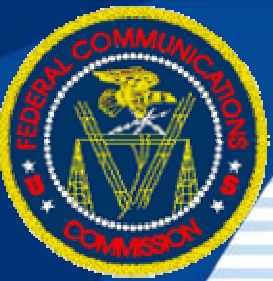




# **International Workshop on Mutual Recognition Agreement for R&TTE**

**December 14-15, 2006**

**George Tannahill  
FCC Lab - Technical Research Branch  
george.tannahill@fcc.gov  
Office of Engineering and Technology  
Federal Communications Commission**



# R&TTEに関する MRA国際ワークショップ

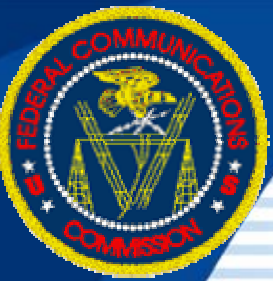
**December 14-15, 2006**

**George Tannahill**  
**FCC Lab - Technical Research Branch**  
**[george.tannahill@fcc.gov](mailto:george.tannahill@fcc.gov)**  
**Office of Engineering and Technology**  
**Federal Communications Commission**



# Overview

- FCC Overview
- FCC Regulations
- Equipment Approval Process
  - General information
  - TCB information
  - MRA information
- Post Grant Surveillance
- Information Sources



# 概要

- FCCの概要
- FCC 規則
- 機器認証手続き
  - 一般情報
  - TCB情報
  - MRA情報
- 認証後の監視
- 情報源



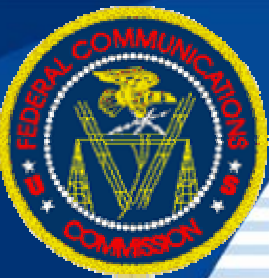
# Federal Communications Commission

- Federal Communications Commission (FCC) regulates the private sector telecommunications industry, in the public interest
  - Establishes technical regulations for transmitters and other equipment to minimize their potential for causing interference to radio services.
  - Administers an authorization program to ensure that equipment reaching the market complies with the technical requirements

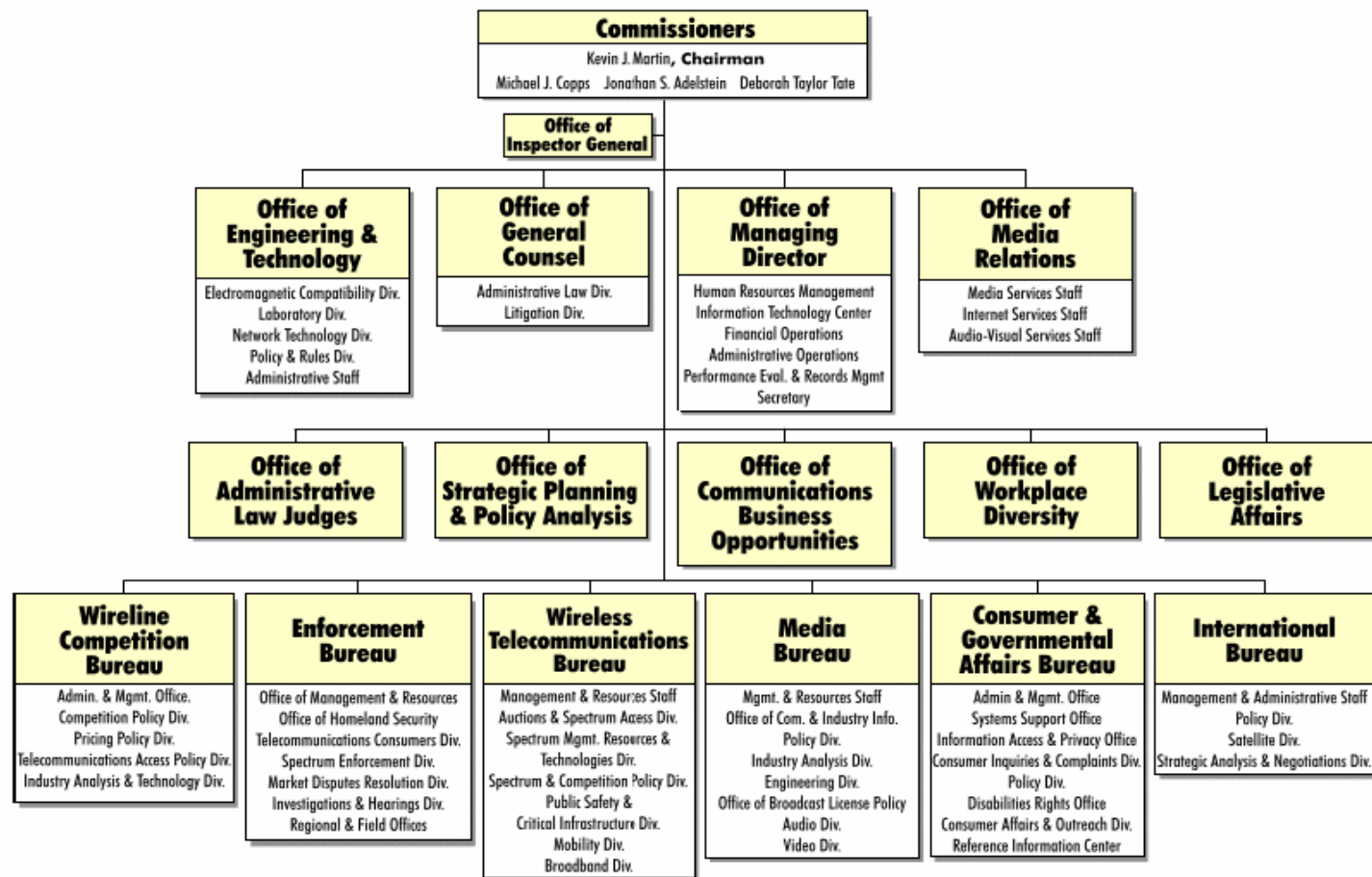


## FCC(連邦通信委員会)

- **連邦通信委員会 (FCC)は公益のために民間電気通信産業分野の規制を所管。**
  - **無線サービスに混信を起こす可能性を最小限にするため、送信機その他の設備の技術規則を制定。**
  - **市場出荷される機器が技術要求事項に適合するよう認証制度を管理。**

