

Compliance Verification/ Measurement Methods for Part 30 Devices

Office of Engineering and
Technology
Laboratory Division
October 2018



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 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 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)



TRP Compliance Procedure

- Total Radiated Power (TRP)
 - New RF parameter for compliance verification
 - Introduced in FCC R/O, FCC16-89
 - Main focus of C63 mmW JTG test procedure developmental efforts
- Multiple methods to measure TRP developed by C63 mmW JTG
 - Two (or three) Cut Method
 - Equal Sector Method
 - Spherical Method

Compliance Verification Methods

- Standardized Test Procedure have been finalized by ANSI C63 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- In the interim, the FCC will publish draft guidance applicable to Part 30 devices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 bandedge
 - RF Power, spurious emission, etc.
- The Lab will also consider and review alternative Compliance verification methods