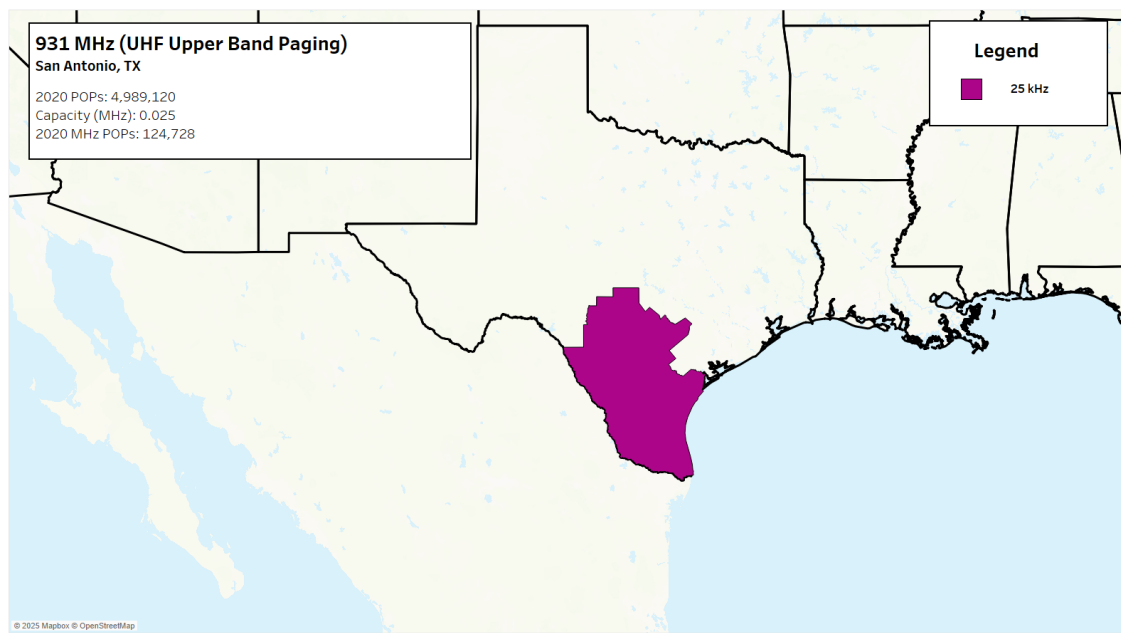




Wireless Spectrum Licenses in 931 MHz (UHF Upper Band Paging) Ideal for Land Mobile Radio & Data Applications

Select Spectrum is offering 931 MHz (UHF Upper Band Paging) FCC-licensed spectrum across Texas. UHF Upper Band Paging spectrum is designed for narrowband communications, providing wide-area coverage and strong signal reliability. This makes it well-suited for applications such as paging, remote monitoring, critical infrastructure, smart grid, public safety, and utility communications. Common uses include supervisory control and data acquisition (SCADA) systems, Oil & Gas production and transportation, and land mobile radio.

Each 25 kHz channel offers organizations a dependable, cost-effective solution for narrowband communications. Rather than focusing on high data speeds, 25 kHz spectrum is optimized for wide-area coverage, reliability, and efficiency—qualities essential for industries that need consistent connections in both urban and remote locations. Utilities can count on it for reliable telemetry and grid monitoring, public safety agencies can use it for paging and emergency alerts, and energy operators can leverage it for remote monitoring and control. In short, 25 kHz channels provide the dependable backbone needed to keep operations connected, resilient, and secure.



The 931 MHz band is shown with neighboring service groups below:

929-930 MHz Private Carrier Paging	Narrowband PCS	931 MHz Part 22 Paging	Multiple Address System	Indus/ Business Pool
929 MHz	930	931	932	933

931 MHz spectrum can be used for one-way or two-way voice or data transmissions applications from fixed sites or mobile devices. The contiguous frequency assignment can be divided as needed into 12.5 kHz or smaller channels allowing multiple narrowband channels. Further, multiple licenses can be combined for up to 625 kHz in some markets, permitting high speed point-multipoint communications using time division duplex (TDD) technology. Maximum base station power permitted is 3,500 Watts ERP, while mobile units are limited to a maximum 60 watts ERP. Base station power and height are limited to providing an average 20-mile service contour in 8 directions. This provides long range and high reliability in urban areas and rural areas including mountains and trees. Networks may employ point-to-point, and/or point-multipoint (tall site) architectures.

Subject to FCC Part 22 Paging rules, the 1 x 25 kHz channel spacing allows for use for land mobile radio “LMR” and data transmission systems. Each license is permitted 1 x 20 kHz of effective bandwidth with an assigned center frequency, allowing for interference protection and compatibility with narrowband technologies. The FCC is considering a proposal (DA 14-1508) to update Part 22 rules, particularly Subpart E, providing more varied use of the paging bands. The new rules would allow for greater flexibility by permitting full use of the channel spacing & frequency offsets by licensees that hold adjacent blocks and allow innovative technologies such as TETRA and 12.5 kHz/6.25 kHz narrowband LMR equipment. Commenters have been unanimously supportive of the measure, but waivers would be required in the interim to satisfy FCC regulatory compliance. Select Spectrum believes waivers are likely to be granted (see FCC Order DA 15-1064), provided that they correspond to the proposal found in DA 14-1508 and sufficiently meet the stated FCC goals of fostering technological innovation and serving public interest.

Equipment for the band is made by Ondas Networks www.ondas.com, 4RF www.4rf.com, XetaWave www.xetawave.com, Alligator Communications www.alligatorcom.com, and CalAmp www.calamp.com. When multiple licenses are aggregated to 100 kHz or more, the combination is also compatible with a new IEEE wireless standard – 802.16s “GRIDMAN”. This high reliability standard is intended for use by utilities and other critical infrastructure operators.

Most licenses cover their entire original assignments, but some licenses in dense markets have been disaggregated in accordance with FCC rules including §22.513 of Title 47, Part 22. Under the same rules, licensees may further disaggregate licenses. Individual call sign information is available upon request. Please contact us for additional information regarding these licenses.