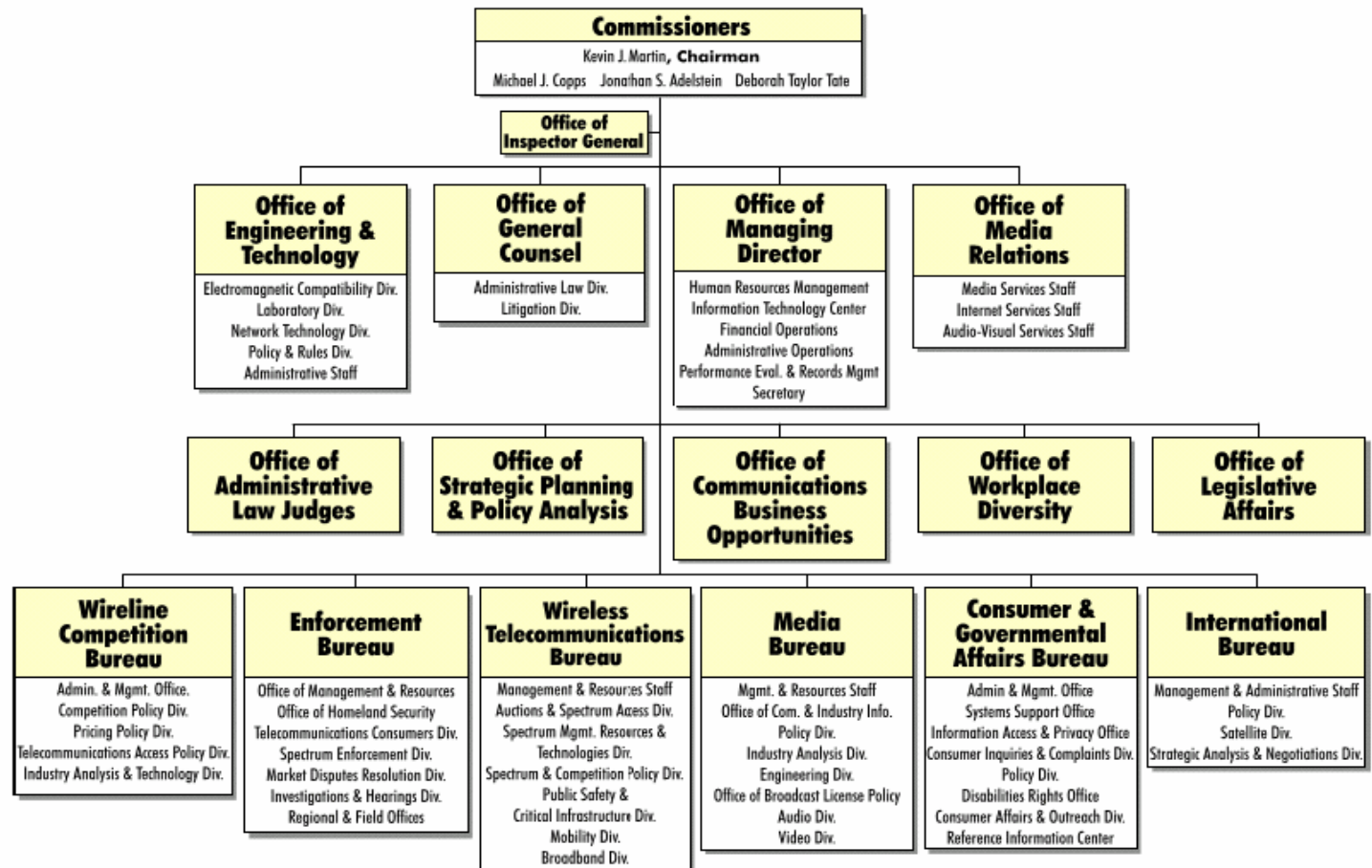


# FCC Organizational Chart





# FCCの組織図





# OET Lab Principle Functions

- Equipment Authorization including monitoring Telecommunication Certification Bodies
- Ensure compliance through market surveillance and enforcement
- Technical Studies supporting regulatory policies and rulemaking
- Providing web-based comprehensive and timely clarification of technical standards and procedures



# OET試験所の主な業務

- **TCB (Telecommunication Certification Bodies) の監視を含む機器認証**
- **市場監視及び強制執行を通じて適合性を確保**
- **規制政策及び規則制定を支援する技術調査**
- **ウェブで技術規格及び手続きの総合的、タイムリーな説明**



# FCC Regulations



- Title 47 of the Code of Federal Regulations (47 CFR)

- Transmitter specifications
- Radio Services
- EMC specifications
- Telephone Terminal Equipment
- Test Methods
- Equipment Authorization Requirement
- Marketing and Importation Rules

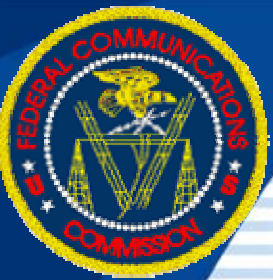


# FCC規則



## ● Title 47 of the Code of Federal Regulations (47 CFR)

- 送信機規格
- 無線通信サービス
- EMC規格
- 電話端末機器
- 試験方法
- 機器認証に対する要求条件
- マーケティング及び輸入ルール



# FCC Regulations Overview

## ● Administrative Rules

- Contain general requirements applicable to all other rule sections
  - 47 CFR Parts 0, 1 and 2
    - Examples: application filing process, general description of required tests, confidentiality, etc.

## ● Radio Service Rules

- Contain specific user licensing and equipment authorization testing requirements
  - 47 CFR Part 15, 18, 22, 24, etc.
    - Examples: Line conducted and radiated emission limits for specific products, occupied bandwidth masks, etc.



# FCC規則の概要

## ● 管理規則

- すべてのその他の規則条項に適用される一般要求事項を規定
  - 47 CFR Parts 0, 1及び2
    - 例: 申請書の提出手続き、必要な試験の一般的な説明、機密性など。

## ● 無線サービス規則

- ユーザーのライセンシング及び機器認証試験の要求事項を規定
  - 47 CFR Part 15, 18, 22, 24など。
    - 例: 製品に対する回線伝導・放射の上限値、占有帯域幅マスクなど。



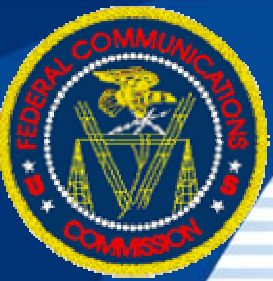
# FCC Administrative Regulations

- 47 CFR Part 0
  - 0.457 & 0.459 Confidentiality
- 47 CFR Part 1
  - 1.1307 & 1.1310 – RF Exposure
- 47 CFR Part 2
  - Subpart I – Marketing
  - Subpart J – Equipment Authorization
    - 2.201-2.202 – Emission designators
    - 2.902-2.907 Authorization Types
    - 2.929 – 2.926 – ID Labels
    - 2.1033 – Application for Certification
    - 2.1043 – Permissive Changes
    - 2.1046 – 2.1057 – General tests for licensed devices
  - Subpart K – Importation of Devices



# FCC 管理規則

- **47 CFR Part 0**
  - 0.457 & 0.459 機密性
- **47 CFR Part 1**
  - 1.1307 & 1.1310 – RF暴露
- **47 CFR Part 2**
  - Subpart I – マーケティング
  - Subpart J – 機器認証
    - 2.201-2.202 – 発射型式
    - 2.902-2.907 型式認証
    - 2.929 – 2.926 – IDラベル
    - 2.1033 – Certification申請
    - 2.1043 – 変更の許可
    - 2.1046 – 2.1057 – 免許を必要とする機器の一般的試験
  - Subpart K – 機器の輸入



# Equipment Authorization Regulations

## ● Administrative

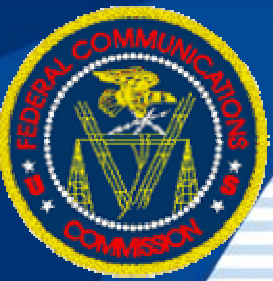
- Part 0: Commission organization
- Part 1: Practice and procedure
- Part 2: General rules and regulations

## ● License Exempt Operation

- Part 15: Radio frequency devices
- Part 18: Industrial, Scientific, and Medical Equipment
- Part 68: Telephone Terminal Equipment

## ● Licensed Operation

- Part 22: Public mobile services
- Part 24: Personal communication services



# 機器認証規則

## ● 管理

- Part 0: FCC組織
- Part 1: 実務及び手続き
- Part 2: 一般的規則

## ● 免許免除運用

- Part 15: 無線機器
- Part 18: ISM機器
- Part 68: 電話端末機器

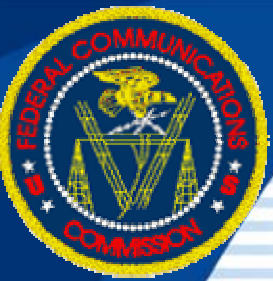
## ● 免許を要する運用

- Part 22: 公衆無線サービス
- Part 24: パーソナルコミュニケーションサービス



# Equipment Authorization Regulations (continued)

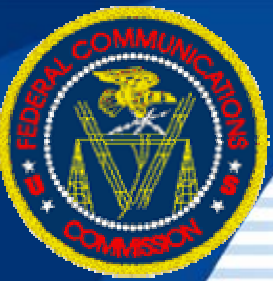
- Licensed Operation (continued)
  - Part 25: Satellite communications
  - Part 27: Miscellaneous wireless communication service
  - Part 73: Radio broadcast services
  - Part 74: Auxiliary broadcast services
  - Part 80: Maritime services
  - Part 87: Aviation services
  - Part 90: Private land mobile radio service
  - Part 95: Personal radio service
  - Part 97: Amateur radio services
  - Part 101: Fixed microwave radio services



# 機器認証規則 (続き)

## ● 免許を要する運用 (続き)

- Part 25: 衛星通信
- Part 27: その他のワイヤレス通信サービス
- Part 73: 無線放送サービス
- Part 74: 補助放送サービス
- Part 80: 海上サービス
- Part 87: 航空サービス
- Part 90: 私設陸上移動無線サービス
- Part 95: パーソナル無線サービス
- Part 97: アマチュア無線サービス
- Part 101: 固定マイクロ波無線サービス



# Measurement Techniques

- What Measurement Techniques Should Be Used?
  - A number of measurement techniques have been identified and can be found in:
    - FCC Rules
      - Radio Service have highest priority
      - Part 2 rules have 2<sup>nd</sup> highest priority
    - Industry Standards
    - Text of the Report and Order
    - Public Notice Issued by the Commission
    - Knowledge Database
- OET Website for Equipment Authorization  
General Information:
  - <http://www.fcc.gov/oet/ea/Welcome.html>



