

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of	)	
	)	
Pivotal Commware Request for Waiver of	)	WT Docket No. 19-272
Industrial Signal Booster Labelling Requirements	)	

ORDER

Adopted: December 26, 2019

Released: December 26, 2019

By the Chief, Mobility Division, Wireless Telecommunications Bureau:

I. INTRODUCTION

1. In this Order, we address the request for waiver of section 20.21(f) Industrial Signal Booster labeling requirements filed by Pivotal Commware (Pivotal).¹ For the reasons discussed below, we grant Pivotal a partial waiver of section 20.21(f) of the Commission’s rules to provide for an alternate label on its “Echo 5G Subscriber” Industrial Signal Booster (Device). We condition this grant, however, on certain features of Pivotal’s Device.

II. BACKGROUND

A. Signal Booster Requirements

2. *Signal Booster Framework.* In 2013, the Commission established a regulatory framework for signal boosters.² In that Order, the Commission created two classes of signal boosters—Consumer and Industrial—with distinct regulatory requirements.³ A Consumer Signal Booster is required to contain a series of built-in technical safeguards and is designed to minimize interference to wireless networks.⁴ These devices are authorized for use only in certain wireless radio service spectrum bands.⁵

¹ Pivotal Commware Request for Waiver of Section 20.21(f), WT Docket No. 19-272 (filed Sept. 16, 2019) (Pivotal Waiver Request).

² See *Amendment of Parts 1, 2, 22, 24, 27, 90 and 95 of the Commission’s Rules to Improve Wireless Coverage Through the Use of Signal Boosters*, Report and Order, 28 FCC Rcd 1663 (2013) (*Report and Order*).

³ *Report and Order*, 28 FCC Rcd at 1664-65, para. 3.

⁴ *Id.* at 1680, 1685, paras. 44, 57. In particular, “[u]nder the Network Protection Standard, all Consumer Signal Boosters must: (1) comply with existing technical parameters for the applicable spectrum band of operation; (2) automatically self-monitor certain operations and shut down if not in compliance with our new technical rules; (3) automatically detect and mitigate oscillations in the uplink and downlink bands; (4) power down or shut down automatically when a device is not needed, such as when the device approaches the base station with which it is communicating; (5) be designed so that these features cannot be easily defeated; and (6) incorporate interference avoidance for wireless subsystems.” *Id.* at 1685, para. 57.

⁵ 47 CFR § 20.21(e)(3); *Report and Order*, 28 FCC Rcd at 1677-79, paras. 36-40. Consumer Signal Boosters are authorized for use in the wireless radio service spectrum bands used for the provision of subscriber-based services under Part 22, including: Cellular (824-849 MHz and 869-894 MHz); Broadband PCS (1850-1915 MHz and 1930-1995 MHz); AWS-1 (1710-1755 MHz and 2110-2155 MHz); 700 MHz Lower A through E (698-746 MHz) and Upper C (746-757 MHz and 776-787 MHz) Blocks; and 800 MHz Enhanced Specialized Mobile Radio (ESMR) (817-824 MHz and 862-869 MHz).

All other signal boosters are Industrial Signal Boosters.⁶ Unlike Consumer Signal Boosters, Industrial Signal Boosters are not required to contain specific built-in technical safeguards, but they are required to be installed with explicit licensee consent and close licensee coordination.⁷ Both Consumer and Industrial Signal Boosters are required to include labels with text applicable to the category of signal booster.⁸

3. *Signal Booster Labeling Requirements.* Section 20.21(f)(1) requires that all signal boosters in the United States include specific advisories concerning the device, regardless of whether the device is classified as a Consumer or Industrial Signal Booster.⁹ Because Industrial Signal Boosters do not contain built-in, consumer-targeted safeguards, they are required to contain labels to prevent consumers from erroneously purchasing the device and unwittingly causing interference to wireless networks.¹⁰ Industrial Signal Boosters are required to contain the following disclosures: “WARNING. This is NOT a CONSUMER device. It is designed for installation by FCC LICENSEES and QUALIFIED INSTALLERS. You MUST have an FCC LICENSE or express consent of an FCC Licensee to operate this device. Unauthorized use may result in significant forfeiture penalties, including penalties in excess of \$100,000 for each continuing violation.”¹¹

4. *Background on Pivotal’s Device.* Pivotal’s Device is a type of Industrial Signal Booster that operates on millimeter wavelength frequencies.¹² The Device contains certain features that distinguish it from a typical Industrial Signal Booster. For example, the Device may be obtained exclusively from the FCC licensee that is the user’s service provider.¹³ It is not sold at retail.¹⁴ The Device operates only on spectrum licensed to the service provider and only if properly authenticated and provisioned by the licensee, which retains the ability to control and disable the Device remotely.¹⁵ The Device operates at very low power levels and is designed for self-installation by consumers.¹⁶

