



# SOPHOS APX320 Access Point User Manual

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# SOPHOS

**SOPHOS APX320 Access Point**



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## **Safety Instructions**

You can operate the access point (AP) safely if you follow the information in these Safety Instructions and on the appliance.

- Do not reach into the appliance. There are dangerous circuits inside the appliance that can cause death if you touch them.
- Damaged appliances must be returned. It is forbidden to open the hardware appliance or to change its components. Failure to comply with this rule results in the loss of warranty cover from Sophos.
- Connect the device to a power socket with a fully functional earth conductor. Defective earth conductor connections do not comply with the requirements for safety and electromagnetic compatibility. Check the power socket before connecting the hardware appliance.
- Before you switch on the appliance make sure that your mains voltage complies with the supply voltage of the appliance. The connection data are shown on the name plate.
- To disconnect the appliance completely take the power cable from the power socket. Make sure that the power plug is freely accessible.
- Make sure that no one can trip over the power cable and that it cannot be damaged by objects.
- Only connect system peripherals complying with the requirements for protective extra-low voltage according to EN/IEC 62368-1.
- Only use parts and accessories validated by Sophos. Using non-approved parts and accessories may affect the functioning of the appliance and your safety.

- The appliance produces heat. Ensure that there is sufficient air circulation to remove the heat.
- Avoid a permanent high level of air humidity and formation of condensation. Protect the appliance from humidity and chemicals. Safe use of the appliance is no longer possible if:
  - the chassis is damaged
  - water penetrated the appliance
  - objects entered the appliance via air opening
  - smoke comes out of the appliance
  - the power cable is damaged
  - it does not work properly
- Immediately turn off the appliance in the event of one of the above problems, remove the power cable from the power socket and contact your customer service as soon as possible.
- We expressly exclude any product liability and warranty claims if the appliance is not operated according to the instructions in these notes and to the notes attached to the appliance itself.

## PoE-Injector Safety Information

**Caution:** This equipment is to be connected only to PoE networks without routing to the outside plant.

- Connect the PoE-Injector to PoE networks only, without routing to the outside plant.
- **AC Power Cord:**
  - The power cord must have regulatory agency approval for the specific country in which it is used (for example, UL, CSA, VDE, GS, etc.).
  - The power cord must be a three-conductor type (two current carrying conductors; one ground conductor terminated on one end by an IEC 60320 appliance coupler (for connection to the PoE-Injector), and on the other end by a plug containing a ground (earthing) contact.
  - The power cord must be rated for a minimum of 250 VAC RMS operation, with a minimum rated current capacity of 5 A (or a minimum wire gauge of 18 AWG (0.75 mm<sup>2</sup>)).
  - A PoE-Injector installed in Australia requires power cords with a minimum wire gauge of 16 AWG (1.0 mm<sup>2</sup>).
- The PoE-Injector “Data In” and “Data & Power Out” ports are shielded RJ45 data sockets. They cannot be used as Plain Old Telephone Service (POTS) telephone sockets. Connect RJ45 data connectors only to those sockets.
- The AC wall socket-outlet must be near the PoE-Injector and easily accessible. You can remove AC power from the PoE-Injector by disconnecting the AC power cord from either the wall socket-outlet or the PoE-Injector appliance coupler.
- The PoE-Injector “Data In” and “Data & Power Out” interfaces are qualified as Safety Extra-Low Voltage (SELV) circuits according to IEC 62368-1. Connect these interfaces only to SELV interfaces on other equipment.

## Warnings

- Connect the PoE-Injector only to the IP device with which it was bought. Using the PoE-Injector with other IP devices can cause damage to the IP device.
- Read the installation instructions before connecting the PoE-Injector to its power source.

- Follow basic electricity safety measures whenever connecting the PoE-Injector to its power source.
- A voltage mismatch can cause equipment damage and may pose a fire hazard. If the voltage indicated on the label is different from the power outlet voltage, do not connect the PoE-Injector to that power outlet.

#### California Proposition 65 Warning

**WARNING:** Cancer and Reproductive Harm [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

This product contains components that can cause exposure to substances known to the State of California to cause cancer and/or reproductive harm.

#### Simplified EU Declaration of Conformity

Hereby, Sophos Ltd. declares that the radio-frequency equipment type APX 320X is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.

The full text of the EU declarations of conformity is available at the following Internet address:

<https://community.sophos.com/kb/en-us/117713>

#### Outdoor Use Statement

**Caution:** The Sophos access point APX 320X is restricted to outdoor operation only.

#### Frequency Ranges and Transmit Power

Sophos APX Model	Frequency range	Antenna type	EIRP power in dBm (measured max. average)
APX 320X	2.412-2.472 GHz	Dipole antenna Sector antenna Directional antenna	19.89 dBm 19.35 dBm 19.95 dBm
	5.500-5.700 GHz	Dipole antenna Sector antenna Directional antenna	29.82 dBm 29.96 dBm 28.46 dBm

#### MPE Statement

Caution: This product complies with maximum permissible exposure limits as set forth by the European Norm EN 62311. The Sophos access point should be installed and operated with minimum distance of 20 cm between the radiator and your body.

