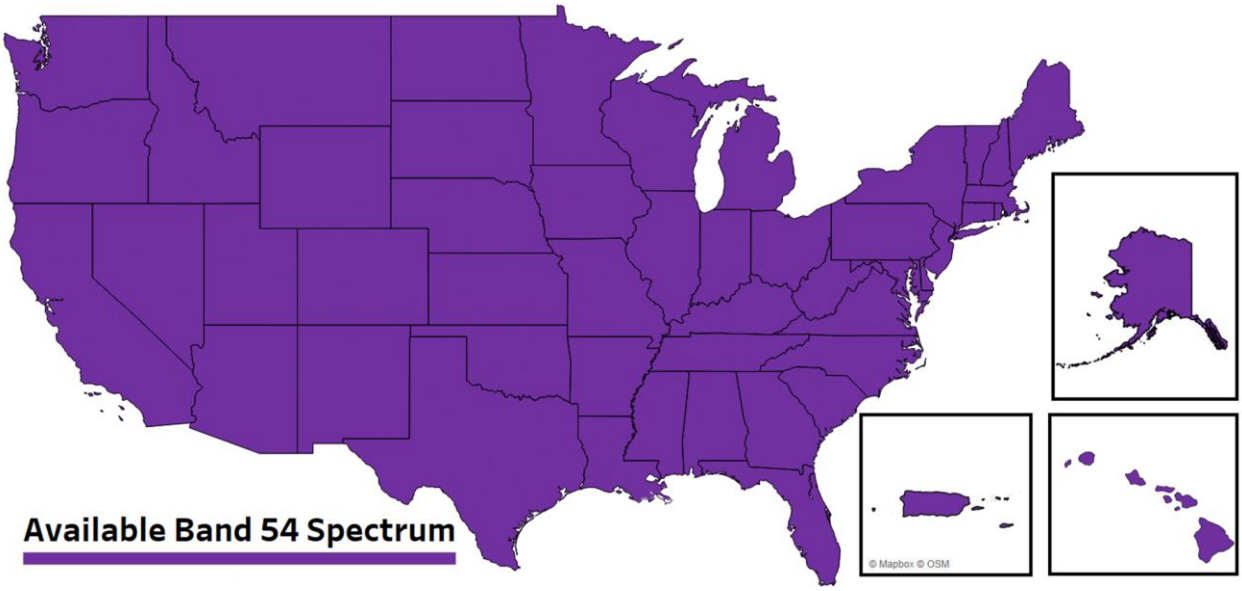
Wireless Spectrum Licenses in Band 54 (1670-1675 MHz)
Ideal for Utility & Critical Infrastructure Enables Private 4G/5G, NB-IoT & LTE-M Networks

Select Spectrum offers 5 MHz of **contiguous Time-Division Duplex (TDD) FCC licensed broadband spectrum between 1670-1675 MHz, standardized by 3GPP for 4G/5G as Band 54 (b54/n54).** Band 54 spectrum is the ideal choice for companies in the **Utility and Critical Infrastructure Industry (UCII) sector** that are deploying private networks to support applications that leverage 4G-LTE, 5G NR, LTE-M and NB-IoT technologies. Band 54's prime mid-band frequencies are available on a nationwide basis - localized to closely match a UCII organization's operating areas and requirements.

The Band 54 map of immediately available spectrum is shown below:



Band 54 – Suite of Advantages for UCII Private Networks

Band 54 delivers an **optimal balance of capacity and coverage**, combining a **low total cost of ownership with superior performance** for private networks.

- ✓ **Comprehensive 3GPP compatibility:** 4G-LTE, 5G NR, LTE-M, and NB-IoT support
- ✓ **Optimal propagation:** Lower mid-band (1-2 GHz) balances coverage and capacity
- ✓ **Spectral efficiency:** TDD mode with flexible uplink/downlink allocation
- ✓ **Immediate availability:** Nationwide availability with localized, tailored coverage
- ✓ **Clean RF environment:** Low noise floor bolsters reliable mission-critical communications
- ✓ **Growth path:** FCC evaluating an auction of 1675-1680 MHz, potentially unlocking a 10 MHz carrier[1]
- ✓ **UCII Applications:** Ideal for power grid modernization including Field Area Networks (FANs), Demand Response (DR), Distributed Energy Resources (DER), etc.

