

2024 MIC
MRA
International
Workshop
Tokyo, Japan
FCC Update

U.S. Federal Communications
Commission (FCC)

Office of Engineering and Technology
(OET)

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Note: The views expressed in this presentation are those of the author and may not necessarily represent the views of the Federal Communications Commission

Overview



FCC Mission



FCC Equipment
Authorization Program



Recent Examples



Additional Information
Sources

FCC Mission

Regulate interstate and international communications by radio, television, wire, satellite, and cable in all 50 states, the District of Columbia, and U.S. territories

FCC Equipment Authorization Program

- ▶ Procedures
- ▶ Testing and Certification
- ▶ Audits and Market Surveillance

Equipment Authorization Procedures

- ▶ Required for importation or marketing of devices:
 1. Certification
 2. Supplier's Declaration of Conformity (SDoC)
 3. Exemption
- ▶ Certification and SDoC both require equipment testing
- ▶ Certification involves **Telecommunication Certification Bodies (TCBs)**
- ▶ More information: <https://www.fcc.gov/oet/ea>

Certification Program: Testing and Certification

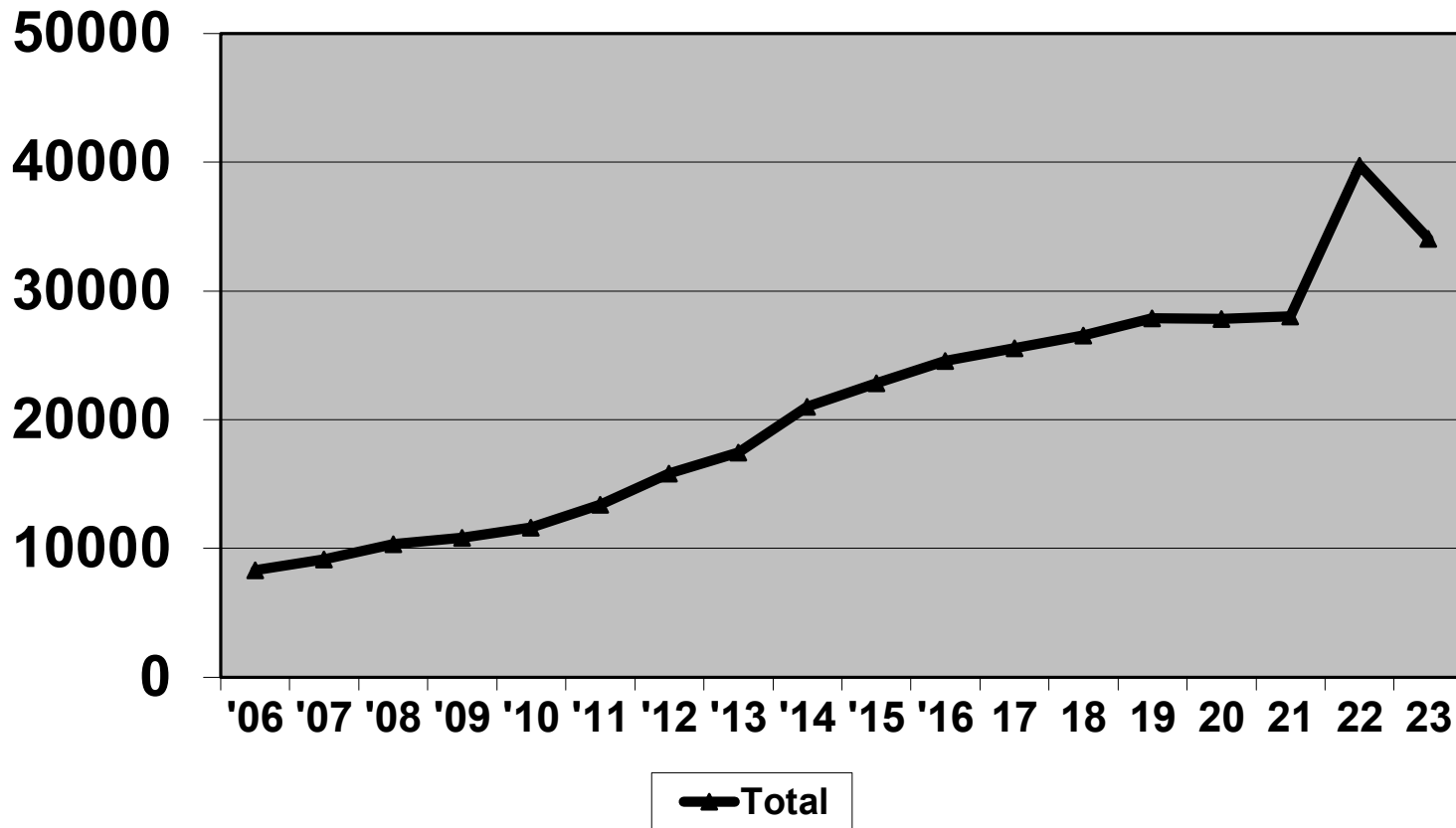
- ▶ **Required Device Testing**

- ▶ FCC-recognized accredited testing laboratories
- ▶ Accredited to ISO/IEC 17025
- ▶ Approximately 635 around the world