B. Pivotal’s Request

5. *Pivotal Waiver Request.* On September 16, 2019, Pivotal filed a request for waiver of the Industrial Signal Booster labeling requirement under section 20.21(f) of the Commission’s rules.¹⁷ Pivotal seeks a waiver of the Industrial Signal Booster labeling requirement in its entirety.¹⁸ In the alternative, Pivotal requests an alternate label and modified placement of the labeling disclosures.¹⁹

⁶ 47 CFR § 20.3. Industrial Signal Boosters are defined as “[a]ll signal boosters other than Consumer Signal Boosters.”

⁷ *Report and Order*, 28 FCC Rcd at 1669-70, paras. 15, 20.

⁸ *Id.*

⁹ 47 CFR § 20.21(f). Section 20.21(f)(1) requires that Consumer and Industrial Signal Booster manufacturers, distributors, and retailers ensure that all signal boosters marketed on or after March 1, 2014, include specific advisories concerning the device.

¹⁰ *Report and Order*, 28 FCC Rcd at 1670, para. 20.

¹¹ 47 CFR § 20.21(f)(1)(B).

¹² Pivotal Waiver Request at 1.

¹³ *Id.* at 2.

¹⁴ *Id.*

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ *Id.* at 1.

¹⁸ *Id.* at 5.

6. Pursuant to the Commission's waiver standard under section 1.925 of the Commission's rules, Pivotal argues that grant of its requested waiver is warranted because application of the labeling requirements would not serve the underlying purpose of the rule.²⁰ In support of its request for waiver, Pivotal claims that, while the underlying purpose of the labeling requirement is to prevent consumers from erroneously purchasing the Device and unwittingly causing interference to wireless networks, consumers cannot "erroneously purchase" the Device because it is not sold at retail, and they "cannot cause interference to wireless networks" because the Device does not operate without authentication by the service provider.²¹

7. Pivotal also claims a waiver is warranted because the unique features of Pivotal's Device render the text of the label "inapplicable" and thus retention of the labeling requirements will result in "confusion" and "undue concern" among consumers.²² Pivotal states that including the text "WARNING. This is NOT a CONSUMER device. It is designed for installation by FCC LICENSEES and QUALIFIED INSTALLERS," will cause confusion among consumers because the Device is specifically designed for self-installation by consumers.²³ Pivotal also claims that the text of the warning regarding the requirement to hold an FCC license is "unnecessary" and "confusing" because consumers can only obtain the Device through their service provider, which always holds the appropriate FCC license.²⁴ Moreover, Pivotal asserts that the text regarding penalties is "irrelevant" and "unduly alarming" because consumers cannot violate FCC regulations by using the Device.²⁵ It also claims that the rule was intended for high-power signal boosters used in network and enterprise operations, but that its Device operates at very low radiated power levels.²⁶ Pivotal concludes that application of the requirement would be contrary to the public interest because the labeling requirement is "onerous" and could create a "material barrier" to the deployment of the Device into the 5G ecosystem.²⁷

8. *Comments and Replies.* On September 18, 2019, the Bureau placed the Waiver Request on public notice for comment.²⁸ All commenters oppose the blanket waiver request.²⁹ Pivotal filed in

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¹⁹ *Id.*

²⁰ 47 CFR § 1.925(b)(3); Pivotal Waiver Request at 3. Pivotal requested a waiver under sections 1.925 and 1.3 of the Commission's rules. We find that Pivotal has satisfied the waiver standard under section 1.925, and a discussion under section 1.3 is not necessary.

²¹ Pivotal Waiver Request at 4. Service providers also retain the ability to shut down and lock the Device remotely in the event a consumer terminates service or interference occurs.

²² *Id.*

²³ *Id.*

²⁴ *Id.* at 5.

²⁵ *Id.*

²⁶ *Id.* at 4.

²⁷ *Id.* at 5. Pivotal claims that its Device would expedite the introduction of 5G millimeter wave broadband into the market and that the labeling requirement could create a barrier to the widespread and rapid deployment of the Device into the 5G ecosystem.

²⁸ *Wireless Telecommunications Bureau Seeks Comment on Pivotal Commware Request for Waiver of Industrial Signal Booster Labelling Rules*, Public Notice, DA 19-928 (WTB Sept. 18, 2019) (*Pivotal Public Notice*).

