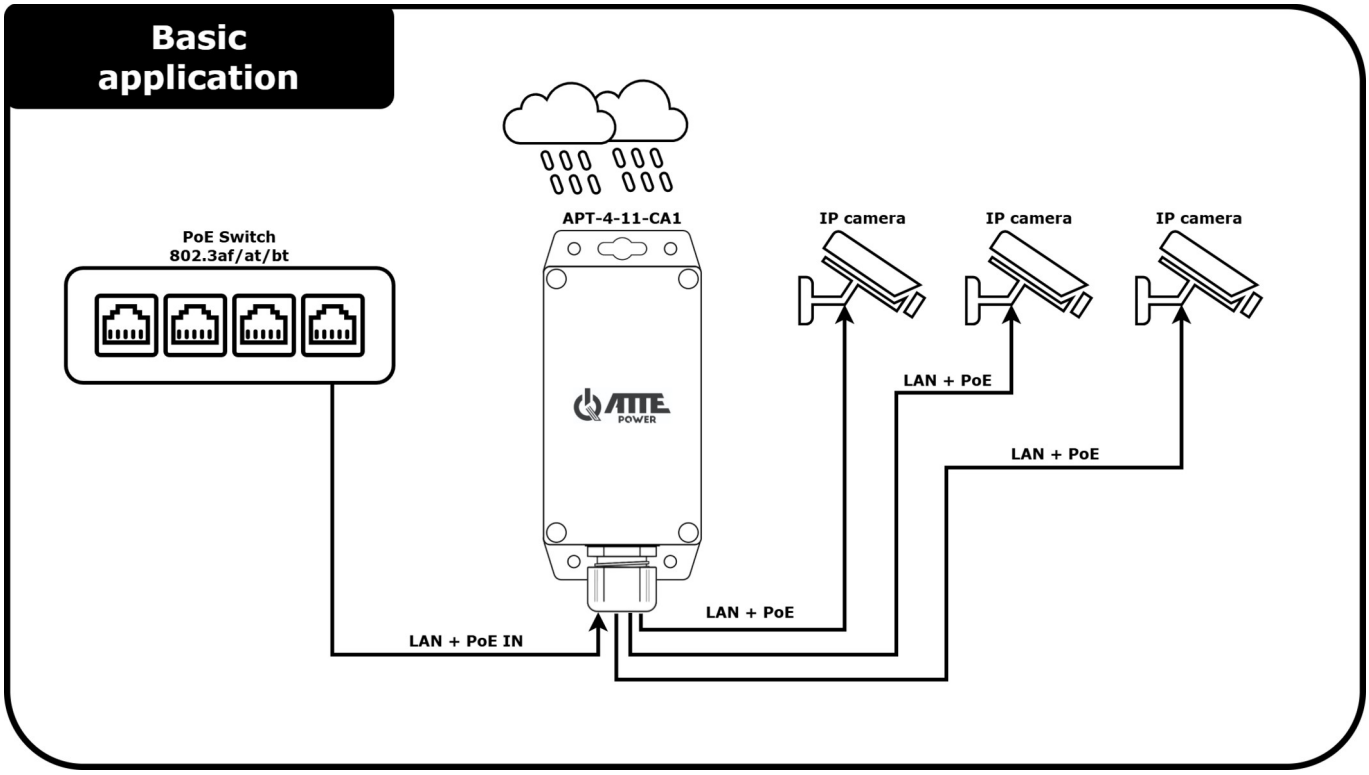
Instruction manual

APT-4-11-CA1

4-port PoE Switch, LAN + PoE extender
in IP68 enclosure

Operation Indication

- **LED PWR** (red) – power
- **LED L1...L4** (green) – transmission on ports LAN 1 ... LAN 4
- **LED** in RJ45 ports (red) – PoE power in the port
- **LED at** (red) - identification as a 802.3at PoE receiver (30W)
- **LED bt** (red) - Identification as a 802.3bt60 PoE receiver (60W)



Description

APT-4-11-CA1 is a PoE network switch working as an extender (repeater) of LAN and PoE power. The device has one PoE input port and three PoE output ports which enables the installation of several PoE receivers on a single UTP cable.

The device has an external IP68 casing allowing it to work in outdoor conditions.

Built-in LR150 (Long Range 150m) function allows all ports to operate stably up to 150 metres of UTP at 100Mbps with PoE power.

APT switch has the possibility of being powered by an external power supply via an additional screw connector, in which case LAN port 1 is used as a LAN network port (without PoE power).

Installation

1. Mount the device in the desired location.
2. Connect the PoE powered line (44 ... 58VDC) to the PoE IN (LAN 1) port.
3. Connect UTP cables leading to IP LAN or LAN+PoE receivers to the PoE OUT ports (LAN 2 ... LAN 4).
4. Close the enclosure.
   Note!
5. The total power consumed by the cameras (PoE receivers) connected to the extender must not exceed the power budget offered by the switch powering the entire line:
   - for 802.3af standard it is around 13W available on the extender
   - for 802.3at standard it is around 25W available on the extender
   - for 802.3bt60 standard it is around 51W available on the extender
6. Take into account IR illuminators - they switch on at night increasing the power consumption significantly.
7. Also take into account the losses in the power cable - they depend on its cross-section, length and the voltage value on the PoE line.

