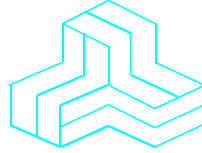


ENGINEERING TEST SUMMARY



VHF Marine Transceiver
Model No.: IC-F5061
FCC ID: AFJ297900

Applicant:

ICOM Incorporated
1-1-32, Kamiminami, Hirano-ku
Osaka
Japan, 547-0003

Tested in Accordance With

Federal Communications Commission (FCC)
47 CFR, Parts 2, 22, 74, 80 and 90 (Subpart I)

UltraTech's File No.: ICOM-314Q_C2PC

This Test report is Issued under the Authority of
Tri M. Luu, B.A.Sc,
Vice President of Engineering
UltraTech Group of Labs

Date: November 08, 2012

Prepared by: Dharmajit Solanki

Issued Date: November 08, 2012

- *The results in this Test Report apply only to the sample(s) tested, and the sample tested is randomly selected.*
- *This report must not be used by the client to claim product endorsement by NVLAP or any agency of the US Government.*

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NVLAP Lab Code 200093-0



SL2-IN-E-1119R



Korea KCC-RRL
CA2049

EXHIBIT 1. INTRODUCTION

1.1. SCOPE

Reference:	FCC Parts 2, 22, 74, 80 and 90(Subpart I)
Title:	Code of Federal Regulations (CFR), Title 47 Telecommunication – Parts 2, 22, 74, 80 and 90
Purpose of Test:	To add Part 22, 74 and 80 in the existing grant line with part 90 and obtain FCC Class II Permissive change acceptance authorization for this Radio operating in the Frequency Band 136-174 MHz (25 kHz and 12.5 kHz Channel Spacing).

1.2. RELATED SUBMITTAL(S)/GRANT(S)

None

1.3. NORMATIVE REFERENCES

Publication	Year	Title
FCC CFR Parts 0-19, 22, 74, 80 & 90	2011	Code of Federal Regulations – Telecommunication
ANSI C63.4	2009	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz
TIA/EIA 603, Edition D	2010	Land Mobile FM or PM Communications Equipment Measurement and Performance Standards

EXHIBIT 2. SUMMARY OF TEST RESULTS

2.1. APPLICABILITY & SUMMARY OF EMISSION TEST RESULTS

FCC Part 90 & Part 22, 74 & 80 Comparison Table:

FCC Section(s) complied as per filed Original Test Reports	Test Requirements	Measured Values / Limits as per Original filing	Compliance with sections from Part 22, 74 & 80
1.1307, 1.1310, 2.1091 & 2.1093	RF Exposure Limit	Refer to RF Expo Exhibit of Original filing report	--
2.1046, 90.279 & 90.205	Conducted RF Power Output & ERP	- 37 & 47dBm (5 & 50 Watt) - ERP limit is based on the antenna HAAT and service area, specified as given in Table 2 of part 90.	- No conducted limit specified. - Sections 22.565 & 22.659 specify maximum ERP of 100W for base station and 50W for mobile station. - Sections 74.461 specify maximum 100W for remote pickup broadcast station and 15W for on board aircraft station. - Sections 80.215 specify maximum 50W for Maritime support station
2.1047 & 90.210	Modulation Characteristics	Refer to sec 6.7 & 6.8 from report of original filing for details	- Sections 74.463 & 74.462(c) calls for compliance with sec 90.210 - Section 80.213(e) specified limit is same as demonstrated in original report.
2.1049, 90.209 & 90.210	Emission Limitation & Emission Mask	Refer to sec 6.9 of report from original filing for details	- Sections 74.462(c) calls for compliance with sec 90.210 - Section 80.211(f) specify the emission mask which is Mask B of sec 90.210 same as demonstrated in original report.
2.1051, 2.1057 & 90.210	Spurious Emissions at Antenna Terminal (30 MHz to 5 GHz)	Limit of 55 + 10 log (P) dB applied	Sec 22.359, 74.462 & 80.211(f)(3) specify the limit of 43 + 10 log (P) dB, which is less stringent than the applied limit, hence this device complies.
2.1053, 2.1057 & 90.210	Radiated Spurious Emissions (30 MHz to 5 GHz)	Limit of 55 + 10 log (P) dB applied	Sec 22.359, 74.462 & 80.211(f)(3) specify the limit of 43 + 10 log (P) dB, which is less stringent than the applied limit, hence this device complies.
2.1055 & 90.213	Frequency Stability	± 1 ppm or 136 Hz	- Sections 74.464 calls for compliance with sec 90.213 - Sec 22.355 specify limit of 2.5ppm & sec 80.209 specify 5ppm which is less stringent than the applied limit, hence this device complies.
90.214	Transient Frequency Behavior	Refer to sec 6.12 of report from original filing for details	- Sections 74.463 & 74.462(c) calls for compliance with sec 90.214