



17 September 2018

Introduction

Intel is a world leader in computing innovation. The company designs and builds the essential technologies that serve as the foundation for the world's computing devices. Intel also offers a portfolio of wireless communications solutions to connect a broad range of devices. Hardware and software products by Intel and its subsidiaries power the majority of the world's data centers, connect hundreds of millions of cellular handsets and help secure and protect computers, mobile devices and corporate and government IT systems. Intel technologies are also inside intelligent systems, such as automobiles, automated factories and medical devices.

Proposed Demonstration:

Intel's research and development teams have been designing new radio technologies for the next generation broad band wireless devices. The proposed Station Temporary Authorization is for a demonstration at 415 Fifth Avenue, New York City, NY from .October 18 – 28th, 2018.

Indoor Only Locations:

415 Fifth Avenue,
NYC, NY 10016

Center point: 40°45'2.00"N
 73°58'57.00"W

Indoors:	1 st Floor	~27 meters deep into the building
	2 nd Floor	~30 meters deep into the building

"Stop Buzzer" Contact	stopbuzzer@intel.com
During experiment:	John Hammond 503-264-8726

Proposed Transmitter & Antenna Parameters:

Details					Transmitter Emission					
Location	Station Type	Latitude	Longitude	AGL meters	Antenna Type:	Antenna Gain dB	Maximum ERP dBm	Frequency GHz	Bandwidth MHz	Emission Designator MW7W
~45 meter radius from center point.	MO – to – MO	40°45'2.00"N	73°58'57.00"W	NTE 10.5	Patch	23dB beam-forming	59.85	26.5 -29.5	100 200 300 400	100MW7W 200MW7W 300MW7W 400MW7W
~45 meter radius from center point.	MO – to – MO	40°45'2.00"N	73°58'57.00"W	NTE 10.5	Omni, beam-forming	5dB	57.85	26.5 -29.5	100 200 300 400	100MW7W 200MW7W 300MW7W 400MW7W

28 GHz Transmitter Details

Number of Combined Antenna Arrays	Power to Array dB	Gain Per Array dB	Maximum Combined Arrays Pout dBm EIRP	Maximum Combined Arrays Pout dBm ERP
1	30	23	53	50.85
2	30	23	56	53.85
3	30	23	59	56.85
4	30	23	62	59.85

28 GHz Transmitter Details:

Number of Antenna Elements	Power in at Antenna dB	Ant Gain per element: dBi	Beamforming Antenna Gain: dB --includes power combining	Maximum Pout dBm EIRP	Maximum Pout dBm ERP
8	12	5	18	30	27.85
16	12	5	24	36	33.85
32	12	5	30	42	39.85
64	12	5	36	48	45.85
128	12	5	42	54	51.85
256	12	5	48	60	57.85

Geographical Area of Proposed Indoor Experiment:

