

PUBLIC REDACTED VERSION

Ericsson

Exhibit to STA Application, File No. 1253-EX-ST-2015

Date Filed: 12/2/2015

Ericsson submits this application for Special Temporary Authority to conduct a 5G demo at the Consumer Electronics Show, January 2-12, 2016. The Commission has previously granted Ericsson Special Temporary Authority to conduct an identical demo at the 2015 CTIA show¹ (also in Las Vegas, just in a different convention center) and at the Verizon 5G Forum.²

The exhibition will use an experimental 5G base station and a piece of experimental 5G mobile user equipment. The equipment will be inside the Ericsson booth, located on the show floor inside the Las Vegas Convention Center, 3150 Paradise Road, Las Vegas, Nevada. 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 trade show, 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 is requesting 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.³

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 our 24-hour emergency contact (as well as CES and the LVCC) can be reached should users notice any interference and need to request shutting off transmissions.

¹ See File No. 0808-EX-ST-2015.

² See File No. 0806-EX-ST-2015.

³ See File No. 0765-EX-PL-2014.

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Directional Antenna Information

The base station, which has a directional antenna, will be located in the Ericsson booth inside the Las Vegas Convention Center. The antenna will be at [REDACTED] high and have a [REDACTED].

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]

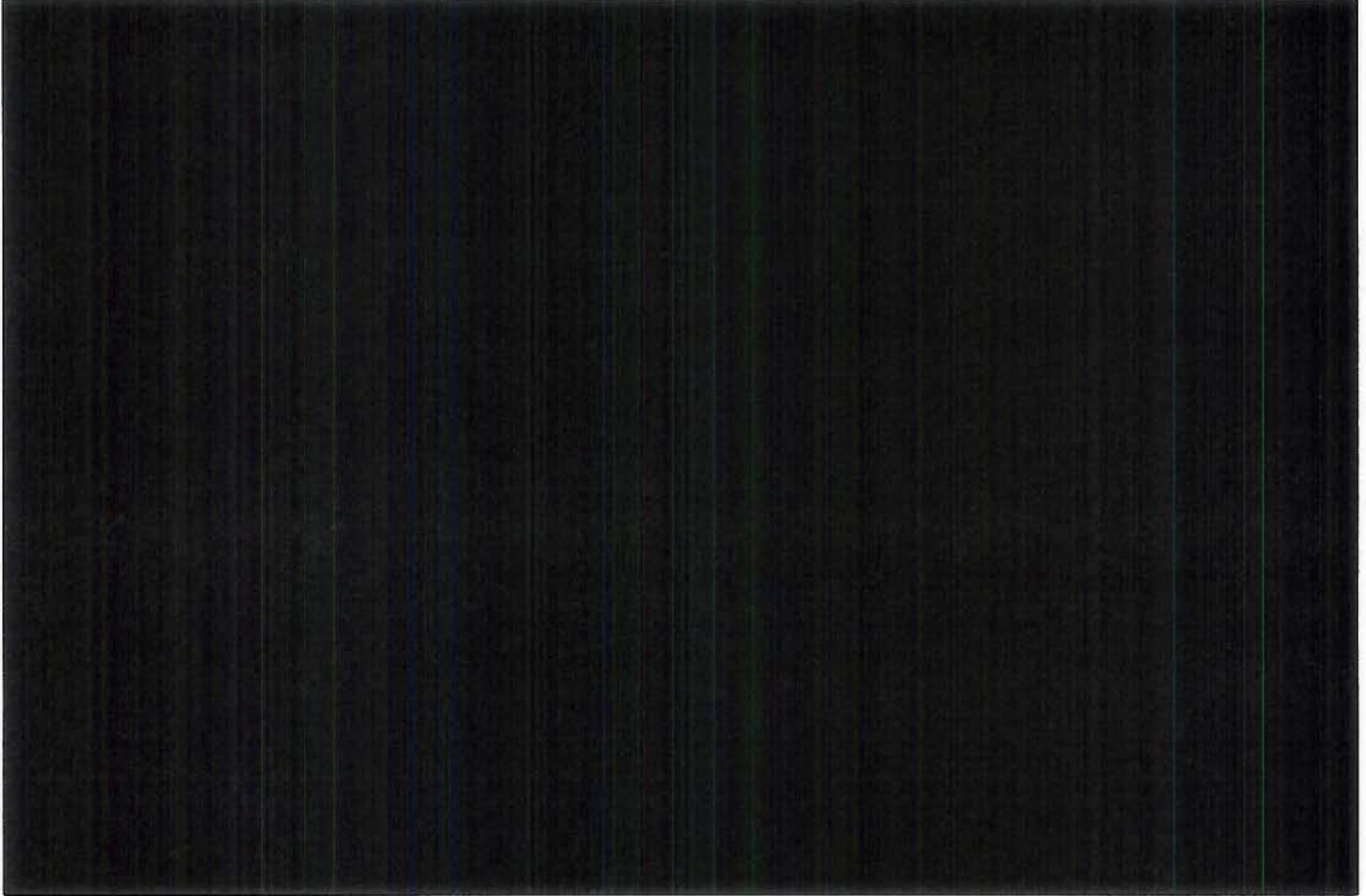
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Diagram for the V-pol antenna elements: azimuth



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Diagram for the V-pol antenna elements: elevation.