[1] NTIA identified 1675–1680 MHz as suitable for commercial repurposing (Feb. 26, 2026). UTC's ex parte urged the FCC to auction the band so utilities can pair it with 1670–1675 MHz for 10 MHz TDD operations (April 9, 2026)

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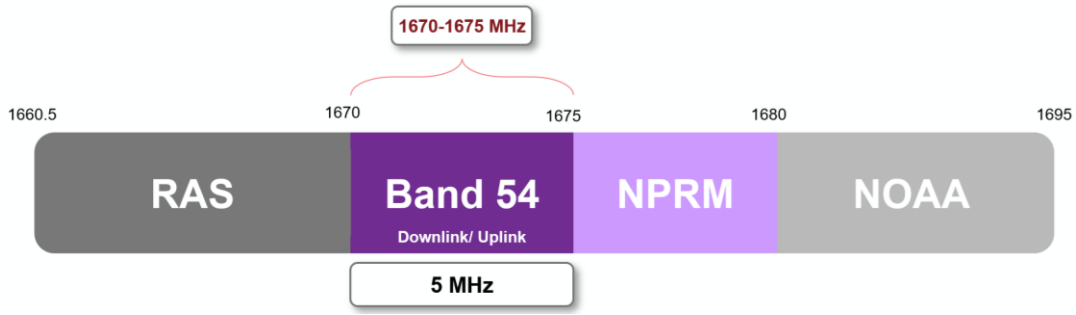
Band 54 Applications

Key applications for UCII's supported by Band 54 spectrum include Field Area Network (FAN), Mobile or Fixed Data Services, Internet of Things (IoT) / Sensors, Demand Response (DR), Distributed Energy Resources (DER), Advanced Metering Infrastructure (AMI) 2.0, Emergency Management & Service Restoration, Electric Vehicle (EV) Charging Stations, Workforce Mobility, Direct Transfer Trip, Line Fault / Falling Conductor Protection, Supervisory Control and Data Acquisition (SCADA), Distribution Automation (DA), Video Monitoring, Volt VAR (Advanced Voltage Control), VoLTE / Push-to-Talk (PTT), and Smart Grid monitoring and control.

Band 54 Technical Overview

Band 54 frequencies are utilized in a TDD mode, providing users with significant flexibility to apportion the bandwidth between Uplink and Downlink according to their applications' requirements. TDD mode is more spectrally efficient and allows for higher throughput for applications with asymmetric network traffic as compared to Frequency Division Duplex (FDD) where the ratio between uplink and downlink capacity is fixed.



Governed by Part 27 "cellular" rules, Band 54 spectrum has authorized power of 2000 Watts EIRP for base stations and fixed devices, providing unparalleled flexibility and performance for fixed deployments. Consistent with typical vehicular radios, the band has an authorized power limit of 4 Watts EIRP for mobile devices.

Band 54 Equipment Ecosystem

Chipset/Modules: GCT Semiconductor provides LTE cat4 and cat12 chip/module solutions, as well as 5G chips and modules.

Base Stations: Ubiik's goRAN™ pLTE base station is commercially available to users. GE Vernova is prepared to support Band 54 with its LTE Base Station and Orbit/Orbit X router.

Devices/UEs: Ubiik's Pyxis Duo LTE router, BEC Technologies LTE router (MX-260L), Easymetering NIC and Flexsource CPE device are all available. Telewave.io has also announced plans for a comprehensive PTT solution for Band 54. Aviat is prepared to support Band 54 with its Aprisa Routers upon receipt of a qualifying order.

Continued Developments: **Band 54's ecosystem of compatible equipment solutions is rapidly expanding, with continued development expected throughout 2026**. Advanced discussions continue with additional major chip, module, base station and core manufacturers to expand the range of options for constructing private 4G-LTE/ 5G NR networks supporting UCII applications using Band 54 spectrum.

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