NEW!

Model NV-EC1701

Ethernet over Coax EoC Transceiver with PoE Power

Features:

- Transmits 10/100 BaseT Full Duplex Ethernet up to 1,500m (5,000ft)* over RG-59 (or similar)
- Powers PoE cameras (or other PoE devices), up to 45 watts
- One EoC transceiver at the network-end can support up to four remote transceivers/IP cameras using BNC “T” adaptors
- 48VDC from one power supply is distributed over the coax to all connected equipment
- Transparent network ‘plug & play’ connectivity; no configuration or setup required
- Supports all networking protocols (UDP, TCP/IP, HTTP, etc.)
- Advanced transmission and power technology with built-in transient protection
- Available in 1-4 Camera System Kits
- Limited lifetime warranty

The NVT Model NV-EC1701 Ethernet over Coax EoC Transceiver is a compact media converter that allows 10/100 BaseT Ethernet and PoE power to be transmitted using coax cable. These EoC devices are typically used in legacy installations where existing coax is re-deployed as part of an upgrade to IP cameras. 48VDC class 2 power is delivered to one transceiver, which distributes it to up to four remote transceivers, and their PoE cameras.

These transceivers are extremely simple to use, with no IP or MAC address configuration required. Status LEDs indicate power and link connectivity/activity for RJ45 and BNC ports.

The NV-EC1701 is backed by NVT’s award winning customer support and limited lifetime warranty.

*Distance and number of devices supported will often be lower due to power delivery voltage-drop on the cable. See Cable Distance Chart.

Model NV-EC1701
Ethernet over Coax EoC Transceiver

Technical Specifications

RJ45 ETHERNET INTERFACE

Connectivity:	RJ45, auto-crossover
Cable type:	4-pair Cat5 or better
Distance:	up to 100m (328ft)
Speed:	10/100 Base T, half/full duplex, auto-negotiation
Power:	This Power Sourcing Equipment (PSE) supports Powered Devices (PDs) up to 45 watts* Compatible with IEEE 802.3at or 802.3af 48VDC power is delivered "always on" on pins 5&4, 7&8

COAX BUILDING WIRING INTERFACE

Connectivity:	BNC, RG-59/U or similar Up to four coax cables are supported
Impedance:	50 to 100Ω
Distance:	up to 1,500m (5,000ft)*
Transmission technology:	OFDM

*IMPORTANT NOTE:

Distance will often be shorter due to power delivery voltage-drop on the cable. Maximum distances below are end-to-end, including any UTP. Power supplies may be used simultaneously at more than one EoC Transceiver.

See Maximum Per-Camera Cable Distance Chart on page 3.

LED STATUS INDICATORS

Power:	Blue "Power On"
BNC Interface:	Green "Link"
RJ45 Interface:	Green "Link" Flashing "Link Activity"

MECHANICAL

Body:	100mm (4 in) long 33mm (1.3 in) high 38mm (1.5 in) wide with universal mounting bracket
Transceiver weight:	120g (4.2oz)
Power supply weight:	300g (10.6oz)
Power cord weight:	160g (5.5 oz)
Total weight:	575g (20.3 oz)

ENVIRONMENTAL

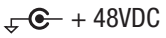
Operating Temperature:	-10°C to +50°C (14°F to 122°F)
Storage Temperature:	-30°C to +70°C (-22°F to 158°F)
Humidity:	20 to 85%, non-condensing

POWER CONSUMPTION

Consumption per transceiver:	= 6.5 W @ 48VDC
Total system consumption:	+ total consumption of transceivers + total consumption of PDs (IP cameras) total power dissipated in the cable

POWER SUPPLY

Power supplies are external inline, with an IEC380-C14 power inlet and 1.8m (6ft) line-cord. Input Voltage is 100 ~240VAC 50-60Hz. A moulded P1J 5.5mm barrel connector provides a Class 2 (SELV) 48VDC regulated output. Use only the power cord provided with the unit or equivalent UL approved type SPT-2, SVT, or SJT, 18/3 AWG 100~240VAC, 1A 60°C Max. 4.5m (15ft) long. One end with IEC380-C13 appliance coupler and the other end with NEMA 1015P or equivalent for country.



