

Form 442 Question 7 Experimentation Description

Blinkly Stroud Experimental LTE Band 40 Test

Applicant	Blinkly, Inc.
FCC Form 442 File Number	0682-EX-CN-2026
Confirmation Number	EL657041
License Type	Conventional Experimental Radio Station Authorization
Requested Term	24 months
Site	349076 E 840th Rd, Stroud, OK 74079
Coordinates	35°47'55" N, 96°47'11" W (NAD 83)
Frequency Range	2300-2400 MHz (LTE Band 40 / TDD)
Power/ERP	5 W transmitter output power; 5 W ERP
Emission/Bandwidth	20M0G7D; 20 MHz LTE carrier bandwidth
Operating Area	0.2 km radius, limited to the approximately 20-acre property
Tower/Antenna	One trailer-mounted tower; non-directional local test antenna; less than 6 meters AGL

1. Complete Program of Research and Experimentation

Blinkly proposes to conduct controlled, non-commercial engineering tests of a private LTE Band 40 TDD radio access network at the Blinkly Stroud Test Site in Lincoln County, Oklahoma. The experiment will use one Airspan AirHarmony 4000 / AH4000 LTE eNodeB/base station installed on a trailer-mounted tower and configured for local low-power test operation within the requested frequency range of 2300-2400 MHz.

The experimental program will evaluate private LTE network attachment, authentication, coverage behavior, uplink and downlink connectivity, packet continuity, latency, received signal quality, and limited mobility behavior of LTE user equipment within a constrained rural property test environment. Testing will be conducted by Blinkly personnel or authorized contractors and will not be used to provide commercial service or public communications.

2. Equipment and Operating Configuration

- Base station: Airspan Networks AirHarmony 4000 / AH4000 LTE eNodeB/base station.
- Frequency: 2300-2400 MHz, LTE Band 40 TDD, subject to FCC authorization.
- Emission and bandwidth: 20M0G7D / 20 MHz LTE carrier bandwidth.
- Requested maximum power: 5 W transmitter output power and 5 W ERP. Actual operating levels may be lower.
- Antenna/tower: one trailer-mounted tower with non-directional local test antenna, below 6 meters above ground level.
- Operating radius: 0.2 km centered on 35.79864245 N, 96.78637473261622 W, limited to the approximately 20-acre property at 349076 E 840th Rd, Stroud, OK 74079.
- Airborne UE/CPE operations, if conducted, will remain within the 0.2 km radius and will not exceed 10 meters AGL.

3. Specific Objectives

- Validate LTE Band 40 TDD network attach, authentication, and session establishment for Blinkly-controlled user equipment.
- Measure local uplink and downlink connectivity, latency, packet continuity, RSRP, RSRQ, SINR, and throughput within the constrained on-property operating area.
- Assess the effect of very low-altitude airborne UE/CPE placement and orientation on LTE link quality while remaining within a 10 meter AGL ceiling.
- Verify operational procedures for safe startup, monitoring, power reduction, and immediate shutdown in response to interference reports or FCC/AFTRCC direction.

4. Reasonable Promise of Contribution to the Radio Art

The test program will provide controlled empirical data regarding low-power private LTE Band 40 TDD operation in a rural property environment using a compact trailer-mounted infrastructure configuration. The results are expected to support development of deployable private communications infrastructure, including network planning, signal-quality assessment, operational procedures, and interference-avoidance practices for constrained LTE test deployments.

5. Non-Commercial and Non-Interference Basis

The proposed operations will be experimental only. Blinky will not provide commercial service, will not connect unaffiliated public users, and will not claim protection from authorized services. All operations will be conducted on a non-interference basis and only within the parameters authorized by the FCC.

- Blinky will maintain technical control of the equipment and operating schedule.
- Blinky will immediately suspend or modify operations upon any report of harmful interference or direction from the FCC, AFTRCC, or an affected licensee.
- Blinky will maintain responsible contacts for test operations and will preserve operating information necessary to identify test periods and configurations.

6. Environmental and Site Consistency

The technical configuration in this attachment is intended to remain consistent with the Stroud Communication Tower environmental and cultural review materials: one trailer-mounted communication tower, no guy wires, no permanent lighting, no ground disturbance, no new utility lines, and no access-road construction. The tower and antenna configuration will remain below 6 meters above ground level.

7. Responsible Contacts

Parameter	Value
Applicant contact	Reechik Chatterjee, Chief Executive Officer, reechik@blinkly.com, 407-616-8454
Technical contact	Joowon Kim, Chief Technology Officer, joowon@blinkly.com, 765-418-7455