based on RG-11 Coax Cable Note: Bandwidth available shared by all endpoints.	Dynamically Allocated Half Duplex Up to 150Mbps to 490ft (150m) Up to 93Mbps to 4,900ft (1,500m) Up to 10Mbps to 16,404ft (5,000m) Based on RG-11 Coax Cable Note: Bandwidth available shared by all endpoints
PoE Capabilities:	Capable of providing up to 30W PoE to each EC-Link+ and endpoint.	Capable of providing up to 50W PoE. PoE is shared across all EC1701 and endpoint devices.	Capable of providing up to 50W PoE. PoE is shared across all ET1801 and endpoint devices.
General Recommendation:	EC-10 & EC-Link+ for most applications. <ul style="list-style-type: none"> Bandwidth Capabilities are better with EC-10 & EC-Link+ to 3,000ft. Beyond 3,000ft the EC Extender kits can be used; however, a network port is required for each kit. Beyond 6,000ft the 1701 or 1801 can provide connectivity. PoE is better with the EC-10 as 30W per port can be delivered. With the 1701 and 1801 the PoE is shared. Pricing is better with the 1701 kit. However, the EC-10 provides far better scalability. 		

- NEW 1701 PLUS WILL BE AVAILABLE SOON WITH LAUNCH DISCOUNTS AVAILABLE FOR THOSE WILLING TO WAIT UNTIL MARCH/APRIL

Single Port Extender Solution - Supporting four endpoints with four cable runs

Extending four endpoints, leveraging the downlink port of a data switch, and using Coax cabling infrastructure to extend Ethernet to support four endpoints with four Coax runs.