²⁹ See, e.g., Surecall Petition to Deny (filed Sept. 30, 2019) (Surecall Petition to Deny); T-Mobile Comments at 4 (filed Sept. 30, 2019) (T-Mobile Comments); Rich's Contracting & Custom Audio/Video Comments (filed Oct. 3, 2019) (Rich's Contracting Comments). AT&T would require conditions if the Commission grants the request. See AT&T Comments at 4-5 (filed Oct. 7, 2019) (AT&T Comments) (arguing that the Commission should condition the

reply to the opposition.³⁰

9. Surecall and Simple Foundry assert that the labeling requirement for Industrial Signal Boosters should continue to be enforced for all Industrial Signal Boosters.³¹ Surecall, Rich's Contracting, and Simple Foundry claim that a grant of the requested relief would frustrate the underlying purpose of the rule to prevent interference.³² AT&T, T-Mobile, and Surecall argue that Pivotal should be required to comply with Consumer Signal Booster labeling and technical requirements because the device is akin to a Consumer Signal Booster.³³ Some commenters claim that a grant of the requested relief would be contrary to the public interest because it would unfairly distort competition in the signal booster industry.³⁴ While opposing the request, AT&T notes that, if the request is granted, it would support conditions involving certain features of the device.³⁵

III. DISCUSSION

10. *Standard of Review.* The Commission may grant a request for a waiver under section 1.925 when: (i) the underlying purpose of the rule(s) would not be served or would be frustrated by application to the instant case, and that a grant of the requested waiver would be in the public interest, or (ii) in view of the unique or unusual factual circumstances of the instant case, application of the rule(s) would be inequitable, unduly burdensome or contrary to the public interest, or the applicant has no reasonable alternative.³⁶

11. *Discussion.* After review of the record and for the reasons discussed below, we grant the request to the extent described herein but otherwise deny the request. We find that a limited waiver permitting the following alternate label is warranted:

WARNING. This is not a CONSUMER device. This device may not be sold at retail. You MUST have an FCC LICENSE or express consent of an FCC Licensee (or express consent of your service provider) to operate this device. Antennas must be installed at least 20 cm (8 inches) from any person. Unauthorized use may result in

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request, if granted, on two key facts: (1) that the device will only be available via carriers, and (2) that licensed carriers may disable the device remotely).

³⁰ See Reply Comments of Pivotal Commware (filed Oct. 7, 2019) (Pivotal Reply).

³¹ Surecall Petition to Deny at 1 (arguing that the labeling requirement for Industrial Signal Boosters “serves a critically important purpose in protecting the integrity of wireless networks” and “should not be waived for any party”); Simple Foundry Comments at 2 (filed Oct. 7, 2019) (Simple Foundry Comments) (“[T]he best route forward is to hold all manufacturers to the same standard requiring that every signal booster meet the Part 20 rules or contain the full industrial booster warning label.”).

³² Surecall Petition to Deny at 4; Rich's Contracting Comments at 1 (“We oppose this request because it would effectively permit wireless carriers to market Pivotal's signal boosters directly to consumers even though the boosters do not meet the technical requirements for Consumer Signal Boosters, including the critically important Network Protection Standard (“NPS”).”); Simple Foundry Comments at 1 (“The problem with this is that multiple carriers will be operating on the frequency bands that the non-compliant Pivotal booster will be boosting, and without proper NPS in place, there is a high likelihood of negatively impacting other carriers who did not approve the booster for use on their network, and as such, have no recourse.”).

³³ See Surecall Petition to Deny at 2; AT&T Comments at 2; T-Mobile Comments at 3-4.

³⁴ See Surecall Petition to Deny at 6-7 (arguing that the Commission “should immediately initiate a rulemaking on expanding its rules for Consumer Signal Boosters to include the recently auctioned [millimeter wavelength] frequencies”); Rich's Contracting Comments at 1.

³⁵ See AT&T Comments at 4.

³⁶ 47 CFR § 1.925.

significant forfeiture penalties, including penalties in excess of \$100,000 for each continuing violation.

12. In addition, we grant this waiver so that it applies only so long as Pivotal's Device satisfies the following conditions: (1) the Device may be obtained exclusively from the FCC licensee that is the user's service provider; (2) the Device is not distributed at retail; (3) the Device only operates with FCC licensee-provided end user equipment and is provisioned by the licensee; and (4) as with all Industrial Signal Boosters, the FCC licensee must retain control of the Device and avoid unauthorized operation and interference in the installation process.³⁷ We anticipate Pivotal and the licensee will provide appropriate instructions for proper installation and operation.

