Supporting Transatlantic Trade

Standards and Conformance for Business and Regulators

ANSI American National Standards Institute

Use of Private Sector Standards and Conformance Mechanisms by the FCC

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a conference organized by the American National Standards Institute
in cooperation with the European Standards Organizations

Formula for Success

Establish basic technical rules to control Radio interference

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Equipment authorized to ensure compliance

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Use industry developed standards to facilitate economies of scale and interoperability

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New products and Services for businesses And consumers

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All parties are assured products will have access to the market: Provides opportunity for entrepreneurs

FCC Regulations

- Federal Communications Commission (FCC) regulates the private sector telecommunications industry, in the public interest:
  - **Technical Regulations**
    - First, the Commission establishes technical regulations for transmitters and other equipment to minimize their potential for causing interference to radio services.
  - **Conformity Assessment**
    - Second, the Commission administers an authorization program to ensure that equipment reaching the market complies with the technical requirements.

FCC Reference to Standards

- **Incorporation by reference**
  - Examples of standards referenced in the FCC rules include:
    - Section 15.35
      - CISPR 16 – Measurement Instrumentation
    - Section 15.31
      - C63.17 – Unlicensed Personal Communication Service (UPCS) devices
      - C63.4 – Methods of Measurement
    - Section 20.19
      - C63.19 – Hearing Aid Compatibility (HAC) requirements and test methods
  - List of standards incorporated by reference is located in each volume of the Code of Federal Regulation (CFR)

FCC Reference to Standards

- **Reference to technical limits in a standard**
  - **Examples of technical limits included in FCC rules:**
    - Section 15.109(g) – Radiated Emissions for ITE
      - CISPR 22 (1997) is incorporated by reference
    - Section 15.107(c) – Conducted Emissions for ITE
      - Limits are the same for both FCC and CISPR 22
    - Section 18.307 – Conducted Emissions
      - Consumer ISM equipment (microwave ovens)
      - Limits are the same for both FCC and CISPR 11

Measurement Standards

- **Measurement Procedures (Section 2.947)**
  - Bulletins or reports prepared by the Commission's Office of Engineering and Technology.
  - Published by national engineering societies such as the EIA, the IEEE, and ANSI.
  - Other methods acceptable to the Commission may be used to demonstrate compliance.

Telephone Terminal Regulations

- **Part 68 – Telephone Terminal Equipment (TTE)**
  - Technical criteria – Administrative Council for Terminal Attachment (ACTA)
  - Equipment Authorization – Option to use either SDoC or Certification by TCB
  - Register equipment with ACTA

- **Acceptance of Technical Criteria**
  - Section 68.7 – Technical Criteria for Terminal Equipment
    - Terminal equipment shall not cause harm to the public switched telephone network (PSTN).
    - Technical criteria published by Administrative Council for Terminal Attachment (ACTA) are presumptively valid.

- www.part68.org

Equipment Authorization Program

- Four types of equipment approval programs
  - Verification
  - Supplier Declaration of Conformity (SDoC)
  - Declaration of Conformity (DoC)
  - Certification
- The product approval requirement is specified in the rule part under which equipment operates
- All equipment approval programs can be implemented using third parties:
  - Private Laboratories and Conformity Assessment Bodies
  - Mutual Recognition Agreements

