

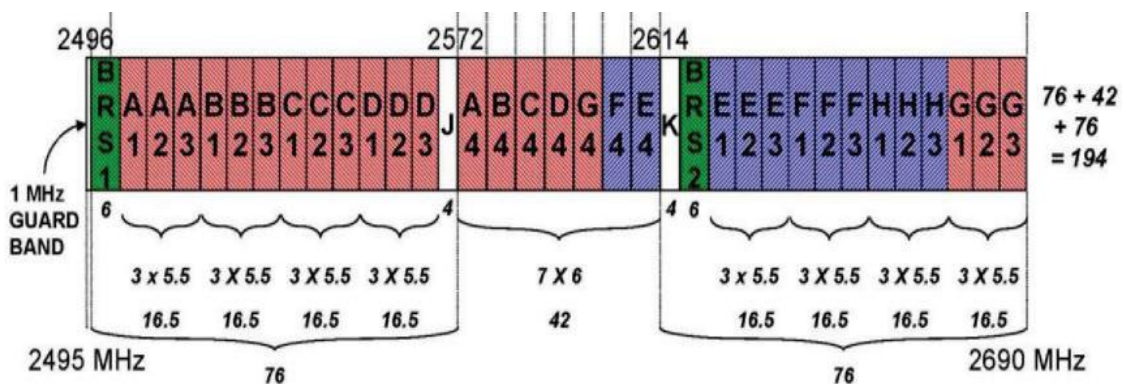
Wireless Spectrum Licenses in the 2.5 GHz Band Ideal for Broadband Mobile & Fixed Data Applications Available in Various Markets Nationwide

Select Spectrum is offering incumbent and overlay spectrum rights in the **2.5 GHz Band** across 269 site and county-based overlay licenses encompassing portions of all 35 states. In aggregate licenses cover a population of over 40 million. The licenses cover large portions of the United States concentrated East of the Rocky Mountains, in the Plains States, and the Gulf Coast.

Licenses are available for purchase and/or lease from license holders. Select Spectrum presents the [Spectrum Marketplace](#) platform, an interactive exchange which affords organizations the ability to acquire spectrum rights and streamline transactions in the 2.5 GHz band.

Available spectrum per license varies between 5.5 and 73.5 MHz bandwidth, with a typical incumbent license offering 22.5 MHz and newly auctioned overlay licenses ranging from 5.5 MHz to 50.5 MHz. A single license allows for a sophisticated, high-bandwidth network, as well as exclusive and dedicated use. Should additional bandwidth be required, multiple licenses are available in several markets, allowing for additional and contiguous spectrum to be obtained.

The incumbent 2.5 GHz band plan is shown below. Channels 1, 2 and 3 of each channel block occupy the upper and lower portions of the 194 MHz reserved for this band. Channel 4 of each channel block is located in the middle band. Channels J & K serve as guard band spectrum between the lower, middle and upper bands.



The FCC has modified the 2.5 GHz band rules on several occasions, for example, in 2005 the FCC modernized the band by changing the channel structure and updating the Part 27 rules. In 2019 the FCC adopted rules to commercialize the EBS band in its [Report and Order](#) which lifted the educational eligibility requirements from the EBS portion of the band and afforded the ability for commercial organizations to outright purchase EBS licenses.

As of 2020, the 2.5 GHz band is subject to revised rulemaking (WT Docket 18-120) that has commercialized the former educational use band and via Auction 108 issued thousands of new licenses nationwide, primarily across rural areas in Midwestern states that lie between the Rocky Mountains and the Mississippi river. The Overlay Licenses issued in Auction 108 offer expanded or new coverage to a population of nearly 89 million across 2,760 counties as well as spectral depth.

During the Tribal Priority Window and the recent Auction 108 (2.5 GHz Overlay Auction), the FCC issued new licenses in areas of the country that were unserved or underserved by 2.5 GHz spectrum. Licenses made available during the Tribal Window and Overlay Auction were issued in three sizes: 49.5 MHz, 50.5 MHz and 17.5 MHz.

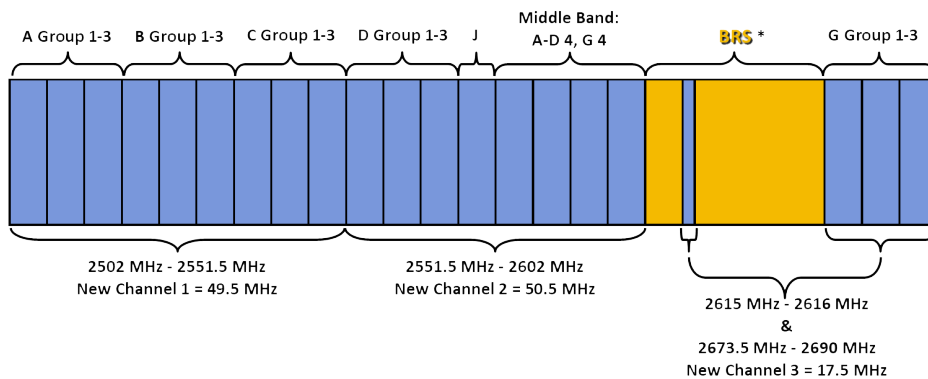


Figure 1: https://www.fcc.gov/sites/default/files/2-5_band_plan_10242019_0.png

The result of the differences between the Incumbent and Overlay Band Plan are varying amounts of capacity being available in different areas of the encompassed geography, dictated by the presence of incumbent licenses.

Currently, most operators are utilizing spectrum in the 2.5 GHz band for 4G LTE or 5G NR protocols compatible with 3GPP standardized LTE band 41 for channel sizes ranging from 5-100 MHz in a Time Division Duplex (TDD) configuration. The band, which also allows for legacy WiMAX, is supported by a wide variety of equipment manufacturers. 2.5 GHz spectrum can also be used to support private networks and more specialized networks including utility applications, government organizations, and public safety¹, etc.

¹ NYCWIN is a post 9/11 public safety network in New York that utilizes leased 2.5 GHz spectrum licenses to provide mobile wireless broadband access for a variety of municipal organizations. See <http://www.nyc.gov/html/doitt/html/citywide/nycwin.shtml>