13. As discussed above, Pivotal argues that application of the Industrial Signal Booster labeling requirements would not serve the underlying purpose of the rule and would be inequitable, unduly burdensome, and contrary to the public interest.³⁸ In light of the *Report & Order* and the underlying purpose of the labeling requirement, we find that Pivotal has met the waiver standard under section 1.925 and that: (1) the underlying purpose of the rule would not be served by application in the instant case, and a grant would be in the public interest, and (2) there are unique factual circumstances of the instant case such that application of the labeling requirement would be inequitable, unduly burdensome, or contrary to the public interest.

14. We find that the underlying purposes of section 20.21(f) would not be served by application of the requirement because the rule, as originally written, contains text that is inapplicable to the particular characteristics of this device and that may confuse users and decrease compliance with Commission rules. An alternate label that eliminates the inapplicable text should reduce the likelihood of consumer confusion. The language, "It is designed for installation by FCC LICENSEES and QUALIFIED INSTALLERS," is inapplicable to Pivotal's Device and likely to cause confusion among consumers because the Device is specifically intended for self-installation by consumers. In the *Report & Order*, the Commission stated that it "consistently has adopted labeling requirements to avoid consumer confusion and provide consumers with needed information."³⁹ By eliminating this text, this grant provides consumers with accurate information about the Device's proper use and avoids consumer confusion. We therefore waive this portion of the labeling requirement.

15. When the Commission adopted section 20.21(f), it stated that the labeling requirement was the "best method to inform consumers about which devices are appropriate for their use and how to comply with our rules," as well as to decrease interference to wireless networks.⁴⁰ The Commission stated that appropriately crafted labels "will lead to increased compliance with Commission rules and decreased interference to wireless networks."⁴¹ Here, the underlying purposes of the labeling requirement would not be served by strict application of the rule because the label, as originally written, would not appropriately account for the unique features of Pivotal's Device. Pivotal's Device contains certain features that render portions of the warning inapplicable and likely to mislead consumers about the Device's proper use. A label with inapplicable text may lead to confusion and not serve to inform consumers about which devices are appropriate and how to comply.

³⁷ We agree with AT&T that conditions should be imposed. See AT&T Comments at 4 (arguing that "any grant by the Commission of the Petition should be conditioned on Pivotal only selling the device through carriers and providing a mechanism for remote carrier shutoff.").

³⁸ Pivotal Waiver Request at 3.

³⁹ *Report and Order*, 28 FCC Rcd at 1705, para. 120.

⁴⁰ *Id.* at 1704, para. 119. "We believe that appropriately crafted labeling and marketing requirements will lead to increased compliance with our rules and decreased interference to wireless networks."

⁴¹ *Id.*

16. An alternate label with additional text that accounts for the unique features of Pivotal's Device is in the public interest because it furthers the rule's purpose of ensuring that consumers do not erroneously purchase the Device. Pivotal claims that consumers will not erroneously purchase the Device because it only may be obtained from the FCC licensee that is the service provider.⁴² It also claims that the Device will not be sold at retail.⁴³ We agree that consumers are unlikely to purchase the Device erroneously because it is not sold at retail and can only be obtained through the consumer's service provider. Nevertheless, we find that label warnings are necessary to ensure that information about the Device's proper use and sale is conveyed to consumers who potentially may purchase the Device through distribution channels not anticipated by Pivotal (i.e., through secondary markets). We therefore require that the Device contain the warning, "WARNING. This is not a CONSUMER device. This device may not be sold at retail. You MUST have an FCC LICENSE or express consent of an FCC Licensee (or express consent of your service provider) to operate this device. Antennas must be installed at least 20 cm (8 inches) from any person. Unauthorized use may result in significant forfeiture penalties, including penalties in excess of \$100,000 for each continuing violation."

17. An alternate label that informs consumers about the Device's proper use promotes safe operation of the Device, reduces the risk of interference, and facilitates the resolution of interference events should they occur.⁴⁴ We require Pivotal's Device to include the warning, "This is not a CONSUMER Device," which informs consumers that the Device is an Industrial Signal Booster that requires an FCC license or the express consent of an FCC licensee and not a Consumer Signal Booster, which is otherwise suitable for their use. We also require the language, "You MUST have an FCC LICENSE or express consent of an FCC Licensee (or express consent of your service provider) to operate this device," which also facilitates the resolution of interference events by informing consumers about use requirements.⁴⁵ The additional language, "or express consent of your service provider," avoids consumer confusion by making clear that operation of the Device is authorized when consumers obtain the Device through their service providers. We also require language involving penalties to further enforce proper sale and operation of the Device.

