

Date: Nov 19, 2024

SpectrEdge Wireless Inc (SpectrEdge) has been asked to participate into U.S. Army's Project Convergence Capstone 5 (PC-C5). This is a fifth **Project Convergence** iteration where soldiers will test out the service's future command and control (C2) architecture that will include based Secure, Tactical 5G Private Network solution from SpectrEdge.

US Army PCC5 experimentation planners have recommended to use CBRS frequency band to for expeeriementation deploymen at the location,Fort Irwin National Training Center (Fort Irwin NTC).

As part of the effort SpectrEdge is filing FCC STA to demonstrate its 5G technology using CBRS GAA frequency band for the duration of 6 months ending May 31, 2025.

SpectrEdge with assistance from Federated Wireless has identified CBRS GAA as best suitable frequency to demonstrate commercial 5G base station features. SpectrEdge has been working with Federated Wireless to provide spectrum clearance and related compliance.

Consistent with the standards set forth in Section 5.61 of the Federal Communications Commission's (Commission's) Rules, 47 C.F.R. § 5.61, SpectrEdge Wireless Inc., requests an Experimental License to conduct demonstrations of Shared Spectrum experimental 5G Small Cell Base Stations at

Ft. Irwin national training center, centered around DMS: [35°14'47"N 116°40'55"W](#).

This is for the purpose of US Army's PCC5 Training and experimentation. SpectrEdge Wireless Inc. is demonstrating Commercial 5G based coverage at the above location and is intended to use CBRS GAA frequency set.

Please see more information about US Army PCC5 project in the appendix.

US Army contacts/Spectrum Manager at Ft. Irwin is listed below in the appendix for information purposes. Operations under this Experimental License will be consistent with the Part 96 rules the Commission has adopted to govern use of the 3.5 GHz CBRS band. The Experimental License is sought for a period of 6 months ending May 31, 2025, or as soon thereafter that the Commission is able to grant such request.

SpectrEdge wireless Inc outlines below its need for the requested Experimental License.

The Experimental License is needed to continue executing operation and performance of Small Cell Base Stations in the 3.5 GHz band, which the Commission has designated for broader commercial use. The operation of Small Cell Base Stations under this experimental license will be consistent with the Commission's Part 96 rules and any incumbent operators will be protected from any harmful interference.

SpectrEdge requests authorization to operate on the frequencies between 3550 and 3700 MHz, which have been designated for innovative small cell spectrum sharing in connection with the new Citizens Broadband Radio Service (CBRS).

Operations across the proposed frequencies will be consistent with the rules for CBRS devices (CBSDs) set forth in Part 96 of the Commission's rules.

As stated above and described below, SpectrEdge will avoid harmful interference to incumbent operations throughout the band, and to operations in adjacent bands. Planned Operations SpectrEdge anticipates performing the following tests under the requested Experimental License.

The proposed experimental operations in the 3.5 GHz band will be conducted with care to fully protect authorized spectrum users from harmful interference.

#### **Small Cell coverage and performance**

SpectrEdge will demonstrate CBRS 5G innovative small cell operation to US Army and will test the following:

- The operation of the small cell base station to understand the coverage and performance of in the 3.5 GHz band. The frequency of operation will be 3550 to 3700 MHz
- At the location: Ft. Irwin national training center, centered around DMS:  
35°14'47"N 116°40'55"W.

#### **SAS Management of Shared Spectrum**

SpectrEdge will utilize Federated Wireless Spectrum Access System (SAS) for this effort if applicable. This will be operated under STA from FCC.

#### **Non-Interference Analysis**

Operation under the Experimental License will not cause harmful interference to any authorized RF spectrum user.

#### **Radar Protection**

CBSD will not interfere with Military radars that operate in the 3550-3700 MHz band. Locations are away from coastal Exclusion Zone established by the Commission.

**International Border**

Not applicable

**Exhibit B – Technical Information**

**Applicant Name:** SpectrEdge wireless inc

**Legal Contact Details:**

Name of Contact: Mohan Tammisetti

Contact Address: 14801 Murdock Street, suite 155, Chantilly, VA 20151

Technical Contact Details:

Name of Contact: Mohan Tammisetti

Contact Address: 14801 Murdock Street, suite 155, Chantilly, VA 20151

**Base Station General Information**

Equipment	SpectrEdge CBRS Experimental base station
Quantity	2
Area of Operation	not to exceed 1 km from the following geographic center points

Duration: 6 months ending May 31, 2025.

**Amplifier Detail :**

Antenna	External
Type	Omni directional
Quantity	2 per Base Station
Gain	0 dBi

**Radio Modulation Emission Designator**

Digital 10M0W7W  
Digital 20 M0W7W  
Digital 10M0W7W  
Digital 20M0W7W  
Digital 10M0W7W  
Digital 20M0W7W

Bandwidth Maximum Channels 10 MHz, 20 MHz – Will use 2 channels of 20 MHz a total of 40 MHz

Output Power                    500 mW  
Maximum EIRP                    30 dBm

## Appendix

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### SpectrEdge contact:

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### US Army - Govt Contacts:

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More information about US Army PCC5 at the following link:

[https://www.army.mil/article/277454/project\\_convergence\\_campaign\\_of\\_learning\\_continues\\_with\\_events\\_in\\_pacific\\_and\\_europe](https://www.army.mil/article/277454/project_convergence_campaign_of_learning_continues_with_events_in_pacific_and_europe)