MAXIMUM CAMERA POWER		
Number of Cameras	Total Load of all cameras	Average per-camera load
1	45 W	45 W
2	36 W	18 W
3	30 W	10 W
4	24 W	6 W

† = Powered from local transceiver.

REGULATORY

UL Listed to IEC/UL 60950-1 Complies with FCC part 15B limits

Specifications subject to change without notice.

Model NV-EC1701
Ethernet over Coax EoC Transceiver

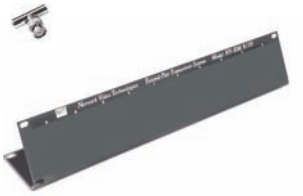
Model Numbers

EoC TRANSCEIVER

NV-EC1701: Single transceiver only, no power supply

ACCESSORIES

NV-PS48-60W: 48V DC power supply, 60 watts
with IEC line cord



NV-BNCT: BNC "T" adaptor included
with 60W models

NV-RM8/10: Rack mounting kit, 19" x 2U
holds up to 4 NV-EC1701 transceivers

SYSTEM KITS

NV-EC1701-KIT1: Single Camera EoC Transmission System
- 2 NV-EC1701 Transceivers
- 1 NV-PS48-60W Power Supply
- 1 IEC line cord

NV-EC1701-KIT2: Dual Camera EoC Transmission System
- 3 NV-EC1701 Transceivers
- 1 NV-PS48-60W Power Supply
- 1 IEC line cord
- 1 NV-BNCT

NV-EC1701-KIT3: Triple Camera EoC Transmission System
- 4 NV-EC1701 Transceivers
- 1 NV-PS48-60W Power Supply
- 1 IEC line cord
- 2 NV-BNCT

NV-EC1701-KIT4: Quadruple Camera EoC Transmission System
- 5 NV-EC1701 Transceivers
- 1 NV-PS48-60W Power Supply
- 1 IEC line cord
- 3 NV-BNCT

Model NV-EC1701

Ethernet over Coax EoC Transceiver

Remote Power Delivery		Supported Coax Distance (meters)					
		Low Grade CATV		Typical CCTV Quality		Extended Distance	
Camera Power	Maximum Wire Resistance	RG59/BU 22 AWG Copper Clad Steel	RG59/BU 20 AWG Copper Clad Steel	RG59/U 22 AWG Solid Bare Copper	RG59/U 20 AWG Solid Bare Copper	RG6 18 AWG Solid Bare Copper	RG11 14 AWG Solid Bare Copper
(Watts)	(Ohms)	23.1 Ω per 100 m	15.0 Ω per 100 m	5.3 Ω per 100 m	3.9 Ω per 100 m	2.8 Ω per 100 m	1.1 Ω per 100 m
0.0 W *	33 Ω	132 m	203 m	577 m	790 m	1,102 m	1,500 m
3.1 W	21 Ω	84 m	129 m	367 m	503 m	702 m	1,500 m
3.6 W	20 Ω	80 m	123 m	349 m	479 m	668 m	1,500 m
4.1 W	19 Ω	76 m	117 m	332 m	455 m	635 m	1,500 m
4.6 W	18 Ω	72 m	111 m	314 m	431 m	601 m	1,479 m
5.2 W	17 Ω	68 m	105 m	297 m	407 m	568 m	1,397 m
6.0 W	16 Ω	64 m	98 m	278 m	380 m	531 m	1,306 m
6.7 W	15 Ω	60 m	92 m	262 m	359 m	501 m	1,232 m
7.6 W	14 Ω	56 m	86 m	245 m	335 m	468 m	1,150 m
8.5 W	13 Ω	52 m	80 m	227 m	311 m	434 m	1,068 m
9.7 W	12 Ω	48 m	74 m	210 m	287 m	401 m	986 m
11.0 W	11 Ω	44 m	68 m	192 m	263 m	367 m	904 m
12.5 W	10 Ω	40 m	62 m	175 m	239 m	334 m	822 m
14.4 W	9 Ω	36 m	55 m	157 m	215 m	301 m	739 m
16.6 W	8 Ω	32 m	49 m	140 m	191 m	267 m	657 m
19.4 W	7 Ω	28 m	43 m	122 m	168 m	234 m	575 m
23.0 W	6 Ω	24 m	37 m	105 m	144 m	200 m	493 m
27.6 W	5 Ω	20 m	31 m	87 m	120 m	167 m	411 m
35.0 W	4 Ω	16 m	24 m	68 m	93 m	130 m	319 m
45.0 W *	33 Ω	132 m	203 m	577 m	790 m	1,102 m	1,500 m

