

FCC FACT SHEET*

Transmitter Identification Requirements for Satellite Digital Video Uplink Transmissions
Memorandum Opinion and Order, IB Docket No. 12-267

Background: In 2013, the Commission updated its carrier identification requirement for satellite news gathering vehicles and other temporary-fixed earth stations. To better accommodate digital transmissions, the Commission required licensees to comply with a new industry standard, the Digital Video Broadcasting–Carrier Identification (DVB-CID) standard, beginning on September 3, 2016.

The record in 2013 did not indicate that the costs of compliance would be overly burdensome. However, prior to the effective date of the new rule, earth station operators contacted the Commission to report unexpectedly high costs of retrofitting their equipment to comply with the new requirement. This cost falls on many small earth station operators.

The International Bureau issued a blanket waiver of the DVB-CID requirement for one year and released a public notice inviting comment on the appropriate implementation of the DVB-CID standard. No satellite operators, who are the direct beneficiaries of the DVB-CID requirement, filed comments. The blanket waiver expires September 3, 2017.

What the Order Would Do:

- Based on the record, the draft Order would permanently waive the DVB-CID requirement for earth stations using modulators that cannot meet the DVB-CID standard through a software upgrade.
- All other temporary-fixed earth stations would be required to meet the DVB-CID standard by the current implementation date of September 3, 2017.

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

In the Matter of
Implementation of Section 25.281(b) Transmitter
Identification Requirements for Video Uplink
Transmissions
IB Docket No. 12-267

MEMORANDUM OPINION AND ORDER*

Adopted: []

Released: []

By the Commission:

I. INTRODUCTION

1. In this Order, we provide relief to many small businesses offering satellite news and video services from the unanticipated replacement costs associated with compliance with the Digital Video Broadcasting-Carrier Identification (DVB-CID) standard. Based on the record, we waive section 25.281(b) for digitally transmitting satellite news gathering vehicles, and other temporary-fixed earth stations, that use existing modulators that cannot be made compliant with the DVB-CID standard by a software upgrade. At the same time, we mitigate the potential for harmful interference into satellite operations by requiring earth stations with new modulators, or with existing modulators that can be made compliant through a software upgrade, to meet the DVB-CID standard by the current effective date of September 3, 2017.

II. BACKGROUND

2. Since 1991, the Commission has required satellite uplink transmissions carrying "broadband" video information to include a signal identifying the source of the transmission. This signal, produced by an Automatic Transmitter Identification System (ATIS), allows satellite operators

* This document has been circulated for tentative consideration by the Commission at its August 2017 open meeting. The issues referenced in this document and the Commission's ultimate resolutions of those issues remain under consideration and subject to change. This document does not constitute any official action by the Commission. However, the Chairman has determined that, in the interest of promoting the public's ability to understand the nature and scope of issues under consideration, the public interest would be served by making this document publicly available. The Commission's ex parte rules apply and presentations are subject to "permit-but-disclose" ex parte rules. See, e.g., 47 CFR §§ 1.1206, 1.1200(a). Participants in this proceeding should familiarize themselves with the Commission's ex parte rules, including the general prohibition on presentations (written and oral) on matters listed on the Sunshine Agenda, which is typically released a week prior to the Commission's meeting. See 47 CFR §§ 1.1200(a), 1.1203.

1 This waiver does not apply to analog video transmissions. Section 25.281(a) requires these transmissions to be identified either by a 7.1 megahertz subcarrier signal or by a DVB-CID signal required for digital transmissions. 47 CFR § 25.281(a). Any analog video transmitters that cannot comply with the DVB-CID standard must transmit a 7.1 megahertz signal, and are unaffected by the waiver granted here.

2 47 CFR § 25.281; An Automatic Transmitter Identification System for Radio Transmitting Equipment, First Report and Order, 5 FCC Rcd 3256, 3258, paras. 24-25 (1990).

that may receive interference from the transmission to more quickly identify and address the source of interference.

3. In August 2013, the Commission updated the ATIS requirement in section 25.281 to better accommodate digitally modulated video transmissions.³ Specifically, for digital video uplinks from temporary-fixed earth stations, the Commission replaced the requirement to transmit a 7.1 megahertz subcarrier signal with a requirement to include a digital spread-spectrum ATIS message conforming to the DVB-CID standard.⁴ The Commission adopted a two-year grace period for operators to bring their equipment into compliance with this new standard in section 25.281(b).⁵

4. *Temporary Waiver Order and Public Notice.* Prior to the expiration of the two-year grace period, earth station operators contacted the Commission to report unanticipated high costs of compliance with the new requirement.⁶ They indicated that, in many cases, existing earth station modulators could not be suitably upgraded or modified to transmit in compliance with the DVB-CID standard and would need to be replaced at significant cost, either because they were not capable of transmitting any carrier ID, or because they were not capable of transmitting a carrier ID that conforms to the DVB-CID standard.⁷ In light of these concerns, and to allow additional time for development of an updated record, the International Bureau issued a blanket waiver of section 25.281(b) for a period of one year, beginning September 3, 2016.⁸ The Bureau followed with a Public Notice requesting comment on the appropriate schedule for implementing the new DVB-CID requirement, which was published in the Federal Register.⁹

5. *Comments.* Over 30 earth station operators filed comments in response to the Public Notice. The National Cable & Telecommunications Association (NCTA) and Accelerated Media Technologies Inc. (AMT), a manufacturer of earth station equipment, also commented. Operators urge the Commission to waive the DVB-CID requirement indefinitely, to postpone implementation for several years, or to otherwise reconsider imposing the requirement.¹⁰

³ *Comprehensive Review of Licensing and Operating Rules for Satellite Services*, Report and Order, 28 FCC Rcd 12403, 12466-70, paras. 208-220 (2013) (*Part 25 Order*).

