Pressrelease

EECC (European EPC Competence Center)

EECC's 2020 edition of the UHF Transponder Almanac is more comprehensive than ever and has the same goal for the last 14 years: Identifying the best RFID tag for every application.

Neuss, 9 October 2020.

The latest edition of the UHF Tag Performance Survey (UTPS) measures the performance of over 500 tags and presents the results on 747 pages in 28 comparative diagram types. The UHF Almanac enables professionals to easily find a suitable transponder for specific applications and thus answer with certainty the question "Which tag is the right one for this application?"

In 2007, the first UHF Tag Performance Survey was published. It compared 20 tags used for automatically detecting products. This report assessed tag performance stability and orientation dependencies. It also raised many more questions in the following years, such as: environmental dependencies, mutual influence of the tags among each other or the interaction with the active network components. Right from the start, the UTPS has been the most comprehensive compendium of its kind on the market and provides an optimal answer for the use of tags in almost every RFID-supported process. Whether isolated or densely stacked in a box, in the writing process or influenced by any material - all processes that have raised problems have been examined. Often even useful features could be derived from the negative influences. Today, for security reasons, tags can be made illegible for unauthorized persons. They act as sensors for influential surfaces and notice when they are read in dense populations. RFID tags have long since become an indispensable IoT device and the areas of application are almost infinitely varied. The diversity is correspondingly large in the world's most comprehensive study with over 500 tags from 45 manufacturers. The preferred application areas will be catalogued for the first time in the 2020 edition.

The development of new chips was essential for the success of RFID technology. Over the years, the new chip generations have become more sensitive by leaps and bounds; in the latest edition, 3 new chips mix up the market with their performance. This creates new possibilities - such as smaller designs - but also raises new questions: "What happens, for example, if tags with new, high-performance chips outperform the systems with old reader installations? Or if old chip generations - to which the system was tuned - are no longer manufactured? Or tags are no longer produced for these installations, or even their manufacturers have disappeared from the market?" The UTPS also provides quick answers to these questions thanks to its downward compatibility, which has been maintained over the

years. "The UTPS also provides answers to questions arising from tags of the future", says Conrad von Bonin, CEO of EECC, proudly.

The aim of this year's edition was also to make the study more user-friendly. Before each chapter, a clear and concise description is given of the application scenarios and processes for which the respective tests are relevant. Each section also describes how they are carried out and how the results should be read. The study remains an indispensable tool, especially for the avantgarde of RFID users. After all, even these experts have long been unable to record the properties of the many tags, which have been determined in millions of individual measurements, without the UTPS. "A real almanac of the UHF RFID transponder world" is how Thomas Fell, CEO of GS1 Germany, describes the value of the study.

About EECC

GS1 Germany, Deutsche Post DHL and METRO Group established the European Competence Center (EECC) in 2004 as a leader for solutions and services around GS1's Electronic Product Code (EPC) and the exchange of related, event-based supply chain visibility data (EPCIS).

In its innovation lab in Neuss, EECC explains how to capture and use such data, developing new solutions and business models for industry, logistic and retail applications.

In 2005, EECC became the first European laboratory certified by EPCglobal as an EPC Performance Test Center.

Beginning in 2006, EECC's RFID Academy cooperates with the Auto-ID Lab St. Gallen / ETH and the RWTH International University in Aachen to provide intense training in the areas of EPCIS, Auto-ID, RFID and the applicable standards, software and architecture.

Since 2007, EECC's annually published "*UHF Tag Performance Survey (UTPS)*" serves as a global benchmark for RFID transponder testing and certification.

2011 saw EECC introduce elective certification of tags for specific applications.

EECC' designs EPCIS-based solutions that enable the handling of large volumes of serialised data. This portfolio includes custom-made software to enable the traceability and visibility of supply chain assets, across all data carriers (RFID, barcode, digital).

Tag manufacturers can have EECC test and certify their tags for specific applications.

EECC's own *EPCAT* platform was certified for compliance to GS1's EPCIS 1.1 in May 2015; the "+1" product family provides EPCIS event data to customers in real time. Also that year, EECC began to provide cloud-based software services, extending the portfolio to include SaaS (Software as a Service) in 2017.

