

4G ROUTER FOR FOOT TRAFFIC PEOPLE COUNTER CONNECTIVITY

HIGHLIGHTS

- ✔ [QuWireless](#) is a Polish manufacturer of networking 5G/LTE and Wi-Fi antennas and a provider of antenna IoT solutions. With over a decade of experience, QuWireless helps its partners deploy Teltonika Networks devices in a wide variety of fields.
- ✔ For a foot traffic counter project in Milan, a partner of QuWireless needed to install people counting sensors in open public spaces. For that, the QuCam gateway of QuWireless needed wireless connectivity.
- ✔ The device chosen for the QuCam is the RUT241 4G router of Teltonika Networks. Providing reliable, uninterrupted LTE Cat 4 connectivity, this device is perfect for people counter applications.

THE CHALLENGE – PEOPLE COUNTERS IN PUBLIC SPACES

Foot traffic is a critical metric for businesses, municipalities, and organizations to make informed and data-based decisions. Implementing a customer counter can tell you how many potential customers walked into your business today, from which you can calculate the percentage of purchasing clients and track it over time.

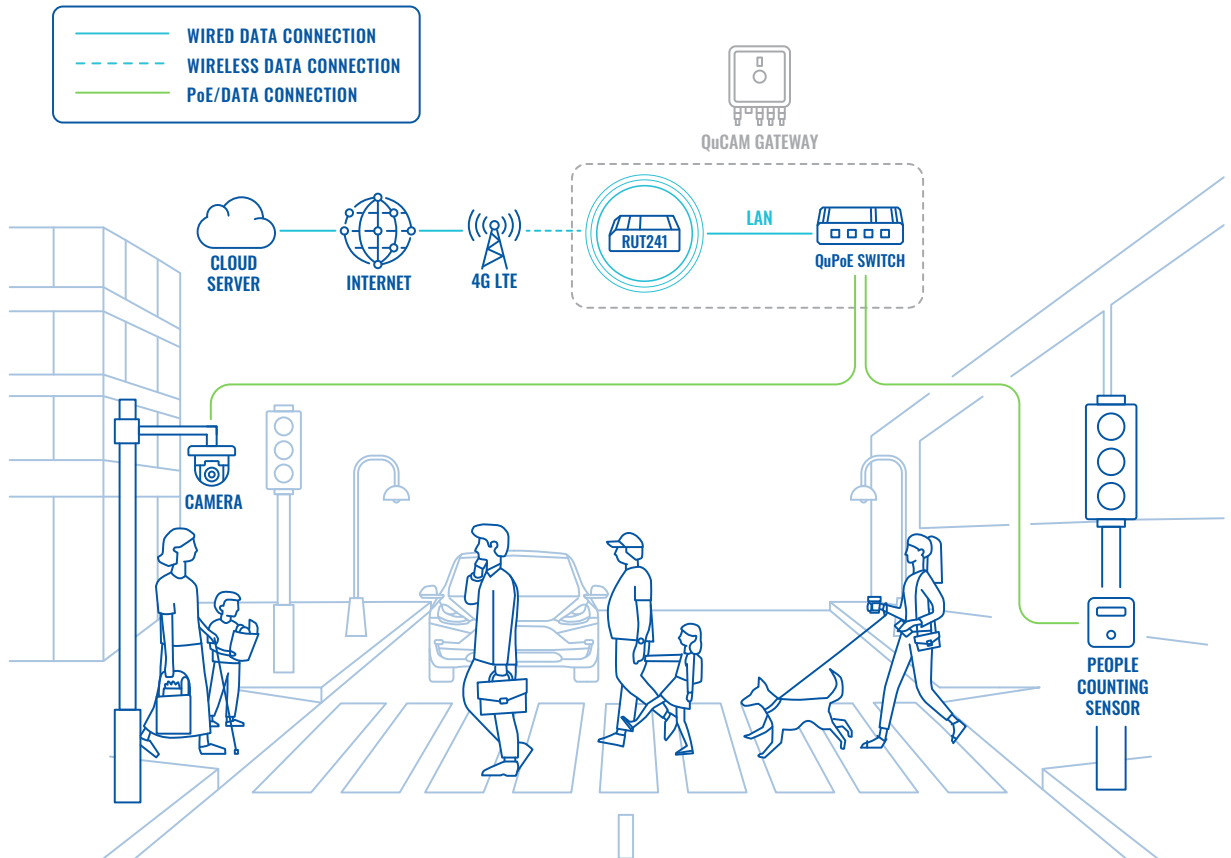
Municipalities use foot traffic counters to minimize traffic, identify commercial hotspots, and more. For example, at a heavy-traffic junction where every second of green light over red has massive implications on traffic, knowing how many pedestrians cross it each hour or minute is paramount.

However, as people counters must maintain stable and reliable connectivity in order to function and send the data to a cloud server, they do come with a challenge. People counting systems are most often installed in open public spaces, where plugging your average 4G router into the nearest wall is simply not an option.

QuWireless faced this challenge when its partner needed to install people counting sensors in multiple open public spaces in Milan, Italy. These sensors were to be installed on street sign posts and street light poles, where they would comfortably blend in with the urban environment and do the tracking without causing any distractions.

This is exactly the type of use case for the QuCam gateway of QuWireless – a PoE gateway tailored for CCTV applications. However, with wired Internet not being optional, the QuCAM required a reliable LTE router for wireless connectivity. Luckily, Teltonika Networks had the perfect device for the job.

TOPOLOGY



THE SOLUTION – 4G ROUTER FOR PEOPLE COUNTING SENSORS

QuWireless chose the RUT241 4G router of Teltonika Networks to provide connectivity for their QuCam gateway, which was deployed in its partner’s people counter solution. The RUT241 is connected to a QuWireless’s QuPoE switch via an Ethernet connection with PoE. Together, the router and switch are integral components of the QuCam gateway.

The switch is then connected to both the people counting sensor and a camera via the LAN interface with active PoE, and to a power supply via QuWireless’s QuPS2 outdoor power socket at 24V DC. This ensures the switch distributes both power and data to all end devices optimally.

The 4G router broadcasts a robust, uninterrupted LTE Cat 4 signal with speeds of up to 150 Mbps, more than meeting the data needs of the people counter while ensuring that it maintains connectivity and delivers data to the cloud server seamlessly.

Further ensuring the connection is uninterrupted is the RUT241’s WAN failover feature. This makes the device automatically switch to an available backup connection should the need arise. In addition, the RUT241 combined with the QuCam provides this solution with the [IP67 security rating](#), which is important for any solution installed in an open public space.

This 4G router is a hardy device sure to withstand vibrations and extreme temperatures of -40 °C to 75 °C, as well as rain, snow, and other difficult atmospheric conditions. In spite of this, the device is light and easy to install within the gateway.

According to QuWireless, the RUT241 4G router was chosen for its partner’s people counter solution because it is a reliable and trustworthy connectivity device with a proven, established position in the market – being the direct successor of the renowned [RUT240](#).

While some solutions require full performance capabilities and maximum speeds, many solutions simply require a device that provides what’s needed efficiently and reliably. For those solutions, the RUT241 4G router is the best device for the job.

