

ReX 2

Radio signal range extender supporting photo verification of alarms

More applications of a security system

Range extenders expand the boundaries of the protected area and give even more freedom to place security system devices. By connecting all or part of the devices² to **ReX 2**, you will ensure the security and automation of a business center, estate, warehouse complex, or a large production facility.

5 range extenders can operate within the Ajax system to expand the coverage of the radio network up to 35 km³. Events and alarms are transmitted instantly, and the first photo verification snapshot is delivered to a monitoring station and users in just 18 seconds.

More supported devices

- Intrusion detectors with photo verification
- Control devices
- Fire detectors
- Panic buttons
- Leak detectors
- Automation devices
- Sirens
- Integration modules

Verification of alarms with snapshots

ReX 2 works with MotionCam and MotionCam Outdoor motion detectors. When triggered, they take a series of shots, helping to evaluate the events at a facility. Visual verification helps to instantly ascertain the situation, saving users from concerns and security companies from unnecessary patrol dispatches.

Privacy first

The detector activates its camera when the security system is armed and the motion is detected. Shots are encrypted at every stage of transmission. While stored on the Ajax Cloud server, no pictures are processed or analyzed. Visual alarm verifications can only be seen by users with access rights to the events feed with push notifications enabled and by employees of the security company if the security system is connected to a monitoring station.

Guaranteed delivery of alarms and visual alarm verifications

To ensure reliable communications, we have equipped **ReX 2** with four antennas and support of two proprietary radio protocols: Jeweller and Wings. Jeweller is responsible for the transmission of commands, events, and alarms, while Wings provides batch transmission of images. Ajax two-way radio communication uses frames to synchronize device communication sessions, authentication to prevent fraud, and encryption to protect against data theft.

- Alarm in 0.3 seconds
- The first photo in 18 seconds⁴

Radio communication through steel and concrete

The next major OS Malevich update will allow to cover office centers with underground parking lots, sectional metal hangars, and warehouse complexes of several large buildings with a single Ajax system. Once the operating system is updated, **ReX 2** will be able to connect to a hub both via radio communication and via Ethernet⁵ — using the wire as a single or second communication channel.

- Transmission of events and visual alarm verifications via cable
- Encryption of transmitted data
- Automatic change of communication channel in case of break
- Connecting via router

Enhanced security system

ReX 2 integrates detectors into an autonomous group within the system. If for some reason radio communication with the hub is interrupted, **ReX 2** will take over: receive an alarm from the detector and activate a siren to draw attention to the incident and deter the burglar.

Ready to resist intruder attacks

ReX 2 is protected from attacks at the software and hardware levels. It runs on the OS Malevich operating system, which is immune to viruses. All data transmitted by the range extender is encrypted. Thanks to the built-in backup battery, a sudden blackout at a facility will not be a problem.

- Up to 38 hours of backup battery life
- Informs about interferences and jamming
- Detects attempts to dismantle and open the enclosure
- Immunity against viruses

Hassle-free installation

ReX 2 connection and configuration process saves the installation engineer time as much as possible. To add a range extender to a system, simply scan a QR-code with the Ajax app and assign it a name and a room. The device is also configured in real time in the app. If necessary, **ReX 2** can be disabled or reconfigured without site visits.

- **Connection** ▶ Connecting via a QR code
- **Installation** ▶ Installing on the SmartBracket mounting panel without disassembling the enclosure
- **Setup** ▶ Setting up in the Ajax app

Tech specs

Classification	Radio channel range extender
Device type	Wireless
Installation method	Indoors
Compatibility	Hub 2 and Hub 2 Plus with OS Malevich version 2.12 and higher The list of compatible devices
Alarm signal delivery time	0.3 seconds
Maximum connected devices (in a system with one range extender)	Hub 2 – up to 99 Hub 2 Plus – up to 199
Number of range extenders connected to the hub	5
Operating system	OS Malevich Firmware update details
Power supply	110–240 VAC or 12 V from 12V PSU for Hub 2/Hub 2 Plus/ReX 2 Built-in backup battery Li-Ion 2 Ah Up to 38 hours of battery life
Jeweller radio protocol	Communication range with the hub – up to 1,700 m in open space Communication range with detectors – up to 1,700 m in open space, depending on the detector model Two-sided connection between devices Operating frequencies: 868.0–868.6 MHz Auto-regulated radio signal power: up to 25 mW Block cipher encryption based on the AES algorithm Detector ping interval — 12–300 seconds Frequency hopping Learn more about Jeweller
Operating temperature range	–10 to +40°C
Operating humidity	Up to 75%
Anti-sabotage	Fraud protection Jamming notification Tamper-resistant
Dimensions	163 x 163 x 36 mm
Weight	330 g
Warranty	24 months from the date of sale

Complete set	ReX 2 range extender SmartBracket mounting panel Power cable Installation kit Quick start guide
Service life	10 years

[Compliance with standards](#)

¹ [List of compatible devices.](#)

² ReX 2 cannot be connected to another range extender, only to a hub.

³ If five radio signal range extenders are used in the system.

⁴ When transmitting images through ReX 2 range extender and the hub. The hub should be connected to the internet via Ethernet, Wi-Fi, or LTE.

⁵ ReX 2 is equipped with an Ethernet port, but the functionality will become available with the OS Malevich update.