

Company: SensThys Inc.

Test of: SensArray

To: FCC CFR 47 Part 1.1310

Report No.: TIME01-U2_MPE Rev A

MPE/RF EXPOSURE TEST REPORT



MPE/RF EXPOSURE TEST REPORT



Test of: SensThys, Inc. SensArray⁺

To: FCC CFR 47 Part 1.1310

Test Report Serial No.: TIME01-U2_MPE Rev A

This report supersedes: NONE

Applicant: SensThys, Inc.
21060 Homestead Road
Cupertino, California 95014
USA

Product Function: Integrated RFID reader

Issue Date: 5th September 2017

This Test Report is Issued Under the Authority of:

MiCOM Labs, Inc.
575 Boulder Court
Pleasanton California 94566
USA
Phone: +1 (925) 462-0304
Fax: +1 (925) 462-0306
www.micomlabs.com



TESTING CERT #2381.01

MiCOM Labs is an ISO 17025 Accredited Testing Laboratory



1. MAXIMUM PERMISSABLE EXPOSURE

Calculations for Maximum Permissible Exposure Levels

Power Density = Pd (mW/cm²) = EIRP/(4*π*d²)

EIRP = P * G

P = Peak output power (mW)

G = Antenna numeric gain (numeric)

d = Separation distance (cm)

Numeric Gain = 10 ^ (G (dBi)/10)

The calculations in the table below use the highest conducted power values together with the lowest antenna gain specified for the EUT. These calculations represent worst case in terms of the exposure levels.

Maximum Permissible Exposure

Freq. Band (MHz)	Ant Gain (dBi)	Numeric Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Calculated Power Density (mW/cm ²) @ 20cm	Power Density Limit (mW/cm ²)	Min Calculated safe distance for Limit (cm)	Calculated Power Density (mW/cm ²) @ Safe Distance
902.0 - 928.0	3.00	2.00	29.34	859.01	0.34	0.60	16.00	0.60
902.0 - 928.0	8.00	6.31	27.24	529.66	0.66	0.60	21.02	0.60

Note: for mobile or fixed location transmitters the minimum separation distance is 20cm, even if calculations indicate the MPE distance to be less.



Title: TIMES-7 SensArray+
To: FCC CFR 47 Part 1.1310
Serial #: TIME01-U2_MPE Rev A
Issue Date: 5th September 2017
Page: 4 of 5

Specification - Maximum Permissible Exposure Limits

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*900/f ²	6
30-300	61.4	0.163	1.0	6
300-1,500	--	--	f/300	6
1,500-100,000	--	--	5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*100	30
1.34-30	824/f	2.19/f	*180/f ²	30
30-300	27.5	0.073	0.2	30
300-1,500	--	--	f/1500	30
1,500-100,000	--	--	1.0	30

f = frequency in MHz * = Plane-wave equivalent power density

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



575 Boulder Court
Pleasanton, California 94566, USA
Tel: +1 (925) 462 0304
Fax: +1 (925) 462 0306
www.micomlabs.com