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TIMCO ENGINEERING, Inc.

An IIA Company

RF Exposure Evaluation Report

APPLICANT	WISYCOM SRL
ADDRESS	VIA SPIN, 156 ROMANO D'EZZELINO (VI) 36060 ITALY
FCC ID	POUMTH400USX
IC	1196A-MTH400USX
MODEL NUMBER	MTH400-USX
PRODUCT DESCRIPTION	WIDEBAND HANDHELD TRANSMITTER
DATE SAMPLE RECEIVED	08/23/2018
FINAL TEST DATE	08/23/2018
PREPARED BY	Franklin Rose
TEST RESULTS	☒ PASS ☐ FAIL

Report Number	Report Version	Description	Issue Date
1335BUT18 MPE_TestReport_	Rev1	Initial Issue	11/01/2018

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GENERAL REMARKS

Summary

The device under test does:

☒ Fulfill the general approval requirements as identified in this test report and was selected by the customer.

☐ Not fulfill the general approval requirements as identified in this test report

Attestations

This equipment has been tested in accordance with the standards identified in this test report. To the best of my knowledge and belief, these tests were performed using the measurement procedures described in this report.

All instrumentation and accessories used to test products for compliance to the indicated standards are calibrated regularly in accordance with ISO 17025 requirements.

I attest that the necessary measurements were made at:

Timco Engineering Inc.
849 NW State Road 45
Newberry, FL 32669
Designation #: US1070

Prepared by:

Name and Title	Franklin Rose, Project Manager / EMC Testing Technician
Date	11/01/2018

GENERAL INFORMATION

EUT Description	WIDEBAND HANDHELD TRANSMITTER
Model Number	MTH400-USX
EUT Power Source	☐ 110–120Vac/50– 60Hz
	☐ DC Power (12.0 V)
	☒ Battery Operated Exclusively
Test Item	☐ Prototype
	☐ Pre-Production
	☒ Production
Type of Equipment	☐ Fixed
	☐ Mobile
	☒ Portable
Antenna Connector	UFL
Test Conditions	The temperature was 26ºC Relative humidity of 50%.
Modification to the EUT	None
Applicable Standards	FCC CFR 47 Part 2.1091, RSS-102 (i5)
Test Facility	Timco Engineering Inc. at 849 NW State Road 45 Newberry, FL 32669 USA. Designation #: US1070

Note: This evaluation is in regard to the Part 15.236 operation of this device.

ANTENNA INFORMATION

Manufacturer Provides Antenna	Type	Max Gain (dBi)
YES	¼ Whip w/ UFL Connector	**0**

MPE CALCULATION

The minimum separation distance is calculated as follows:

$$E(V/m) = \frac{\sqrt{30 \times P \times G}}{d} \qquad \text{Power density: } P_d(mW/cm^2) = \frac{E^2}{3770}$$

1. **FCC 2.1091: General <u>Uncontrolled</u> Exposure Environment**: The limit for General Uncontrolled Exposure Environment is calculated as shown in 1.1310, Table 1.

Variable	Value
Frequency (MHz)	614.075
Max Power	11.4 mW
Duty Cycle (at full power)	100%
Max Antenna Gain	0.0 dBi
Coax Loss	0.0 dB
Power Density	0.002 mW/cm^2
Minimum Separation Distance	20 cm

2. **Canada RSS-102: General <u>Uncontrolled</u> Exposure Environment**: The limit for General Uncontrolled Exposure Environment is calculated as shown in RSS-102.

Variable	Value
Frequency (MHz)	614.075
Max Power	11.4 mW
Duty Cycle (at full power)	100%
Max Antenna Gain	0.0 dBi
Coax Loss	0.0 dB
Power Density	0.023 W/m^2
Minimum Separation Distance	20 cm

SAR EXCLUSION: FCC

FCC Rulepart: KDB 447498 D01 General RF Exposure Guidance v05r02, s 4.3.1

SAR Exclusion = (P mW/Separation Distance mm) * (Frequency GHz)^0.5)

Variable	Value
Physical Separation Distance	5 mm
Max Power	11.4 mW
Highest Frequency (GHz)	0.662925 GHz
SAR Exclusion Calculation Result	1.86
SAR Exclusion Limit	3.0

Result: EXCLUDED

SAR EXCLUSION: IC

Canada Rulepart: RSS-102

SAR Exemption Table: Linear interpolation is used to arrive at limit between specified values.

	Exemption Limits (mW) Per Separation Distance									
Frequency (MHz)	**≤5 mm**	**10 mm**	**15 mm**	**20 mm**	**25 mm**	**30 mm**	**35 mm**	**40 mm**	**45 mm**	**≥50 mm**
≤300	71	101	132	162	193	223	254	284	315	345
450	52	70	88	106	123	141	159	177	195	213
835	17	30	42	55	67	80	92	105	117	130
1900	7	10	18	34	60	99	153	225	316	431
2450	4	7	15	30	52	83	123	173	235	309
3500	2	6	16	32	55	86	124	170	225	290
5800	1	6	15	27	41	56	71	85	97	106

Table Parameters	Table Values
Lower Frequency (in Table)	450 MHz
Exclusion Limit (in Table)	52 mW
Higher Frequency (in Table)	835 MHz
Exclusion Limit (in Table)	17 mW

EUT Parameters	Value
Separation Distance	≤5 mm
Highest Frequency (MHz)	662.975 MHz
Power Output (mW)	11.4 mW
SAR Exclusion Calculation Result	33 mW

Result: EXCLUDED