

Comments by:

Alvarion Inc.
5858 Edison Place
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In the Matter of)
) ET Docket No. 02-380
Additional Spectrum for Unlicensed Devices)
Below 900 MHz and in the 3.5 GHz Band)

I. Introduction

Alvarion, as the global leader provider of wireless broadband solutions, in both licensed and unlicensed bands with over 1,500,000 units deployed globally, appreciates the opportunity to offer comment on this important matter. With over 800 Alvarion-based U.S. wireless broadband operators, the ultimate decision of the FCC will have tremendous impact, which will reverberate throughout the over 3,000 U.S. communities served by our operators. Currently, Alvarion operators are helping rural markets improve their economic environment and the quality of life of their residents. Leveraging their Alvarion license-exempt wireless broadband systems, our operator partners are providing diverse broadband applications, ranging from high-speed Internet, telemedicine, distance learning, corporate VPNs, remote transactions, remote video surveillance, vehicular traffic management, and even mobile broadband and voice for public safety.

Accordingly, we respond to this inquiry both in part of our own interests, but more importantly we do so on-behalf of our service providers and the communities they serve.

II. Discussion

License Exempt Operation in the TV Broadcast Bands and 3.65 GHz – 3.7 GHz Band

For operation in these bands, we believe technical standards similar to those established for unlicensed equipment operating in the ISM bands (Part 15.247) will be sufficient to mitigate interference to licensed operations in these bands.

Research into additional methods of protection may be required to detect licensed transmitters and cause the unlicensed equipment to move and operate on other unused channels. Such methods may include Feature Detectors, Dynamic Frequency Selection (DFS) and Listen-Before-Talk (LBT) as is considered for avoiding radars in the mid 5 GHz bands. Out of band emissions limited to those established in FCC Part 15.209 should keep harmonics and spurious emissions from harming the licensed operations. For Wireless Broad Band Access systems, we believe higher transmitter powers and higher EIRP levels should be permissible when using directional antennas. Spectral mask limits can be established, such as those required for 2-way systems operating in the MMDS bands (2.6 GHz – 2.686 GHz), which have proven 2-way Broad Band Access systems can co-exist in adjacent MMDS/ITFS TV broadcast channels. We understand those types of services required site licensing before commencing operations, and therefore, additional assurances may be required besides DFS and LBT methods. For the sake

of discussion, one such assurance could be the requirement for a simple operational permit. Such a permit would be a mechanism for the FCC to inform the wireless broad band operator which TV broadcast channels are being used by primary licensed users in the operator's specific geographic area. The unlicensed equipment can then be configured to operate on channels other than those used by the licensed operator. A permit application such as this could easily be administrated via website utilizing the operator's location information and the licensed user database. Operation permits should not be needed for indoor unlicensed equipment or outdoor equipment operating with low EIRP levels. LBT methods and frequency agility can still be utilized to facilitate fair sharing of the open bands with other unlicensed equipment.

III. Conclusion

The already proven methods of band sharing and interference avoidance used by current unlicensed equipment establish the framework for operations in the TV broadcast and 3.65 GHz bands. The expansion of operations into these bands will further the enormous success of services and applications offered by the licensed exempt operators and the customers they serve.

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