

Contact:

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Objective:

Intel is working with the wireless industry to bring low cost, high bit rate technological solutions to the market place. This has started in 2005 with the introduction of the 5116 MAC/Phy interface component which offers both 802.16-2004 compatibility as well as interoperability. To drive the technology forward Intel is working with industry leaders to develop and drive specifications to enhance broadband wireless access to the fixed/mobile market (802.16e).

The intent of the experimental license is to provide a scalable platform to study and develop future technologies which involve the following usage models: NLOS (non line of sight) performance, mobile roaming and hand-off protocols, end to end security and trust, Doppler effects on scalable OFDMA modulation techniques, spectral efficiency. Experiments will be conducted on an as needed basis confined to the parametric details contained.

Radio Specifics

Frequency / Band	3.500 GHz, 3420MHz – 3440MHz 3520 MHz – 3540MHz
Bandwidth	1.75MHz, 3.5MHz, 5.0MHz, 5.5MHz, 7.0MHz, 10MHz
Tolerance	0.004%
Duplexing	FDD, TDD, H-FDD
Offset	100 MHz
Emission Designator	1M75W1D, 3M50W1D, 5M00W1D, 5M50W1D, 7M001D, 10M0W1D,
Modulation / Coding	OFDM / SOFDMA BPSK, QPSK, 8QAM, 16QAM, 32QAM, 64QAM
Power Output to Antenna	+21 dBm

Antenna Specifics

Fixed Station Antenna	Specifications
Option # 1 Til-Tek: TA-3403-8-60 6 Sectors	Gain: 17 dBi Polarization: Vertical Beamwidth: 60 degrees H plane, 8 degrees E plane
Option #2 Til-Tek: TA-3404-8-90 4 Sectors	Gain: 15.5 dBi Polarization: Vertical Beamwidth: 90 degrees H plane, 6.7 degrees E plane
Option #3 MIMO Technology Base Station Antenna – (Manuf TBD)	Gain: not to exceed 20dBi Polarization: Vertical Beamwidth: Variable
Subscriber Antennas - Fixed	Specifications
Option #1 Til-Tek TA-3408	Gain: 18 dBi Polarization: Vertical Beamwidth: 20 degrees H plane, 20 degrees E plane
Subscriber Antennas - Mobile	Specifications
Option #1 Mobilemark CDN9	Gain: 10dBi Polarization: Vertical Beamwidth: n/a – Omni Directional, 14 degrees E plane (vertical)

Location Specifics

Physical Address of Base Station	Intel, Corporation 3600 Juliette Lane SC12 Santa Clara, Ca. 95054
Geo Coordinates	NAD 83 37.38 deg N 121.966 deg W
Antenna Height (HAT)	30 meters
Location Radius	50km
Station Class	FX MO
Mobile Stations	Up to 10 operating mobile stations (subscriber stations), total, on one or more sectors within the 50km radius. Mobile stations will tx on a) same frequency as the fixed station or b) the offset frequency (receive) of the fixed station.