



General Electric 3550-3650 GHz MHz Experiment Proposal

1 Introduction

GE (NYSE:GE) is in the process of creating a new era in productivity that we call the "Industrial Internet." True to its name, the Industrial Internet is about connecting industrial machines, infrastructure ecosystems and people at work to the internet in order to derive unprecedented value through analytics, machine automation, and the ability to predict and prevent critical issues. In short, the Industrial Internet is a war on downtime, waste and guesswork within industries. These innovations promise to bring greater speed and efficiency to diverse industries. The Industrial Internet will deliver new efficiency gains, accelerate productivity growth the way the Industrial Revolution and Internet Revolution did. For more information please visit our website: <https://www.ge.com/digital/>

2 Experiment Description

General Electric is completing testing of LTE systems operating in the frequency range of 3550-3650 MHz. The testing consists of up to 15 indoor small cell base stations and one outdoor base station located in the San Ramon, CA location as described in Section 2. Up to 10 mobile devices will operate in the areas of the small cell equipment. All equipment is prototype hardware controlled by General Electric or authorized individuals and will be disabled at the conclusion of testing.

The intent is to operate the LTE downlink 24 hours per day 7 days per week.

3 Transmitter Information

One or two 20 MHz LTE RF channels will be operated within the requested frequency range at any one time.

The maximum EIRP for mobile and fixed sites is listed in Table 1. The fixed sites and small cells also support MIMO and the defined power is with respect to each antenna element.

Table 2 defines the deployment radiuses where all fixed and small cell sites will be located within during the testing.

Table 1 Transmitter Information

Type	Transmit Frequency (MHz)	EIRP (dBm)	EIRP (W)	ERP (W)	Maximum Transmission Bandwidth (MHz)	Emissions Designator
Fixed	3550-3650	30	1	0.7	20	20M0W7W
Mobile	3550-3650	23	0.2	0.33	20	20M0W7W

Table 2 Fixed and Small Cell Transmitter Deployment Radius

		Operational Center Point		Fixed Site Location and Mobile Operational Radius	
Location Description	Location #	Lat	Long	Miles	km



2623 Camino Ramon, San Ramon, CA 94583	1	37 46 1 N	121 57 32 W	0.25	0.4
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4 Interference Coordination

Immediate requests for GE to stop transmission should be emailed to fcc-cbrs@ge.com .
Alternatively, a shutdown requested can be submitted through Yury Shefer (GE) who can be contacted at 925-290-5261 or yury.shefer@ge.com