

Federal Communications Commission Washington, DC 20554

May 3, 2024

DA 24-417

SMALL ENTITY COMPLIANCE GUIDE

Unlicensed Use of the 6 GHz Band Expanding Flexible Use in Mid-Band Spectrum Between 3.7 and 24 GHz

> FCC 23-86 **ET Docket No. 18-295 GN Docket No. 17-183** Released November 1, 2023

In accordance with Section 212 of the Small Business Regulatory Enforcement Fairness Act of 1996, this Small Entity Compliance Guide (Guide) is intended to help small entities—small businesses, small organizations (non-profits), and small governmental jurisdictions—comply with the rules adopted in the above-referenced Federal Communications Commission (FCC or Commission) rulemaking dockets. This Guide is not intended to replace or supersede these rules, but to facilitate compliance with the rules. Although we have attempted to cover all parts of the rules that might be especially important to small entities, the coverage may not be exhaustive. This Guide cannot anticipate all situations in which the rules apply. Furthermore, the Commission retains the discretion to adopt case-by-case approaches, where appropriate, that may differ from this Guide. Any decision regarding a particular small entity will be based on the statute and any relevant rules.

In any civil or administrative action against a small entity for a violation of rules, the content of the Guide may be considered as evidence of the reasonableness or appropriateness of proposed fines, penalties, or damages. Interested parties are free to file comments regarding this Guide in the abovereferenced proceeding and the appropriateness of its application to a particular situation. The Commission will then consider whether the recommendations or interpretations in the Guide are appropriate in that situation. The Commission may decide to revise this Guide without public notice to reflect changes in its approach to implementing a rule or it may clarify or update the text of the Guide. Direct your comments, recommendations, or request for further assistance to the FCC's Consumer Center:

> 1-888-CALL-FCC (1-888-225-5322) Videophone: 1-844-4-FCC-ASL (1-844-432-2275)

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TABLE OF CONTENTS

I.	OBJECTIVES OF THE PROCEEDING	. 1
II.	COMPLIANCE REQUIREMENTS	. 1
	RECORDKEEPING AND REPORTING REQUIREMENTS	
IV.	IMPLEMENTATION DATE	. 2
V	INTERNET LINKS	2

I. OBJECTIVES OF THE PROCEEDING

In the Second Report and Order in FCC 23-86, ET Docket No. 18-295 and GN Docket No. 17-183, adopted in October 2023, the Commission revised part 15 of its rules to permit new very low power (VLP) unlicensed devices to use two portions of the 5.925-7.125 GHz (6 GHz) band. This decision expanded on the Commission's prior decision to permit unlicensed device use in the 6 GHz band. VLP devices are unlicensed, intended to be portable, may operate indoors and outdoors, will operate only in two portions of the 6 GHz band, and do not need to be under the control of a frequency coordination system. VLP devices should prioritize use of frequencies between 6.105 and 7.125 GHz prior to using frequencies between 5.925 GHz and 6.105 GHz.

II. COMPLIANCE REQUIREMENTS

In the 6 GHz band, VLP devices are regulated under subpart E of part 15 of the Commission's rules.² Part 15 of the FCC rules contains the technical requirements for radio frequency (RF) devices that may be operated without an individual license. All part 15 devices are required to accept harmful interference from other authorized operations, and are prohibited from causing harmful interference to other authorized operations.³ Specifically, VLP devices must meet the following requirements:

- 1. VLP devices may operate with up to -5dBm/MHz Effective Isotropic Radiated Power (EIRP) Power Spectral Density (PSD) and 14 dBm EIRP across the U-NII-5 and U-NII-7 portions of the 6 GHz band.
- 2. VLP devices may not be attached to outdoor infrastructure, such as poles or buildings, that would make any instances of potential interference more than fleeting.
- 3. VLP devices must employ a transmit power control mechanism that has the capability to operate at least 6 dB below the -5dBm/MHz EIRP PSD level permitted for VLP devices.
- 4. VLP devices must include a contention-based protocol which will act to avoid operating on channels on which incumbent systems are actively transmitting.
- 5. The power spectral density of VLP devices must be suppressed by 20 dB at one megahertz outside of an unlicensed device's channel edge, suppressed by 28 dB at one channel bandwidth from an unlicensed device's channel center, and suppressed by 40 dB at one-half times the channel bandwidth away from an unlicensed device's channel center. This is the same transmission emission mask that applies to low-power indoor and standard power unlicensed devices that are also permitted to operate in the 6 GHz band adopted in the 6 GHz Order.⁴
- 6. VLP devices are limited to -27 dBm/MHz EIRP at frequencies below the bottom of the U-NII-5 band (5.925 GHz) and above the upper edge of the U-NII-8 band (7.125 GHz). These emissions limits at the edge of the U-NII-5 and U-NII-8 bands for VLP devices are identical to the emissions limits that apply to low-power indoor and standard power unlicensed devices adopted in the 6 GHz Order.⁵

¹ Unlicensed Use of the 6 GHz Band; ET Docket No. 18-295, Second Report and Order, Second Memorandum Opinion and Order, and Memorandum Opinion and Order on Remand, FCC 23-86 (adopted October 19, 2023).

² 47 CFR pt. 15 subpart E.

³ 47 CFR § 15.5(b).

⁴ Unlicensed Use of the 6 GHz Band; Expanding Flexible Use in Mid-Band Spectrum Between 3.7 and 24 GHz, Report and Order and Further Notice of Proposed Rulemaking, 35 FCC Rcd 3852, 3924-25, para. 196 (2020) (6 GHz Order). ⁵ 47 CFR § 15.407(b)(6); 6 GHz Order, 35 Rcd at 3925, para. 197.

- 7. 6 GHz VLP transmitters must be approved under the FCC's certification procedure. This procedure requires that the equipment be tested by an accredited laboratory and approved by a designated Telecommunication Certification Body (TCB) to ensure that the equipment complies with all adopted controls.
- 8. Use of VLP devices is prohibited on low flying aircraft or unmanned aircraft (10,000 feet and below).
- 9. The use of VLP devices is prohibited on oil platforms.

III. RECORDKEEPING AND REPORTING REQUIREMENTS

The Commission's actions in the *Second Report and Order* do not create any new recordkeeping or reporting requirements.

IV. IMPLEMENTATION DATE

All rule changes in the Second Report and Order are effective as of March 8, 2024.

V. INTERNET LINKS

A copy of the Second Report and Order is available at:

https://docs.fcc.gov/public/attachments/FCC-23-86A1.pdf.

A copy of the Federal Register Summary of the *Report and Order* is available at: https://www.govinfo.gov/content/pkg/FR-2024-01-08/pdf/2023-28006.pdf.

The FCC maintains a web-based system that is used to submit inquiries to its Laboratory, as well as to search for previous rule interpretations and frequently asked questions. This system, called the OET Knowledge Database (KDB), can be accessed at OET Knowledge Database (KDB) (fcc.gov).