

# **Updates on Signal Boosters and Related Devices – Policy Considerations**

Office of Engineering and Technology  
Laboratory Division



# Overview

- Rules scope / background
- Status of TCB PBA requirements
- Status of KDB guidance publications
- Status of test procedures
  - Industrial boosters CMRS
  - Industrial boosters PLMRS
  - Consumer boosters



# Rules Background

- New rules §§ 20.21, 90.219 et seq. became fully effective 9/11/2013
- Boosters certified after 2/20/2013 must comply with new rules
- Boosters sold and marketed starting 3/1/2014 must meet new rules
- Consumer booster grants in 800 MHz SMR not available till Public Notice
- OET Lab related equipment authorization guidance is given in KDB 935210



# TCB PBA Considerations

- Boosters subject to TCB PBA:
  - Boosters for PSRS and/or PLMRS operations subject to § 90.219 (eqpt. classes B9A, B9B)
  - Consumer boosters (eqpt. classes B2W, B2P)
  - Manufacturers or test labs must obtain prior approval for test procedures used for consumer boosters unless published KDB measurement procedures are applied as available
  - FCC may request booster device samples prior to approving a TCB PBA
- Filings for CMRS industrial boosters (eqpt. class B2I) conforming to § 20.21 and the latest KDB 935210 do not require PBA

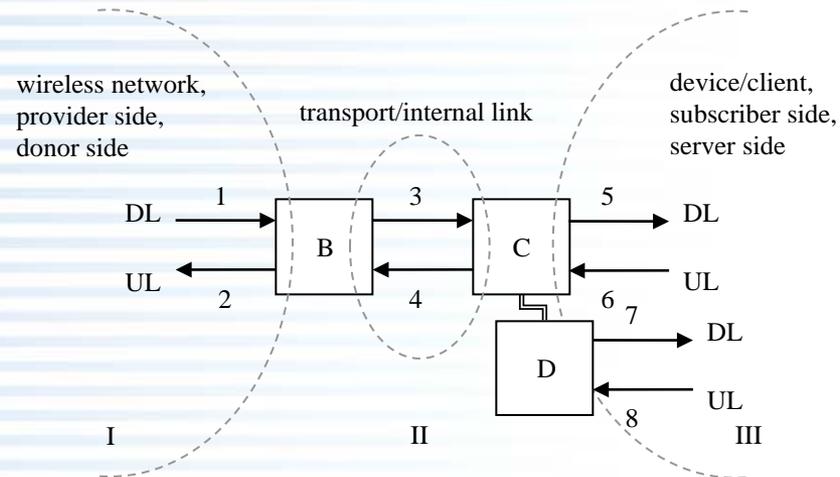


# KDB 935210 Updates

- References to effective date of rules updated to 9/11/2013
- D01 changes:
  - Table 1 Part 90 non-SMR clarified as non-cellular SMR
  - Table 2 Upper-700 C-block listing corrected
  - Table 3 Part 90 ESMR rule reference corrected
  - Description added in Annex A for RF expansion unit as add-on to remote unit
- D02 change: item 2) f) about freeze awaiting 800 MHz SMR band reconfiguration pertains to consumer boosters only



# KDB 935210 D01 Updates



- Fig. 3 of Annex A updated to show (optional) *RF expansion unit D* connected to *remote unit C*
- *RF expansion unit D* may be installed internal or attached external to *remote unit C*
- Signal paths 7, 8 may be same (e.g. for MIMO) or different frequencies as paths 5, 6
- For example of *remote unit* with eqpt. class B2I, then *RF expansion unit* typically is PCB or TNB



# Test Procedures

- CMRS industrial boosters
  - Use KDB 935210 D02 Annex A (i.e. incorporation of the previous basic booster / amp / repeater guidance document)
  - Procedures may be subject to updates per ongoing ASC C63<sup>®</sup> considerations
- PLMRS / PSRS industrial boosters (TCB PBA)
  - Further to FCC-13-21 (¶ 186) specific guidance from OET pending
  - Use § 90.219 along with KDB 935210 D02 Annex A for initial test plan development [§ 2.947(a)(3) consideration]
  - Procedures may be subject to updates per ongoing ASC C63<sup>®</sup> considerations
- Consumer boosters (TCB PBA) – see other presentation this conference



# Summary / Conclusions

- Reviewed status and updates of booster rules and policies and procedures (KDB 935210 D01, D02)
- Where booster rules are unclear and/or guidance in KDB 935210 is not clearly applicable, applicant or agent or test lab should submit KDB inquiry providing device details to request evaluation procedures guidance