The history of the study

2007: EECC's annually published "*UHF Tag Performance Survey (UTPS)*" serves as a global benchmark for RFID transponder testing and certification.

2008: EECC incorporated material-dependent models for the first time.

2009: Addition of a dedicated UTPS chapter regarding on-metal transponders.

2010: Proximity measurements -- the first of their kind -- are added for each transponder.

2012: World-first material-dependent backlink matrix.

2013: Dedicated chapter on chip sensitivity.

2014: Performance parameters for chip read/write operations.

2015: Considerations of susceptibility with respect to reader signals.

2016: Analysis of sensor functionality and supplementary features (e.g., memory).

2018: Examination of IoT features and *Untraceable* command.

2019: New structure and expanded IoT considerations.

2020: The ease of use was revised. For the first time, the tags were given their areas of application.

The new print version of the UTPS 2020/2021 is now available to new customers as for 495 €/year in a 5-year subscription or 995 € as a single copy.

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Attachment:

UTPS 2020 - Evaluated Tag Types Labels.pdf

UTPS 2020 - Evaluated Tag Types On-Metal.pdf

Picture 1: New Generation.jpg

Picture 2: UHF RFID Transponder Almanach.jpg

Picture 3: UTPS Team.jpg
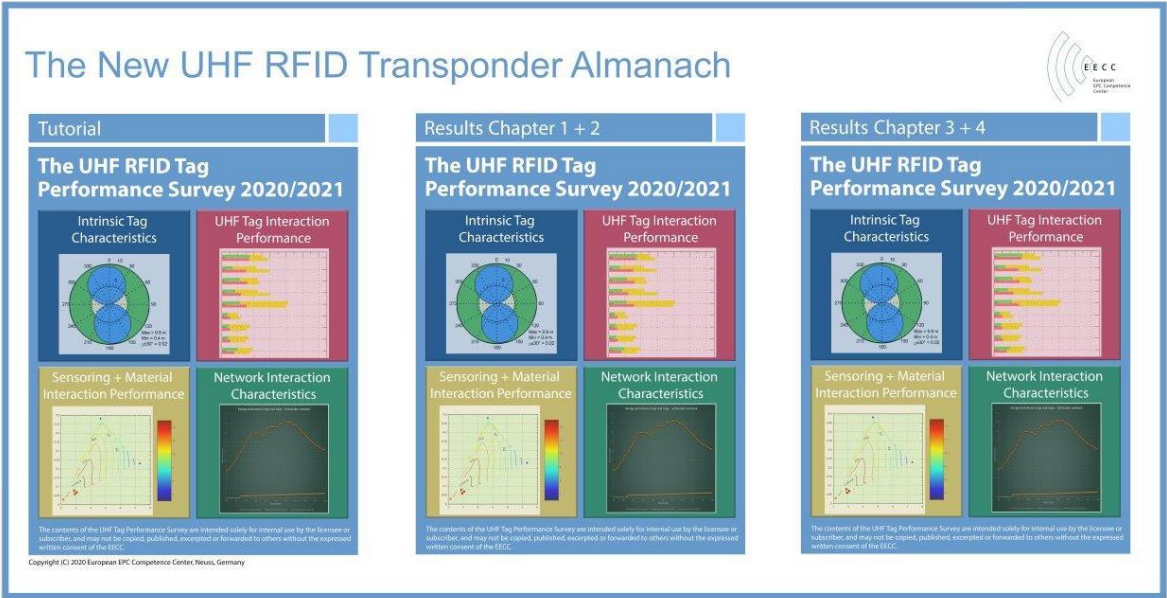
Picture 4: EECC logo.png

Pictures:

Picture 1: Generations of UTPS: From 2007 to 2020

CEO Conrad von Bonin and the new UTPS Team

Picture 2: The New UHF RFID Transponder Almanach consist of tutorial, chapter 1+2 and chapter 3+4

Picture 3: EECC anechoic chamber / New EECC UTPS Team

EECC Logo

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