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TIMCO ENGINEERING, Inc.

An IIA Company

FCC CFR 74 D Test Report

APPLICANT	STANDARD COMMUNICATIONS PTY.LTD.
ADDRESS	17 GIBBON ROAD WINSTON HILLS 2153 AUSTRALIA
FCC ID	TXJCM60UL25
MODEL NUMBER	CM60-UL25B, CM60-UL25D, CM60-UL25L, CM60-UL25P, CM60-UL25R, CM60-UL25S
PRODUCT DESCRIPTION	UHF MOBILE TRANSCEIVER
DATE SAMPLE RECEIVED	4/9/2018
FINAL TEST DATE	4/16/2018
TESTED BY	Franklin Rose
APPROVED BY	Tim Royer
TEST RESULTS	☒ PASS ☐ FAIL

Report Number	Report Version	Description	Issue Date
484BUT18 PT74_TestReport_	Rev1	Initial Issue	04/30/2018
484BUT18 PT74_TestReport_	Rev2	Updated Model Numbers and Emission Designator	11/06/2018
484BUT18 PT74_TestReport_	Rev3	Updated Address	12/28/2018

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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

Tested by:

Name and Title	Franklin Rose, Project Manager / EMC Testing Technician
Date	04/26/2018

Reviewed and Approved by:

Name and Title	Tim Royer, Project Manager / EMC Testing Engineer
Date	04/26/2018

GENERAL INFORMATION

EUT Specification

EUT Description	VHF TRANSCEIVER
FCC ID	TXJCM60UL25
Model Number	CM60-UL25B, CM60-UL25D, CM60-UL25L, CM60-UL25P, CM60-UL25R, CM60-UL25S
Operating Frequency	Band 1: 450 – 454 MHz
Type of Emission	11K2F3E (Narrowband Analog FM Voice), 8K10F1E (P25 Phase I C4FM Voice), 8K10F1D (P25 Phase I C4FM Data)
Modulation	FM
EUT Power Source	☐ 110–120Vac/50– 60Hz
	☒ DC Power (13.8 V)
	☐ Battery Operated Exclusively
Test Item	☐ Prototype
	☒ Pre-Production
	☐ Production
Type of Equipment	☐ Fixed
	☒ Mobile
	☐ Portable
Antenna Connector	BNC
Test Conditions	The temperature was 26ºC Relative humidity of 50%.
Modification to the EUT	No Modification to EUT.
Test Exercise	The EUT was placed in continuous transmit and was operated in "Test Mode" for digital emissions tests.
Applicable Standards	ANSI/TIA 603-E:2016, ANSI C63.26, FCC CFR 47 Part 2, Part 74, Part 90
Test Facility	Timco Engineering Inc. at 849 NW State Road 45 Newberry, FL 32669 USA. Designation #: US1070

RESULTS SUMMARY

Rule Part No.	Test Item	Results
74.451(a)	Part 90 Testing & Certification	**PASS**
74.451(a), 74.461(b)	Power Output	**PASS**

Part 90 Testing & Certification

FCC Rule Parts: FCC Part 74.451(a)

(a) Applications for new remote pickup broadcast stations or systems or for changing transmitting equipment of an existing station will not be accepted unless the transmitters to be used have been certificated by the FCC pursuant to the provisions of this subpart, or have been certificated for licensing under part 90 of this chapter and do not exceed the output power limits specified in §74.461(b).

The following test results from FCC CFR 47, Part 90 test report "484AUT18 PT90_TestReport_Rev4" are shown below, for reference:

Rule Part No.	Test Item	Results
2.1046(a), 90.205(g),(h),(i)	RF Power Output	**PASS**
2.1033(c)(4), 90.209(b)(5)	Modulation Characteristics	**PASS**
2.1047(a)	Audio Frequency Response and Low Filter	**PASS**
2.1047(b)	Modulation Limiting	**PASS**
2.1049 (c)	Occupied Bandwidth	**PASS**
90.210(d)(1), (2)	Emission Masks	**PASS**
2.1051(a), 90.210(d)(3)	Spurious Emissions at Antenna Terminals	**PASS**
2.1053(a), 90.210(d)(3)	Field Strength of Spurious Emissions	**PASS**
2.1055(a)(2), 90.213	Frequency Stability < 5 ppm	**PASS**
90.214	Transient Frequency Response	**PASS**

Result: Meets Requirements

RF POWER OUTPUT

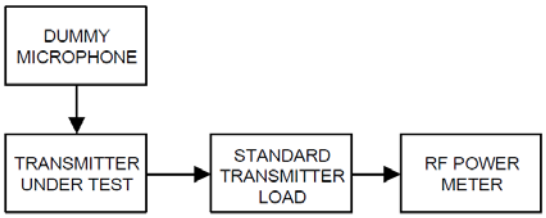
FCC Rule Parts: FCC Part 74.461(b)

(b) The authorized transmitter power for a remote pickup broadcast station shall be limited to that necessary for satisfactory service and, in any event, shall not be greater than 100 watts, except that a station to be operated aboard an aircraft shall normally be limited to a maximum authorized power of 15 watts. Specific authorization to operate stations on board aircraft with an output power exceeding 15 watts will be issued only upon an adequate engineering showing of need, and of the procedures that will be taken to avoid harmful interference to other licensees.

Note: Per 74.461(b), under no circumstance shall the EUT operate aboard an aircraft above the power output level of 15 Watts.

The following test data from FCC CFR 47, Part 90 test report "484AUT18 PT90_TestReport_Rev4" is shown below, for reference:

Method of Measurement: TIA-603-E, 2.2.1



Test Data: **Power Measurement Table**

Peak Power Output					
dBm			Watts		
High	Med	Low	High	Med	Low
44.00	40.16	30.17	25.12	10.38	1.04

Result: **Meets Requirements**