

ADVANCED RFID UHF TRAINING

AEROSPACE & INDUSTRIAL TRACKING APPLICATIONS & REQUIREMENTS

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| Référence | STID-ACD-TRA-14 |
| Durée | 1 day |
| Format | VILT / ILT / OST |
| Formation certifiée | Yes |
| Langues | FR / EN |

OPTIMIZE YOUR UHF RFID SYSTEMS FOR INDUSTRIAL TRACEABILITY

UHF RFID technology is a key component for industries requiring precise identification and tracking of assets, equipment, and logistics operations. This advanced training provides professionals with expert-level knowledge and best practices for efficiently deploying UHF RFID solutions in demanding environments.

Through a technical deep dive and real-world industry applications (aerospace, logistics, manufacturing, asset tracking, etc.), participants will learn to design, configure, and optimize high-performance UHF RFID infrastructures that comply with EPC1 GEN2 / ISO18000-6C and ATA Spec 2000 standards.

PREREQUISITES

- Experience in RFID solution integration or installation.
- Understanding of asset identification and tracking challenges.
- Familiarity with radiofrequency concepts and RFID system interoperability.

AUDIENCE

This training is designed for professionals involved in industrial asset tracking and management, including:

- Logistics & Supply Chain Managers
- Quality Engineers & Industrial Maintenance Teams
- Project Managers in Identification & Automatic Tracking
- RFID Solution Integrators & Installers
- Engineers and Technical Specialists in RFID

LEARNING OBJECTIVES



Understand advanced principles of UHF RFID technology, including benefits and limitations.



Deploy and configure high-performance UHF RFID systems tailored to various industries.



Master regulatory standards, including ATA Spec.2000 for aerospace applications.



Optimize RFID performance to ensure reliable reading in complex environments (metal, interference, long-range).



Integrate UHF RFID into existing systems for enhanced asset tracking, logistics management, and traceability.



Identify and resolve technical challenges related to tag positioning, reader configuration, and antenna deployment.

DETAILED COURSE OUTLINE

INTRODUCTION TO UHF RFID TECHNOLOGY

- History and evolution of UHF RFID technology.
- Terminology and radiofrequency classification.

MODULE 1: UHF RFID STANDARDS & INDUSTRY REGULATIONS

- Regulatory framework and standardization (ISO18000-6C, EPC1 GEN2).
- Radiofrequency regulations and compliance requirements.
- Introduction to industry-specific standards: ATA Spec.2000 (aerospace).

MODULE 2: UHF RFID CHIP & TAG FEATURES

- RFID memory structures: sizes, configurations, and security features.
- Intrinsic characteristics of UHF transponders and tag performance considerations.
- Selecting the right RFID chips for industrial and logistics environments.

MODULE 3: UHF RFID READERS AND ANTENNAS

- Reader positioning strategies in metallic and high-interference environments.
- Optimizing read range and reducing interference in RFID systems.
- Understanding Air Interface protocols and communication standards.

MODULE 4: DEPLOYING UHF RFID IN INDUSTRIAL ENVIRONMENTS

- Case Study: RFID Implementation in Aerospace, Logistics, and Asset Tracking.
- Challenges and solutions for tag positioning and antenna deployment in real-world scenarios.
- Securing RFID data and integrating with existing industrial IT systems.

MODULE 6: REAL-WORLD TESTING & PRACTICAL APPLICATION

- Demonstration with UHF RFID tags and performance evaluation.
- Case study for ILT and OST training programs.
- Hands-on testing and validation of reading performance in industrial environments.

CERTIFICATION

A **STid Certificate of Completion** will be issued to participants who successfully complete the training.

LEARNING FORMAT



ILT (Instructor-Led Training) :

Experience hands-on training at STid's headquarters, led by experts in a fully equipped environment. Benefit from live demonstrations, interactive exercises, and direct engagement with STid specialists for an optimal learning experience.



VILT (Virtual Instructor-Led Training) :

Join a real-time, interactive training session from anywhere. Delivered via video conferencing, VILT provides expert-led instruction, practical exercises, and live Q&A, ensuring the same high-quality.



OST (On-Site Client Training) :

Tailored training delivered at your site, adapted to your infrastructure, security needs, and equipment for a fully personalized learning experience.

SCHEDULE AND REGISTRATION

To check the schedule, pricing, or register for the course:



customer.training@stid.com

Learn more at:

www.stid.com



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