Troubleshooting

Q1. The ‘PWR’ LED is not lit.

A1 PWR LED indicates that the device is properly powered.

If the LED is not lit, do the following:

1. Check that power is being supplied to the LAN1 + PoE IN port (bottom right RJ45 port).
2. Make sure that the power supply device is a PoE switch and that it operates within the correct voltage range (44...58VDC).
3. Check that the UTP power cable has a correctly terminated RJ45 plug in the T568B standard and that the cable is not damaged.

Q2. I can't see the cameras online.

A2. If all devices are not visible on the network it is most likely that the problem is on the **LAN1 + PoE IN** input port. In order to solve the problem you should:

1. Check the LEDs L1...L4 by these we can recognise if the problem occurs on all ports or only on LAN1.
2. If LED L1 is not lit, check the connection between the PoE switch and the device itself together with the UTP cable.
3. Make sure the RJ45 connector is wired to the T568B standard and check that each wire mates with the correct pin.
4. Ensure that the distance between the PoE switch and the APT-4-11-CA1 is less than 150m.

Technical Specification

LAN Ports	4 RJ45 10/100Mbps ports (auto MDI-MDIX, autonegotiation) 1 x LAN+PoE IN 3 x LAN+PoE OUT
Ports Functions	LAN 1 PoE INPUT (powering the switch): 802.3bt (up to 60W) or 802.3at (up to 30W) or 802.3af (up to 15W) PoE PINOUT: 1,2 (V+/-) 3,6 (V+/-) and/or 4,5 (V+/-) 7,8 (V+/-) LAN 2 – LAN 4 PoE OUTPUT: 802.3af/at 10/100Mbps PoE PINOUT: 1,2 (V-) 3,6 (V+) 4,5 (V+) 7,8 (V-)
Input voltage	PoE IN (LAN 1): 44 ... 58 VDC DC IN (Vin): 24 ... 58 VDC
Output voltage	Vout = Vin
Power consumption	1,3 W
Ports Protection	LAN 1 ... LAN 4: Surge protection LAN 2 ... LAN 4: Overload protection 0.7A
Operation indication	LED PWR (czerwony) – zasilanie LED L1...L4 (zielony) – transmisja na portach LAN 1 ... LAN4 LED w portach RJ45 (czerwony) – zasilanie PoE w porcie LED at (czerwony) - identyfikacja jako odbiornik PoE 802.3at (30W) LED bt (czerwony) - identyfikacja jako odbiornik PoE 802.3bt60 (60W)
Housing Construction	ABOX-CA1 enclosure Housing material - plastic, light grey colour, UV-resistant Installed glands 1 x M25 Gland insert: 4 holes each with a diameter of 5mm (5Ø)
Assembly	Wall-mounted using mounting holes
Operating Temperature	-25°C...+65°C
Ingress Protection Rating	IP68
Dimensions	165 x 65 x 55 mm
Weight	0,213 kg

Find out more

APT-4-11-CA1 on the WWW site

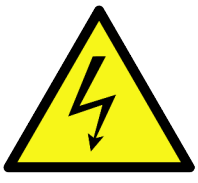
ATTE Technical Support Portal

Safety Precautions

- The device is intended for installation by a qualified installer who has appropriate competences and permits and authorizations (if required for a given country) to connect (interfere with) low-voltage installations.
- The device should be installed indoors. About normal air humidity and temperature. The method of mounting the device and laying the cabling should ensure free air flow. It is recommended to use ABOX series housings, which allow for convenient installation outdoors, indoors and in RACK cabinets.
- For proper operation of the module, appropriate voltage and current capacity of the power source must be ensured.
- Any maintenance operations may only be performed after disconnecting the power supply. Under normal conditions, the device does not require any maintenance.
- In case of damage or doubts as to the correct operation of the device, stop using it immediately.
- In the case of fiber optic devices, do not look into the fiber optic port when the device is turned on. The invisible beam can damage the retina of the eye.
- Before connecting PoE PASSIVE receivers (e.g. WiFi antenna), make sure that the voltage value and polarization on the RJ45 pins of the switch or power adapter are consistent with the values allowed by the receiver.

Before installation and during maintenance make sure that the mains voltage 230VAC is disconnected

This symbol on the product or on its packaging indicates that the product must not be disposed of with normal household waste. Instead such equipment must be disposed of by arranging to return it to a designated collection point for the recycling of waste electrical and electronic equipment.



Do you have a problem with your device? Contact us.
tel: +48 12 378 94 02, e-mail: trade@atte.pl