Part 96
3.5 GHz Band

TCB Workshop
May 3, 2017

Part 96 – Citizen Broadband Radio Service Device (CBSD)

- Order on Reconsideration Rel. May 2, 2016 (FCC 16-55):
  - maximum allowable EIRP for non-rural Category B CBSDs increase from 40 dBm/10 MHz to 47 dBm/10 MHz
  - remove maximum conducted power limits for all CBSD, however this has no impact on the OOBE requirements
  - emission power measurements may be performed using either RMS-detection or peak-detection.
- All devices must be capable of two-way transmission on the entire band.
- Draft of KDB Publication providing guidance on measurement and testing procedures.
- WInnForum has developed a SAS-CBSD protocol and are developing a SAS emulator.
- New equipment codes have been defined.
- Two new grant notes have been added.

Equipment Authorization

- CBSDs require certification.

- Equipment codes: **CBD** and **CBE** (for end-user devices).

- No transition dates specific to device importation, marketing, or operation. These depend on individual license terms.

- Part 90Z devices that are used by Grandfathered Wireless Broadband Licensees and are not capable of operating in the 3550-3700 MHz band, may continue to operate beyond the license term as long as they meet all Part 96 requirements, with the exception of the band-wide operability.

- A new Part 96 certification for these devices must be filed no later than April 17, 2020. The new certification can be added to the existing FCC ID (as a composite) and must bear the following grant note:

  Note Code ##: This device is exempted from the band-wide operability Part 96 requirement and is limited to operate in the 3650-3700 MHz band. The device may be marketed, manufactured, installed or imported after April 17, 2020.

Equipment Authorization

- Existing Part 90Z devices that are capable of meeting all Part 96 requirements, including band-wide operability, must add the Part 96 certification to the existing FCC ID (as a composite) and must bear the following grant note:

  Note Code ##: This device meets all Part 96 requirements and can be marketed, manufactured, installed or imported after April 17, 2020.

- Compliance must be demonstrated using a specific SAS.
  - Devices may be tested using the WinnForum SAS emulator to demonstrate compliance. The specific procedures for validation of the emulator are under review.
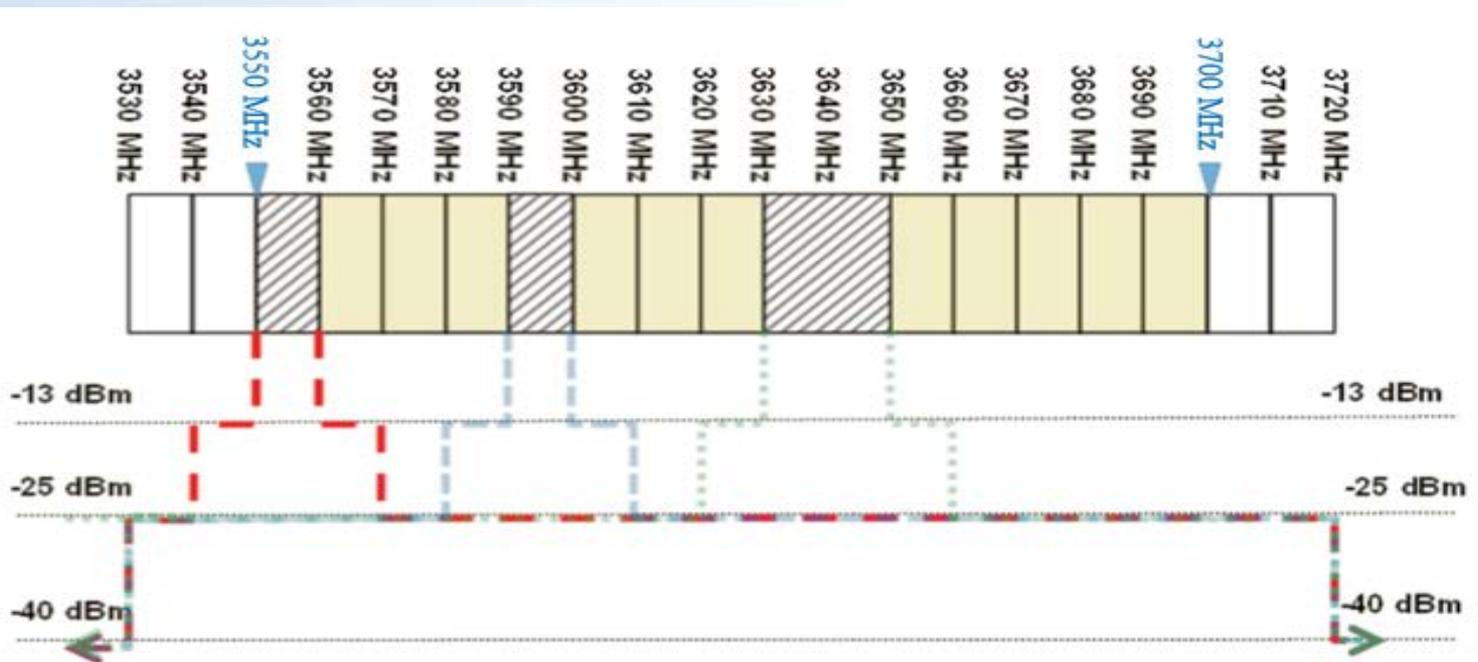
Measurement Procedures

- <u>General Requirements</u>: We provide test cases for some of the requirements. Where no test cases or test procedures are specified, the application should include a detailed explanation on how the device with the requirements. Included, but not limited to:
  - Geo-location
  - Operability
  - Signal level reporting
  - Frequency reporting
  - Will device transmit without SAS authorization?
  - Will the device respond to a SAS request of changing power and/or channel?
  - How the device handles a lost connection with SAS

- <u>General Radio Requirements</u>: The use of ANSI C63.26-2015 is acceptable.

Device	Maximum EIRP (dBm/10 megahertz)	Maximum PSD (dBm/MHz)
End User Device	23	n/a
Category A CBSD	30	20
Category B CBSD[1]	47	37

Measurement Procedures

- Emissions outside the fundamental: Unwanted emissions for CBSDs are relative to authorized channel, as assigned by the SAS.

Questions?