

THE 5.9 GHZ SAFETY BAND

What Is the Safety Band?

The Safety Band is a band of wireless spectrum at 5.9 GHz reserved for transportation-related communications among the devices that support connected and automated vehicles. Interacting via the interference-free Safety Band, these high-precision devices enable communications between vehicles and traffic lights, generate real-time alerts or warnings, and adjust signals to give emergency vehicles priority in heavy traffic—dramatically improving our transportation safety and mobility. As the U.S. continues to invest in deployment of millions of connected and automated vehicles across our country, the Safety Band enables continued economic growth.

What Is the Safety Band Used For?

The 5.9 GHz band is used for:

- Traffic light control
- Traffic monitoring
- Travelers' alerts
- Automatic toll collection
- Traffic congestion detection
- Emergency vehicle signal preemption of traffic lights
- Electronic inspection of moving trucks via data transmissions with roadside inspection facilities
- Red-light violation warnings
- Reduced speed zone warnings
- Curve speed warnings
- Spot weather-impact warnings and other safety-critical applications.

As technology advances, interoperability is central to enabling universal, nationwide, and regionwide vehicle-to-everything (V2X) capability and benefits. Sharing the band could compromise the speed at which this information is received and put lives at risk. With over 37,000 deaths on our nation's roads every year, it is critical that efforts to free up additional spectrum do not come at the expense of lifesaving technologies.