

General Operations and Technical Parameters***Transmitter***

Transmit power: [REDACTED] 1000 Watts

Transmitter model: Ettus Research USRP N210

Transmit frequencies: 6.795 – 7.000 MHz, 9.040 – 9.400 MHz, 10.150 – 11.175 MHz, 14.350 – 14.990, and 15.800 – 16.360 MHz

Transmit bandwidth: 24 kHz

Channel occupation time: [REDACTED]

Duty Cycle: maximum of [REDACTED]

To [REDACTED] Applicant seeks authority to use five frequency bands. The requested frequencies are allocated for fixed services by 47 C.F.R. § 2.106.

Emission/Modulation Type

The proposed system is [REDACTED]. Similar to

[REDACTED] the proposed waveforms are [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Antenna

M2 Model No.: 6-10LP5; Gain: 10.5 dBi

M2 Model No.: 7&10-30LP8; Gain: 10.5 dBi

Feedline: Coaxial, LMR-600, 200 ft.

To minimize transmitter power radiated outside of the proposed testing locations, Applicant will use high-directivity antennas. [REDACTED]

[REDACTED] Antenna vertical profile sketches are provided as Exhibits 3 and 4 to this Application. Azimuth and elevation antenna patterns are provided as Exhibit 5 to this Application.

Antenna support structure

Vertical profile sketches of the antennas and their support structures are provided as Exhibits 3 and 4 to this Application.

ERP Calculation

ERP [REDACTED]

[REDACTED] = 5957W

Other Operational Issues***Experiment Duration***

To [REDACTED] a 24-month experimental license is requested.

Interference Avoidance

Applicant will employ a “listen-before-send” system for dynamic channel selection

Due to [REDACTED] “listen-before-send” channel selection strategy, Applicant does not expect its proposed operations to interfere with any existing licensees.

Protection of FCC Monitoring Stations

There are no FCC Monitoring Stations described in 47 C.F.R. § 5.85 and listed in 47 C.F.R. 0.121(b) within 80 kilometers of the proposed transmit locations.

RF Exposure

Applicant does not expect ground level RF field exposure in excess of 47 C.F.R. § 1.1310, due to

Station Identification Waiver

One of Applicant's primary research goals [REDACTED]
[REDACTED] Applicant requests a
waiver of the "station identification" provisions of 47 C.F.R. § 5.1115.

Stop buzzer contact

Stop buzzer contact information is provided as Exhibit 2 to this Application.

¹ See 47 C.F.R. § 5.3.

[illegible]

