## Please explain in the area below why STA is necessary:

XCOM has developed an 5G advanced coherent distributed MIMO system for dense and hyper dense wireless deployments. XCOM indoor lab testing and validation is conducted under the granted experimental license (711-EX-CN-2020) at XCOM labs. This license covers low power <20mW indoor only operation in CBRS band, 3600--3700MHz (3GPP band n48).

Validation of the distributed MIMO requires antenna unit spacing of approximately 10m, beyond the limits of conducted setups. The STA would enable testing, validation and demonstration of the system.

End-to-end system validation (n48 radios and capable devices) in the final overthe-air configuration is critical for successful execution.

XCOM has completed RF survey and RF measurements in support of the application to ensure no interference issues. See attached STA application supplemental information.

## **Purpose of operations:**

XCOM is developing commercial 5G CBRS system enterprise customers and development platforms for research students to create innovative applications usings XR, VR and AR. XCOM's systems and platforms will be used for high efficiency low latency CBRS 5G networks for industrial and enterprise customers and for academic learning, research, healthcare diagnostics and other purposes.

This extension request for existing STA operation within XCOM's indoor test lab will accelerate the development and use of next generation ultra low latency, high reliability and high performance wireless system to use the platform for above research and development purposes to commercialize XCOM CBRS end to end solutions.