THE SWM280 POE+ SWITCH FOR SIMPLIFIED EV CHARGING

HIGHLIGHTS

✓ The rapidly growing EV charging market demands fully connected infrastructure capable of supporting diverse devices such as cameras, POS terminals, and digital signage – all while ensuring efficient, space-saving operation.

✓ Teltonika's SWM280 Gigabit PoE+ switch simplifies connectivity with 12 PoE+ and 12 Ethernet ports, powering multiple devices through a single unit.

✓ Paired with the RUTC50 5G router and Teltonika's Remote Management System (RMS), this IoT solution offers ultra-fast connectivity, real-time remote monitoring, and network redundancy.

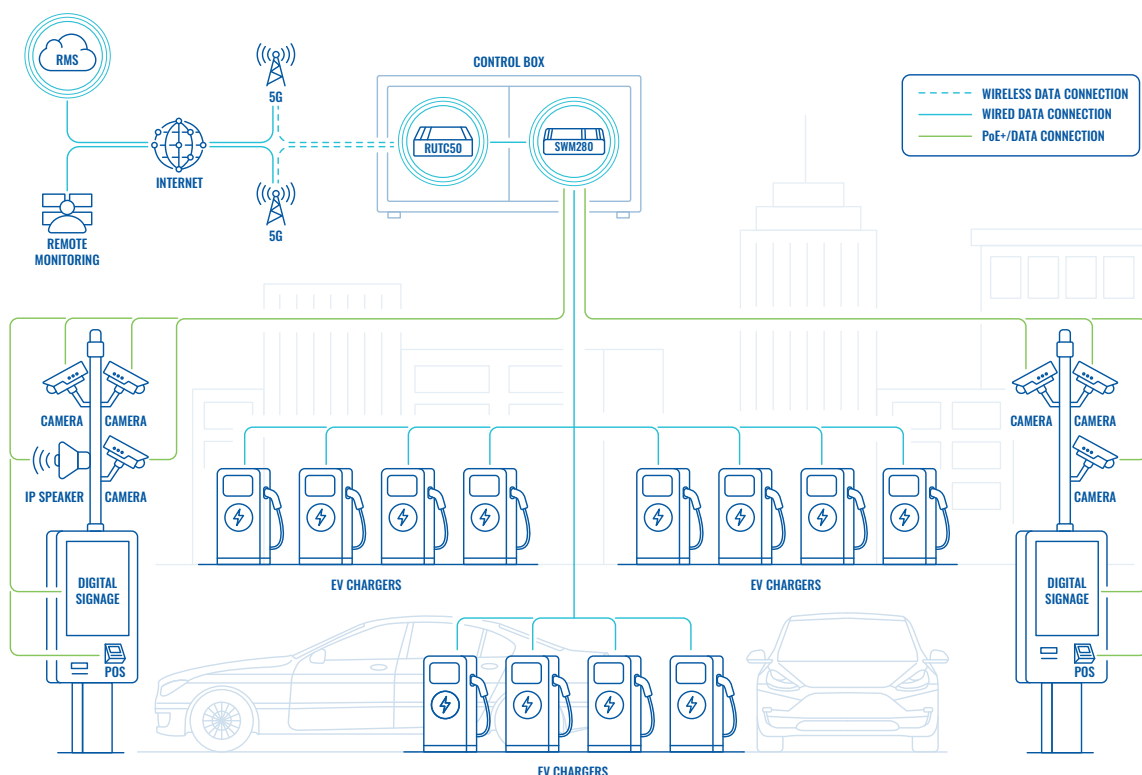## THE CHALLENGE – SUPPORTING A WIDE RANGE OF CONNECTIONS EFFICIENTLY

The global EV charging station market was valued at USD 22.46 billion in 2024 and is projected to reach USD 257.33 billion by 2032, growing at a CAGR of 35.5%. This rapid growth reflects a global shift toward electrification and a pressing need for scalable charging infrastructure.

Meeting this demand requires more than simply adding charging stations – it calls for robust, connected, and adaptable infrastructure able to support a diverse range of devices and services. From payment terminals and surveillance to digital signage and network connectivity, today's EV charging sites must operate as intelligent, self-sustaining ecosystems.

However, reaching this level of integration depends on a resilient network backbone capable of powering and interconnecting every component reliably, securely, and even in harsh outdoor environments. This type of IoT solution needs more than a powerful 5G router with ultra-high speeds.

It also requires a switch that connects and powers up multiple devices simultaneously, saving both space and cost.

TOPOLOGY

THE SOLUTION – SWM280 POE+ SWITCH BUILT FOR SIMPLIFIED NETWORK

The answer lies within Teltonika's SWM280 PoE+ switch, designed for industrial and enterprise sectors, capable of connecting up to 24 devices via 12 PoE+ ports and 12 Ethernet ports. This ability eliminates the need for separate power supplies for each device, significantly reducing installation complexity, cost, and demands for physical space.

When it comes to powering EV charging station, 12 EV chargers are connected to the SWM280 Gigabit PoE+ switch via Ethernet ports, forming a stable and organized network backbone that enables high-speed data exchange and control.

The 12 PoE+ ports, supplying up to 30 W per port with a total power budget of 300 W allow power and data to be delivered over a single cable. These PoE+ ports are used to connect a range of essential equipment, including CCTV cameras, IP speakers, digital signage displays, and POS terminals.

Enabling configuration and control of the SWM280 is Teltonika's operating system for managed switches, TswOS. This intuitive platform empowers users to tailor their switch settings for a wide range of applications, ensuring maximum flexibility and control.

For fast and stable Internet, the SWM280 is connected to the RUTC50 5G router. Equipped with ability to reach the ultra-high cellular speeds of up to 3.4 Gbps, this 5G router delivers high-speed, low-latency communication, enabling real-time data transmission.

Another key player in this IoT solution is Teltonika's Remote Management System (RMS) which enables device status monitoring, diagnostics, and updates remotely – minimising the need for on-site intervention and operational downtime. You can try it out yourself, since every SWM280 comes with 24 months of complimentary RMS credits!

If you're looking for a device that suits your infrastructure – look no further. Contact us today to request your sample!