

Receivers In Satellite Radio

Receivers of XM are equipped to receive signals from both of the company's Boeing 702 satellites and a repeater simultaneously. Till the availability of the sources of signals, the radio plays without interruption. Also the receivers have buffers that store programming for several seconds, allowing operation to continue even if no signal is available momentarily. Another satellite service provider uses a trio of satellites in unique elliptical orbits in an effort to avoid the problems posed by geostationary satellites. Its orbits are shaped like figure eights thus they allow the satellites to appear higher in the sky thus cutting down on the potential for a listener to be out of range of a satellite signal and allowing the service provider to have a much smaller number of repeaters. The repeater network also avoids the need for specialized antennas that can track the company's non-geostationary satellites as they move about the sky, also satellite feeds its repeaters using capacity on a geostationary satellite leased from a traditional satellite operator.

Persons who are listening to its channels can't tell that the signals they receive via the repeaters do not travel over its fleet of satellites. Each of the satellite spends about sixteen hours over the continent then whip around the other side of the Earth and return eight hours later for another stint hovering over listening area. This information is according the officials of space segment and enterprise operations. The satellite radios operate digital broadcast centers that combine dozens of individual recording studios with huge amounts of storage to hold hundreds of thousands of compact discs worth of music in digital format. Programmers just point and click at the material they want to play, and it airs directly from the storage system at the appointed time. At the time of transmission, the system also adds a short description of the music or other material for display on a small receiver screen. This is an advantage to the satellite radio that is you can find out the artist and song title as each piece of music plays. Also the huge storage capacity at XM's facilities in Washington can hold lots of music.

Companies of satellite radio maintain large collections of CDs to augment their digital libraries. They also retransmit programming that originates elsewhere, such as news, sports and comedy channels, and maintain studios where artists perform live. Another key which is less visible to satellite radio is digital compression. It is a technique to use radio spectrum as efficiently as possible. Satellite radio broadcasters have to use sophisticated algorithms to squeeze as much material as they can into the available bandwidth without causing audio quality to degrade. Satellite radios are allocated a specific range of radio spectrum by the U.S. Federal Communications Commission.

About the Author

Tymon Hytem has worked in the electronics field for the past 15 years. He enjoys helping people decide on electronic gadgets from telephones to [XM Radio](#) and choosing the perfect [XM Satellite Radio](#) system for their needs.

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