

## MMDS (Multichannel Multipoint Distribution Service)

MMDS (Multichannel Multipoint Distribution Service) is a broadband wireless point-to-multipoint specification utilizing UHF (Ultra High Frequency) communications.

MMDS operates on FCC licensed frequencies. The FCC divided the United States into BTA's (Basic Trading Areas) and auctioned the rights to transmit on the MMDS bands in each of those areas to MMDS service providers. The MMDS bandplan is available from the FCC

at <http://wireless.fcc.gov/auctions/data/bandplans/mdsband.pdf>.

## MMDS Specifications

Fixed/Mobile	Fixed
Circuit/Packet	n/a
Max Bandwidth	10Mb
Range	70 miles
Frequency	2.5GHz-2.686Ghz
Host Network	None
Definer	IEEE (Institute of Electrical and Electronic Engineers)
URL	<a href="http://grouper.ieee.org/groups/802/16/">http://grouper.ieee.org/groups/802/16/</a>

## MMDS and DOCSIS+

[LMDS](#) and MMDS have adapted the [DOCSIS](#) (Data Over Cable Service Interface Specification) from the cable modem world. The version of DOCSIS modified for [wireless broadband](#) is known as DOCSIS+.

Data-transport security is accomplished under MMDS by encrypting traffic flows between the broadband wireless modem and the WMTS (Wireless Modem Termination System) located in the base station of the providers network using [Triple DES](#).



DOCSIS+ reduces theft-of-service vulnerabilities under MMDS by requiring that the WMTS enforce encryption, and by employing an authenticated client/server key-management protocol in which the WMTS controls distribution of keying material to broadband wireless modems.



LMDS and MMDS wireless modems utilize the DOCSIS+ key-management protocol to obtain authorization and traffic encryption material from a WMTS, and to support periodic reauthorization and key refresh. The key-management protocol uses [X.509](#) digital certificates, RSA [public key encryption](#), and Triple DES encryption to secure key exchanges between the wireless modem and the WMTS.

MMDS provides significantly greater range than LMDS.

MMDS may be obsoleted by the newer 802.16 [WiMAX](#) standard which is due in 2004.

MMDS is sometimes expanded to *Multipoint Microwave Distribution System* or *Multi-channel Multi-point Distribution System*. All three phrases refer to the same technology.

**SOURCE:** <http://www.tech-faq.com/mmds.html>