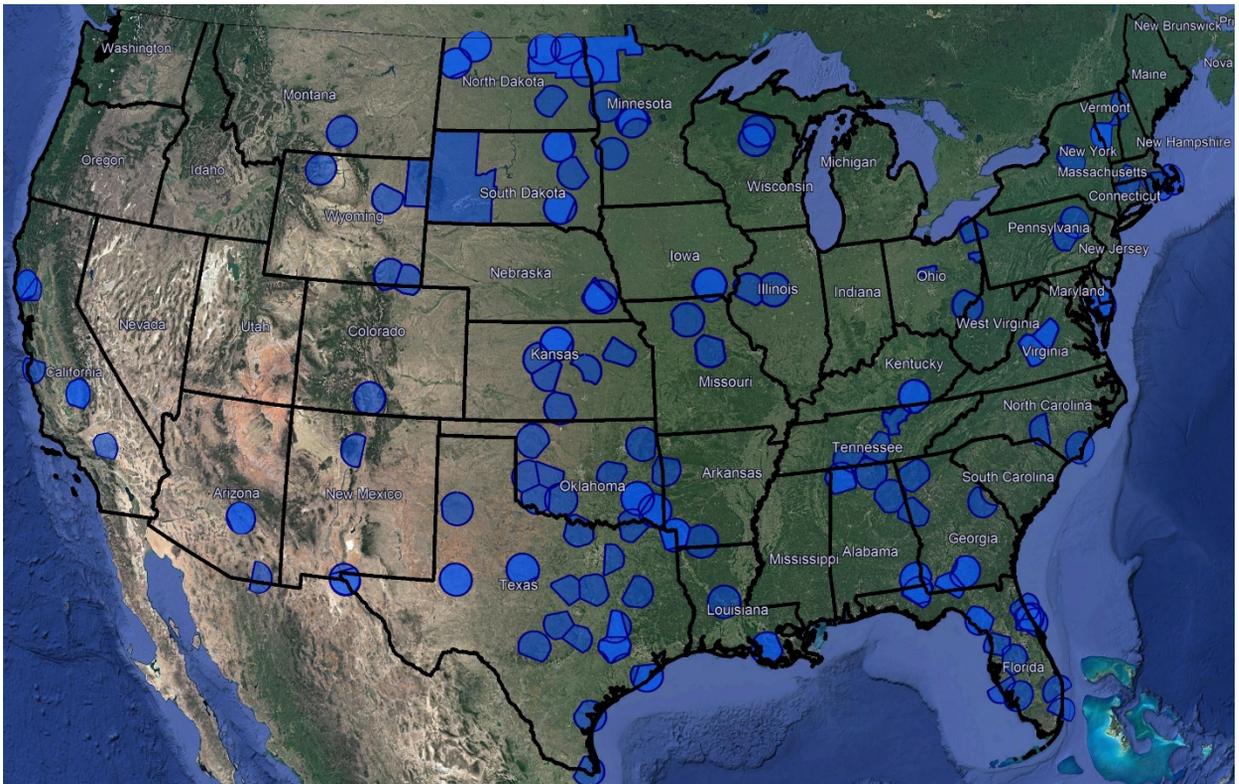


Wireless Spectrum Licenses in the 2.5 GHz Band Ideal for Broadband Mobile & Fixed Data Applications

Select Spectrum is offering **Educational Broadband Service (EBS) and Broadband Radio Service (BRS) FCC licensed spectrum** across 175 site-based licenses covering portions of 37 states. Markets covered include the northern and central Plains, Midwest, central Texas, Appalachian Foothills, and Susquehanna River Valley; together 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.