# 測定技術

- **どの測定技術を使用すべきか？**
  - 幾つかの測定技術があり、以下に規定されている。
    - **FCC規則**
      - 無線サービスは最優先
      - Part 2規則は2番目に最優先
    - **業界標準**
    - **Report and Orderの本文**
    - **FCC発行のPublic Notice**
    - **ナレッジデータベース (Knowledge Database)**
- **機器認証一般情報用のOETウェブサイト:**
  - <http://www.fcc.gov/oet/ea/Welcome.html>



# Equipment Authorization Program

*The type of approval is specified in the rules for the particular type of device*

Maximum



Minimum

**Certification**  
(Approved by FCC or TCB)

**DoC**  
(Self-approval using an accredited lab)

**SDoC (Part 68)**  
(Self-approval Database by ACTA)

**Verification**  
(Self-approval)



# 機器認証制度

特定機種の認証の種類は  
規則に定められている

最大



最小

**Certification**  
(FCC又は  
TCBによる認証)

**DoC**  
(認定試験所を使用した  
自己確認)

**SDoC (Part 68)**  
(ACTAによる自己確認  
データベース)

**Verification**  
(自己確認)



# FCC Authorization Requirements

Verification	SDoC	DoC	Certification
Most ISM Equipment		Cable System Term. Device	
TV & FM Receivers		PC's & Peripherals	<i>PC's &amp; Peripherals<sup>1</sup></i>
All Other Digital Devices		Most Receivers	Most Receivers
Pt-to-Pt Microwave		TV Interface Devices	TV Interface Devices
Broadcast Transmitters		Consumer ISM Equipment	Consumer ISM Equipment
Aux. Broadcast Transmitters	Telephone Equipment		<i>Telephone Equipment<sup>1</sup></i>
INMARSAT Equipment			Most transmitters
406 MHz ELT			Scanning Receivers
CATV Relay Transmitters			

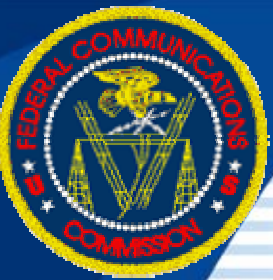
(1) The FCC Lab no longer certifies this equipment. However, this equipment may be certified by a TCB.



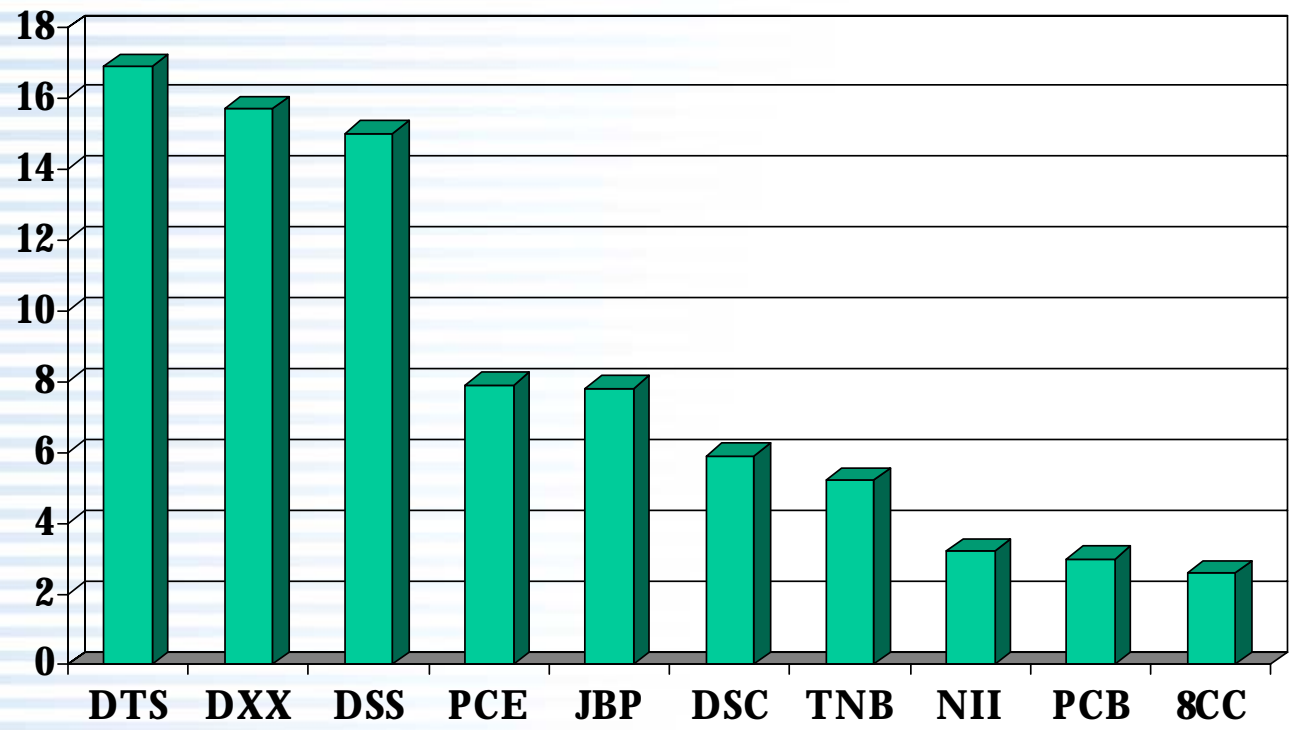
# FCC認証に対する要求事項

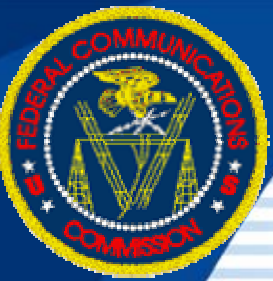
Verification	SDoC	DoC	Certification
Most ISM Equipment		Cable System Term. Device	
TV & FM Receivers		PC's & Peripherals	<i>PC's &amp; Peripherals<sup>1</sup></i>
All Other Digital Devices		Most Receivers	Most Receivers
Pt-to-Pt Microwave		TV Interface Devices	TV Interface Devices
Broadcast Transmitters		Consumer ISM Equipment	Consumer ISM Equipment
Aux. Broadcast Transmitters	Telephone Equipment		<i>Telephone Equipment<sup>1</sup></i>
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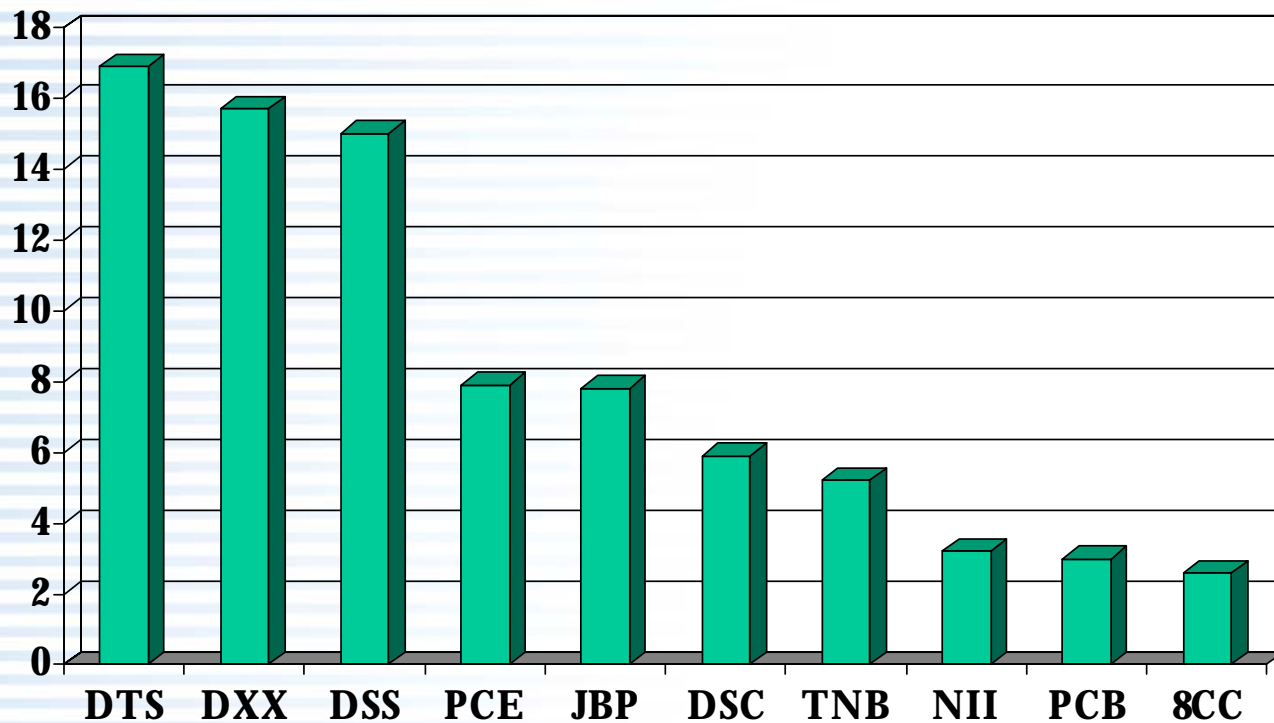


