

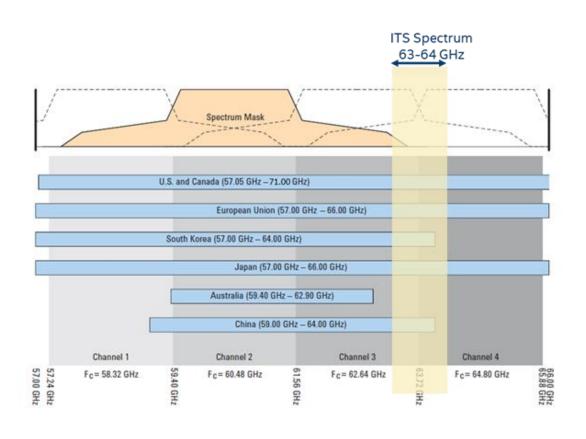
- Why 60?
  - Short distance wire replacement
    - The traditional Wi-Gig and HDMI replacement
  - Non-compressed video and sensing data
    - VR/XR
    - Machine/robotic vision
    - ITS (platooning)
  - From the curb internet access



Four big issues in 60GHz

- Expansion of the band from 1, 2 or 4 to 7 channels (from 57-63GHz to 57-71GHz)
  - Unlicensed VS GAA VS IMT
- Sharing with ITS in Europe
- Outdoor fixed access in Europe
- LBT VS directionality for mitigation and sharing





 Existing ITS allocation in the 60GHz band in ECC DEC (09/01)[3] and the actual channelization of Multi-Gigabit systems

#### • 2015

- US starts the process to open up 66-71 GHz for licensed exempt use
- ITU-Proposes studying 66-76GHz for IMT

#### • 2017

- ITU splits study of the band to 66-71 and 71-76 GHz
- IEEE modifies the 802.11 standard so that the Wi-Gig bands to extend to 76GHz
- ETSI starts a revision to the system reference document

- 2018
  - RSPG puts 66-71GHz on Their 5G roadmap
  - ITU-R publishes Rec M.2003-2, Multiple Gigabit Wireless Systems in frequencies around 60 GHz (ITU recommendation on use from 57-71GHz)
  - Wi-Fi Alliance will begin certification of Wi-Gig for access points (4 channel 802.11ad based)
  - 802.11ay ready chipsets?
- 2019
  - 802.11ay completed
  - 3gpp 5gnr completed
  - WRC 19



