

IVC-4011-T-V3

ETHERNET EXTENDER OVER VDSL2



FEATURES

- 4*10/100/1000BASE-T RJ45 with Auto MDI/MDI-X
- 1*RJ11 Female Phone Jack and 1*BNC Female Connector for VDSL2 Transmission
- Support ITU-T G.993.2 VDSL2 Profile 17a/30a/35b
- CO/CPE Mode Selectable via DIP Switch
- Selectable Target Band Plan and SNR Margin
- Up to Upstream 200Mbps / Downstream 200Mbps Bandwidth (in G.INP, Sym, 8dB modes)
- Used in Pairs to Extend Point-to-Point Connection Up to 1.4km
- Support IEEE 802.1Q VLAN Transparency
- 9-48VDC or 24VAC Redundant Power with Reverse Polarity Protection
- DIN-Rail or Wall Mount Installation
- Operating Temperature: -40°C to 75°C
- 5-Year Warranty



INTRODUCTION

Antaira Technologies' IVC-4011-T-V3 is an Industrial Ethernet Extender that has a switching architecture with four RJ45 10/100/1000Mbps Ethernet ports and one asymmetric or symmetric Ethernet over VDSL2 port— the VDSL2 port can be RJ11 or BNC connector. The embedded BNC or RJ11 port is allowing customers to continue using their existing network with the current coaxial cable or telephone wire without the need of rewiring.

The IVC-4011-T-V3 provides a high level of immunity to electromagnetic interference and heavy electrical surges typical of environments like plant floors or in curbside traffic control cabinets. The IVC-4011-T-V3 is designed with an IP30 metal case with DIN Rail or Wall Mount support. It also can operate under any extreme ambient weather temperature range from -40 to 75°C.

Without spending extra costs, users can easily re-deploy a new local Internet in any residential areas, public service facilities, campuses, and hospitality environments by applying the IVC-4011-T-V3 on the original network structure.

