

Search for:

- [Subscribe](#)
- [Search](#)

- [Subscribe](#)
- [Search](#)

- [News](#)
- [Insights](#)
 - [Editor's Notes](#)
 - [Expert View](#)
 - [Trends](#)
 - [White Papers](#)
 - [Ask The Experts](#)
- [Industries/Topics](#)
- [Events & Resources](#)
 - [Events](#)
 - [Event Recordings & Videos](#)
 - [Get Started](#)
 - [RFID Journal Glossary](#)
 - [RFID Journal Awards](#)
 - [Magazine Archive](#)
 - [FAQs](#)

Select Page

Zebra's TC53e-RFID Brings UHF Reading to Smartphone-style Device

TC53 devices have been expanded to enable users to read UHF RFID tags at a range of about four feet.

Technology company Zebra recently released its TC53e-RFID device, an enhanced version of its TC53 handheld computer now featuring a built in UHF RFID reader.

The TC53—released in 2022—serves as a computer and smartphone device for use in industrial and commercial settings. Now, the TC53e-RFID can accomplish the same tasks as its predecessor, as well as reading RFID tags.

The TC53e-RFID is a Zebra Technologies mobile computer that enables a variety of services including mobile payment processing as well as providing a workstation for a desktop like experience. It includes Wi-Fi 6E and NFC capabilities and features a six-inch screen and multiple battery options.

TC53e-RFID Range Adaptability

The smartphone-sized TC53e can read passive UHF RFID tags within a range of about four feet. If users need a longer-range RF read, the product can be linked to one of Zebra's sled devices that will extend the read distance to about 20 feet.

There are a variety of applications for the RFID functionality in the device. In fact, Zebra is still learning of new applications that customers are identifying as they begin testing the device, said Michael Fein, Zebra Technologies' director of product management for RFID.

The TC53 is often used by workers, such as those in warehouses. If they used the TC53e version, they could leverage the RFID reader to identify the items they are picking for shipment orders.

Retail Uses

It can be used in retail settings as well. Zebra officials offered that store employees stationed at the exit of a supermarket or big-box store could validate what is being removed from a store by simply holding the device over the shopper's cart and comparing the read results against the receipt.

If the reader identified an item that wasn't purchased, the store employee would then have the option to let the shopper know they need to pay for that item, and even use the 53e device to complete a payment transaction. In that way a retailer would have an alternative to sounding disruptive alerts at the door, while also reducing the rate of shrinkage.

Another use of the new device is for picking validation (or other tasks) in which workers require a dedicated smartphone on site, and also need to read RFID tags.

More Processing Power

The TC53e family of products also has what the company calls class-leading processing power, memory and storage with the Qualcomm 4490 octa-core processor, up to 8 GB of RAM and 128 GB of Flash, plus a 2 TB MicroSD card slot.

At RFID Journal LIVE!, Zebra officials additionally demonstrated a passive temperature logging UHF RFID tag known as the Ze0n-Demand RFID High Temperature Indicator (HTI) that identifies when a specific temperature threshold has been exceeded. It's being used in applications such as cold chain tracking of pharmaceuticals or perishable food, said Mike Weinhammer, Zebra's global product manager.

The tag's data can be read with a standard UHF RFID reader to indicate not only the tag's unique ID but also whether or not the temperature threshold has been maintained within the proper parameters.

Temperature Readings

The battery free sensor tags come with an insulation barrier layer that physically changes when a specific temperature is reached, thereby closing a tamper-evident loop. As a result, when the tag is read with a standard RFID reader, the data response—with the change in the single bit response—would indicate the temperature excursion.

Once the tag is read, Fein said, users can view a virtually instant response to alert them that a problem may have occurred in the cold supply chain.

The tag works with any RFID reader and comes with a built in NXP G2iL+ IC.

Key Takeaways

- Zebra has released an enhanced version of its TC53 mobile computer, known as the TC53e-RFID with built-in RFID reader.
- The new product is available now, and could be used in logistics, retail and other environments.



- ABOUT
- ADVERTISE
- CONTACT

FOLLOW US ON

- Follow
- Follow
- Follow
- Follow



© 2024 Emerald X, LLC. All Rights Reserved

[ABOUT CAREERS](#) [AUTHORIZED SERVICE PROVIDERS](#) [Your Privacy Choices](#) [TERMS OF USE](#) [PRIVACY POLICY](#)