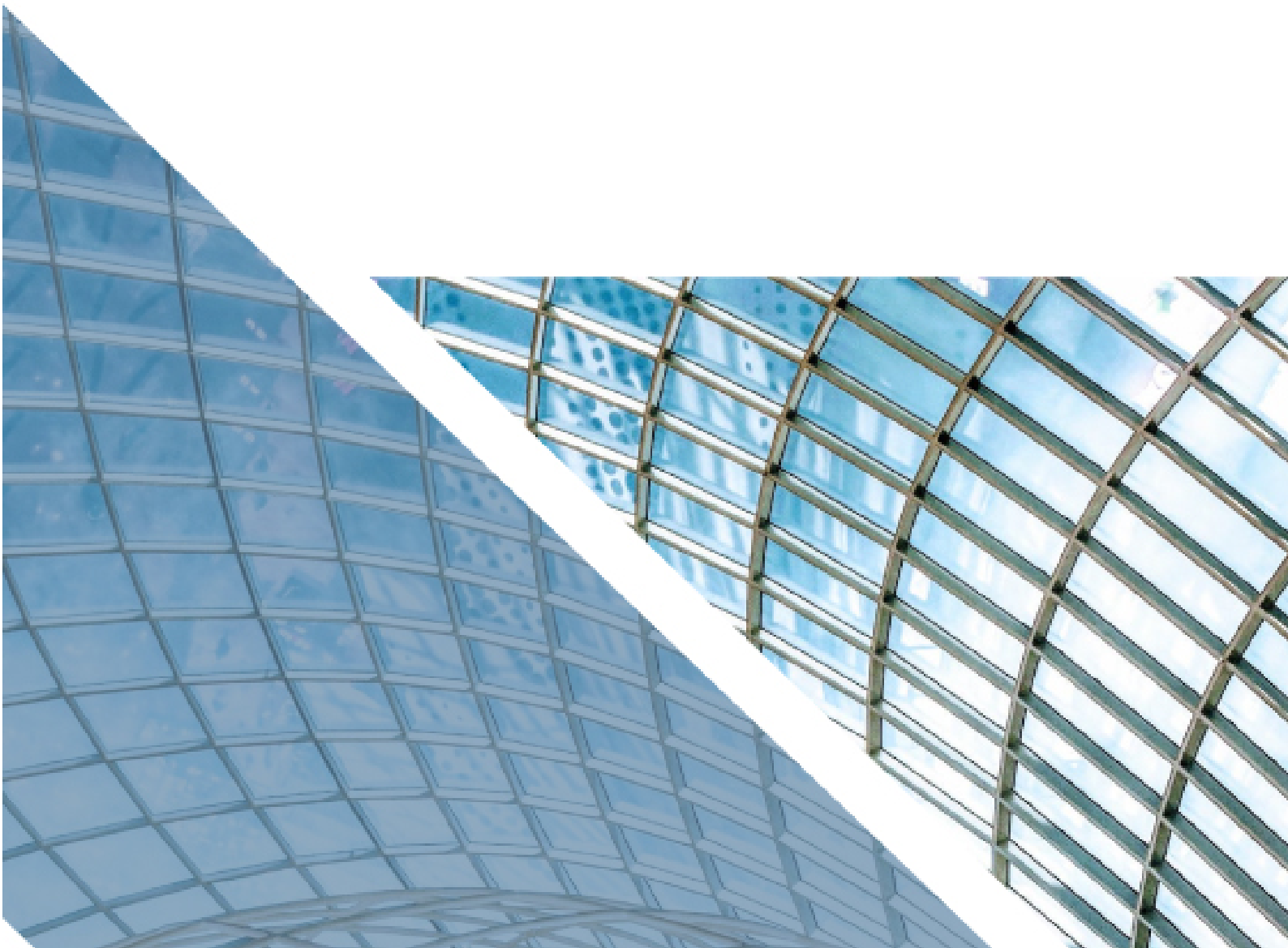


Item	EC-10 & EC-Link+	1701 K4H	1801 Alternative
List Price:	\$2,192.00	\$2,048.00	Offered at the same price as 1701 K4H
What is Included:	1 x NV-EC-10 with 1 x NV-PS55-165W Power Supply, 4 x NV-ECLK-PLS (Not sold as a kit).	5 x NV-EC1701, 1 x NV-EC4BNC, 1 x NV-PS55-110W Power Supply, 5 x NV-PC4PR.	1 x NV-ER1804, 4 x NV-ET1801, 1 x NV-PS55-110W Power Supply.
Bandwidth Capabilities:	Symmetrical Full Duplex 100Mbps to 3,000ft (915m) Based on RG-11 Coax Cable. Note: Each port supports 100Mbps full duplex with no sharing of bandwidth.	Dynamically Allocated Half Duplex Up to 93Mbps to 4,900ft (1,500m) Up to 10Mbps to 16,404ft (5,000m) Based on RG-11 Coax Cable Note: Bandwidth available shared by all endpoints.	Dynamically Allocated Half Duplex Up to 150Mbps to 490ft (150m) Up to 93Mbps to 4,900ft (1,500m) Up to 10Mbps to 16,404ft (5,000m) Based on RG-11 Coax Cable Note: Bandwidth available shared by all endpoints
PoE Capabilities:	Capable of providing up to 30W PoE to each EC-Link+ and endpoint.	Capable of providing up to 50W PoE. PoE is shared across all EC1701 and endpoint devices.	Capable of providing up to 50W PoE. PoE is shared across all ET1801 and endpoint devices.
General Recommendation:	EC-10 & EC-Link+ for most applications. <ul style="list-style-type: none">Bandwidth Capabilities are better with EC-10 & EC-Link+ to 3,000ft.Beyond 3,000ft the EC Extender kits can be used; however, a network port is required for each kit. Beyond 6,000ft the 1701 can provide connectivity.	1701 or 1801 for distances beyond 6,000ft.	

- PoE is better with the EC-10 as 30W per port can be delivered. With the 1701 and 1801 the PoE is shared.

