



## FCC CFR 74 D Test Report

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

**THE ATTACHED REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN APPROVAL OF TIMCO ENGINEERING, INC.**



## TABLE OF CONTENTS

GENERAL REMARKS.....	2
GENERAL INFORMATION .....	3
RESULTS SUMMARY.....	4
PART 90 TESTING & CERTIFICATION .....	5
RF POWER OUTPUT .....	6

## 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:



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

### Reviewed and Approved by:



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

## GENERAL INFORMATION

### EUT Specification

<b>EUT Description</b>	VHF TRANSCEIVER
<b>FCC ID</b>	TXJCM60UL25
<b>Model Number</b>	CM60-UL25B, CM60-UL25D, CM60-UL25L, CM60-UL25P, CM60-UL25R, CM60-UL25S
<b>Operating Frequency</b>	Band 1: 450 – 454 MHz
<b>Type of Emission</b>	11K2F3E (Narrowband Analog FM Voice), 8K10F1E (P25 Phase I C4FM Voice), 8K10F1D (P25 Phase I C4FM Data)
<b>Modulation</b>	FM
<b>EUT Power Source</b>	<input type="checkbox"/> 110–120Vac/50– 60Hz
	<input checked="" type="checkbox"/> DC Power (13.8 V)
	<input type="checkbox"/> Battery Operated Exclusively
<b>Test Item</b>	<input type="checkbox"/> Prototype
	<input checked="" type="checkbox"/> Pre-Production
	<input type="checkbox"/> Production
<b>Type of Equipment</b>	<input type="checkbox"/> Fixed
	<input checked="" type="checkbox"/> Mobile
	<input type="checkbox"/> Portable
<b>Antenna Connector</b>	BNC
<b>Test Conditions</b>	The temperature was 26°C Relative humidity of 50%.
<b>Modification to the EUT</b>	No Modification to EUT.
<b>Test Exercise</b>	The EUT was placed in continuous transmit and was operated in “Test Mode” for digital emissions tests.
<b>Applicable Standards</b>	ANSI/TIA 603-E:2016, ANSI C63.26, FCC CFR 47 Part 2, Part 74, Part 90
<b>Test Facility</b>	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	<b>PASS</b>
74.451(a), 74.461(b)	Power Output	<b>PASS</b>

## 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 574.461(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	<b>PASS</b>
2.1033(c)(4), 90.209(b)(5)	Modulation Characteristics	<b>PASS</b>
2.1047(a)	Audio Frequency Response and Low Filter	<b>PASS</b>
2.1047(b)	Modulation Limiting	<b>PASS</b>
2.1049 (c)	Occupied Bandwidth	<b>PASS</b>
90.210(d)(1), (2)	Emission Masks	<b>PASS</b>
2.1051(a), 90.210(d)(3)	Spurious Emissions at Antenna Terminals	<b>PASS</b>
2.1053(a), 90.210(d)(3)	Field Strength of Spurious Emissions	<b>PASS</b>
2.1055(a)(2), 90.213	Frequency Stability < 5 ppm	<b>PASS</b>
90.214	Transient Frequency Response	<b>PASS</b>

**Result: Meets Requirements**

## RF POWER OUTPUT

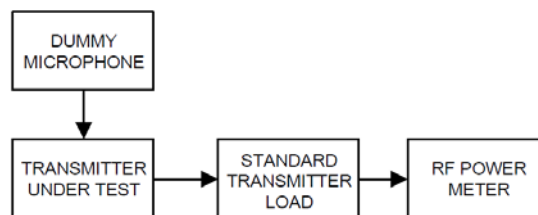
**FCC Rule Parts:** FCC Part 74.461(b)

(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