

Thomas N. Cokenias *EMC & Radio Approvals*
Test & Consulting Services for Commercial, Military, International Compliance
P.O. Box 1086
El Granada, CA 94018 *email: tom@tncokenias.org*

Federal Communications Commission
Office of Engineering and Technology
Experimental Licensing Branch
445 12TH ST SW
Washington DC 20554

13 August 2012

Re: Intel Corp. STA application for 10-13 September 2012 in San Francisco, CA

STA Confirmation Number: **EL376267**

STA File Number: **0645-EX-ST-2012**

Date of Submission: **August 13, 2012**

Hello,

On behalf of my client Intel Corp. I have submitted an application for an STA for an experiment that will be run indoors at the Moscone Convention Center in San Francisco. The details of the experiment have been submitted in a separate attachment. Briefly, fixed and mobile radios in the UMTS Band 1 will be communicating at separation distances of 20 m or less.

The UMTS Band 1 uplink frequencies are 1920-1980 MHz, which overlap with UMTS Band 2 downlink frequencies. Sprint holds a UMTS license in the San Francisco area and Intel is currently working with Sprint to have permission to operate the experiment in coordination with Sprint's use of the frequencies.

If you have questions or need further information, please contact me.

Sincerely,



Thomas N. Cokenias
Agent for Intel Corp.

STA APPLICATION

Date: 8/13/2012

File Number: 0645-EX-ST-2012

Full Company Name: Intel Corporation

FRN of Company or Contact: 0009362237

Please complete all sections below with entirety.

| | |
|--------------------|--------------|
| Full Contact Name: | John Hammond |
|--------------------|--------------|

| | |
|--------------------------|------------------------------------------------------------|
| Contact Mailing Address: | 2111 NE 25 th JF2-15 Hillsboro, Oregon 97124 |
|--------------------------|------------------------------------------------------------|

| | |
|---------------------------------------------------|-----------------------------|
| Event Name | Intel Developer Forum (IDF) |
| STA Start / End Dates : (including setup/test) | 10-13 September 2012 |

Description of Experiment or Research – Which Needs to Include the Following

Specific Objectives to be covered (detailed):

Intel will be demonstrating new technology, Edge Cloud applications for Smart Cells, showing the benefits of caching at the edge of the network for enhanced user experience. The demonstration will take place at the Intel Developers Forum held in San Francisco, CA, at the Moscone Visitors Center, between 10-13 September 2012

Description of equipment:

A small cell base station with a fully integrated cloud computing platform. Smart cells combine a cellular/Wi-Fi small cell with a powerful communications-tuned computing platform based on Intel® architecture. The two main hardware platforms contained in the Base Station are an Intel Architecture Processor and a Ubiquisys G3 WCDMA Radio module.

Fixed transmitter:

Smart cell with Ubiquisys G3 Radio Module for W-CDMA.

Mobile transmitter: Lava XOLO smart phone based on Intel Medfield Reference Design

| |
|--|
| |
|--|

Transmitter Equipment and Station Details

| | |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Equipment Mfr / P/N: | 2- Lava XOLO smart phones (mobile) S/N#: FC12240005T, FC1223003EU 2- Smart Cell with Ubiquisys G3 W-CDMA Radio (Fixed) |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------|

| | |
|-------------------------------------------------------------------|--------------------------------------|
| Number of Fixed Units: | 2 |
| Location of Fixed Antennas (Lat / Lon, Street Address) | Moscone Convention Center |
| | 40 Howard Street |
| | San Francisco, CA. |
| <u>NAD 27</u> | <u>NAD 83</u> <u>X</u> |
| | NL 37-47-03 |
| | WL 122-24-05 |

| | |
|-----------------------------------------------------------------------------|---------------------------------------|
| Number of Mobile Units | 2 |
| Radius of Mobile Unit location from Fixed station(s) (specify km) | 1. Max. of 20 meters from fixed Units |
| | 2. Max. of 20 meters from fixed Units |
| | |
| | |
| | |

| TX Frequency Range / Tolerance | HIGH (MHz) | LOW(MHz) | Tolerance |
|---------------------------------------|-------------------|-----------------|------------------|
| Fixed (DL) | 2110 | 2170 | 0.1ppm |
| Mobile (UL) | 1920 | 1980 | 0.1ppm |

| Transmitter Parameters | Modulation | Emission Designator | Bandwidth | Power Out dBm |
|-------------------------------|-------------------|----------------------------|------------------|----------------------|
| Fixed | W-CDMA | 4M60F9W | 4.6 MHz | +10 |
| Mobile | W-CDMA | 4M60F9W | 4.6 MHz | +10 |

| Antenna Details | Type | Gain (dBi) | HAAT (meters) | AMSL (meters) |
|------------------------|-------------|-------------------|----------------------|----------------------|
| Fixed | omni | 2 | 10 (indoors) | 20 (indoors) |
| Mobile | omni | 2 | 10 (indoors) | 20 (indoors) |