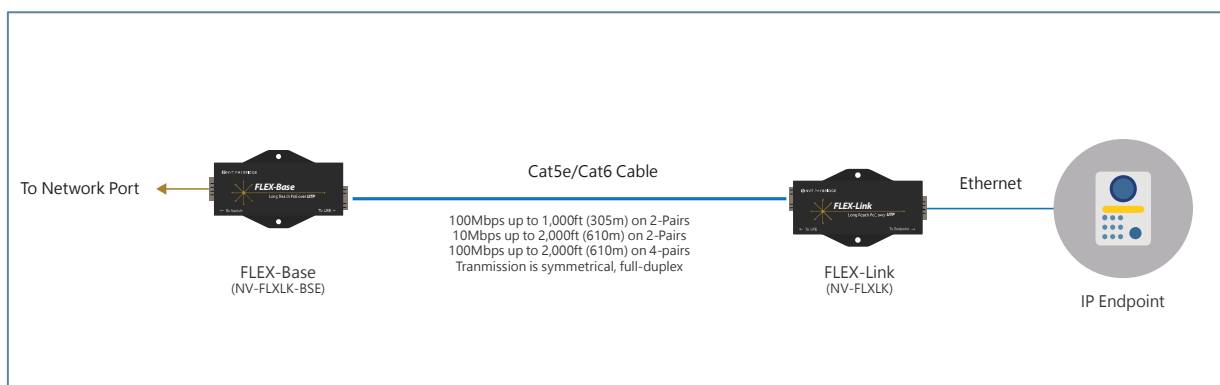
1701 vs. CHARIoT

Twisted Pair / 2-Wire



Single Port Extender Solution - Supporting one endpoint

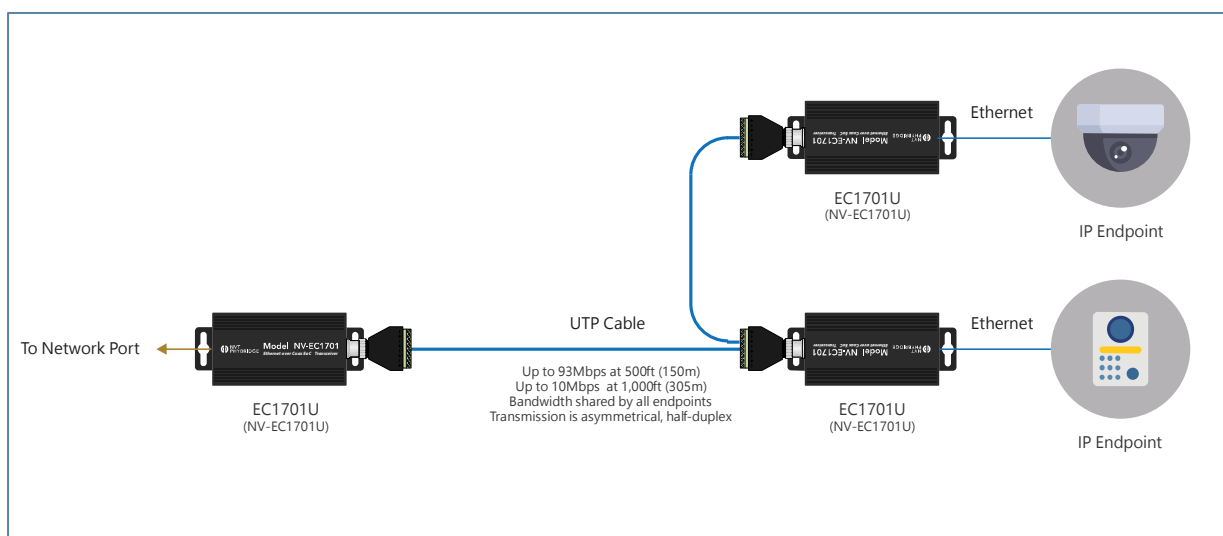
Extending one endpoint, leveraging the downlink port of a data switch, and using twisted pair cabling infrastructure to extend Ethernet.



Item	FLEX Extender Kit	1701U Kit 1	1801 Alternative
List Price:	\$667.00	\$785.00	Same price as 1701 offering
What is Included:	1 x NV-FLXLK-BSE, 1 x NV-FLXLK, 1 x NV-PS55-60W Power Supply.	2 x NV-EC1701U, 1 x NV-PS55-60W Power Supply, 2 x NV-PC4PR.	2 x NV-ET1801, 1 x NV-PS55-60W Power Supply, 2 x NV-BNCA.
Bandwidth Capabilities:	Symmetrical Full Duplex 100Mbps to 2,000ft (610m) Based on Cat5e UTP Cable.	Dynamically Allocated Half Duplex Up to 93Mbps to 490ft (150m) Up to 10Mbps to 980ft (300m) Based on Cat5e UTP Cable Note: Bandwidth available shared by all endpoints.	Dynamically Allocated Half Duplex Up to 150Mbps to 50ft (15m) Up to 93Mbps to 490ft (150m) Up to 10Mbps to 2,000ft (610m) Based on Cat5e UTP Cable Note: Bandwidth available shared by all endpoints.
PoE Capabilities:	Capable of providing up to 50W PoE.	Capable of providing up to 50W PoE. PoE is shared across all EC1701U and endpoint devices.	Capable of providing up to 50W PoE. PoE is shared across all ET1801 and endpoint devices.
General Recommendation:	FLEX Extender Kit for most applications. <ul style="list-style-type: none"> Bandwidth capabilities are better with FLEX Extender Kit. FLEX Extender Kit has greater reach, 2,000ft. PoE power is similar. Significantly better pricing for the FLEX Extender Kits. NEW 1701 PLUS WILL BE AVAILABLE SOON WITH LAUNCH DISCOUNTS AVAILABLE FOR THOSE WILLING TO WAIT UNTIL MARCH/APRIL 		

Single Port Daisy Chain Solution - Supporting two to four endpoints

Extending two endpoints, leveraging the downlink port of a data switch, and using twisted pair cabling infrastructure to extend Ethernet to support two to four endpoints along a single cable run.

