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To: Gulmira Mustapaeva

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Subject: Request for Info - File # 1049-EX-ST-2026

Message:

Images wont load - also emailed full test plan to Gulmira.Mustapaeva@fcc.gov Test Plan Date: 16 June 2026 Performing Organization: Systems & Technology Research LLC (DBA STR) 600 W Cummings Park Woburn MA 01801 Program Point of Contact: Gregory Cote Phone: 339.888.8503 Email: gregory.cote@str.us Table of Contents Table of Contents i 1. Purpose 1 2. Testing Scope 1 2.1. Test Configuration 1 2.2. Test Equipment 1 2.3. Signal Parameters 1 2.4. Test Environment 2 1. Purpose This document outlines over the air (OTA) test activities to determine preliminary efficacy of a receive system developed by Systems & Technology Research (STR). 2. Testing Scope 2.1. Test Configuration The system test configuration incorporates the system under test (SUT) on a moving vehicle receiving RF energy from a fixed transmit site. The SUT is affixed to the roof of the vehicle by bolting a custom carrier to the vehicle's roof rack. Vehicle speed will not exceed 20 mph when the SUT is mounted to the roof. 2.2. Test Equipment 2.2.1. Transmit Equipment The transmit equipment consists of the following • Antenx DRHA750 Wideband Dual-Ridge Horn • Empower RF Systems 1212 RF Amplifier • Filter RF Lambda RLPFTBG05 Tube Low Pass Filter 2.2.2. System Under Test • STR proprietary receive system 2.3. Signal Parameters 2.3.1. Signal Duration During each transmit test, the transmitter is operated in a continuous wave (CW) mode. The signal is transmitted continuously, without bursts or pulsing for a fixed duration of approximately 30 minutes per test interval. The transmitter is powered ON for the entirety of each 30 minute transmit test window. 2.3.2. Duty Cycle The duty cycle is 100% for the duration of each transmit test interval. The transmitter emits the signal throughout the entire test period with no off time during the 30 minute transmit test event window. 2.3.3. Frame Attenuation No intra-frame attenuation, power ramping, or pulse shaping is applied during testing. Transmit power remains constant throughout each 30 minute test event. The only power adjustments that may occur are between separate test events, i.e. the power may be set differently for each 30 min. interval but not varied dynamically within a single interval. 2.4. Test Environment OTA testing will be conducted at two separate locations in Massachusetts: 1. STR's office building located at 600 West Cummings Park, Woburn, MA. 2. U.S. Army Devens Reserve Forces Training Area (RFTA), Lancaster, MA. STR will conduct initial testing of its equipment to ensure all subsystems are working as expected prior to taking the SUT, supporting test equipment, and personnel to Devens RFTA. This check-out testing will be confined to the roadway behind STR's office building. The range at this location is limited to about 150 meters, as such transmit power will be reduced commensurately. The vehicle with the SUT installed will travel the roadway shown in red in Figure 1 receiving RF energy from the fixed transmit site labeled TX_Fixed in Figure 1. Figure 1. STR Facility STR will conduct comprehensive OTA testing of its SUT at U.S. Army Devens RFTA. This testing will be confined to the area within RTFA referred to as the Turner Drop Zone. The vehicle with the SUT installed will travel the roadway (Shoefelt Rd.) shown in red in Figure 2. Testing will comprise transmitting RF energy from a fixed site denoted as TX_Fixed pointing in the direction of the vehicle denoted RX_Mobile. RF energy incident on the SUT array will be recorded for offline analysis. Transmit power may be reduced from the maximum requested ERP of 57 dBm to vary incident receive power. We will not/not be conducting any vehicle-mounted testing at any other locations beyond what is described in this document. Figure 2. U.S. Army Devens RF