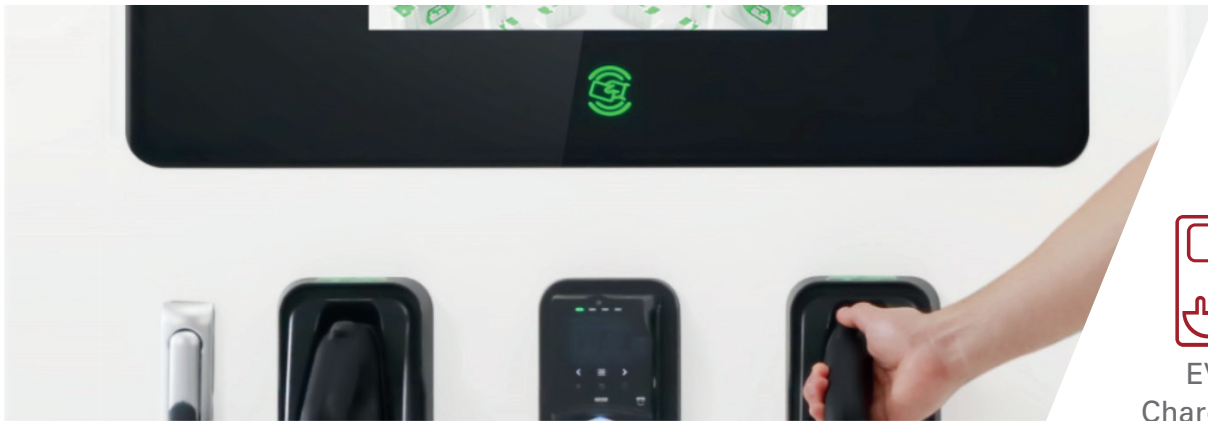# CASE STUDY

A UNIVERSAL RFID SOLUTION DRIVES GLOBAL GROWTH IN EV CHARGING

EV Charging

AUTEL is a leading provider of high-end DC and AC charging station solutions. Based in China, they are now expanding into the US, European and Asia-Pacific (APAC) EV charging markets. To simplify production and inventory management across regions, they needed an RFID reader that could support all of the common transponder technologies in use across their American and European service areas, as well as emerging mobile/smartphone credentials. With the ELATEC TWN4 MultiTech 3 M LF/HF, they can support all of their customers with a single reader model—and open up new opportunities across the globe.

AUTEL®

CHALLENGE: MEETING THE NEEDS OF A DIVERSE USER COMMUNITY

At public EV charging stations, user authentication technologies allow station managers to identify individual users, limit use of charging infrastructure to authorized customers, and link charging transactions to payment systems and loyalty programs. Radio-frequency identification (RFID) badges and mobile credentialing systems using Near-field Communication (NFC) or Bluetooth® Low Energy (BLE) have emerged as convenient, secure solutions for EV charging user ID and authorization.