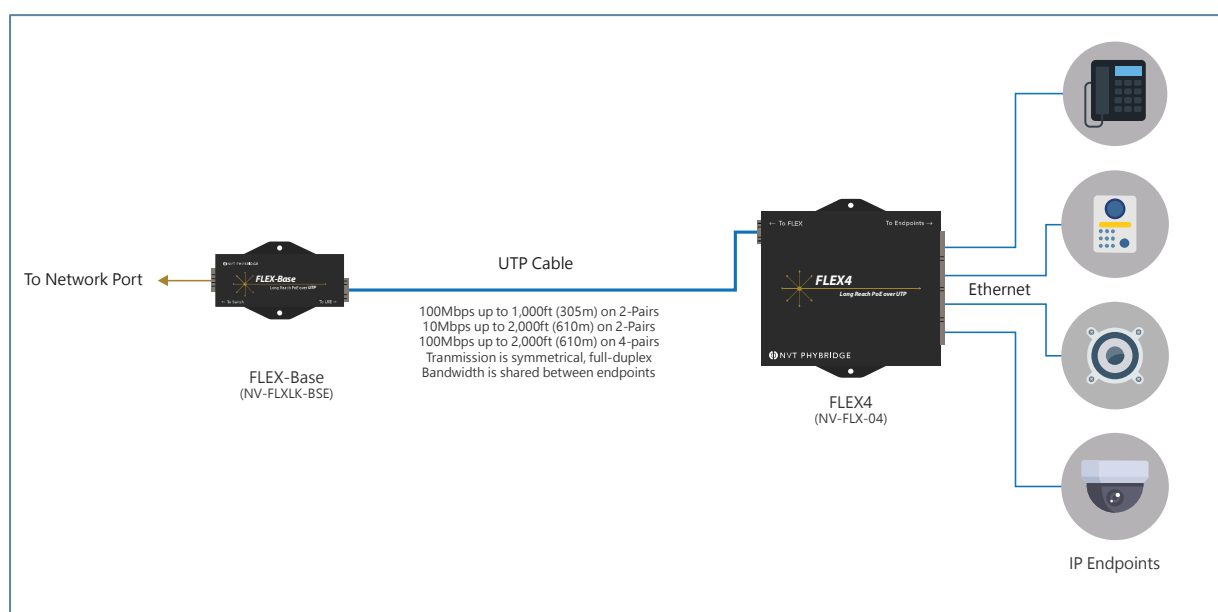


Item	FLEX Family	1701U K2H	1801 Alternative
List Price:	N/A	\$1,182.00	Will be made available at the same price of the 1701 K2H
What is Included:	N/A	3 x NV-EC1701U, 1 x NV-PS55-110W Power Supply, 3 x NV-PC4PR.	3 x NV-ET1801, 1 x NV-PS55-110W Power Supply, 3 x NV-BNCA.
Bandwidth Capabilities:	N/A	Dynamically Allocated Half Duplex Up to 93Mbps to 490ft (150m) Up to 10Mbps to 980ft (300m) Based on Cat5e UTP Cable Note: Bandwidth available shared by all endpoints.	Dynamically Allocated Half Duplex Up to 150Mbps to 50ft (15m) Up to 93Mbps to 490ft (150m) Up to 10Mbps to 2,000ft (610m) Based on Cat5e UTP Cable Note: Bandwidth available shared by all endpoints.
PoE Capabilities:	N/A	Capable of providing up to 50W PoE. PoE is shared across all EC1701U and endpoint devices.	Capable of providing up to 50W PoE. PoE is shared across all ET1801 and endpoint devices.
General Recommendation:	CHARIoT product range does not support daisy-chained devices.		
		1701U or 1801 are the options for this scenario.	

- For Daisy Chain deployments the 1701U offering is the most appropriate.
- Need to pay attention to shared bandwidth availability and demands of the endpoints being connected.
- **NEW 1701 PLUS WILL BE AVAILABLE SOON WITH LAUNCH DISCOUNTS AVAILABLE FOR THOSE WILLING TO WAIT UNTIL MARCH/APRIL**

Single Port Extender Solution - Supporting up to four endpoints

Extending one endpoint, leveraging the downlink port of a data switch, and using twisted pair cabling infrastructure to extend Ethernet to support up to four endpoints with a single cable run.



