

REACT justification for modifying FCC License WG2XFP:

Raytheon BBN would like to submit a modification to the FCC license WG2XFP as follows:

Location: Whitetail Ski Resort Mercersburg, PA site only

Power: Increase Power from 0.5W ERP to 5W ERP.

Frequency Band: Increase Frequency Band from 5625-5675 MHz to 5560-5685 MHz.

Emissions Designator: 35M0J0N/35M0J1N

The increase in ERP is to improve the Signal-to-Noise Ratio (SNR) over the 1 km link to allow us to coherently beamform at that distance with Omni antennas while moving. The current ERP does not provide sufficient power to allow this to occur. The increase in frequency band is to allow us to change our operating center frequency away from potential interference thus improving SNR for demonstrating coherent beamforming at the required distance.