# Equipment Authorization Top Ten Equipment Classifications





# 機器認証の上位10機種





# Equipment Authorization Classifications

Category	Description	Percent	Rules
DTS	Digital Transmission System	16.9	15C
DXX	Part 15 Low Power Communication Device Transmitter	15.7	15C
DSS	Part 15 Spread Spectrum Transmitter	15.0	15C
JBP	Part 15 Class B Computing Device Peripheral	7.9	15B
PCE	PCS Licensed Transmitter held to ear	7.8	Licensed 24
DSC	Part 15 Security/Remote Control Transmitter	5.9	15C
TNB	Licensed Non-Broadcast Station Transmitter	5.2	Licensed 22
PCB	PCS Licensed Transmitter	3.2	Licensed 24
NII	Unlicensed National Information Infrastructure TX	3.0	15E
8CC	Part 18 Consumer Device	2.6	18
	Total	83.2	



# 機器認証の分類

種類	説明	%	ルール
DTS	デジタル伝送システム	16.9	15C
DXX	Part 15 低電力通信デバイス送信機	15.7	15C
DSS	Part 15 スペクトラム拡散送信機	15.0	15C
JBP	Part 15 クラスB コンピューティングデバイス周辺装置	7.9	15B
PCE	耳に当てるPCS要免許送信機	7.8	Licensed 24
DSC	Part 15 セキュリティ/リモコン送信機	5.9	15C
TNB	免許を要する放送局以外の送信機	5.2	Licensed 22
PCB	PCS要免許送信機	3.2	Licensed 24
NII	免許不要NII( National Information Infrastructure)送信機	3.0	15E
8CC	Part 18 民生機器	2.6	18
	合計	83.2	



# General Equipment Types

- License Exempt Devices – Parts 15 & 18
  - Incidental Radiator
    - Parts 15.13 & 15.5(b)
  - Unintentional Radiator
    - Part 15 Subpart B
  - Intentional Radiator
    - Part 15 Subpart C
- Licensed Transmitters – Other Rule Parts



# 一般的機種

- **免許を免除された機器 – Parts 15 & 18**
  - 付随電波放射機器 (Incidental Radiator)
    - Parts 15.13 & 15.5(b)
  - 電波放射を目的としない機器 (Unintentional Radiator)
    - Part 15 Subpart B
  - 電波放射を目的としない機器 (Intentional Radiator)
    - Part 15 Subpart C
  
- **免許を要する送信機 – その他の規則Parts**



# License Exempt Incidental Radiators

- Generate radio frequency energy during the course of its operation although the device is not intentionally designed to generate or emit radio frequency energy. ( § 15.13)
- Manufacturers of these devices must employ good engineering practices to minimize the risk of harmful interference.
- Examples:
  - DC motors
  - Mechanical light switches



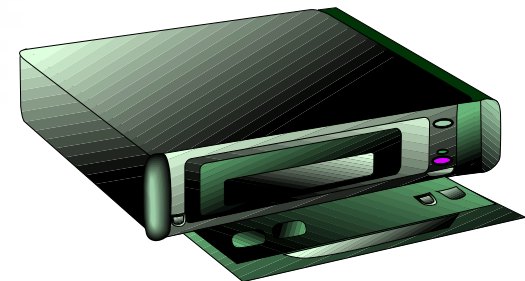
## 免許を免除された電波放射を 目的としない機器

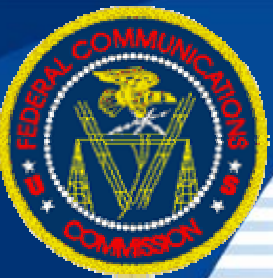
- 電波エネルギーの発生又は放射を目的としていないが、運用中に電波エネルギーを発生。  
( § 15.13)
- これらの機器のメーカーは有害な電波干渉を最小限にするため優れた設計実務を採用しなければならない。
- 例:
  - DCモータ
  - 機械的な照明スイッチ



# License Exempt Unintentional Radiators

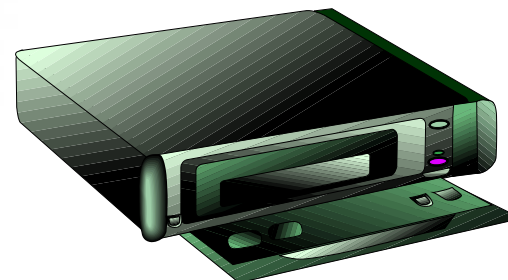
- Part 15, Subpart B – Any device that intentionally generates RF energy, but does not intentionally radiate that energy
- Examples:
  - Digital devices (data processing equipment, computers, etc.)
  - Radio receivers that tune between 30-890 MHz
  - TV interface devices (VCRs, cable terminal devices, etc.)





# 免許を免除された電波放射を 目的としない機器

- Part 15, Subpart B – 電波エネルギーを非意図的に放射するが、この電波エネルギーを意図的には放射しない。
- 例:
  - デジタルデバイス (データ処理機器、コンピュータ等)
  - 30-890 MHz帯を受信できる無線受信機
  - テレビインタフェース機器 (VCR, ケーブル端末機器など)





# License Exempt Intentional Radiators

- Part 15, Subpart C – Lists frequency bands and types of operation permitted.
- Examples:
  - Cordless Telephones
  - Remote Switches, door controls, alarms
  - Wireless Local Area Network (WLAN)





# 免許を免除された電波放射を 目的としない機器

- Part 15, Subpart C –許  
可された周波数帯域及び  
運用方式を掲載.
- 例:
  - コードレステレホン
  - リモートスイッチ、ドア  
コントロール、アラーム
  - WLAN、





# Licensed Radio Services



- Transmitters that require either an individual license or a blanket authorization are subject to requirements of a specific radio service.
  - General Mobile Radio Services (non-cellular)
  - Personal Mobile Services
  - Broadcast Radio Services
  - Microwave Radio Services
  - Maritime and Aviation Radio Services



# 免許を要する無線サービス



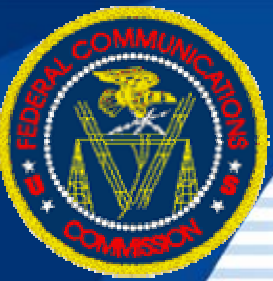
- 個別免許又は包括免許のいずれかを必要とする送信機は、無線サービスの要求事項を満たさなければならない。
  - 一般移動無線サービス  
(セルラ無線以外)
  - パーソナル移動サービス
  - 放送無線サービス
  - マイクロ波無線サービス
  - 海上及び航空無線サービス



# Telephone Terminal Regulations



- **47 CFR Part 68 – Telephone Terminal Equipment (TTE)**
  - Public Switched Telephone Network (PSTN)
  - Private Line Interfaces
  - Analog Interfaces
  - Digital Interfaces
  - [www.part68.org](http://www.part68.org)



# 電話端末機器規則



## ● 47 CFR Part 68 – 電話端末機器(TTE)

- 公衆電話交換網 (PSTN)
- 私設回線インタフェース
- アナログインタフェース
- デジタルインタフェース
- [www.part68.org](http://www.part68.org)



# Equipment Authorization Processes

- Declaration of Conformity
  - Approval using an accredited test lab
  - MRA Phase I
- Certification
  - Approved by FCC or TCB
  - MRA Phase II



# 機器認証プロセス

- **DoC (Declaration of Conformity)**
  - 認定試験所を使用した認証
  - MRAフェーズI
  
- **Certification)**
  - FCC又はTCBによる認証
  - MRAフェーズII



# Application for Certification Information

- 2.1033(b) Part 11, 15, 18
  - Name, address
  - FCCID
  - User/installation Manual
  - Circuit Description
  - Block Diagram
  - Schematics (when required)
  - Measurement Report
  - Photos
    - Internal, external, setup
- 2.1033(c) Other Parts
  - Name, address
  - FCCID
  - User/installation Manual
  - Circuit Description
  - Emission Type
  - Frequency Range
  - Power levels & max.
  - Tune Up procedure
  - Schematics
  - Measurement Report
  - Photos