Item	FLEX4 Extender Kit	1701U K2H, K3H or K4H	1801 Alternative
List Price:	\$825.00	\$1,182.00/\$1,541.00/\$1,900.00	Will be offered at same price of the 1701 offering
What is Included:	1 x NV-FLXLK-BSE, 1 x NV-FLX-04, 1 x NV-PS55-110W Power Supply.	3, 4 or 5 x NV-EC1701U, 1 x PS55-110W Power Supply, 3, 4 or 5 x NV-PC4PR.	1 x NV-ET1801, 1 x NV-ET1804, 1 x NV-PS55-110W Power Supply, 2 x NV-BNCA.
Bandwidth Capabilities:	Symmetrical Full Duplex 100Mbps to 2,000ft (610m) Based on Cat5e UTP Cable. Note: Up to 4 endpoints will share the 100Mbps bandwidth.	Dynamically Allocated Half Duplex Up to 93Mbps to 490ft (150m) Up to 10Mbps to 980ft (300m) Based on Cat5e UTP Cable Note: Bandwidth available shared by all endpoints.	Dynamically Allocated Half Duplex Up to 150Mbps to 50ft (15m) Up to 93Mbps to 490ft (150m) Up to 10Mbps to 2,000ft (610m) Based on Cat5e UTP Cable Note: Bandwidth available shared by all endpoints.
PoE Capabilities:	Capable of providing up to 50W PoE to FLEX4. FLEX4 can provide up to 30W per port.	Capable of providing up to 50W PoE. PoE is shared across all EC1701U and endpoint devices.	Capable of providing up to 50W PoE. PoE is shared across all ET1801 and endpoint devices.

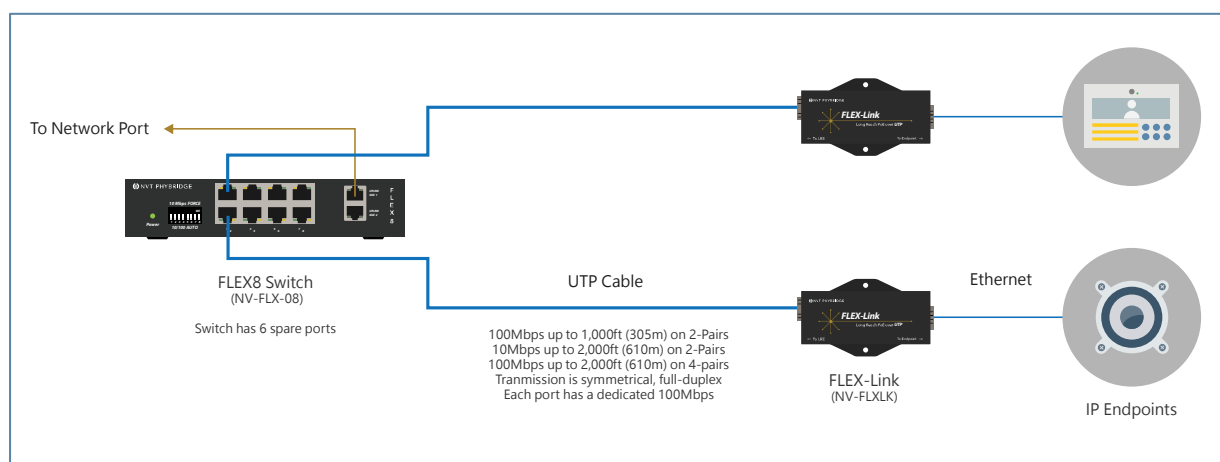
General Recommendation:

FLEX4 Extender Kit for most applications.

- Bandwidth capabilities are better with FLEX4 Extender Kit.
- FLEX4 Extender Kit has greater reach, 2,000ft.
- PoE power is similar.
- Significantly better pricing for the FLEX4 Extender Kits.
- **NEW 1701 PLUS WILL BE AVAILABLE SOON WITH LAUNCH DISCOUNTS AVAILABLE FOR THOSE WILLING TO WAIT UNTIL MARCH/APRIL**

Single Port Extender Solution - Supporting two endpoints with two cable runs

Extending two endpoints, leveraging the downlink port of a data switch, and using twisted pair cabling infrastructure to extend Ethernet to support two endpoints with two cable runs.

