Compliance Verification/ Measurement Methods for Part 30 Devices

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Summary of Technical Rules

Part 30

- Transmit Power
  - The average power of the sum of all antenna elements is limited to a maximum EIRP or EIRP Density of
    - +75 dBm/100 MHz (Fixed and Base Stations)
    - +43 dBm (Mobile Stations)
    - +55 dBm (Transportable Stations)
  - For fixed P2P or PMP, the maximum allowable EIRP is as specified in § 30.405

- Out of Band Emission (OOBE)
  - The conductive power or the total radiated power of any emission outside a licensee's frequency block
    - $-5 \text{ dBm/MHz}$ (in the bands immediately outside and adjacent to the licensee's frequency block, having a bandwidth equal to 10 percent of the channel bandwidth)
    - $-13 \text{ dBm/MHz}$ or lower (Elsewhere)
  - For fixed P2P or PMP, the mean power of emissions must meet the limits in accordance with the schedule in § 30.404(a)
Total Radiated Power (TRP)
- New RF parameter for compliance verification
- Introduced in FCC R/O, FCC 16-89
- Main focus of C63 mmW J TG test procedure developmental efforts

Multiple methods to measure TRP developed by C63 mmW J TG
- Two (or three) Cut Method
- Equal Sector Method
- Spherical Method
Compliance Verification Methods

- Standardized Test Procedure have been finalized by ANSI C 63 Millimeter Wave Joint Task Group (mmW JTG)
  - Procedure in ANSI C63 review process
- In the interim, the FCC will publish draft guidance applicable to Part 30 devices
  - Adopting TRP measurement procedure developed by mmW JTG
  - Addressing:
    • alternative method to verify compliance at the band-edge
    • RF Power, spurious emission, etc.

The Lab will also consider and review alternative Compliance verification methods