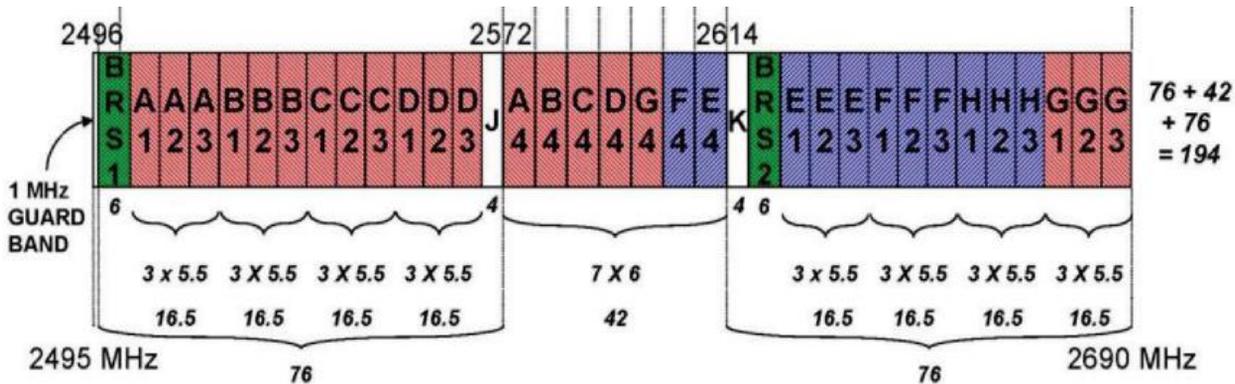
BRS licenses are available for purchase/lease and EBS licenses are available for lease from license holders. Select Spectrum presents the [Spectrum Marketplace](#) platform, where organizations may make offers on 2.5 GHz rights for lease or purchase.

Licenses eligible to receive offers in the Marketplace are reflected in the map below.



Available spectrum per license varies between 5.5 and 73.5 MHz bandwidth, with a typical license offering 22.5 MHz. A single 22.5 MHz license allows for a sophisticated, high-bandwidth network. Should additional bandwidth be required, multiple licenses are provided for in many markets, allowing for additional and contiguous spectrum to be obtained.

The 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.



Commercial BRS licenses, mostly held by commercial operators, are located on Channels E, F, H and BRS1-2. The EBS channels are located on A, B, C, D, & G adjacent to the BRS licenses. EBS licenses are reserved for educational institutions and can only be held by qualifying educational institutions such as schools, colleges, and non-profits. Generally, schools and colleges don't have the funds, expertise or need to operate a wireless broadband network, most have entered into excess capacity leases allowed by FCC regulations. FCC rules require lessees to reserve a portion of the license for educational use¹.

The FCC has modified the 2.5 GHz band rules on several occasions, and in 2005, the FCC modernized the band by changing the channel structure and updating the Part 27 rules. The EBS portion of the band is subject to revised rulemaking (WT Docket 18-120) that is poised to issue thousands of new licenses nationwide, primarily across rural areas in Midwestern states that lie between the Rocky Mountains and the Mississippi river. The new licenses will offer expanded or new coverage to nearly 40 million people across 1,219 counties; opportunity exists for the entire EBS band capacity of 112.5 MHz to be issued across nearly 445 of these counties². In 2019 the FCC adopted rules to commercialize the EBS band in its July [Report and Order](#) which will provide the ability for organizations to outright purchase EBS licenses. Respective educational requirements and eligibility will be lifted per the final implementation of the new rules³.

Currently, most operators on the BRS & EBS bands are using 4G LTE protocols compatible with 3GPP standardized LTE band 41 for channel sizes ranging from 5-20 MHz in a Time Division Duplex (TDD) configuration. The band, which also allows for WiMAX, is supported by a wide variety of equipment manufacturers. However, the spectrum can also be used to support more specialized networks including utility applications, government organizations, and public safety⁴, etc.

¹ Educational Use and Eligibility will be lifted per the implementation of the rules reflected in the FCC's July 2019 [Report and Order](#)

² The July [Report and Order](#) reflects new rules which will provide a Tribal Nation application window to obtain licenses in underserved and unserved areas of the country. An FCC Overlay Auction is set to take place in 2020, issuing the balance of licenses in unserved and underserved areas via a competitive bidding Auction.

³ New rules will be implemented six-months from when the [Report and Order](#) appears on the Federal Register.

⁴ 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>