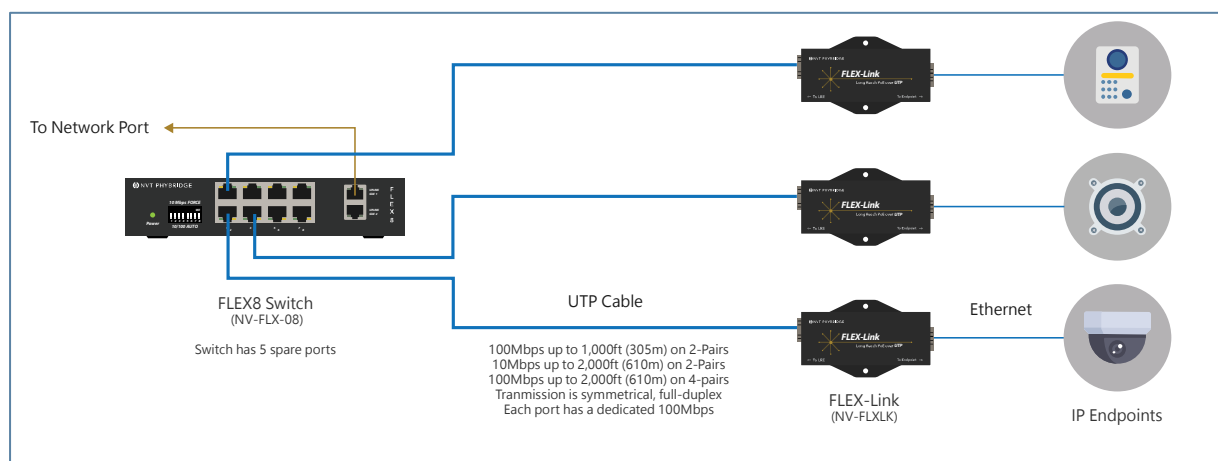


Item	FLEX8 & FLEX-Link	1701U K2H	1801 KH2
List Price:	\$2,046.00	\$1,182.00	Offered at same price as 1701 K2H
What is Included:	1 x NV-FLX-08 with 1 x NV-PS55-190W Power Supply, 2 x NV-FLXLK (Not sold as a kit).	3 x NV-EC1701U, 1 x 55VDC-110W Power Supply, 3 x NV-PC4PR.	1 x NV-ER1804, 2 x NV-ET1804, 1 x NV-PS55-110W Power Supply, 4 x NV-BNCA.
Bandwidth Capabilities:	Symmetrical Full Duplex 100Mbps to 2,000ft (610m) Based on Cat5e UTP Cable. Note: Up to 8 endpoints will each have 100Mbps bandwidth.	Dynamically Allocated Half Duplex Up to 93Mbps to 490ft (150m) Up to 10Mbps to 980ft (300m) Based on Cat5e UTP Cable Note: Bandwidth available shared by all endpoints.	Dynamically Allocated Half Duplex Up to 150Mbps to 50ft (15m) Up to 93Mbps to 490ft (150m) Up to 10Mbps to 2,000ft (610m) Based on Cat5e UTP Cable Note: Bandwidth available shared by all endpoints.
PoE Capabilities:	Capable of providing up to 50W PoE to each FLEX-Link and endpoint.	Capable of providing up to 50W PoE. PoE is shared across all EC1701U and endpoint devices.	Capable of providing up to 50W PoE. PoE is shared across all ET1801 and endpoint devices.
General Recommendation:	FLEX8 & FLEX-Link for most applications.		

- Bandwidth Capabilities are better with FLEX8 & FLEX-Link.
- FLEX8 & FLEX-Link has greater reach, 2,000ft.
- PoE is better with the FLEX8 as 50W per port can be delivered. With the 1701U best case only 25W per endpoint is achievable.
- Pricing is better with the 1701U kit. However, the FLEX8 provides far better scalability.
- **NEW 1701 PLUS WILL BE AVAILABLE SOON WITH LAUNCH DISCOUNTS AVAILABLE FOR THOSE WILLING TO WAIT UNTIL MARCH/APRIL**

Single Port Extender Solution - Supporting three endpoints with three cable runs

Extending three endpoints, leveraging the downlink port of a data switch, and using twisted pair cabling infrastructure to extend Ethernet to support three endpoints with three cable runs.



Item	FLEX8 & FLEX-Link	1701U K3H	1801 Alternative
List Price:	\$2,344.00	\$1,541.00	Offered at same price of 1701 K3H
What is Included:	1 x NV-FLX-08 with 1 x NV-PS55-190W Power Supply, 3 x NV-FLX-LK (Not sold as a kit).	4 x NV-EC1701U, 1 x 55VDC-110W Power Supply, 4 x NV-PC4PR.	1 x NV-ER1804, 3 x NV-ET1804, 1 x NV-PS55-110W Power Supply, 6 x NV-BNCA.
Bandwidth Capabilities:	Symmetrical Full Duplex 100Mbps to 2,000ft (610m) Based on Cat5e UTP Cable. Note: Up to 8 endpoints will each have 100Mbps bandwidth.	Dynamically Allocated Half Duplex Up to 93Mbps to 490ft (150m) Up to 10Mbps to 980ft (300m) Based on Cat5e UTP Cable Note: Bandwidth available shared by all endpoints.	Dynamically Allocated Half Duplex Up to 150Mbps to 50ft (15m) Up to 93Mbps to 490ft (150m) Up to 10Mbps to 2,000ft (610m) Based on Cat5e UTP Cable Note: Bandwidth available shared by all endpoints.
PoE Capabilities:	Capable of providing up to 50W PoE to each FLEX-Link and endpoint.	Capable of providing up to 50W PoE. PoE is shared across all EC1701U and endpoint devices.	Capable of providing up to 50W PoE. PoE is shared across all ET1801 and endpoint devices.