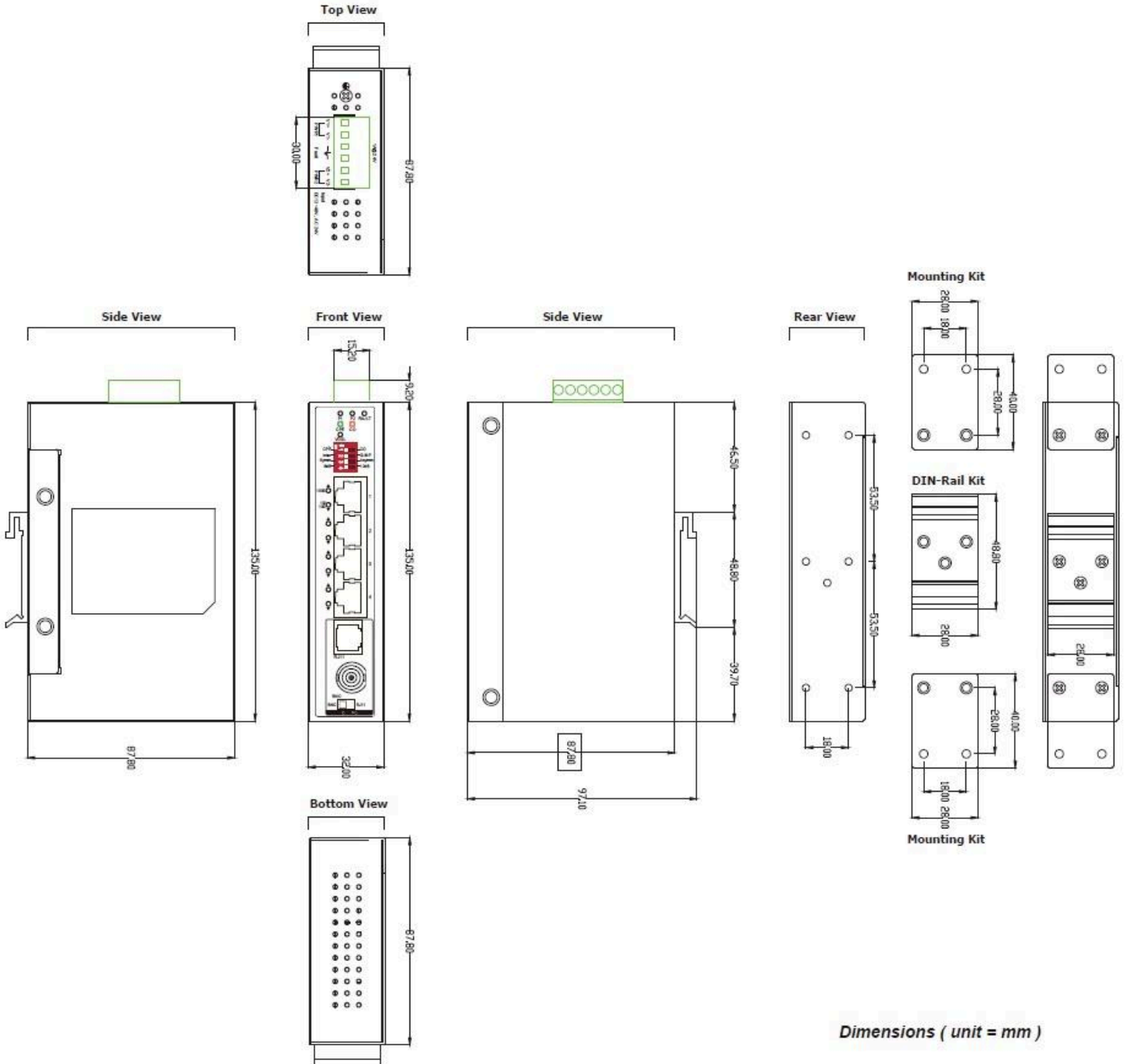
SPECIFICATIONS

Hardware Specifications

| Part Number | Total Ports | RJ45 GE | BNC | RJ11 | Power Consumption | Power Input | Operating Temp. |
|---------------|-------------|---------|-----|------|--|---|-----------------------------|
| IVC-4011-T-V3 | 6 | 4 | 1 | 1 | 9VDC: 3.96W / 13.5BTU 48VDC: 3.36W / 11.4BTU 24VAC: 4.1W / 13.9BTU | 9-48VDC or 24VAC Redundant Power with Reverse Polarity Protection | -40 to 75°C -40 to 167°F |

Physical Specifications

| Part Number | Dimensions (W x H x D) | Weight (Unit) | Weight (Shipping) | Housing | Mounting |
|---------------|---|------------------|-------------------|-------------|------------------------|
| IVC-4011-T-V3 | 32 x 135 x 87.8mm 1.26 x 5.31 x 3.46in | 0.45kg 0.99lb | 0.49kg 1.09lb | IP30, Metal | DIN-Rail Wall Mount |



Standards

| | |
|----------------------|--|
| Standards Compliance | IEEE 802.3 10BASE-T Ethernet IEEE 802.3u 100BASE-T Fast Ethernet IEEE 802.3ab 1000BASE-T Gigabit Ethernet IEEE 802.1p Class of Service IEEE 802.1Q VLAN |
| VDSL Compliance | ITU-T G.993.1 VDSL ITU-T G.997.1 Physical Layer Management for DSL ITU-T G.993.2 VDSL2 (Profile 17a/30a/35b support) ITU-T G.993.5 G.Vectoring & G.INP ITU-T G.998 xDSL Bonding (G.Bond) |
| ADSL Compliance | Capable of ADSL2/2+ standard: ITU G.992.3 G.dmt.bis ITU G.992.5 G.dmt.bisplus Data Rate: Up to 24Mbps |

Switch Properties

| Specification | | Specification | |
|--------------------|--|---------------------|---|
| Switch Processing | Store-and-Forward | Maximum Packet Size | 1522 bytes |
| Address Table Size | 1K | ESD Protection | 6K DC |
| BNC Cable | Coaxial cable: 75 ohm RG-6/U cable, less than 12Ω/1000 ft RG-59/U cable, less than 30Ω/1000 ft Max. 1400m with data transmission (4,593 ft) | RJ11 Cable | Twisted-pair telephone wires (AWG-24 or better) Max. 1400m with data transmission (4,593 ft) |
| LED Indicators | System and Power Green: DC Power 1, DC Power 2 Red: Alarm VDSL2 Green: VDSL, CO, CPE RJ45 Port Green: Link/Activity | DIP Switch | DIP Switch 1: Select CO or CPE mode DIP Switch 2: Select G.INP or Interleaved mode DIP Switch 3: Select Band Profile (Asymmetric or Symmetric) DIP Switch 4: Select SNR of 12dB or 8dB |

Compliance Specifications

| | |
|---------------------------|-----------------------------|
| Certifications | FCC Part 15 Class A, CE |
| Storage Temperature | -40 to 75°C |
| Ambient Relative Humidity | 5% to 95%, (non-condensing) |
| Warranty | 5 Years |