There are more than 60 transponder technologies in use around the globe, with dozens of common RFID technologies used in Europe, APAC and the Americas. In addition, the trend of using mobile credentials via smartphones or other mobile devices is growing rapidly. This creates challenges for companies like AUTEL selling solutions to a global audience. Most RFID readers only support a few card technologies. As a result, AUTEL had to purchase different readers to integrate into their charging infrastructure for different markets. This created significant production and inventory management problems for the company and complicated aftersales support.
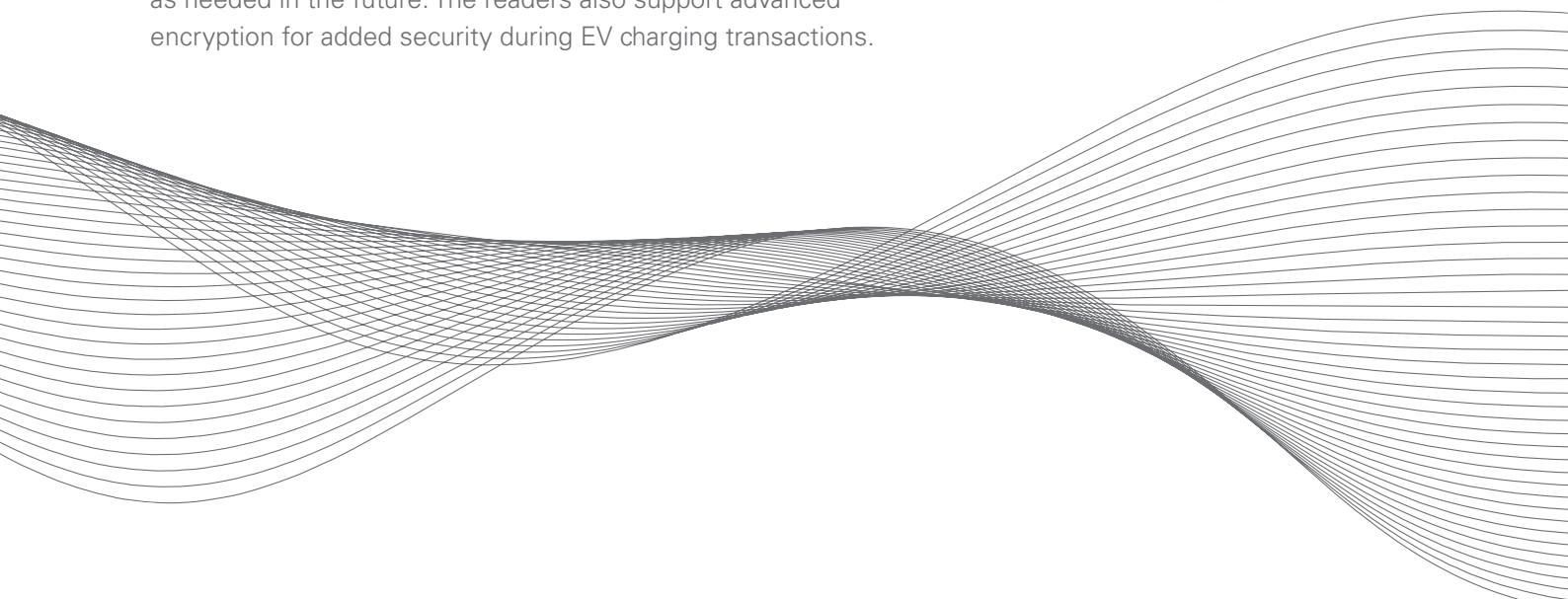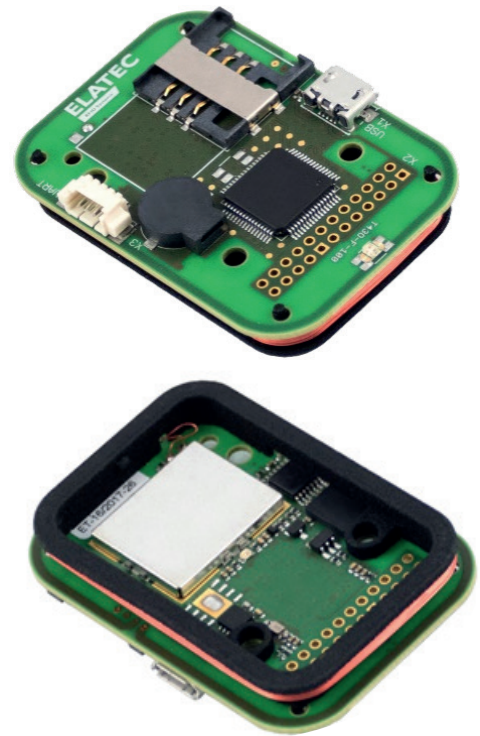
REQUIREMENTS

AUTEL needed an RFID reader that could be integrated into the new 60kW-240kW DC charging product lines. The reader needed to support both high-frequency and low-frequency RFID transponders as well as mobile credentialing using NFC. AUTEL also needed a partner who could support their tight development timelines for an on-time product launch.

SOLUTION

The ELATEC TWN4 MultiTech 3 M LF/HF provided the perfect product solution. The multifrequency reader supports 60+ transponder technologies, covering all major RFID standards worldwide for the frequency ranges 125 and 134.2 kHz as well as the 13.56 MHz band, including NFC for mobile. It is capable of upgrading to BLE, too. That means AUTEL can serve their entire customer base with the same reader, simplifying production, inventory management and support.

The TWN4 line's powerful software development kit allows them to write apps directly to the reader so they can customize it to their requirements. The readers can also be configured and up-dated remotely, making it easier to manage updates for their widely distributed customer base. This provides a great deal of flexibility, allowing them to easily add functionality or make security updates as needed in the future. The readers also support advanced encryption for added security during EV charging transactions.

ELATEC was also able to provide the support AUTEL needed during implementation and beyond. With tight development timelines, having local technical support was critical for AUTEL. The ELATEC solutions team helped them identify a reader that would serve their needs and provide technical support for their development team, ensuring a smooth and unproblematic integration of the reader into their charging infrastructure. And with a single solution provider, headaches with aftersales support are also a thing of the past: the ELATEC support team is here with fast answers to all of their questions and local support when and where it is needed. With this winning combination of product and support, AUTEL is ready to maximize their opportunities in the global EV charging market.

Want to know more about RFID for EV charging applications? Talk to our application experts.