Azimuth patterns showing 9dBi peak gain, 120° beamwidth and high level of overlap for the five sector antennas

Cobham Antenna Systems, Microwave Antennas has designed a miniature Multi Sector antenna in the 2.0-2.7GHz band specifically for use with COFDM (Coded Orthogonal Frequency Division Multiplexed) radios.

COFDM provides significant benefits over conventional analogue microwave transmissions, especially in high multi-path environments such as dense urban areas. It is possible to virtually eliminate Fade even in Non Line of Sight (NLOS) situations, through the use of spatial antenna diversity schemes.

For this reason COFDM systems are being used for National Security, Police and Military applications where it is vital that integrity of video and data links is maintained under the most imposing situations.

Model MSA6-2.4V/1795 has 6 antennas and is contained within a rugged housing which is only 6.5 inches diameter (155mm) x 12 inches tall (300mm).

Five of the antennas are sector antennas, each has up to 9dBi peak gain and azimuth beamwidths of 120°. They provide a high level of overlap so that the COFDM radio can practically use 3-4 sectors worth of data at any time for recombination, ensuring that even localized transient fading (especially associated with use in mobile applications) is eliminated.

The sixth antenna is up-looking to provide complete hemispherical coverage. This increases the practical applications and maximizes operational flexibility for the antenna for rapid deployment as well as temporary and fixed installations.

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Elevation pattern showing one of the sectors and the overhead antenna providing complete hemispherical coverage