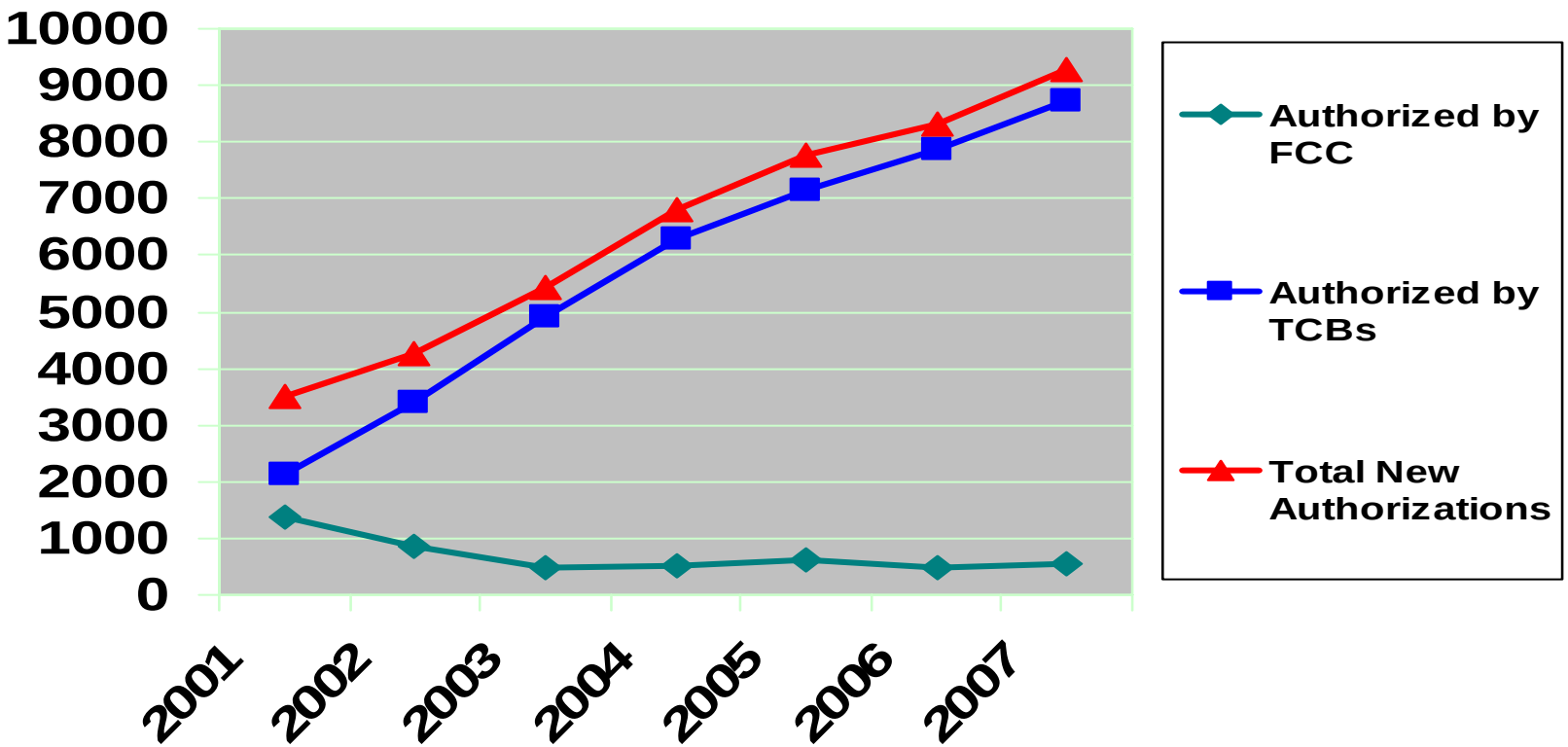
Equipment Authorization Types

Verification	SDoc	DoC	Certification[2]
Most ISM Equipment		***PC's & Peripherals***	*PC's & Peripherals* [1]
TV & FM Receivers		***Most Receivers***	*Most Receivers*
All Other Digital Devices		***TV Interface Devices***	*TV Interface Devices*
Pt-to-Pt Microwave		***Consumer ISM Equipment***	*Consumer ISM Equipment*
Broadcast Transmitters	***Telephone Equipment***		*Telephone Equipment*
Aux. Broadcast Transmitters			**Most transmitters**
INMARSAT Equipment			**Scanning Receivers**
406 MHz ELT			**Access BPL**
CATV Relay Transmitters			

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

(2) For several products the manufacturer is given the option to use either DoC or Certification.

Equipment Authorization Trends



Use of 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

Mutual Recognition Agreements

- Mutual Recognition Agreement (MRA) between governments
- Facilitates trade by allowing Conformity Assessment Bodies in one country to test and/or approve products to the Technical Regulations of another country
- Fosters regulatory changes and liberalization of foreign conformity assessment programs
- Reduces time, costs, and associated uncertainties of getting products to market

Conformity Assessment Challenges

- **Regulatory Certainty**
  - Rules must be available, clear & consistent
  - Rules should take into consideration international standards
- **Assessment Competency and Oversight**
  - Need for continual improvement of TCB competency evaluation & designation processes
  - Need for ongoing oversight and enforcement activities
- **Devices are Becoming More Complex**
  - Trend is to include multiple RF devices in a single product, which raises questions as to appropriate test methods and standards
- **Keeping Pace with Technology**
- **Social & Other Requirements**
  - RF Exposure, Public Safety Interoperability, E-911 Location Capability, and Hearing Aid Compatibility

Information

- **Equipment Authorization Webpage**
  - Measurement techniques, explanation of EA programs, filing information, MRAs, TCBs, Staff presentations, EA announcements, etc.
  - http://www.fcc.gov/oet/ea
- **MRA webpage**
  - http://www.fcc.gov/oet/ea/mra/
- **Knowledge Database**
  - http://www.fcc.gov/labhelp