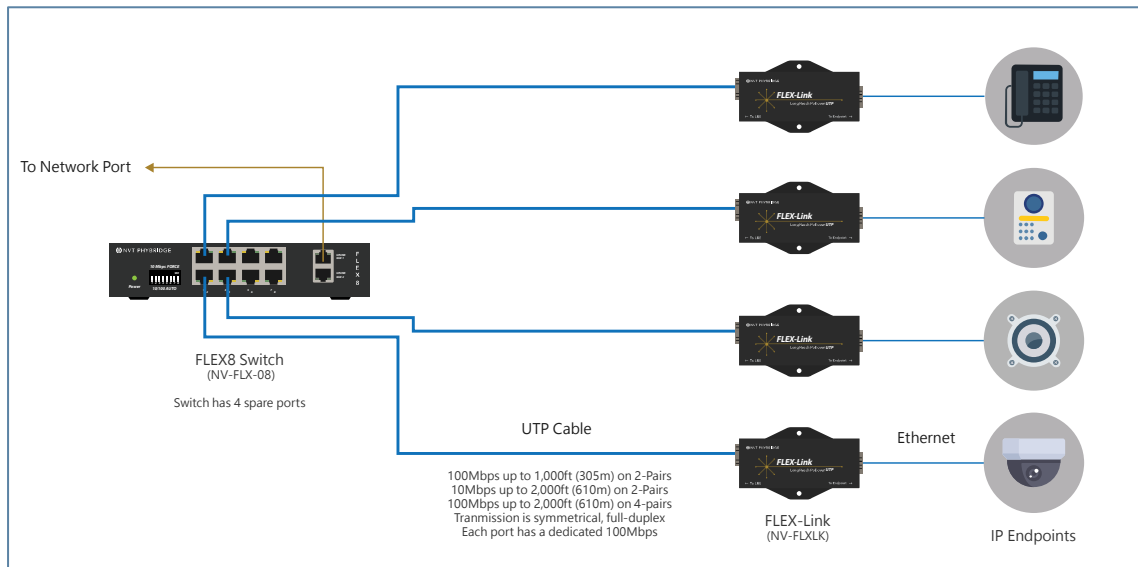
General Recommendation:

FLEX8 & FLEX-Link for most applications.

- Bandwidth capabilities are better with FLEX8 & FLEX-Link.
- FLEX8 & FLEX-Link has greater reach, 2,000ft.
- PoE is better with the FLEX8 as 50W per port can be delivered. With the 1701U best case only 25W per endpoint is achievable.
- Pricing is better with the 1701U kit. However, the FLEX8 provides far better scalability.
- **NEW 1701 PLUS WILL BE AVAILABLE SOON WITH LAUNCH DISCOUNTS AVAILABLE FOR THOSE WILLING TO WAIT UNTIL MARCH/APRIL**

Single Port Extender Solution - Supporting four endpoints with four cable runs

Extending four endpoints, leveraging the downlink port of a data switch, and using Coax cabling infrastructure to extend Ethernet to support four endpoints with four Coax runs.