## **Member states with restrictions pursuant to Article 10(10) of Directive 2014/53/EU**

### **Manufacturers Federal Communication Commission Statements**

**Note:** The access point Sophos APX 320X is restricted to outdoor use only.

#### **CFR Title 47 Part 15 Subpart A—General §15.19 Statement**

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

#### **CFR Title 47 Part 15 Subpart A—General §15.21 Statement**

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

#### **CFR Title 47 Part 15 Subpart B—Unintentional Radiators §15.105 Statement**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

#### **CFR Title 47 Part 15 Subpart E—Unlicensed National Information Infrastructure Devices §15.407 Statement**

This device meets all the other requirements specified in Part 15E, Section 15.407 of the FCC rules.

#### **CFR Title 47 Part 1 Subpart I §1.1310 Radiofrequency Radiation Exposure Limits Statement**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment as referenced in CFR Title 47 Part 1 Subpart I §1.1310.

The access point Sophos APX 320X should be installed and operated with a minimum distance of 28 cm between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

### **Publication Number: 443999 Rule Parts: 15E—Professional Installation Instructions**

#### **1. Installation personnel**

This product is designed for specific applications and needs to be installed by qualified personnel who have RF and related knowledge. The general user shall not attempt to install or change the settings.

#### **2. Installation location**

This product shall be installed at a location where the radiating antenna can be kept 28 cm away from a nearby person under normal operation conditions in order to meet regulatory RF exposure requirements.

#### **3. External antenna(s)**

Only use the antennas that are provided in the scope of supply or are approved as accessories by Sophos. Non-approved antenna(s) may produce unwanted spurious emissions or excessive RF transmit power, which may lead to a violation of FCC limits and is therefore prohibited.

#### 4. Installation procedure

Please refer to the user manual for details.

#### 5. Warning

Please carefully select the installation position and make sure that the final output power does not exceed the limits set forth in relevant rules. The violation of those rules can lead to serious federal penalties.

### **Country code selection usage (WLAN devices)**

According to FCC regulations, all WLAN devices marketed and sold in the U.S. must be restricted to U.S. channels only. Therefore, the country code selection is applicable to non-U.S. models only. So changing the country setting of any Sophos AP sold in the U.S. will not modify authorized parameters such as RF channels, which means that the Access Point will always operate in U.S. authorized channels.

### **ISED Statements**

This device complies with ISED's license-exempt RSSs. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

### **Caution:**

- For devices with detachable antenna(s), the maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz shall be such that the equipment still complies with the e.i.r.p. limit;
- For devices with detachable antenna(s), the maximum antenna gain permitted for devices in the band 5725-5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits as appropriate;
- Where applicable, antenna type(s), antenna models(s), and worst-case tilt angle(s) necessary to remain compliant with the e.i.r.p. elevation mask requirement set forth in section 6.2.2.3 shall be clearly indicated.

### **Radiation Exposure Statement**

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with greater than 35 cm between the radiator and your body.

### **Detachable Antenna usage**

This radio transmitter (IC: 20939-APX320X / Model: APX 320X) has been approved by ISED to operate with the antenna type listed below with maximum permissible gain indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

### **List of approved antennas**

Type	Gain	Impedance	Brand	Manufacturer
Dipole	2.4 GHz: 3.2 dBi / 5 GHz: 6.0 dBi	50 Ohms	Grand-Tek	GRAND-TEK TECHNOLOGY CO., LTD.
Sector antenna (120°)	V-pol 2.4 GHz: 10.6~10.8 dBi / 5 GHz: 12.5~13.1 dBi H-pol 2.4 GHz: 10.0~11.4 dBi / 5 GHz: 11.6~12.9 dBi	50 Ohms	Grand-Tek	GRAND-TEK TECHNOLOGY CO., LTD.
Directional antenna (30°)	V-pol 2.4 GHz: 11.6~11.8 dBi / 5 GHz: 10.6~11.0 dBi H-pol 2.4 GHz: 11.6~12.0 dBi / 5 GHz: 10.4~11.5 dBi	50 Ohms	Grand-Tek	GRAND-TEK TECHNOLOGY CO., LTD.

#### **Class B Notice for Canada**

This Class B digital apparatus complies with Canadian ICES-003. NMB-003 du Canada. CAN ICES-3 (B)/NMB-3(B)

#### **Declarations to conform to Anatel regulations (Brazil)**

Letter nº 38/2004 and Resolution nº680 declaration

Anatel [www.anatel.gov.br](http://www.anatel.gov.br)


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## Documents / Resources



<div><div>SOPHOS</div><div>Safety Instructions and Regulatory Information</div><div>420 320 00</div></div>	<div><div>SOPHOS APX320 Access Point</div> [pdf] User Manual</div> <div>APX320X, 2ACTO-APX320X, 2ACTOAPX320X, APX320 Access Point, Access Point</div>
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References

-  [Anatel — Agência Nacional de Telecomunicações](#)
-  [P65Warnings.ca.gov](#)