⁴ The DVB-CID standard is a digital carrier ID method developed by Comtech EF Data Corporation and endorsed by the European Telecommunications Standards Institute. *Id.* at 12468-69, para. 213; 47 CFR § 25.281(b).

⁵ *Part 25 Order*, 28 FCC Rcd at 12470, para. 220. The two-year grace period began on the effective date of the new rule, which was September 3, 2014. *International Bureau Announces the Effective Date of Rules Adopted in the Part 25 Order*, Public Notice, 29 FCC Rcd 10440 (IB 2014).

⁶ See Letter from Tom Graves, U.S. House of Representatives, to Mike Dabbs, Director, Office of Legislative Affairs, FCC, IB Docket No. 12-267 (Dec. 3, 2015).

⁷ See, e.g., *id.* at 4-5 (stating that equipment replacements would cost “close to \$100,000” for four satellite uplink vehicles). Non-compliant equipment may nonetheless be capable of transmitting a carrier ID that does not conform to the DVB-CID standard. CBTV LLC Comments at 2 (Apr. 8, 2016) (stating that most existing equipment seems to support carrier ID based on the network information table approach).

⁸ *Temporary Waiver of Section 25.281(b) Transmitter Identification Requirements for Video Uplink Transmissions*, Order, 31 FCC Rcd 1752 (IB 2016).

⁹ *International Bureau Seeks Comment on Implementation of Section 25.281(b) Transmitter Identification Requirements for Video Uplink Transmissions*, Public Notice, 31 FCC Rcd 3417 (IB 2016), published at 81 FR 34301.

¹⁰ See, e.g., Freebird Communications Inc. Comments at 1 (May 4, 2016) (waive requirement indefinitely); Village Video News Comments at 2 (May 4, 2016) (exclude staffed earth stations, postpone, or reconsider). NCTA suggested an implementation date of September 3, 2019. NCTA Comments at 4-6 (June 30, 2016).

6. Notably, commenters report that many older digital modulators either cannot transmit any carrier ID or use software that cannot be upgraded to accommodate the DVB-CID standard.¹¹ As a result, such equipment would have to be replaced to comply with section 25.281(b). Commenters also observe that the cost of replacing equipment that cannot be rendered compliant through a software upgrade is significantly higher than the cost of upgrading existing software to add a DVB-CID software option to more recently manufactured equipment. One operator estimates that the cost of replacing equipment that cannot be upgraded would be between \$75,000 and \$500,000 per company.¹² NCTA states that its members have found replacement modulators to cost “around \$8,000 to \$13,000,”¹³ with two modulators typically installed per vehicle. In contrast, commenters observe that adding DVB-CID capability to a new modulator, either at the time of purchase or as a software upgrade, can be accomplished for a few hundred dollars.¹⁴

7. AMT is the sole commenter to oppose further relief from the DVB-CID requirement. It argues that compliant equipment that could be used to replace existing, non-compliant equipment is readily available, and notes that it offers such equipment for sale.¹⁵ No satellite operator commented in response to the Public Notice.

III. DISCUSSION

8. In the *Part 25 Order*, the Commission concluded that adoption of the DVB-CID standard for digital video uplinks from temporary-fixed earth stations was appropriate to address potential instances of harmful interference, by making transmissions more readily identifiable by satellite operators.¹⁶ We continue to believe that an added cost of a few hundred dollars per unit is justified to achieve this goal for earth station equipment that can undergo a software upgrade. We also agree with the overwhelming response from commenters, however, that the much more significant expense of replacing older equipment that cannot simply undergo a software update would be unduly burdensome to operators, many of which are small businesses.¹⁷ And importantly, we note that no satellite operators, the direct beneficiaries of the DVB-CID requirement, opposed further relief.

9. Based on the record, we conclude it will serve the public interest to waive section 25.281(b) for earth stations using modulators manufactured before the release date of this Order that

¹¹ See, e.g., NCTA Comments at 3 (June 30, 2016) (observing that “users with newer equipment may be able to comply with the rules using a software upgrade”); CBTV LLC Comments, Attach. Ericsson DVB-CID Application Note at 2 (noting which modulators are eligible for a free DVB-CID software upgrade and which are incapable of upgrading); First Call UPLinks Comments (May 2, 2016) (stating its equipment “would have to be replaced [to comply with the DVB-CID standard, and] upgrading was not an option because of the age”).

¹² Transvision International Comments at 2 (May 5, 2016).

