



# ***Updates to the TCB Exclusion List***

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# Overview

- Review of the TCB Exclusion List
  - KDB 628591 TCB Exclusion List
- TCB Exclusion List restructured and updated to include in one common list:
  - Introductory section
  - General device exclusions
  - RF exposure related exclusions



# TCB Exclusion List

- Separate exclusion list parts now consolidated and updated as a single list
  - Items from former General and 2002 RF Exposure lists are combined and updated
  - 2000 RF Exposure list withdrawn – all TCBs must have appropriate RF exposure training and expertise
- For RF exposure exclusions, adjusted provisions are inserted in place of 2002 exclusion items II) e) to h)



# Exclusion List - Introductory Section

- Reminder that certain regulatory and administrative functions continue to be performed by the FCC only
- The TCB Exclusion List identifies items not qualified for certification by a TCB
- FCC will continue to include certifying new or unique equipment for which rules or requirements do not exist or for which application of the rules is not clear
- Applications for equipment types excluded from TCB processing should be submitted directly to the FCC for Certification



# Exclusion List - Introductory Section

- In general TCBs may not:
  - grant waivers of Commission rules
  - certify equipment where FCC rules do not apply
  - act on rules that are unclear
  - authorize transfer of grantee control
  - interpret the FCC rules
- Certification is not permitted for devices:
  - subject only to the Verification or Declaration of Conformity procedures of part 2 subpart J
  - not subject to FCC equipment authorization

Verification, Declaration of Conformity, Certification are defined at 2.902, 2.906, 2.907, respectively.



# Exclusions – General Devices

- Items transferred from previous list include:
  - U-NII master and client devices operating in Part 15 Subpart E that have radar detection capability\*
  - UWB (15F) and wideband systems (15.250, 15.252) devices
  - Access BPL devices (15G)
  - Software Defined Radios (SDR) (2.944)

\* Devices with ad-hoc capabilities, or devices that perform active scans (initiate probe transmissions) are excluded from TCB approval.



# Exclusions – General Devices

- Items transferred from previous list include:
  - 3650 MHz band (90Z)
  - Doppler radars in 24.05-24.25 GHz (90)
  - 15.212 split modular transmitters\*
  - Implanted transmitters (95 I, 15)

\* Section 15.212 will become effective following approval by the Office of Management and Budget, until then FCC DA-00-1407 continues to apply.



# Permitted – General Devices

- Items removed from previous list:
  - Learned mode transmitters, in accordance with FCC DA-02-2850
  - Smart Antenna Systems (SAS), in accordance with SAS guidelines

DA-02-2850 ([http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DA-02-2850A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-02-2850A1.pdf))

SAS guidelines ([http://www.fcc.gov/oet/ea/presentations/files/may05/Smart\\_Antenna\\_Systems\\_JD.pdf](http://www.fcc.gov/oet/ea/presentations/files/may05/Smart_Antenna_Systems_JD.pdf))



# Exclusions – RF Exposure

- Items transferred from previous list include:
  - RF exposure evaluations using numerical simulations or computational modeling techniques
  - Portable transmitters operating at frequencies:
    - below 300 MHz if SAR evaluation is required; or
    - above 6 GHz
  - Portable transmitters in standalone configurations with source-based time-averaged output power greater than:
    - $900/f(\text{GHz})$  mW (general population); or
    - $2250/f(\text{GHz})$  mW (occupational)
  - Portable devices operating according to occupational exposure requirements, except for occupational push-to-talk device configurations described in KDB 447498 (Mobile and Portable RF Exposure Procedures)



# Exclusions – RF Exposure

- Items consolidated or updated include:
  - Host independent transmitter modules and module-like devices for use in standalone portable final products that do not allow simultaneous transmission are excluded if
    - source-based time-averaged output power is greater than  $60/f(\text{GHz})$  mW, and
    - 1-g SAR is greater than 25% of the SAR limit

Note: module SAR test procedures are provided in KDB 447498 *Mobile and Portable Device RF Exposure Equipment Authorization Procedures*



# Exclusions – RF Exposure

- Items consolidated or updated include:
  - Other than as allowed per KDB laptop and handset procedures, general portable transmitters, modules, and module-like devices for use in product configurations allowing simultaneous transmission are excluded if
    - closest antenna separation distance between any simultaneous-transmitting antennas is less than 5 cm, or
    - sum of the 1-g SAR for all simultaneous-transmitting antennas that require standalone SAR evaluation is greater than the SAR limit, or
    - output power of any simultaneous-transmitting antenna for which standalone SAR evaluation is not required is greater than  $60/f(\text{GHz})$  mW

KDB 616217, *SAR Evaluation Considerations for Laptop Computers with Antennas Built-in on Display Screens*  
KDB 648474, *SAR Evaluation Considerations for Handsets with Multiple Transmitters and Antennas*



# Exclusions – RF Exposure

- Items consolidated or updated include:
  - Multi-transmitter devices when SAR evaluation is required for simultaneous transmission in different frequency bands including those identified per:
    - KDB 616217 laptop computer procedures
    - KDB 648474 handset procedures

Note: In other words, TCBs may process devices per guidance of these KDBs except when SAR evaluation is required for simultaneous transmission in different frequency bands

KDB 616217, *SAR Evaluation Considerations for Laptop Computers with Antennas Built-in on Display Screens*  
KDB 648474, *SAR Evaluation Considerations for Handsets with Multiple Transmitters and Antennas*



# Wrap-up

- New TCB Exclusion List in effect now
- TCBs must ensure compliance with FCC rules and policies during review and approval
- Please ask for guidance from OET/Lab whenever anything whatsoever is unclear