



Signal Booster Recon and FNPRM Impact to Compliance Test Procedures

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Background

- New FCC rules applicable to signal boosters operating under Parts 22, 24, 27, and 90 became effective in May 2013.
 - Codified in §20.21
 - Created two primary classes of signal boosters, Consumer and Industrial, with specific regulatory requirements for each class.
 - Introduced a Network Protection Standard (NPS) applicable to two subcategories of consumer signal boosters, wideband (WB) and provider-specific (PS).
- Technical specifics associated with the new rules have been presented at three previous TCB Workshops.
 - See slides from April and Oct, 2013, and April 2014 for further details



Background (continued)

- C63.26 Amplifier and Repeater Task Group, with FCC participation, has developed detailed compliance test procedures for Consumer WB and PS signal boosters
- These procedures have been approved by the FCC and made available via KDB publication 935210
 - in particular, D03 and D04, respectively
- The Task Group is near completion of an update to the compliance test guidance for Industrial Boosters
 - Current procedures/checklist provided in KDB 935210 D02



Background (continued)

- An Order on Reconsideration (Recon) and Further Notice of Proposed Rulemaking (FNPRM) was recently released that makes changes to the rules that will in turn necessitate some related changes to the compliance test procedures
 - FCC 14-138, released Sept 23, 2014
- This presentation will provide a summary of the changes made by the Recon Order and a status update on the efforts to incorporate the changes in existing certification guidance



Signal Booster Rule Changes on Reconsideration

- Revised §20.21(e)(8)(i)(A)(1) to remove the wideband booster downlink noise power limit
 - Included in initial rules to ensure adherence to bi-directional capability requirement
 - Created measurement complications when trying to measure the noise power in the presence of an introduced signal (RSSI)
- Modified §20.21(e)(8)(i)(A)(1) by adding a downlink gain requirement for WB boosters
 - Same limit as for uplink
 - Serves as a new means to ensure adherence to bi-directional capability requirement
- Amended §20.21(e)(9)(i)(H) to make antenna kitting requirements equivalent between WB and PS boosters



Signal Booster Rule Changes on Reconsideration

- Revised §20.21(e)(9)(i)(A)(2) to include a maximum noise power limit applicable to mobile PS boosters
- Modified §20.21(e)(9)(i)(C)(2) to include maximum uplink and downlink gain limits for mobile PS boosters
- Corrected a typographical error in Table 1 of §1.1307
- Amended §20.21(f)(1)(iv)(A)(2) to add a new labeling requirement
 - not effective until approved by OMB



Further Notice of Proposed Rulemaking

- Seeking comment on whether to remove the “personal use” restriction on the operation of PS consumer signal boosters
 - Intention is to further expand consumer access to signal booster technologies
- Comment period to extend to 30 days after publication in the Federal Register
 - Currently pending publication
- Interested parties may file comments and reply comments using the Commission’s Electronic Comment Filing System (ECFS)



Impact to Compliance Test Procedure Guidance

- C63.26 efforts to update the Industrial signal booster/amplifier compliance test procedures are not effected by the Recon Order
 - Industrial booster procedures are currently being finalized within the task group
- WB and PS booster compliance test procedures developed within the C63.26 task group now being modified to incorporate the rule changes on Recon



Impact to Compliance Test Procedure Guidance (cont.)

- In addition to, and independent of, the Recon Order, a modification to the anti-oscillation test procedure is progressing within the task group
 - Defines an oscillation to occur when the booster power associated with the oscillation exceeds the “no-input” booster power level by 12 dB or more
- Once these procedures have been finalized within the C63 task group, the FCC laboratory will modify it’s published KDB guidance accordingly



-Questions and Answers

-Thanks!