

OPERATIONAL DESCRIPTION

1.1. EUT description

2 Description of functions

Introduction

RUID is a remote control that communicates with the **airIDEAL[®] 3P[™] Traceability software** and the **airIDEAL[®] 3P[™] Traceability instrument** when performing sampling campaigns (please refer to the user manuals).

A sampling campaign consists of the following steps:

- Data required for the sampling campaign are prepared using the **airIDEAL[®] 3P[™] Traceability software**.
- Data are sent from the software to the remote control (via a USB link) and additional data are entered (using a keyboard and a barcode reader).
- Data concerning sample collection and the order in which sampling proceeds are sent from the remote control to the **airIDEAL[®] 3P[™] Traceability instrument** (via a Bluetooth link) (the instrument is in "slave" mode) and sampling reports are sent to the remote control at the end of the sampling process.
- Traceability data concerning the sample collection is sent from the remote control to the **airIDEAL[®] 3P[™] Traceability software** for archiving and printing (via a USB link).

Description of functions

Introduction

How the airIDEAL® 3P™ Traceability solution works

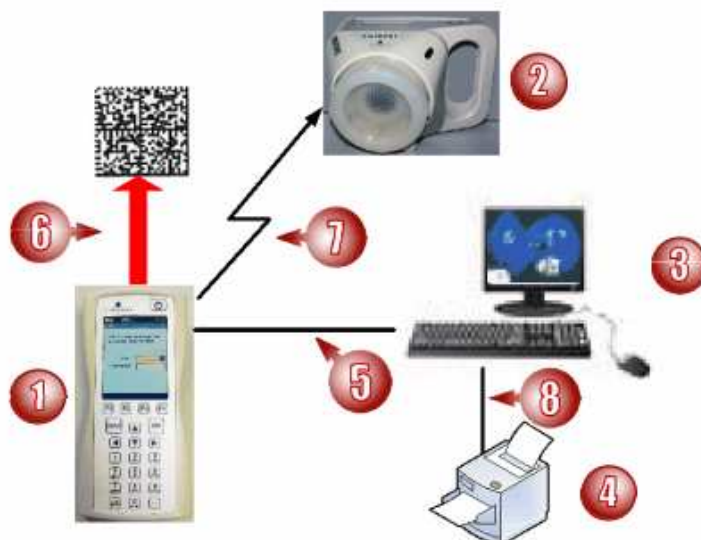


Figure 2-1: Overview

Components of the **airIDEAL® 3P™ Traceability solution**:

1. Remote control (RUID)
2. AeroBioCollector (ABC)
3. **airIDEAL® 3P™ Traceability software** (to be installed on a PC provided by the customer)
4. Printer (optional)

Data exchange between components of the **airIDEAL® 3P™ Traceability solution**:

5. USB link: data transfer between software ↔ remote control
6. Datamatrix 2D compatible barcode reader: to read barcodes on labels (or Petri dishes)
7. Bluetooth link: communication between remote control and instrument
8. PC-printer link: to a printer for printing labels and a printer for printing reports

1.2. Related Submittal(s) / Grant(s)

All host equipment used in the test configuration are FCC granted, when relevant.

1.3. Tested System Details

The FCC IDs for all equipment, plus description of all cables used in the tested system are:

- Internal max frequencies: 2.4GHz (Bluetooth) and 416MHz (No intentional frequency)

E.U.T. : RUID

Serial number: 000005



**Power supply: FRIWO
FW7662/05
(Output 5Vdc – 1.1A)**



- **Inputs/outputs:**

1 x USB port (for maintenance only, not tested)
1 x DC input
1 x Mini USB

- **Cables:**

1 x USB cable (2m)

- **Auxiliaries equipment used during test:**

Laptop TOSHIBA SATELLITE PS141E-04YC sn: 13594938G

- **EUT configuration:**

Configuration 1 :

Power supply: - Internal battery

Running mode1: - Bluetooth & Data Matrix


Configuration 2 :

Power supply: - Power supply adapter

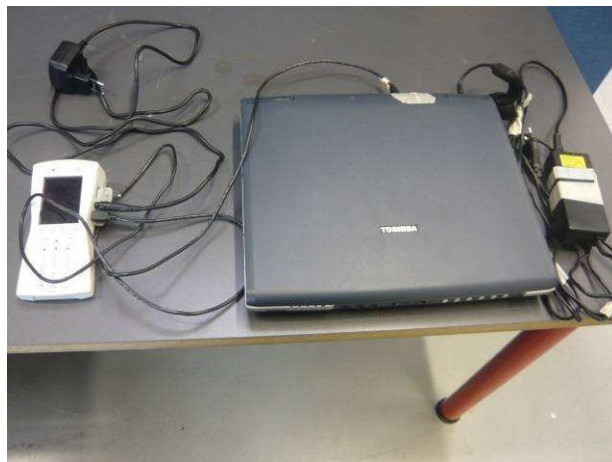
Running mode 1: - Bluetooth & Data Matrix


Configuration 3 :

Communication access: - USB

Power supply: - Power supply adapter EGSTON

Running mode 2: - Transfer data



- **Equipment modifications:**

Modifications performed for all tests.

1)



Conductive foam on chip

2) Capacitor C185 (value: 22 μ F) on ESF for all tests except radiated emission in configuration 1

1.4. Test Methodology

Both conducted and radiated testing were performed according to the procedures in ANSI C63.4-2009, FCC Part 15 Subpart B.

Radiated testing was performed at an antenna to EUT distance of 10 meters. During testing, all equipment's and cables were moved relative to each other in order to identify the worst case set-up.

1.5. Test facility

Tests have been performed on *July 25th, 2010 and from December 30th, 2010 to January 12th, 2011.*

This test facility has been fully described in a report and accepted by FCC as compliant with the radiated and AC line conducted test site criteria in ANSI C63.4-2009 in a letter dated March 25th, 2008 (registration number 94821). This test facility has also been accredited by COFRAC (French accreditation authority for European Union test lab accreditation organization) according to NF EN ISO/IEC 17025, accreditation number 1-1633 as compliant with test site criteria and competence in 47 CFR Part 15/ANSI C63.4 and EN55022/CISPR22 norms for 89/336/EEC European EMC Directive application. All pertinent data for this test facility remains unchanged.