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.

• WlnnForum 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

• General Requirements: 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


<table>
<thead>
<tr>
<th>Device</th>
<th>Maximum EIRP (dBm/10 megahertz)</th>
<th>Maximum PSD (dBm/MHz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>End User Device</td>
<td>23</td>
<td>n/a</td>
</tr>
<tr>
<td>Category A CBSD</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td>Category B CBSD¹</td>
<td>47</td>
<td>37</td>
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</tbody>
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Emissions outside the fundamental: Unwanted emissions for CBSDs are relative to authorized channel, as assigned by the SAS.