

Narrative statement describing the research

- A) Program of research and experimentation -- Atheros Communications is developing wireless LANs in the 2.4GHz ISM band, and the newly allocated UNII bands at 5 GHz. These wireless LANs will be turned into products that will be sold for use in businesses and homes. The equipment will support a broad range of services including voice, video, and data. A similarly broad range of data rates from less than 1 Mb/s to over 100Mb/s will be used. The equipment will be constructed by Atheros from a mixture of standard components and custom integrated circuits designed by Atheros. A number of different communication techniques will be tested, including OFDM, CDMA, and direct sequence spread spectrum modulation formats.
- B) The objective of this experimentation is to develop and commercialize very high performance digital radio systems that can be built inexpensively for mass markets. This high performance must be maintained in a variety of environments including homes and large and small offices. In order to insure good performance in these environments, experimentation will be required in a large number of homes and offices in and about the city of Sunnyvale California.
- C) This work will result in very inexpensive radio implementations, appropriate for use by consumers, that provide very high performance in a wide variety of indoor physical environments. Current implementations of wireless LANs are too slow (limited to 11Mb/s) and too expensive (price to the consumer greater than \$100). This work will extend data rates to greater than 100Mb/s and reduce prices by at least a factor of two.

Exhibit No. 2

Atheros Communications, Inc.

Frequency Information regarding FCC Experimental License

Frequency	Station	Emission Designator	Authorised Power	Frequency Tolerance
2300-2400 MHz	FX	20M0X7W	4000 mW (ERP)	20 ppm
2300-2400 MHz	MO	20M0X7W	4000 mW (ERP)	20 ppm
2400-2483.5 MHz	FX	20M0D2W	4000 mW (ERP)	20 ppm
2400-2483.5 MHz	MO	20M0D2W	4000 mW (ERP)	20 ppm
4900-5150 MHz	FX	20M0X7W	1000 mW (ERP)	20 ppm
4900-5150 MHz	MO	20M0X7W	1000 mW (ERP)	20 ppm
5150-5250 MHz	FX	20M0X7W	200 mW (ERP)	20 ppm
5150-5250 MHz	MO	20M0X7W	200 mW (ERP)	20 ppm
5250-5350 MHz	FX	20M0X7W	1000 mW (ERP)	20 ppm
5250-5350 MHz	MO	20M0X7W	1000 mW (ERP)	20 ppm
5350-5725 MHz	FX	20M0X7W	1000 mW (ERP)	20 ppm
5350-5725 MHz	MO	20M0X7W	1000 mW (ERP)	20 ppm
5725-5850 MHz	FX	20M0X7W	4000 mW (ERP)	20 ppm
5725-5850 MHz	MO	20M0X7W	4000 mW (ERP)	20 ppm
5850-6000 MHz	FX	20M0X7W	1000 mW (ERP)	20 ppm
5850-6000 MHz	MO	20M0X7W	1000 mW (ERP)	20 ppm