Remote Power Delivery		Supported Coax Distance (feet)					
		Low Grade CATV		Typical CCTV Quality		Extended Distance	
Camera Power	Maximum Wire Resistance	RG59/BU 22 AWG Copper Clad Steel	RG59/BU 20 AWG Copper Clad Steel	RG59/U 22 AWG Solid Bare Copper	RG59/U 20 AWG Solid Bare Copper	RG6 18 AWG Solid Bare Copper	RG11 14 AWG Solid Bare Copper
(Watts)	(Ohms)	76.0 Ω per 1000 ft	49.4 Ω per 1000 ft	17.4 Ω per 1000 ft	12.7 Ω per 1000 ft	9.1 Ω per 1000 ft	3.7 Ω per 1000 ft
0.0 W *	33 Ω	434 ft	668 ft	1897 ft	2600 ft	3626 ft	5000 ft
3.1 W	21 Ω	276 ft	425 ft	1207 ft	1654 ft	2308 ft	5000 ft
3.6 W	20 Ω	263 ft	405 ft	1149 ft	1575 ft	2198 ft	5000 ft
4.1 W	19 Ω	250 ft	385 ft	1092 ft	1496 ft	2088 ft	5000 ft
4.6 W	18 Ω	237 ft	364 ft	1034 ft	1417 ft	1978 ft	4865 ft
5.2 W	17 Ω	224 ft	344 ft	977 ft	1339 ft	1868 ft	4595 ft
6.0 W	16 Ω	209 ft	322 ft	914 ft	1250 ft	1747 ft	4297 ft
6.7 W	15 Ω	197 ft	304 ft	862 ft	1181 ft	1648 ft	4054 ft
7.6 W	14 Ω	184 ft	283 ft	805 ft	1102 ft	1538 ft	3784 ft
8.5 W	13 Ω	171 ft	263 ft	747 ft	1024 ft	1429 ft	3514 ft
9.7 W	12 Ω	158 ft	243 ft	690 ft	945 ft	1319 ft	3243 ft
11.0 W	11 Ω	145 ft	223 ft	632 ft	866 ft	1209 ft	2973 ft
12.5 W	10 Ω	132 ft	202 ft	575 ft	787 ft	1099 ft	2703 ft
14.4 W	9 Ω	118 ft	182 ft	517 ft	709 ft	989 ft	2432 ft
16.6 W	8 Ω	105 ft	162 ft	460 ft	630 ft	879 ft	2162 ft
19.4 W	7 Ω	92 ft	142 ft	402 ft	551 ft	769 ft	1892 ft
23.0 W	6 Ω	79 ft	121 ft	345 ft	472 ft	659 ft	1622 ft
27.6 W	5 Ω	66 ft	101 ft	287 ft	394 ft	549 ft	1351 ft
35.0 W	4 Ω	51 ft	79 ft	223 ft	306 ft	426 ft	1049 ft
45.0 W *	33 Ω	434 ft	668 ft	1897 ft	2600 ft	3626 ft	5000 ft

* = Camera powered from local transceiver