



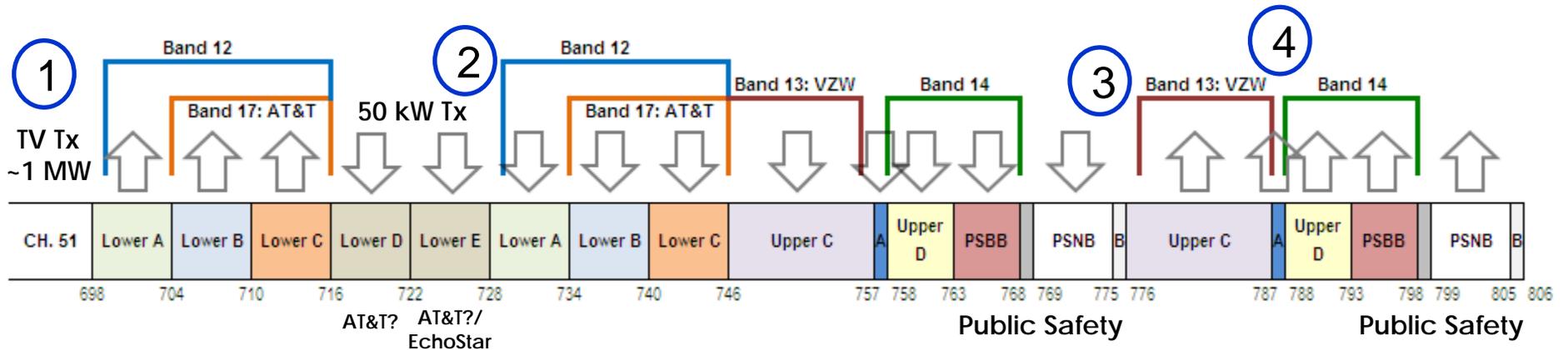
700 MHz Interoperability

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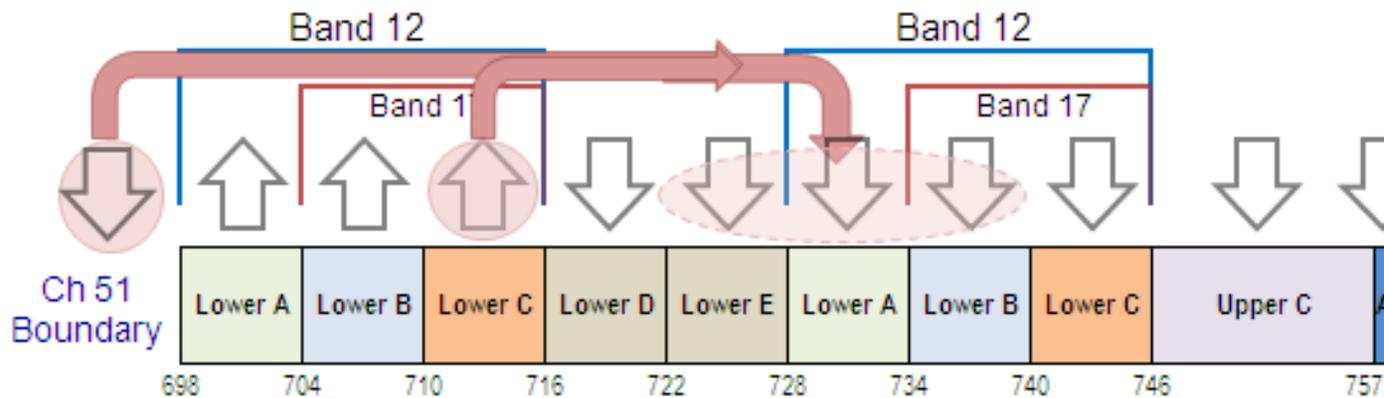
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US 700 MHz Band Interoperability



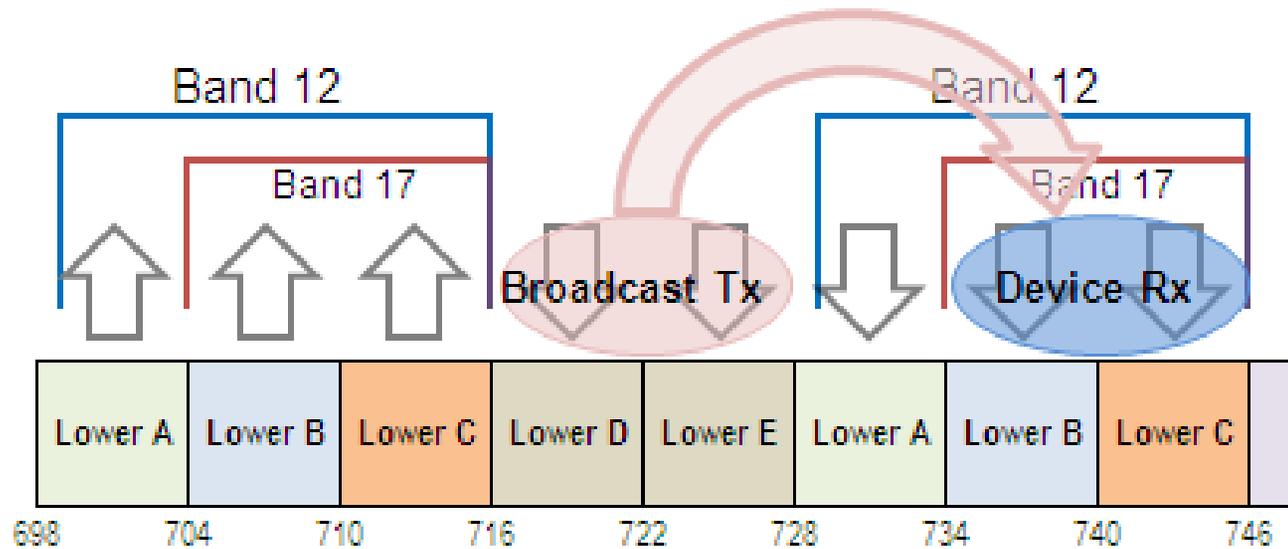
- Lower 700 MHz Band discussion points:
 1. Ch 51 reverse power amplifier intermodulation
 2. Lower D and E broadcast transmissions causing receiver desense
- Upper 700 MHz Band discussion points:
 3. Device transmit emissions into Public Safety Narrowband (PSNB) device receive spectrum
 4. Device transmit creating second harmonic interference to GPS reception
- Equipment specifications and, in some cases, normal network coordination adequately controls any potential interference

Lower 700 Reverse PA Intermodulation



- Reverse PA intermodulation involves a mixing of two transmit signals:
 - A strong Channel 51 signal at the device antenna mixes with a high-power device transmission in the Lower B+C block
 - Intermodulation products may fall within the same device's receive blocks
- Device specifications and deployment scenarios play a role in whether this interference would occur

Lower D and E Broadcast Transmissions



- Band 17 proponents are concerned about device receiver blocking near high-power Lower D and E broadcast transmissions

700 MHz Interoperability Summary



- Lower 700 MHz Band devices should use Band 12
 - Channel 51 interference potential to Lower B and C is unlikely to occur, and if it does, modest network coordination eliminates the issue
 - Lower D and E block interference is no longer a concern given Qualcomm's abandonment of the MediaFLO business plan
- Upper 700 MHz Band devices should use a single band class encompassing Bands 13 and 14
 - PSNB protection criteria is met through the device emissions mask
 - GPS harmonics issue is well handled through device design and normal filtering