

Tech specs

SUPERIOR

Superior Hub G3 Jeweller

Previously:

Wireless control panel with support for photo verification. Connectable via Ethernet, Wi-Fi, and two SIM cards (2G/LTE).



Capacity

Ajax devices

up to 250

Specifically:

- up to 5 range extenders;
- up to 10 sirens without Superior Jeweller support;
- up to 50 keypads with a built-in siren without Superior Jeweller support.

More about devices ➤

Ajax NVRs

up to 36

Learn more ➤

Ajax cameras

up to 224 via Ajax NVRs and up to 492 standalone

Learn more ➤

Third-party IP cameras

up to 10 when using RTSP via SDK

up to 224 when using ONVIF via Ajax NVRs

Learn more ➤

Users

up to 200

- Any number of admin users within the hub limit.
- PRO accounts for installers.
- PRO accounts for installation and monitoring companies.
- Access management for users.

Automation scenarios

up to 64

- By alarm.
- By schedule.
- By arming/disarming.
- By temperature, humidity, CO₂ concentration.
- By pressing Button.
- By touching LightSwitch.

Learn more 

Security groups

up to 25

Learn more 

Rooms

up to 50

Event log

up to 1,000 events

Events are saved on the non-volatile onboard flash memory.

Wireless communication

Data transfer protocols

Superior Jeweller

To transmit commands, alarms, and events. An upgraded version of the Jeweller radio protocol for Superior devices, ensuring compliance with Grade 3 (EN 50131). If at least one device operates via the regular Jeweller protocol, the system will be limited to Grade 2: encryption remains, but frequency hopping is disabled.

Jeweller

To transmit commands, alarms, and events from devices without Superior Jeweller support.

TurboWings

To transmit photos from devices supporting TurboWings.

Wings

To transmit large data packets, such as firmware updates, and photos from devices without TurboWings support.

VoRF

Proprietary wireless audio streaming protocol using time division duplex.

[Learn more](#) ➤

Frequency bands

865.0–868.0 MHz

868.0–868.6 MHz

868.7–869.2 MHz

869.4–869.65 MHz

Radio communication range

up to 3,500 m

Between a hub and a radio signal range extender, or between a range extender and connected devices (in an open space). The maximum range depends on the connected device.

[Learn more](#) ➤

Maximum effective radiated power (ERP)

up to 20 mW

Automatic power control to reduce power consumption and radio interference.

Radio signal modulation

GFSK

Advanced encrypted communication

The communication between the device and the hub is protected by an advanced encryption scheme that ensures data confidentiality and integrity.

Enhanced frequency hopping

To prevent radio interference and jamming. For enhanced hopping to function, all devices in the system must use the Superior Jeweller protocol. If even one device uses the regular Jeweller protocol, hopping will be limited to only 2 frequencies.

Learn more 

Recommendations

The device operating voltage is 110–240 V~.

Superior Hub G3 Jeweller is designed for indoor installation only.

Communication channels

Ethernet

1 × 8P8C socket

Up to 100 Mbps.



Cellular

2 × micro SIM slot



Cellular bands

2G

GSM900/DCS1800 (B3/B8)

4G (LTE)

FDD B1/B3/B5/B7/B8/B20

Wi-Fi

802.11 b/g/n module

Up to 600 Mbps.

Automatic switching between communication channels

- Switching between SIMs — up to 4 minutes.
- Switching between 4G (LTE) and 2G networks of one SIM — instantly.

- Switching between Ethernet, Wi-Fi, and SIM — instantly.

Communication channels prioritization

1. Ethernet
2. Wi-Fi
3. Cellular connection

Communication channels work in parallel to increase the system's reliability. Most of the data is transmitted via Ethernet.

External antenna connectors

Jeweller
Wings
4G (LTE)

The system will notify of the damaged antenna. Ajax ExternalAntenna is sold separately.



Alarm transmission system categories

SP2, SP5, DP4

Control panel operation method

pass-through

Signaling security

S2

Substitution security.

