



AUBURN

UNIVERSITY

RFID LAB

TAGGED CATEGORY PERFORMANCE SPECIFICATION

B3

VERSION 0.5

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DRAFT



1 TEST OVERVIEW

Prerequisite	ARC Quality certification of inlay manufacturer
Equipment	ARC Benchmarking Equipment Document
Test process	ARC Benchmarking Methodology Document
Distance between antennas and inlay	Antenna 1: 1.5 meter Antenna 2: 1.5 meter Antenna 3: 1.5 meter Antenna 4: 1.5 meter
Test configurations	Single Inlay on Cardstock Single Inlay on Plastic3



2 READ SENSITIVITY

The inlay should meet the following read sensitivity (dBm) requirements in the following test configurations through the frequency range. All the inlay samples tested should meet the minimum requirements. It is noted that the sensitivity is calculated at the tag by calibrating the measured power at the transmitter with the loss/gain during transmission.

DRAFT

2.1 Single Inlay on Cardstock

Frequency 865 MHz to 868 MHz in steps of 1 MHz

Position 0 Ant 1	Position 0: Ant 2	Position 0: Ant 3	Position 0: Ant 4
-14	-12	-12	-12
Position 30: Ant 1	Position 30: Ant 2	Position 30: Ant 3	Position 30: Ant 4
-12	-11	-11	-11
Position 60: Ant 1	Position 60: Ant 2	Position 60: Ant 3	Position 60: Ant 4
-8	-6	-6	-4
Position 120: Ant 1	Position 120: Ant 2	Position 120: Ant 3	Position 120: Ant 4
-8	-6	-6	-4
Position 150: Ant 1	Position 150: Ant 2	Position 150: Ant 3	Position 150: Ant 4
-12	-11	-11	-11
Position 180: Ant 1	Position 180: Ant 2	Position 180: Ant 3	Position 180: Ant 4
-14	-12	-12	-12
Position 210: Ant 1	Position 210: Ant 2	Position 210: Ant 3	Position 210: Ant 4
-12	-11	-11	-11
Position 240: Ant 1	Position 240: Ant 2	Position 240: Ant 3	Position 240: Ant 4
-8	-6	-6	-4
Position 300: Ant 1	Position 300: Ant 2	Position 300: Ant 3	Position 300: Ant 4
-8	-6	-6	-4
Position 330 Ant 1	Position 330: Ant 2	Position 330: Ant 3	Position 330: Ant 4
-12	-11	-11	-11

2.2 Single Inlay on Plastic3

Frequency 865 MHz to 868 MHz in steps of 1 MHz

Position 0 Ant 1	Position 0: Ant 2	Position 0: Ant 3	Position 0: Ant 4
-12	-10	-10	-10
Position 30: Ant 1	Position 30: Ant 2	Position 30: Ant 3	Position 30: Ant 4
NA	NA	NA	NA
Position 60: Ant 1	Position 60: Ant 2	Position 60: Ant 3	Position 60: Ant 4
NA	NA	NA	NA
Position 120: Ant 1	Position 120: Ant 2	Position 120: Ant 3	Position 120: Ant 4
NA	NA	NA	NA
Position 150: Ant 1	Position 150: Ant 2	Position 150: Ant 3	Position 150: Ant 4
NA	NA	NA	NA
Position 180: Ant 1	Position 180: Ant 2	Position 180: Ant 3	Position 180: Ant 4
-12	-10	-10	-10
Position 210: Ant 1	Position 210: Ant 2	Position 210: Ant 3	Position 210: Ant 4
NA	NA	NA	NA
Position 240: Ant 1	Position 240: Ant 2	Position 240: Ant 3	Position 240: Ant 4
NA	NA	NA	NA
Position 300: Ant 1	Position 300: Ant 2	Position 300: Ant 3	Position 300: Ant 4
NA	NA	NA	NA
Position 330 Ant 1	Position 330: Ant 2	Position 330: Ant 3	Position 330: Ant 4
NA	NA	NA	NA