# Certification申請 情報

## ● 2.1033(b) Part 11, 15, 18

- 氏名、住所
- FCCのID
- ユーザー/工事マニュアル
- 回路説明
- ブロック図
- 概略図 (必要なとき)
- 測定方法
- 写真
  - 内部、外部、セットアップ状態

## ● 2.1033(c) その他Parts

- 氏名、住所
- FCCのID
- ユーザー/工事マニュアル
- 回路説明
- 発射方式
- 周波数幅
- 出力レベル及び最大値
- チューンアップ手続き
- 概略図
- 測定方法
- 写真



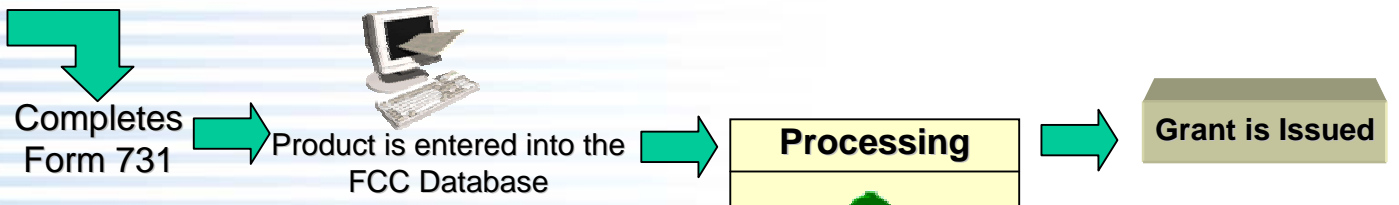
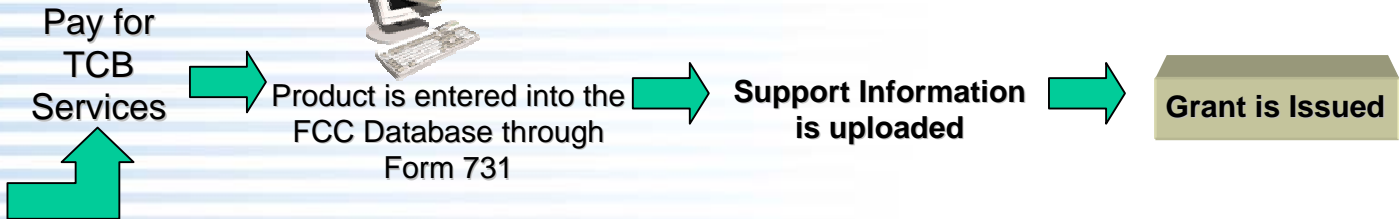
# FCC/TCB Certification Process Comparison



Product is Tested



Manufacturer's Product



Questions and Answers  
**E-mail**

**Processing**

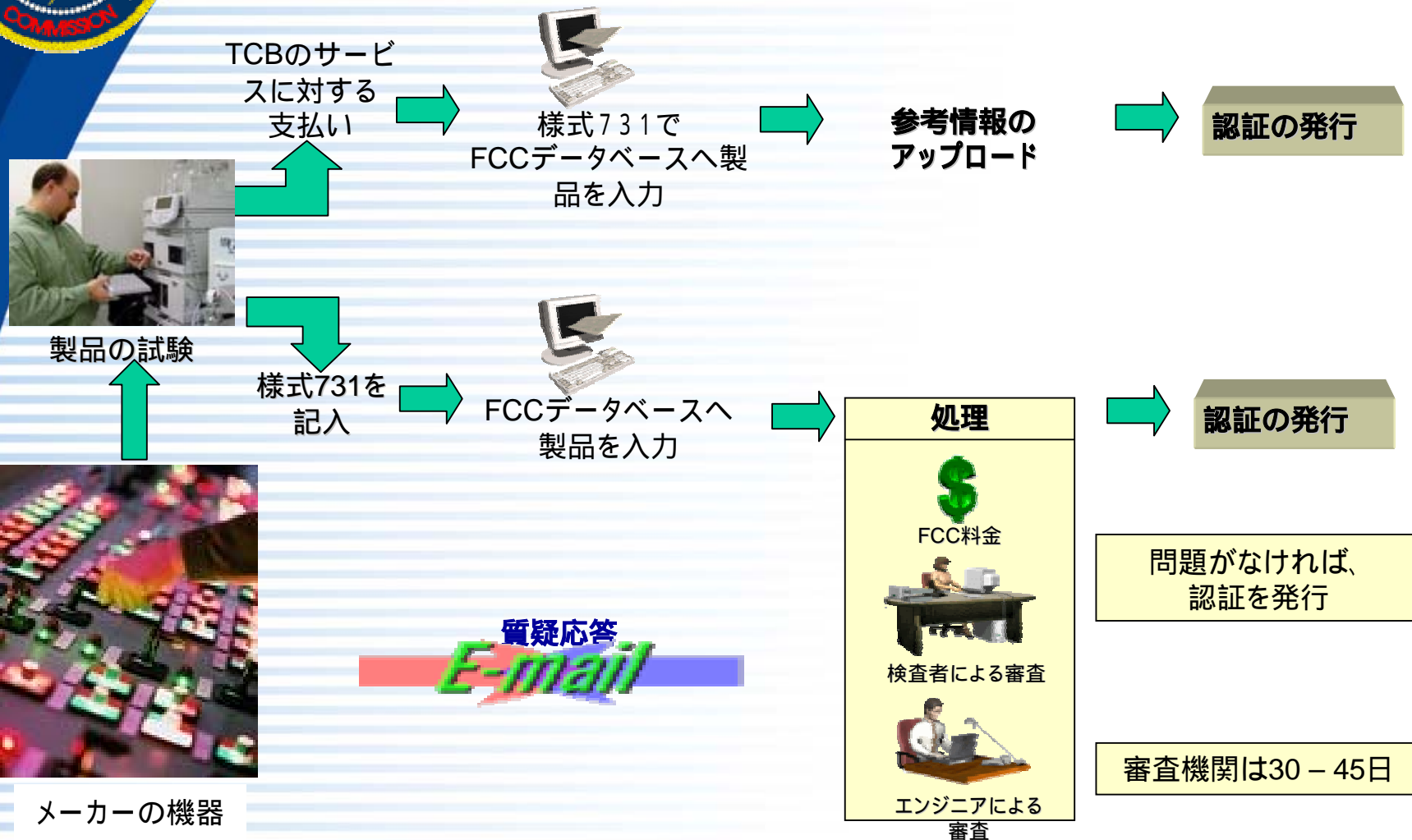
- FCC Fees
- Examiner Review
- Engineer Review

If no problems are found a Grant is issued.