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VDSL2 PERFORMANCE TABLE

RJ11 Performance

| Distance (meter) | Interleave (Downstream / Upstream: Mbps) | | | |
|------------------|--|----------|-----------|-----------|
| | Asymmetric | | Symmetric | |
| | 8dB | 12dB | 8dB | 12dB |
| 200m | 253 / 56 | 260 / 53 | 181 / 173 | 172 / 164 |
| 400m | 229 / 52 | 200 / 51 | 147 / 140 | 136 / 123 |
| 600m | 112 / 42 | 99 / 39 | 95 / 78 | 77 / 64 |
| 800m | 108 / 33 | 77 / 28 | 72 / 51 | 59 / 40 |
| 1000m | 71 / 15 | 60 / 12 | 51 / 27 | 47 / 24 |
| 1200m | 43 / 9 | 35 / 6 | 29 / 25 | 24 / 20 |
| 1400m | 26 / 7 | 23 / 6 | 19 / 13 | 18 / 11 |

| Distance (meter) | G.INP (Downstream / Upstream: Mbps) | | | |
|------------------|-------------------------------------|----------|-----------|-----------|
| | Asymmetric | | Symmetric | |
| | 8dB | 12dB | 8dB | 12dB |
| 200m | 308 / 55 | 285 / 53 | 191 / 186 | 183 / 175 |
| 400m | 246 / 55 | 211 / 52 | 143 / 141 | 140 / 124 |
| 600m | 125 / 43 | 96 / 40 | 88 / 81 | 99 / 39 |
| 800m | 108 / 33 | 77 / 28 | 72 / 51 | 59 / 40 |
| 1000m | 71 / 15 | 60 / 12 | 51 / 27 | 47 / 24 |
| 1200m | 43 / 9 | 35 / 6 | 29 / 25 | 24 / 20 |
| 1400m | 33 / 6 | 35 / 4 | 24 / 15 | 20 / 17 |

*The performance data above is for reference only. The actual data rate will vary on the quality of the copper wire and environmental factors.

Coaxial Performance

| Distance (meter) | Interleave (Downstream / Upstream: Mbps) | | | |
|------------------|--|----------|-----------|-----------|
| | Asymmetric | | Symmetric | |
| | 8dB | 12dB | 8dB | 12dB |
| 200m | 258 / 53 | 256 / 51 | 178 / 177 | 173 / 170 |
| 400m | 252 / 51 | 238 / 50 | 152 / 151 | 145 / 143 |
| 600m | 205 / 48 | 189 / 47 | 125 / 124 | 115 / 114 |
| 800m | 166 / 47 | 141 / 46 | 108 / 101 | 91 / 89 |
| 1000m | 121 / 45 | 96 / 39 | 81 / 79 | 71 / 70 |
| 1200m | 83 / 38 | 63 / 34 | 62 / 60 | 54 / 51 |
| 1400m | 32 / 21 | 30 / 19 | 28 / 25 | 18 / 15 |

| Distance (meter) | G.INP (Downstream / Upstream: Mbps) | | | |
|------------------|-------------------------------------|----------|-----------|-----------|
| | Asymmetric | | Symmetric | |
| | 8dB | 12dB | 8dB | 12dB |
| 200m | 316 / 56 | 299 / 55 | 183 / 181 | 179 / 178 |
| 400m | 276 / 52 | 246 / 50 | 167 / 165 | 157 / 152 |
| 600m | 218 / 50 | 196 / 49 | 136 / 129 | 124 / 114 |
| 800m | 171 / 49 | 145 / 57 | 108 / 103 | 96 / 92 |
| 1000m | 122 / 48 | 97 / 41 | 83 / 81 | 72 / 71 |
| 1200m | 86 / 42 | 69 / 36 | 69 / 64 | 55 / 53 |
| 1400m | 46 / 26 | 37 / 21 | 39 / 31 | 31 / 23 |

*As there are various resistance values in the category of RG-59/U or RG-6/U cable, the actual data rate will vary on the quality of the copper wire and environmental factors.

ORDERING INFORMATION

Ethernet Extender Models

| Part Number | Description |
|---------------|--|
| IVC-4011-T-V3 | IP30 Industrial Ethernet Extender, 4-Port RJ45 (LAN), 1-Port BNC, 1-Port RJ11 (-40°~ 75°C) |

***NOTE: Please note that the IVC-4011-T-V3 is not compatible with EVC-3001 and IVC-4011-T.

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Specifications are subject to change without notice and without incurring any obligation.