18. We note that Pivotal supports including the information regarding separation distance requirements that applies to Consumer Signal Boosters, and we conclude that providing such RF safety-related information is in the public interest, as it promotes safe operation and use of the Device.⁴⁶ We therefore require that the Device contain the warning, "Antennas must be installed at least 20 cm (8 inches) from any person."

19. We agree with commenters that a blanket waiver of the labeling requirements should not be granted because labels concerning the Device's use requirements are still necessary to satisfy the purposes of the rule.⁴⁷ Moreover, some form of labeling is required for all signal boosters in the United States, regardless of whether the device is a Consumer Signal Booster or an Industrial Signal Booster.⁴⁸ We do not find that Pivotal has presented such an unusual or unique factual circumstance that the labeling requirement should be waived *in its entirety*. The Commission's rules provide for exemptions to certain labeling requirements only when the device is so small or for such use that it would be impracticable to

⁴² Pivotal Waiver Request at 4.

⁴³ *Id.*

⁴⁴ *Report and Order*, 28 FCC Rcd at 1707, para. 124.

⁴⁵ *Id.*

⁴⁶ See Letter from Robert S. Koppel, Counsel to Pivotal Commware, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 19-272, at 2 (filed Oct. 30, 2019) (Pivotal *Ex Parte*).

⁴⁷ See, e.g., Surecall Petition to Deny at 1; T-Mobile Comments at 4; Rich's Contracting Comments at 1.

⁴⁸ 47 CFR § 20.21(f).

label it with the required language.⁴⁹ We therefore agree with commenters that Pivotal should be required to place a label on its device.

20. To the extent that commenters express concerns about the risk of interference due to the technical operation of the Device, and not due to improper use by consumers, we find these arguments misplaced.⁵⁰ Technical operation of the Device is evaluated during the equipment authorization process.⁵¹ If the Device is deemed out of compliance with the Commission's technical rules, it will not be authorized. Thus, concerns about the Device's "safe and effective" operation are beyond the scope of this proceeding, which only addresses the Device's compliance with labeling requirements.⁵²

21. Some commenters argue that the Device is akin to a Consumer Signal Booster and that both Consumer Signal Booster labelling and technical requirements should apply to prevent interference.⁵³ Because the Device does not meet the technical specifications for Consumer Signal Boosters, it is considered an Industrial Signal Booster by rule.⁵⁴ Consumer Signal Booster requirements are therefore inappropriate. Nevertheless, the warning, "You MUST have an FCC LICENSE or express consent of an FCC Licensee (or express consent of your service provider) to operate this device," facilitates coordination with providers and assists in interference prevention and proper installation and operation.⁵⁵ Moreover, Pivotal claims that the Device operates only with authentication and provisioning by a consumer's service provider and that service providers retain remote control over the Device, which we agree will reduce the risk of interference and facilitate the resolution of these issues should they occur.⁵⁶

22. In conclusion, for the reasons discussed above, we find that Pivotal has met the standard for section 1.925 of the Commission's rules and grant a limited waiver of the Industrial Signal Booster labeling requirements. On our own motion, we find that, to the extent Pivotal's Device is manufactured, distributed, and sold in compliance with this waiver, the relevant manufacturers, distributors, and retailers are in compliance with the section 20.21(f)(1).

IV. ORDERING CLAUSES

23. Accordingly, IT IS ORDERED that, pursuant to section 1.925(b)(3) of the Commission's rules, 47 CFR § 1.925(b)(3), the request of Pivotal Commware for a partial waiver of section 20.21(f) of the Commission's rules, 47 CFR § 20.21(f), IS GRANTED to the extent specified herein.

⁴⁹ See *id.* §§ 15.19(a)(5); 2.925(f).

⁵⁰ See, e.g., Surecall Petition to Deny at 2.

⁵¹ We require Pivotal include this waiver in its authorization application.

⁵² See, e.g., Surecall Petition to Deny at 1.

⁵³ See *id.* at 2; AT&T Comments at 2; T-Mobile Comments at 3-4; Rich's Contracting Comments at 1 (arguing that grant of the request "would effectively permit wireless carriers to market Pivotal's signal boosters directly to consumers even though the boosters do not meet the technical requirements for Consumer Signal Boosters . . .").

⁵⁴ 47 CFR § 20.3.

⁵⁵ *Report and Order*, 28 FCC Rcd at 1704, para. 118.

⁵⁶ Pivotal Waiver Request at 2.

24. These actions are taken under delegated authority pursuant to sections 0.331 and 0.131 of the Commission's rules, 47 CFR §§ 0.331, 0.131.

FEDERAL COMMUNICATIONS COMMISSION

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