



25 October 2017

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.

Testing to be Performed

Intel's research and development teams have been designing new radio technologies for the next generation broad band wireless devices. Over the air testing that is required to validate the designs, characterize propagation impact, and verify overall performances.

Locations:

Intel Santa Clara
2200 Mission College Blvd
Santa Clara, CA 95054

Centered around: 37°23' 10" N, 121°57' 53" W, radius of 500 meters.

Intel Jones Farm
2111 NE 25th Avenue,
Hillsboro, OR 97124

Centered around: 45°32'35" N, 122°57'41" W, radius of 400 meters and

Centered around: 45°32'33" N; 122°58'00" W, radius of 800 meters

Proposed Transmitter & Antenna Parameters:

Details					Transmitter Emission					
Location	Station Type	Latitude	Longitude	AGL meters	Antenna Type:	Antenna Gain per element dB	Beam Forming Gain includes power combining dB	Frequency GHz	Bandwidth MHz	Emission Designator MW7W
Santa Clara	MO – to – MO	37°23' 10" N "N	121°57' 53" W	NTE 32 m	Omni, beam-forming	5-48 maximum with beam-forming	5-48 maximum with beam-forming	37.0 –40.0	100 200 300 400 500 600 700 800	100MW7W 200MW7W 300MW7W 400MW7W 500MW7W 600MW7W 700MW7W 800MW7W
Jones Farm	MO – to – MO	45°32'35" N and 45°32'33" N;	122°57'41" W and 122°58'00"W	NTE 25 m	Omni, beam-forming	5-48 maximum with beam-forming	5 – 48 maximum with beam-forming	37.0 –40.0	100 200 300 400 500 600 700 800	100MW7W 200MW7W 300MW7W 400MW7W 500MW7W 600MW7W 700MW7W 800MW7W

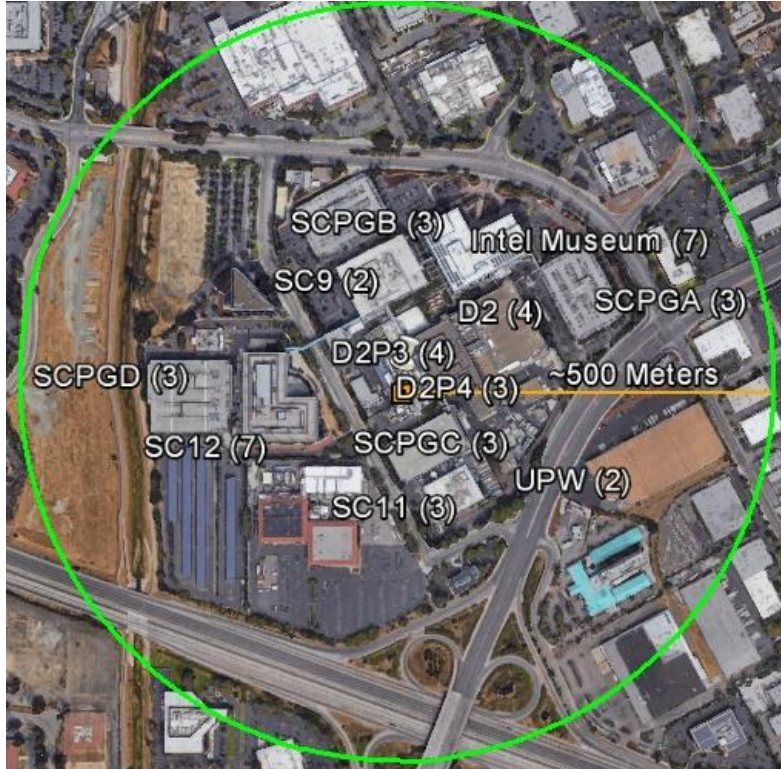
Proposed Transmitter Details:

Number of Antenna Elements	P1 in dB at Antenna	Ant Gain per element: dBi	Beam Forming Gain: dB --includes power combining	Pout dBm EIRP	Pout dBm ERP	Pout ERP Watts
8	12	5	18	30	27.85	0.61
16	12	5	24	36	33.85	2.43
32	12	5	30	42	39.85	9.66
64	12	5	36	48	45.85	38.46
128	12	5	42	54	51.85	153.11
256	12	5	48	60	57.85	609.5

Summary: Each radio has between 8 to 256 antenna elements in its array. As a result, the output power, including the beam-forming gain, will range from 0.61 to 609.5 Watts, ERP.

Geographical Area of Santa Clara, California Site

500 meter radius centered around NL 37-23-10; WL 121-57-53



Number in parentheses = number of stories.

Geographical Areas of Jones Farm, Hillsboro, Oregon Sites

400 meter radius centered around NL 45-32-35; WL 122-57-41



Number in parentheses = number of stories.

800 meter radius centered around: NL 45-32-33; WL 122-58-00