The review process is between 30 – 45 days

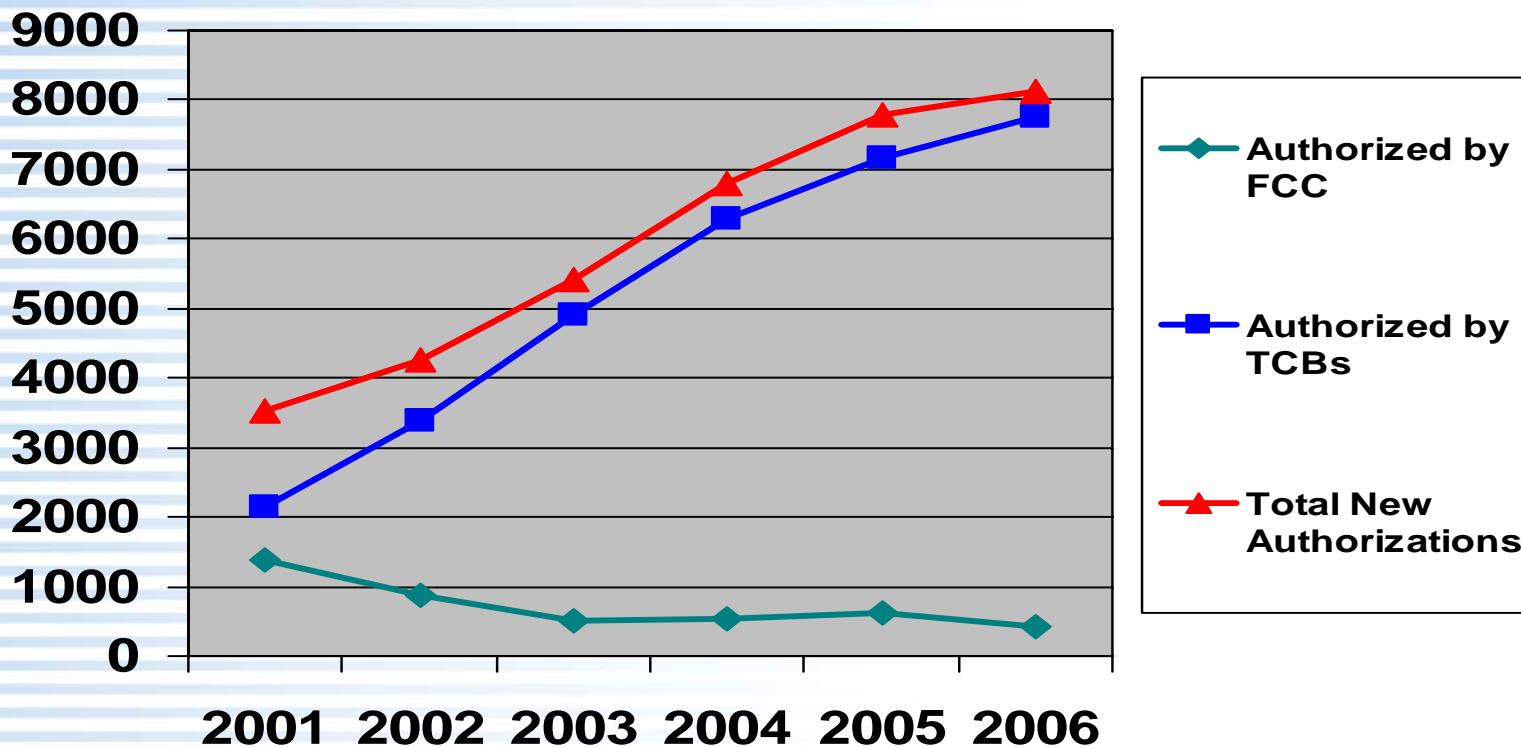


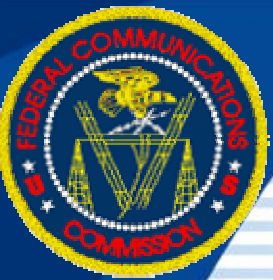
# FCC/TCBのCertification プロセスの比較



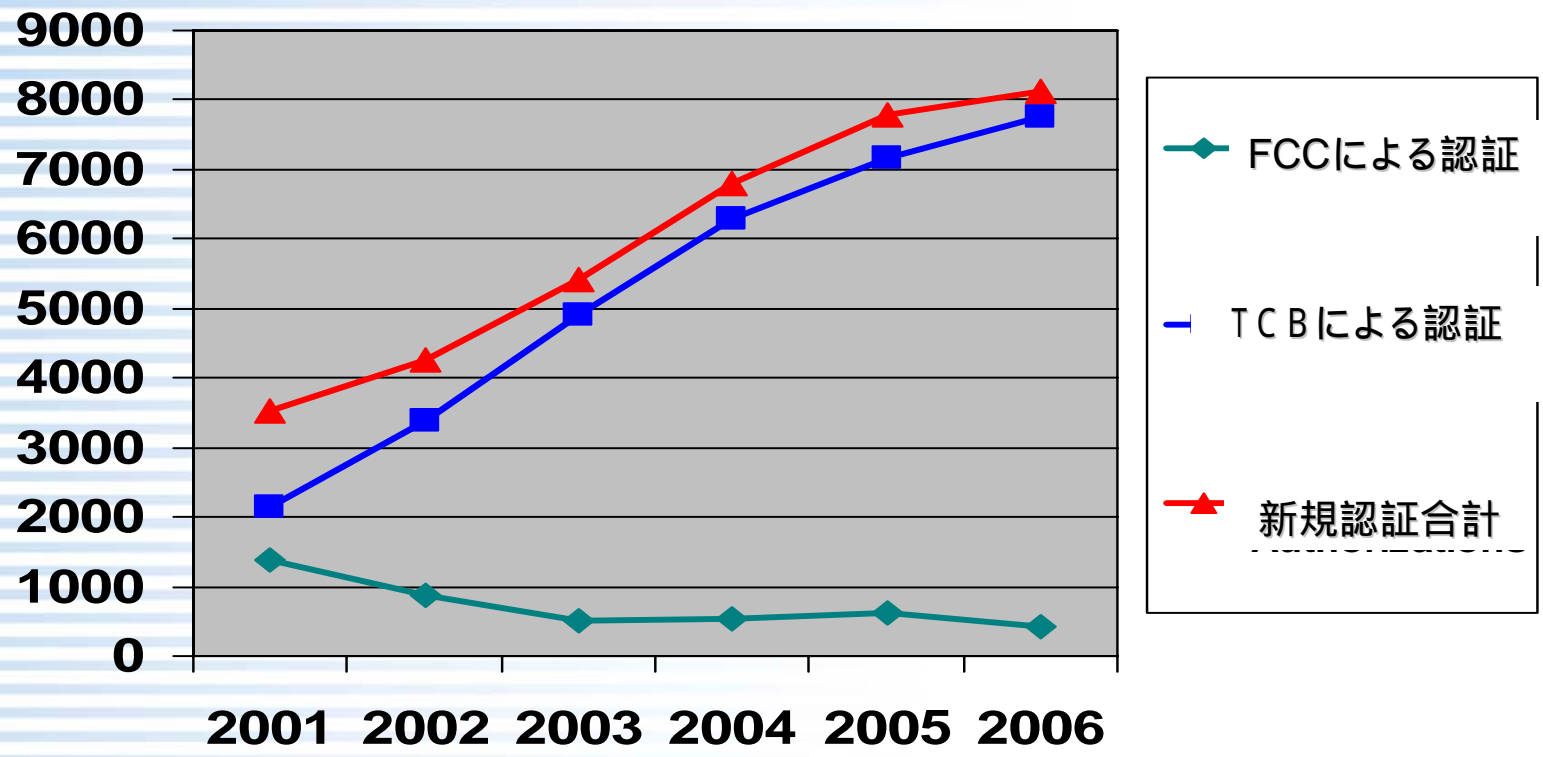


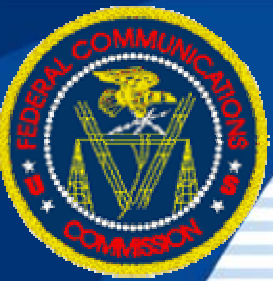
# Equipment Authorization Certification Process Trends





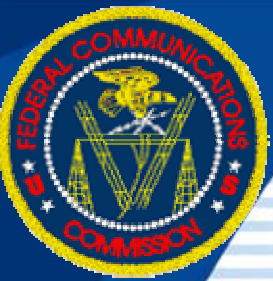
# 機器認証 Certification手続きの動向





# Why Use the Private Sector?

- Speed at which technology is changing and shorter product life cycles require faster product approvals
- The private sector has the technical expertise and ability to certify equipment.
- Increase the resources performing conformity assessment
- Efficiencies in designing and approving product in the same geographic location
- Reduce uncertainty and delay in obtaining certification



# なぜ民間セクターを使用するのか？

- 急速な技術変化及び製品ライフサイクルの短縮により、迅速な製品認証が必要
- 民間セクターは機器認証に必要な技術及び能力を有する。
- 適合性評価を行う資源の増加
- 同じ地理的場所で製品の設計と認証を行う効率性
- Certification取得の不確実性と遅延の減少



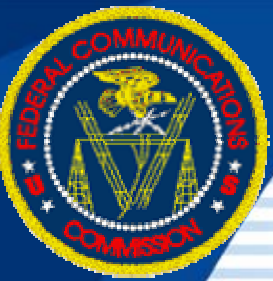
## What is a TCB?

- A Telecommunication Certification Body is a Certification Body that has been accredited to ISO/IEC Guide 65 and ISO/IEC Standard 17025 by a recognized Accrediting Organization and designated by the FCC to approve equipment subject to certification.
- A TCB has certain rights and responsibilities (equitable treatment of applicants, audit through sampling of equipment on market)
- Foreign entities may become a TCB in accordance with the terms of a government-to-government Mutual Recognition Agreement/Arrangement.



## TCBとは?

- TCB (Telecommunication Certification Body) は、承認され認定機関によりISO/IECガイド65及びISO/IEC規格17025の認定を取得し、certification対象機器を認証するためFCCに指定された「Certification機関」である。
- TCBはある種の権利と責任 (申請者の公平な取扱い、市場における機器のサンプル監査の実施) を有する。
- 外国法人も、政府間MRA(相互承認協定/取決め) の条件に従って、TCBになることができる。



# TCB Scope of Responsibility

- TCB (see § 2.962 (e) and Public Notice, DA 99-1640)
  - Is empowered to certify products in accordance with the FCC rules
  - Must provide fair and equitable treatment
  - Must accept test data from any source, subject to subcontracting clause in ISO Guide 65 and shall not unnecessarily repeat tests
  - May assess fees for processing applications
  - May rescind grant within 30 days



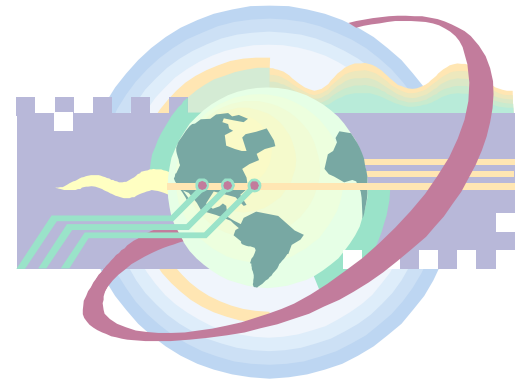
## TCBの責任範囲

- TCB (参照 § 2.962 (e)及びPublic Notice, DA 99-1640)
  - FCC規則に従って製品を認証する権限を有する。
  - 公正・公平な取扱いを提供しなければならない。
  - ISOガイド65 の請負規定により、誰のテストデータでも受け入れ、不必要に重複して試験を実施してはならない。
  - 申請の処理に対し料金を課することができる。
  - 30日以内に認証を撤回することができる。



# MRA Introduction

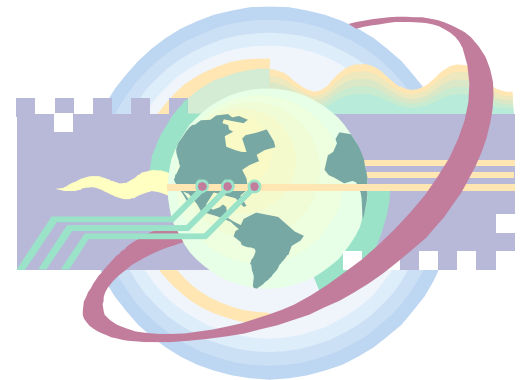
- Purpose of MRA -- To facilitate trade by allowing Conformity Assessment Bodies (CAB) in one economy to test (Phase I) and/or certify (Phase II) products to the Technical Regulations of another economy.
- Participation in a MRA is voluntary -- however, if a economy agrees to participate in either Phase I and/or Phase II certain rights and obligations in accordance with the terms of the MRA apply.
- Government to Government
- Use of harmonized technical standards is not part of an MRA

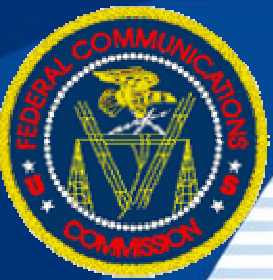




# MRAの導入

- MRAの目的 – ある国の適合性評価機関(CAB)に対し別の国(エコノミー)の技術規則に基づき試験(フェーズI)又は認証(フェーズII)することを認めることにより貿易を促進する。
- MRAへの参加は自主的 -- しかし、エコノミーがフェーズIかフェーズIIのいずれかに参加することに合意すれば、MRAの条件に従って、ある種の権利・義務が適用される。
- 政府間
- 整合さらた技術規格の使用は、MRAの一部になっていない。





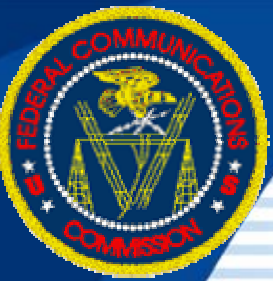
## Benefits of MRAs

- Products May be shipped directly to foreign countries without any further requirements for testing and/or certification thereby reduced costs and time to market
- Facilitates trade by promoting market access and competition
- Reduces and minimizes non-tariff trade barriers
- Shortens time for manufacturers to introduce their products into the importing countries



# MRAの利益

- 製品を更に試験・認証することなく、外国へ直接出荷することができ、市場出荷に要するコストと時間が減少。
- 市場アクセス及び競争を促進して貿易を促進。
- 非関税障壁を削減。
- メーカーにとって、輸入国への製品導入に要する時間を短縮。



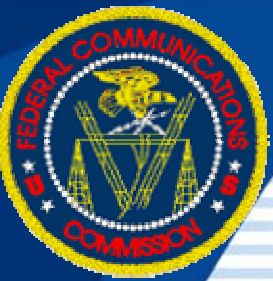
# Identification of US Players

<b>Regulatory Authority (RA)</b>	<b>Federal Communications Commission (FCC)</b>	<a href="http://www.fcc.gov">www.fcc.gov</a>
<b>Designating Authority (DA)</b>	<b>National Institute of Standards and Technology (NIST)</b>	<a href="http://www.nist.gov">www.nist.gov</a>
<b>Accreditation Body (Phase 1)</b>	<b>NVLAP (National Voluntary Lab Accreditation Program) &amp; (A2LA (American Association of Lab Accreditation))</b>	<a href="http://www.nist.gov">www.nist.gov</a> <a href="http://www.a2la.org">www.a2la.org</a>
<b>AB (Phase 2)</b>	<b>American National Standards Institute (ANSI)</b>	<a href="http://www.ansi.org">www.ansi.org</a>



# 米国のプレイヤー

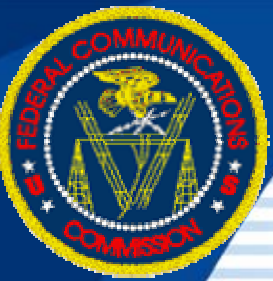
<b>規制当局</b> : Regulatory Authority (RA)	<b>FCC(連邦通信委員会)</b>	<a href="http://www.fcc.gov">www.fcc.gov</a>
<b>指定当局</b> : Designating Authority (DA)	<b>NIST (National Institute of Standards and Technology)</b>	<a href="http://www.nist.gov">www.nist.gov</a>
<b>認定機関</b> : Accreditation Body (AB) (フェーズ1)	<b>NVLAP (National Voluntary Lab Accreditation Program) &amp; A2LA (American Association of Lab Accreditation)</b>	<a href="http://www.nist.gov">www.nist.gov</a> <a href="http://www.a2la.org">www.a2la.org</a>
<b>認定機関</b> (AB) (フェーズ2)	<b>ANSI (American National Standards Institute)</b>	<a href="http://www.ansi.org">www.ansi.org</a>



## United States and MRAs

The US Government has agreed to participate in three separate MRAs for conformity assessment:

- European Union MRA
- Asian Pacific Economic Co-operation Tel MRA (APEC)
- Inter-American Commission for Telecommunications (CITEL MRA)



## 米国とMRA

米国政府は、3つの適合性評価MRAに参加することに合意。

- 欧州連合 (EU) MRA
- APEC電気通信MRA (Asian Pacific Economic Co-operation Tel MRA)
- CITEL(米州電気通信会議) MRA (Inter-American Commission for Telecommunications)



# MRA Implementation Process

- Basic Requirements:
  - Regulatory Authority
  - Designating Authority
  - CAB Accrediting Body
- Modify laws to allow if necessary
  - Laws must allow private sector testing and approval.
- Establish:
  - Procedures for recognizing foreign CABs
  - Procedures for designating CABs



# MRA実施プロセス

- **基本的要求事項:**
  - 規制当局 (Regulatory Authority)
  - 指定当局 (Designating Authority)
  - CAB認定機関 (CAB Accrediting Body)
- **必要があれば、法律を改正**
  - 法律により民間セクターの試験・認証を認めることが必要。
- **以下の制定:**
  - 外国CABを承認する手続き
  - 外国CABを指定する手続き



# Accreditation Requirements

## ● MRA Phase I

- Regulatory Authority
- Designating Authority
- Accrediting Body
  - ISO17011
- CAB
  - ISO 17025

## ● MRA Phase II

- Regulatory Authority
- Designating Authority
- Accrediting Body
  - ISO17011
- CAB
  - ISO 65
  - ISO 17025



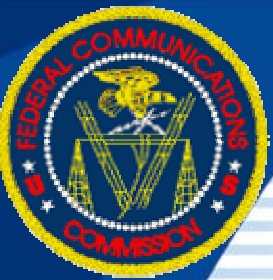
# 認定に対する要求事項

## ● MRAフェーズI

- 規制当局  
(Regulatory Authority)
- 指定当局  
(Designating Authority)
- 認定機関  
(Accrediting Body)
  - ISO 17011
- 適合性評価機関(CAB)
  - ISO 17025

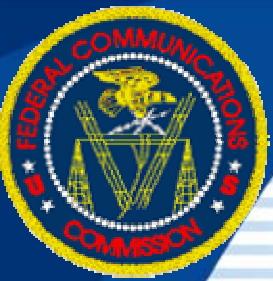
## ● MRAフェーズII

- 規制当局  
(Regulatory Authority)
- 指定当局  
(Designating Authority)
- 認定機関  
(Accrediting Body)
  - ISO 17011
- 適合性評価機関(CAB)
  - ISO 17025
  - ISO 65



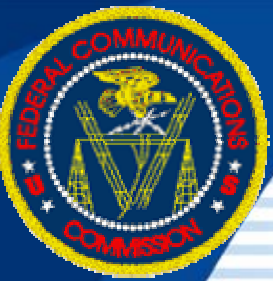
# MRA Phase I - Accreditation of Test Laboratories

- Laboratories outside the United States will be recognized by the FCC if one of the following two conditions are met:
  - the laboratory has been designated by a foreign authority and recognized by the Commission under the terms of a government-to-government Mutual Recognition Agreement or Arrangement; or
  - the laboratory has been accredited by an organization whose accreditations are recognized by the Commission.