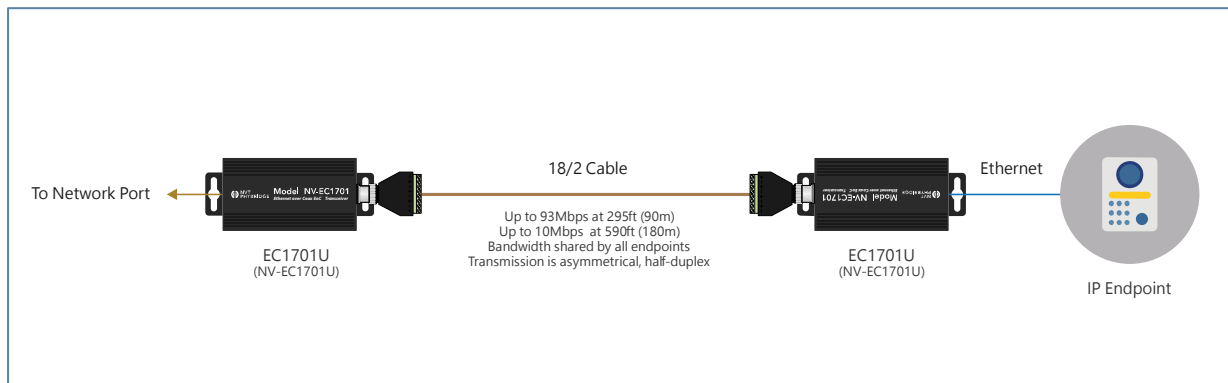


Item	FLEX8 & FLEX-Link	1701U K4H	1801 Alternative
List Price:	\$2,642.00	\$1,990.00	Offered at the same price as 1701 K4H
What is Included:	1 x NV-FLX-08 with 1 x NV-PS55-190W Power Supply, 4 x NV-FLXLK (Not sold as a kit).	5 x NV-EC1701U, 1 x 55VDC-110W Power Supply, 5 x NV-PC4PR.	1 x NV-ER1804, 4 x NV-ET1804, 1 x NV-PS55-110W Power Supply, 8 x NV-BNCA.
Bandwidth Capabilities:	Symmetrical Full Duplex 100Mbps to 2,000ft (610m) Based on Cat5e UTP Cable. Note: Up to 8 endpoints will each have 100Mbps bandwidth.	Dynamically Allocated Half Duplex Up to 93Mbps to 490ft (150m) Up to 10Mbps to 980ft (300m) Based on Cat5e UTP Cable Note: Bandwidth available shared by all endpoints.	Dynamically Allocated Half Duplex Up to 150Mbps to 50ft (15m) Up to 93Mbps to 490ft (150m) Up to 10Mbps to 2,000ft (610m) Based on Cat5e UTP Cable Note: Bandwidth available shared by all endpoints.

PoE Capabilities:	Capable of providing up to 50W PoE to each FLEX-Link and endpoint.	Capable of providing up to 50W PoE. PoE is shared across all EC1701U and endpoint devices.	Capable of providing up to 50W PoE. PoE is shared across all ET1801 and endpoint devices.
General Recommendation:	FLEX8 & FLEX-Link for most applications. <ul style="list-style-type: none"> Bandwidth capabilities are better with FLEX8 & FLEX-Link. FLEX8 & FLEX-Link have greater reach of 2,000ft. PoE is better with the FLEX8 Pricing is better with the 1701U kit. However, the FLEX8 provides far better scalability, NEW 1701 PLUS WILL BE AVAILABLE SOON WITH LAUNCH DISCOUNTS AVAILABLE FOR THOSE WILLING TO WAIT UNTIL MARCH/APRIL 		

Single Port Extender Solution - Supporting one endpoint

Extending one endpoint, leveraging the downlink port of a data switch, and using untwisted pair / 2-wire cabling infrastructure to extend Ethernet.



Item	FLEX Family	1701U KIT1	1801 Alternative
List Price:	N/A	\$785.00	Same price as 1701 offering
What is Included:	N/A	2 x NV-EC1701U, 1 x NV-PS55-110W Power Supply, 2 x NV-PC4PR.	2 x NV-ET1801, 1 x NV-PS55-110W Power Supply, 2 x NV-BNCA.
Bandwidth Capabilities:	N/A	Dynamically Allocated Half Duplex Up to 93Mbps to 295ft (90m) Up to 10Mbps to 590ft (180m) Based on 18/2 Cable Note: Bandwidth available shared by all endpoints.	Dynamically Allocated Half Duplex Up to 150Mbps to 32ft (10m) Up to 93Mbps to 328ft (100m) Up to 10Mbps to 1,600ft (500m) Based on 18/2 Cable Note: Bandwidth available shared by all endpoints.
PoE Capabilities:	N/A	Capable of providing up to 50W PoE. PoE is shared across all EC1701U and endpoint devices.	Capable of providing up to 50W PoE. PoE is shared across all ET1801 and endpoint devices.
General Recommendation:	CHARIoT product range does not support untwisted / 2-wire cable 1701U or 1801 are the only options for this scenario.		

- For deployments on untwisted or 2-wire cable the 1701U offering is most appropriate.
- Need to pay attention to shared bandwidth availability and demands of the endpoints being connected.
- **NEW 1701 PLUS WILL BE AVAILABLE SOON WITH LAUNCH DISCOUNTS AVAILABLE FOR THOSE WILLING TO WAIT UNTIL MARCH/APRIL**