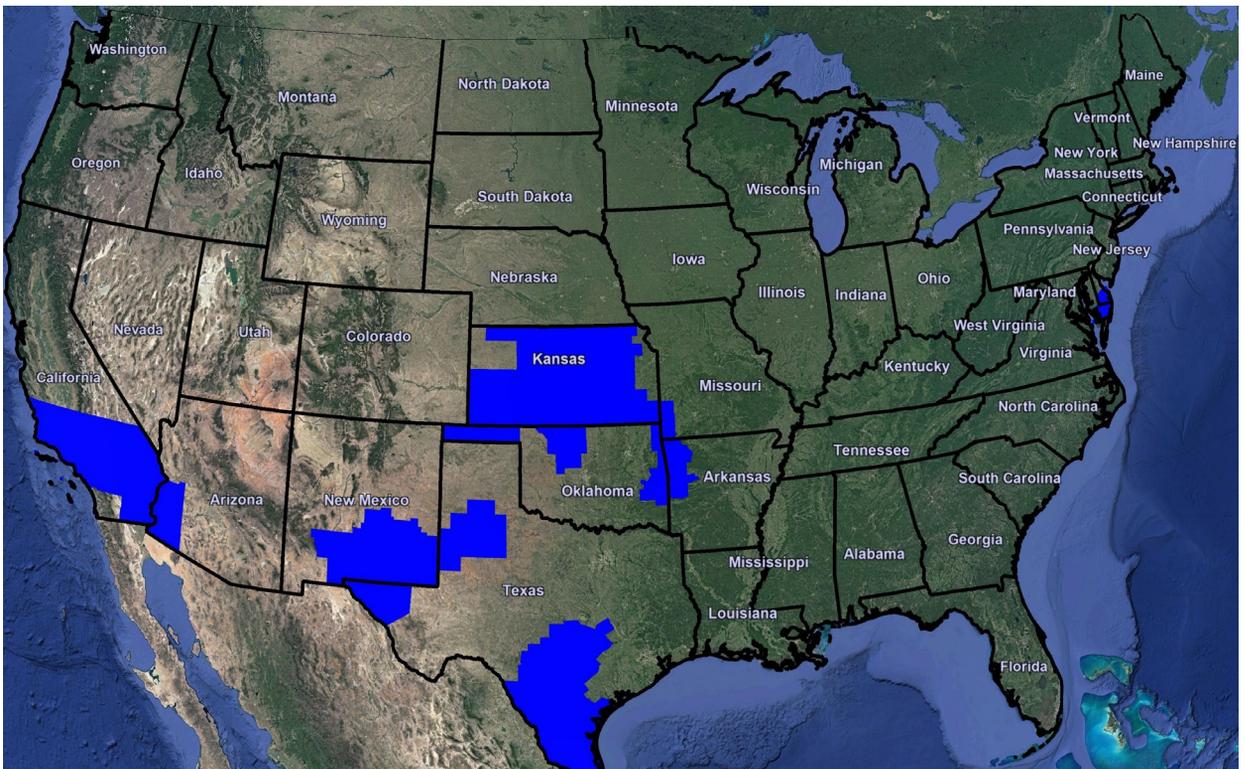


## **Wireless Spectrum Licenses in 150 MHz (VHF Lower Band Paging) Ideal for Land Mobile Radio & Data Applications Available in California, Texas, Kansas & Additional States**

Select Spectrum is offering **VHF Lower Band Paging (150 MHz) FCC licensed spectrum** across the portions of 10 states including California, New Mexico, Texas, and Kansas. Major cities covered include Los Angeles, Bakersfield, El Paso, Austin, San Antonio, Corpus Christi, Wichita, Topeka, and Salisbury. Together, these licenses cover a population of over 33 million in both urban and rural markets.

Available spectrum varies, with between 60 to 360 kHz bandwidth in each BEA. With multiple adjacent licenses, it is possible to combine and deploy sophisticated, high-bandwidth networks.

Available markets in this offering are shown in the map below:



These licenses can support a wide variety of uses and are ideal for remote monitoring for critical infrastructure, smart grid, utility communications, public safety and paging. Common uses include land mobile radio, SCADA systems, Oil & Gas production/pipelines and transportation.

150 MHz VHF spectrum can be used for paging and/or voice or data in one-way or two-way or broadcast modes including fixed and mobile services. E Block licenses are unpaired (20 kHz) and are assigned for paging operations, while F Block licenses are paired (2 x 30 kHz) and have an interleaved channel plan that allows full duplexing and simultaneous multipoint digital broadcasts from multiple transmitters on either the upper or lower channel blocks for voice & data applications. Half-duplex (time-division duplex “TDD”) is also allowed. Maximum base station power is 1400 Watts ERP, while mobile units may transmit at up to 60 Watts ERP. The generous rules allow for long range and high reliability in both high-density urban areas and rural areas. Networks may employ point-to-point, and/or point-multipoint (tall site) architectures.

Subject to FCC Part 22 Paging rules, the 2 x 30 kHz channel spacing allows for flexibility in land mobile radio and data transmission systems. Each license is permitted 2 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 recent proposal (DA 14-1508) to update the rules, particularly Subpart E, to allow for greater flexibility by permitting usage of the channel spacing & frequency offsets if license holders own adjacent blocks and of innovative technologies such as TETRA and 12.5 kHz/6.25 kHz narrowband equipment. Commenters have been unanimously supportive of the measure, but waivers would be required in the interim to achieve flexibility while satisfying FCC regulatory compliance.

Equipment for the band is made by Ondas Networks [www.ondas.com](http://www.ondas.com), 4RF [www.4rf.com](http://www.4rf.com), XetaWave [www.xetawave.com](http://www.xetawave.com), Motorola Solutions <https://www.motorolasolutions.com>, ESTeem [www.esteem.com](http://www.esteem.com), Hytera [www.hytera-mobilfunk.com](http://www.hytera-mobilfunk.com), Kenwood [www.kenwood.com](http://www.kenwood.com), and Tait Communications [www.taitradio.com](http://www.taitradio.com). For spectrum blocks of 100 kHz or greater, the band 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.

Basic information about the overall offering is shown below:

Market	kHz	Max 2017 POPs	MHz POPs	Market	kHz	Max 2017 POPs	MHz POPs
Los Angeles, CA	300	20,824,439	6,247,332	Oklahoma City, OK	300	113,774	34,132
El Paso, TX	300	1,158,956	347,687	Topeka, KS	80	476,687	38,135
Hobbs, NM	300	219,828	65,948	Tulsa, OK-KS	340	102,192	34,745
Lubbock, TX	300	428,609	128,583	Joplin, MO-KS-OK	220	280,818	61,780
Austin, TX	120	2,237,703	268,525	Fort Smith, AR-OK	60	355,317	21,319
San Antonio, TX	360	3,021,065	1,087,583	Fayetteville, AR	60	601,974	36,118
Corpus Christi, TX	240	597,631	143,431	Salisbury, MD-DE	60	405,853	24,351
McAllen, TX	240	1,370,424	328,902				
Wichita, KS-OK	180	1,209,412	217,694	<b>Total</b>	<b>60-360</b>	<b>33,404,682</b>	<b>8,086,226</b>