

PUBLIC REDACTED VERSION

Ericsson

Exhibit to STA Application, File No. 0806-EX-ST-2015

Date Filed: 7/22/2015

Ericsson submits this application for Special Temporary Authority to conduct a 5G demo at the Verizon 5G Technology Forum on August 16-August 18, 2015. The Commission has previously granted Ericsson an experimental license to conduct 5G operation using the same spectrum and essentially the same technical parameters at our facility in Plano, Texas.¹ This demo would be entirely indoors and at a lower power than our operation in Plano.

The exhibition will use an experimental 5G base station and a piece of experimental 5G mobile user equipment. The equipment will all be located inside the Fairmont Hotel, 170 Market Street in San Jose, California, where the Forum will be occurring. The antenna will have a [REDACTED]. The transmissions will be at no more than [REDACTED] EIRP. Because of the [REDACTED] of the antenna, the lower power, and the indoor location as part of the technology forum, the experiment will not interfere with existing users. Out of an abundance of caution for the government systems in the requested band, we are nonetheless providing a 24 hour emergency contact to turn off any transmissions should interference be detected. The contact information is: Keith Shank, 214-679-4362.

Ericsson requests authorization to transmit on 14.7-15.1 GHz because the experimental equipment we will be using operates on this spectrum at our testbed in Plano. Ericsson has no intention of requesting that this spectrum being repurposed for commercial use.

Call Sign Waiver Request

The experimental 5G base stations are not built to transmit a call sign. While we have determined that we would be able to modify the base stations to transmit a call sign in simple Morse code should the Commission not grant the waiver, Ericsson requests that the requirement to transmit a call sign be waived for this demo. Other parties will not have receivers that can decode the call signs because of the new types of modulations used, the operation will be indoor only as part of an industry event, and either the Forum or our 24-hour emergency contact can be reached should users notice any interference and need to request shutting off transmissions.

Directional Antenna Information

The base station, which has a directional antenna, will be located inside the Fairmont Hotel. The antenna will be at [REDACTED] high and have a [REDACTED].

¹ On November 21, 2014, the Commission granted Ericsson an experimental license for 5G experimentation under call sign WH2XMQ. *See* File Number 0765-EX-PL-2014.

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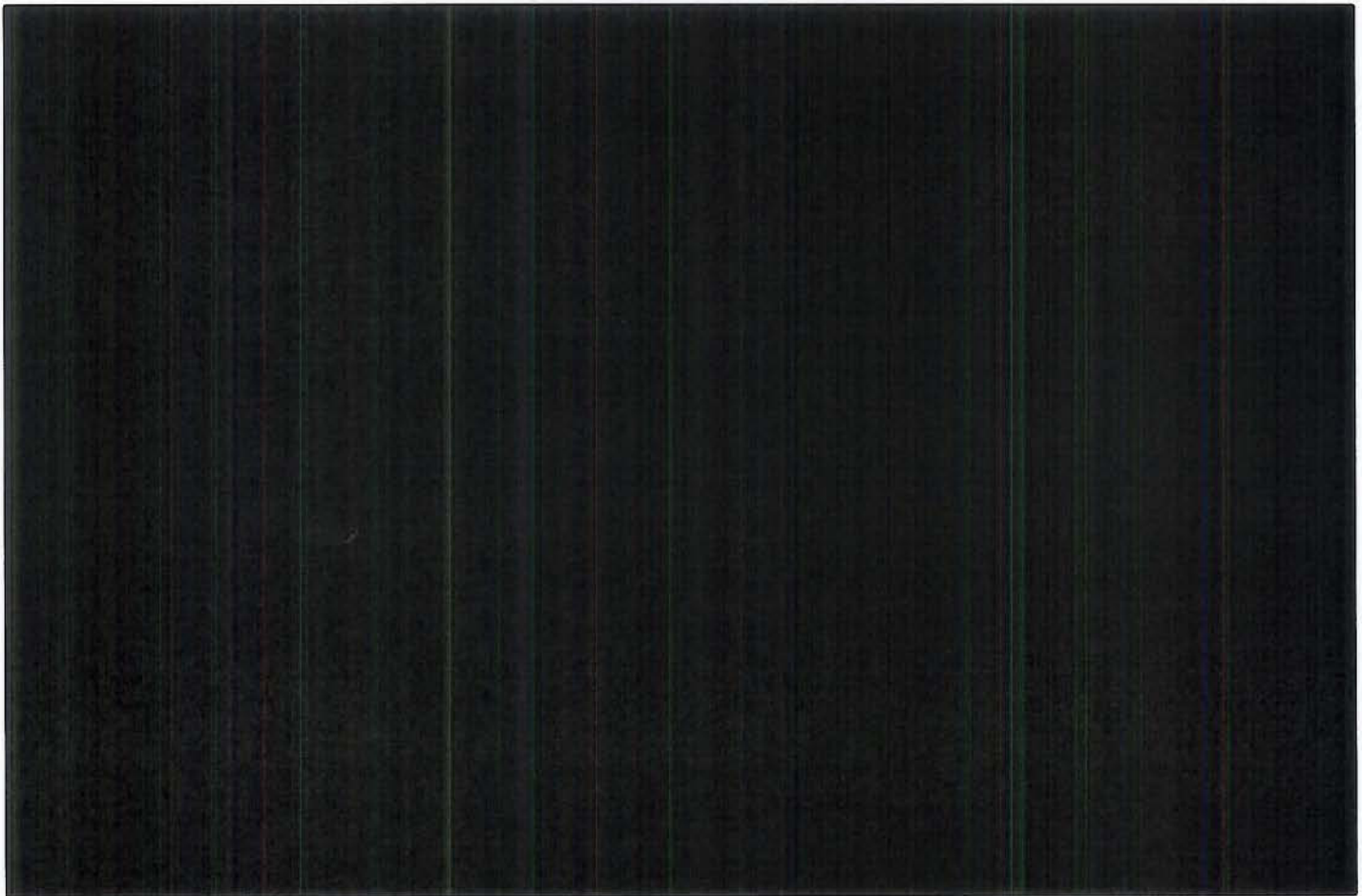
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The antenna parameters will be:

- Polarization: [REDACTED]
- Horizontal HPBW: [REDACTED]
- Vertical HPBW: [REDACTED]
- Antenna gain: [REDACTED]
- EIRP: \leq [REDACTED]
- Electrical tilt: [REDACTED]
- Mechanical tilt: [REDACTED]

Diagram for the V-pol antenna elements: azimuth



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Diagram for the V-pol antenna elements: elevation.

