

# CommScope CBRS Experiment Proposal

## Introduction

Pursuant to the Federal Communications Commission’s rules 47 C.F.R. Section 5.3(j) ad 5.61, CommScope Technologies LLC seeks Special Temporary Authority (“STA”) for 180 days, starting July 15, 2019 to test and evaluate coverage, propagation characteristics and performance in the 3550-3700 MHz Citizens Broadband Radio Service (“CBRS”) band. This testing is in advance of the CommScope Spectrum Access System (“SAS”) Initial Commercial Deployment (“ICD”) in conjunction with FCC docket 15-319 which is expected to consume a 30-day window staring in mid-August. This STA is to facilitate installation and testing in advance of ICD and/or CBRS certification of radio devices.

## Experiment Description

CommScope will conduct indoor and outdoor fixed and mobile testing within 15 miles (25 km) of three locations near Dallas, TX.

Location 1 – Richardson, TX, 32.985010N, -96.661667W

Location 2 – Euless, TX, 32.815556N, -97.123056W

Location 3 – Plano, TX, 33.061832N, -96.698876W

All locations will use building roof mounted Category A and Category B Citizens Broadband Radio Devices (“CBSD”) radios communicating with ground-based End User Devices (“EUD”). The CommScope SAS will communicate with all CBSDs and manage CBSD use under Part 96 rules.

Testing will be completed with the CommScope production SAS in a highly controlled field environment. This testing will benefit the public interest by enabling the pre-commercial testing of lab tested equipment in a controlled field environment. This testing will facilitate a smooth transition into ICD and provide a platform for any additional FCC / DoD CBRS testing.

## Radio Equipment Description

CommScope intends to deploy two models of fixed CBSD equipment at each of the three locations and utilize two models of EUD equipment. EIRP for all devices will strictly comply with FCC Part 96 intended transmission bandwidths. CBSD devices will utilized a directional antenna with horizontal orientation with no more than a 120-degree sector beam width. All devices will utilize LTE-TDD in Band 48. The CBRS devices have received formal CBRS equipment authorization, the EUD devices have not.

### CBSDs

| Vendor-Model  | Category | EIRP                     | Modulation         |
|---------------|----------|--------------------------|--------------------|
| Ruckus Q710   | A        | 1W/10MHz<br>30dBm/10MHz  | 16QAM, 64QAM, QPSK |
| BLiNQ FW-300i | B        | 50W/10MHz<br>47dBm/10MHz | 16QAM, 64QAM, QPSK |

## EUDs

| <b>Vendor-Model</b> | <b>Category</b> | <b>EIRP</b>                | <b>Modulation</b>  |
|---------------------|-----------------|----------------------------|--------------------|
| Infomark IML-C4510W | A               | 200mW/10MHz<br>23dBm/10MHz | 16QAM, 64QAM, QPSK |
| Cradlepoint IBR1700 | B               | 200mW/10MHz<br>23dBm/10MHz | 16QAM, 64QAM, QPSK |

## Interference Protection

CommScope requests use of the 3550-3700 MHz band. CommScope will use the CommScope SAS in compliance with Part 96 rules to manage interference into incumbents.

The trial area is within 40km of GWPZ neighborhoods and will be subject to Part 90 rules of interference protection. The CommScope SAS will use the Iterative Allocation Process (“IAP”) to protect incumbent operations in the GWPZs.

The trial area is within the 150km neighborhood of the McKinney portal Dynamic Protection Area (“DPA”). CommScope will interface with the P-DPA scheduling tool, as well as directly with McKinney incumbent personnel to ensure the DPA is protected.

The trial area is not in the neighborhood of any coastal DPAs, Fixed Satellite Stations (“FSS”), exclusion zones or quiet areas.

Immediate requests to cease transmissions under this STA can be communicated to Andrew Beck at 703-726-5508 or by e-mail at [Andrew.beck@commscope.com](mailto:Andrew.beck@commscope.com) or to Mark Gibson at 703-726-5718 or by e-mail at [mark.gibsonQ@commscope.com](mailto:mark.gibsonQ@commscope.com). CommScope has the ability to shut down transmission of any or all devices in the unlikely event any interfere occurs.