## MRAフェーズI – 試験所の認定

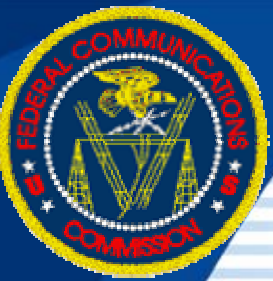
- 米国外の試験所は、以下の2項目のいずれかに該当すれば、FCCが承認する。
  - 政府間MRA(相互承認協定又は取決め)の条件に基づき、外国当局の指定を受け、FCCが承認している、又は
  - 試験所が、FCCから認定の承認を受けた機関から、認定を取得している。



# MRA Status – Phase I

- Phase I (mutual acceptance of test data) is operational with the following countries:
  - Australia
  - Canada
  - Chinese Taipei
  - European Union
  - Hong Kong, China
  - Korea
  - Singapore

<b>Region</b>	<b>Number of Labs</b>
North America	88
Europe	57
Asia	72
Middle East	3
Total	220



# MRA 現状 – フェーズI

- フェーズI (テストデータの相互受入れ) が以下の諸国と運用中。
  - オーストラリア
  - カナダ
  - 台湾
  - 欧州連合
  - 香港
  - 韓国
  - シンガポール

地域	試験所の数
北米	88
欧州	57
アジア	72
中東	3
合計	220



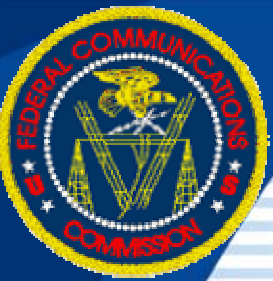
# MRA Status – Phase II

- Phase II (mutual acceptance of approvals) is operational with the following countries:
  - Canada
  - European Union
  - Hong Kong, China (pending development of procedures)
  - Singapore
- A total of 30 Telecommunication Certification Bodies (TCBs) have been recognized by the FCC.
  - 16 domestic TCBs
  - 14 foreign TCBs



# MRAの現状 – フェーズII

- **フェーズII (認証の相互受入れ) が以下の諸国と運用中。**
  - カナダ
  - 欧州連合
  - 香港(手続きを作成中)
  - シンガポール
  
- **合計30の適合性評価機関 (TCB)をFCCが承認**
  - 16国内TCB
  - 14 外国TCB



# Post Grant Surveillance

- FCC
  - Reviews ~ 20 % TCB Grants
  - Requests Samples from Grantees and TCB's
  - Purchases Samples
  - Focused sampling projects
- TCB
  - FCC requires each TCB to audit 2 % of products they authorized annually
    - 1 % RF Exposure if applicable
    - [www.fcc.gov/labhelp](http://www.fcc.gov/labhelp) KDB 610077
      - [https://gulfoss2.fcc.gov/prod/oet/forms/blobs/IDBretrieve.cgi?attachment\\_id=20025](https://gulfoss2.fcc.gov/prod/oet/forms/blobs/IDBretrieve.cgi?attachment_id=20025)
- Other
  - General public complaints/testing
  - Competitors complaints/testing



# 認証後の監視

## ● FCC

- 20 %以下のTCB認証を調査
- 認証取得者及びTCBに対しサンプルの提出を要請
- サンプルの購入
- 集中的なサンプル抽出プロジェクト

## ● TCB

- FCCは、TCBに対し認証した全製品の2%の監査を義務付け
  - 1 %の RF暴露 (該当する場合)
  - [www.fcc.gov/labhelp](http://www.fcc.gov/labhelp) KDB 610077
    - [https://gullfoss2.fcc.gov/prod/oet/forms/blobs/IDBretrieve.cgi?attachment\\_id=20025](https://gullfoss2.fcc.gov/prod/oet/forms/blobs/IDBretrieve.cgi?attachment_id=20025)

## ● その他

- 一般公衆からの苦情/試験の実施
- 競争相手からの苦情/試験の実施



# Post Grant Audit Issues

## ● FCC Actions

- Non compliance issues:
  - Require explanation
  - Monetary fines
  - Confiscate equipment
  - Fix equipment

## ● TCB Responsibilities

- Required to report issues to FCC & Grantee

## ● Applicant Issues

- Non response
  - Grantee code deferral



# 認証後の監査問題

## ● FCCの措置

- 非適合問題:
  - 説明を求める
  - 罰金
  - 機器の没収
  - 機器の修理

## ● TCBの責任

- FCC及び認証取得者へ問題を報告する義務

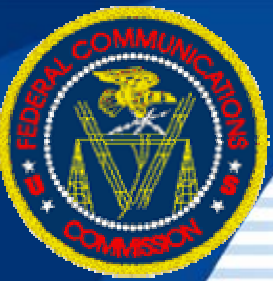
## ● 申請者の問題

- 応答なし
  - 認証取得者コードの延期



# Summary

- FCC
  - Overview
  - Regulations
  - Equipment Authorization Process
- TCB
  - Requirements & responsibilities
- MRA
  - Overview
  - Statistics
- Post Grant Surveillance
- Information sources



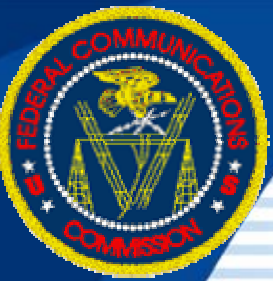
# 要約

- **FCC**
  - 概要
  - 規則
  - 機器認証プロセス
- **TCB**
  - 要求事項と責任
- **MRA**
  - 概要
  - 統計
- **認証後の監視**
- **情報源**



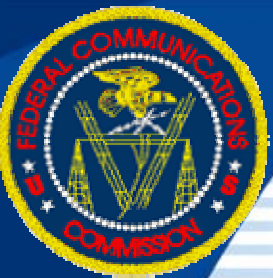
# Information On Line

- **Equipment Authorization Webpage**
  - Measurement techniques, explanation of EA programs, filing information, MRAs, TCBs, EA announcements, etc.: <http://www.fcc.gov/oet/ea/>
- **Procedures for information sharing and distribution**
  - Updated Interpretation Database & new contact desk for web based inquiries: <http://www.fcc.gov/labhelp>
- **OET Info on line (Orders, Public Notices, etc.)**
  - <http://www.fcc.gov/oet/info/>
- **FCC Rules and Regulations:**
  - <http://www.fcc.gov/oet/info/rules>
- **General FCC Information:**
  - <http://www.fcc.gov>



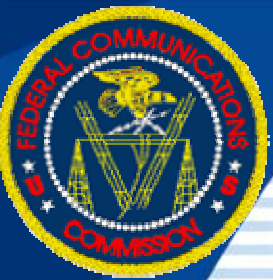
# オンライン情報

- **Equipment Authorization Webpage**
  - 測定技術、機器認証制度の説明、情報の提出、MRA, TCB, 機器認証の発表など.: <http://www.fcc.gov/oet/ea/>
- **Procedures for information sharing and distribution**
  - ウェブベースの問合せに対する最新「解釈データベース (Interpretation Database) 及び 新しいコンタクトデスク: <http://www.fcc.gov/labhelp>
- **OET Info on line (Orders, Public Notices, etc.)**
  - <http://www.fcc.gov/oet/info/>
- **FCC Rules and Regulations:**
  - <http://www.fcc.gov/oet/info/rules>
- **一般的なFCC情報:**
  - <http://www.fcc.gov>



# Questions and Answers

**Thanks!**



# 質疑応答

**Thanks!**