- ▶ **Device Certification**

- ▶ FCC-recognized Telecommunication Certification Bodies (TCBs)
- ▶ Accredited to ISO/IEC 17065 and ISO/IEC 17025
- ▶ 40 TCBs (21 domestic, 19 foreign)

Equipment Authorization Certifications (2006-2023)



Audits and Market Surveillance

- ▶ Test, evaluate, and sample
 - ▶ TCBs perform post-market surveillance in accordance with ISO/IEC Guide 65 or ISO/IEC 17065 (KDB 610077)
- ▶ Audit device certifications
- ▶ Assist the FCC Enforcement Bureau (EB)
- ▶ Coordinate with U.S. Customs and Border Protection

Recent Examples

- ▶ KDB Publications of Interest
- ▶ 5.9 GHz Device Waivers
- ▶ 6 GHz Devices
- ▶ 60 GHz Radar Rule Update
- ▶ Standards Updates
- ▶ Protecting Against National Security Threats

KDB Publications of Interest

- ▶ Mobile and Portable Device RF Exposure Procedures (KDB [447498](#))
 - ▶ <https://apps.fcc.gov/oetcf/kdb/forms/FTSSearchResultPage.cfm?switch=P&id=20676>
- ▶ RF Exposure Considerations for Wireless Power Transfer (KDB [680106](#))
 - ▶ <https://apps.fcc.gov/oetcf/kdb/forms/FTSSearchResultPage.cfm?id=41701&switch=P>
- ▶ Protecting Against National Security Threats (KDB [986446](#))
 - ▶ <https://apps.fcc.gov/oetcf/kdb/forms/FTSSearchResultPage.cfm?id=325672&switch=P>
- ▶ Module Certification Procedures (KDB [996369](#))
 - ▶ <https://apps.fcc.gov/oetcf/kdb/forms/FTSSearchResultPage.cfm?id=44637&switch=P>

Authorization of 5.9 GHz Band Devices

- ▶ Intelligent transportation systems (ITS) cellular vehicle to everything (C-V2X) devices
- ▶ Rule waivers to approximately 24 entities
- ▶ Early deployment of C-V2X roadside units and onboard units
- ▶ Transportation and vehicle safety-related communications

Authorization of 6 GHz Band Devices

- ▶ 6 GHz band automated frequency coordination systems
 - ▶ KDB 987594
- ▶ 6 GHz band very low power (VLP) devices
 - ▶ FCC 23-86
 - ▶ Rules adopted October 19, 2023
 - ▶ Effective date March 8, 2024
 - ▶ Operation in the UNII-5 (5.925-6.425 GHz) and UNII-7 (6.525-6.875 GHz)

60 GHz Radar Rule Updates

- ▶ FCC Report and Order (R&O) 23-35
 - ▶ Short-range field disturbance sensors (FDS) in 57-71 GHz band
 - ▶ Effective date August 23, 2023
 - ▶ Mobile and fixed FDS radars
 - ▶ FDS operation for on-board unmanned aircraft
 - ▶ See FCC TCB workshop October 2023 Part 15.255 Rules Amendment presentation for more information

Standards

- ▶ Incorporation of Standards for Equipment Authorization Program
 - ▶ Effective date: October 30, 2023
 - ▶ Transition periods
- ▶ C63.25.1:2018
 - ▶ Site validation procedures for radiated sites from 1-18 GHz
- ▶ IEEE/ANSI C63.10:2020
 - ▶ Procedures for compliance testing of unlicensed wireless devices
- ▶ ANSI C63.4a: 2017
 - ▶ Modifications to the normalized site attenuation procedures for validating radiated test sites for use in 30 MHz to 1 GHz frequency range
- ▶ ISO/IEC 17025:2017
 - ▶ General Requirements for Competence of Testing and Calibration Labs

Protecting Against National Security Threats to the Communications Supply Chain through the Equipment Authorization Program

Prohibits authorization of “covered” equipment

- ▶ New rules effective February 6, 2023
- ▶ Further Notice of Proposed Rulemaking (FNPRM)
- ▶ Issued additional guidance on implementation of rules

For more information

- ▶ **Electronic Code of Federal Regulations**
 - ▶ <https://www.ecfr.gov/current/title-47/chapter-I>
- ▶ **Measurement procedures**
 - ▶ <https://www.fcc.gov/general/equipment-authorization-measurement-procedures>
- ▶ **Equipment authorization**
 - ▶ <http://www.fcc.gov/oet/ea/>
- ▶ **Equipment guidance: Knowledge Database (KDB)**
 - ▶ www.fcc.gov/labhelp or www.fcc.gov/kdb
- ▶ **Telephone Terminal Equipment**
 - ▶ www.part68.org
- ▶ **ISO and IEC standards in technical regulations**
 - ▶ <https://www.iso.org/files/live/sites/isoorg/files/store/en/PUB100358.pdf>

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Thank You