Notifications

Notification types

- Push notifications
- SMS
- Calls

Learn more 

Event types

- Alarms
- Video alarms
- Malfunctions
- Security state change
- System events
- Non-security alerts
- Automation devices
- Smart lock events
- Doorbell ringing

Notification types are configured individually for each user. Notifications can be customized for A–F schemes according to EN 50131 requirements.



Photo verification

Photo verification

Types depend on the detector and settings.

Photo delivery time

up to 4.5 s — 320 × 240 px resolution

Photo delivery time depends on the detector model and image resolution selected in the device settings.

Learn more 

Photo resolution

up to 960 × 720 px

Depends on the detector.

Series of photos

from 1 to 5 pictures

Monitoring

Supported protocols

- SIA DC-09 (SIA-DCS)
- SurGard (Contact ID)
- ADEMCO 685

- Other proprietary protocols

[Learn more](#) ➤

Event types

- System alarms and events
- Panic button coordinates
- Photo verification

[Learn more](#) ➤

Sabotage protection

Tamper alarm

The system receives notifications about attempts to detach the device from the surface or remove it from the mounting panel.

[Learn more](#) ➤

Protection against spoofing

device authentication

Frequency hopping

The hub sends notifications to all users and the security company of jamming or losing connection with the devices.

[Learn more](#) ➤

Jamming alert

Superior Hub G3 Jeweller analyzes the channel's noise level and the quality of communication with added devices and sends an alert in 30 seconds.

Power supply

Main power supply type

Type A.

Device operating AC voltage range

110–240 V, 50/60 Hz

From the main power supply. Up to 30 W of mains power consumption.

Device operating DC voltage range

6.0–8.2 V $\equiv$

Low battery voltage

7.0 V $\equiv$

Low battery recovery voltage

8.135 V $\equiv$

End-of-life battery voltage

6.0 V $\equiv$

Superior Hub G3 Jeweller is switched off.

Minimum backup battery energy level in the charged state

100%

Autonomous operation

On Superior Internal Battery (16h)

up to 16 hours

When Wi-Fi, Ethernet, and cellular (LTE) communication channels are enabled. Superior Internal Battery (16h) is not included in the complete set.

up to 100 hours

In Battery saving mode.

On Superior Internal Battery (60h)

up to 60 hours

When W-Fi, Ethernet, and cellular (LTE) communication channels are enabled. Superior Internal Battery (60h) is not included in the complete set.

up to 300 hours

In Battery saving mode.

Learn more 

Current consumption

Maximum at nominal voltage

120 mA

Quiescent at nominal voltage*

up to 120 mA

When Wi-Fi, Ethernet, and cellular (LTE) communication channels are enabled.

up to 115 mA

When Ethernet and cellular (LTE) communication channels are enabled.

up to 28 mA

When Ethernet and other communication channels are disabled.

* From the backup battery after the loss of the main power supply.

Enclosure

Dimensions

216 × 216 × 45 mm

Weight

1,200 g



Operating temperature range

from -10 °C to +40 °C

Operating humidity

up to 75%



45 mm

Protection class

IP30, IK06

Colors

Black

White



Complete set

- Superior Hub G3 Jeweller
- SmartBracket mounting panel
- Power cable
- Ethernet cable
- Installation kit
- SIM card (depends on the sales region)
- Quick start guide

Certification and compliance with standards

 Superior Hub G3 Jeweller

Additional information

Compliance with standards

Learn more >

User manual

Learn more >

Warranty

24 months

Learn more >

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Video surveillance

Fire and life safety

Comfort and automation

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Services

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Solutions by facility type

Commercial fire detection and alarm system

Wireless Grade 3 solution

Upgrades and retrofits

Why Ajax

How it works

Software

Ajax Security System

Ajax PRO: Tool for Engineers

Ajax Desktop

Ajax PRO Desktop

Ajax TV

Ajax Translator PRO

Ajax Cloud Signaling

Scenarios



Available on
App Store



Available on
Google Play

Support

Manuals and articles

Compliance with standards

Tools

Ajax device compatibility

CMS software compatibility

Ajax Services availability

Video storage calculator

Video device calculator

Battery life calculator

Radio communication range calculator

Switches and outlets configurator

Fibra power supply calculator

All web tools

Monitoring solutions and integrations

Intrusion alarm monitoring

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