¹³ NCTA Comments at 3. This range is generally consistent with price quotations provided by earth station operators. See, e.g., Midwest Uplink Comments (quotes of \$8,100 and \$10,376 per modulator); CBTV LLC Comments (Apr. 8, 2016) (quote of \$14,850 per modulator).

¹⁴ See Satellite Communication Systems Comments (quote of \$300 software option to add DVB-CID capability to a new encoder/modulator).

¹⁵ AMT Comments at 2 (June 30, 2016). AMT offers a compliant modulator for \$6,200. *Id.*; see also Letter from Lelend Kesler, Midwest Uplink, to FCC (Aug. 25, 2016) (stating that equipping its vehicles with AMT’s \$6,200 modulators would cost over \$62,000 in total).

¹⁶ See *Part 25 Order*, 28 FCC Rcd at 12468-69, para. 213.

¹⁷ See, e.g., Talking Rock Communications, Inc. Comments at 1 (Apr. 29, 2016) (stating it is “a small family owned business . . . and the implementation of CID in its current form will have a huge impact on us financially”); Global Link Productions, Inc. Comments at 1 (stating many affected operators are “small family operated businesses”).

cannot be made compliant with the DVB-CID standard by a software upgrade.¹⁸ Other affected earth stations must meet the DVB-CID standard by September 3, 2017.¹⁹ We conclude this treatment best balances the costs and benefits of implementing DVB-CID in light of the significant cost disparity presented in the record. We believe that the amount of equipment affected by this waiver will steadily decrease as such equipment reaches the end of its useful life. Should the Commission find that the continued operation of non-compliant equipment causes a pattern of complaints from satellite operators that they are having difficulty identifying the sources of any harmful interference, the Commission may revisit this waiver.

10. Finally, we take this opportunity to move incorporation by reference language for the DVB-CID standard from section 25.281(b)(1) to section 25.108, a centralized incorporation by reference section created after the *Part 25 Order*.²⁰ We also reference the latest version of this standard.

IV. CONCLUSION AND ORDERING CLAUSES

11. We conclude that the waiver adopted herein offers the best means to address both the benefit of expeditiously identifying sources of interference to satellite operations and the significant cost disparities between earth stations that can and cannot be upgraded by software to comply with section 25.281(b).

12. Accordingly, IT IS ORDERED, pursuant to sections 4(i), 303, and 316 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 303, 316, and section 1.3 of the Commission's rules, 47 CFR § 1.3, that this Memorandum Opinion and Order IS ADOPTED.

13. IT IS FURTHER ORDERED that section 25.281(b) of the Commission's rules, 47 CFR § 25.281, IS WAIVED as described in paragraph 9 of this Memorandum Opinion and Order.

14. IT IS FURTHER ORDERED that sections 25.108 and 25.281 of the Commission's rules, 47 CFR §§ 25.108, 25.281, ARE AMENDED as specified in Appendix A.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

¹⁸ This waiver will allow use and resale of non-compliant modulators until the end of their useful life, but requires earth stations using newly manufactured modulators to be DVB-CID compliant.

¹⁹ For clarity, we will add a note to section 25.281(b) describing this waiver.

²⁰ 47 CFR § 25.108. Because this change is editorial and non-substantive, we find good cause to conclude that notice and comment are unnecessary for its adoption. See 5 U.S.C. § 553(b)(B) (stating that notice and comment procedures do not apply "when the agency for good cause finds (and incorporates the finding and a brief statement of reasons therefor in the rules issued) that notice and public procedure thereon are . . . unnecessary"); 47 CFR § 1.412(b).

APPENDIX**Final Rule**

The Federal Communications Commission amends title 47 of the Code of Federal Regulations, part 25, as follows:

PART 25 – SATELLITE COMMUNICATIONS

1. The authority citation for Part 25 continues to read as follows:

Authority: Interprets or applies 47 U.S.C. 154, 301, 302, 303, 307, 309, 310, 319, 332, 605, and 721, unless otherwise noted.

2. Add §25.108(c) to read as follows:

§25.108 Incorporation by reference.

(c) European Telecommunications Standards Institute (ETSI), 650 Route des Lucioles, 06921 Sophia-Antipolis Cedex, France; <http://www.etsi.org>; Voice: +33 (0)4 92 94 42 00; Fax: +33 (0)4 93 65 47 16; email: webstore@etsi.org.

(1) ETSI TS 103 129 (2014-03), “Technical Specification, Digital Video Broadcasting (DVB); Framing structure, channel coding and modulation of a carrier identification system (DVB-CID) for satellite transmission.” Incorporation by reference approved for §25.281(b).

3. In §25.281, revise paragraph (b) introductory text and paragraph (b)(1) and add a note to paragraph (b) to read as follows:

§25.281 Transmitter identification requirements for video uplink transmissions.

(b) As of September 3, 2017, transmissions of fixed-frequency, digitally modulated video signals with a symbol rate of 128,000/s or more from a temporary-fixed earth station must be identified through use of an ATIS in accordance with the requirements that follow.

(1) The ATIS message must be modulated onto a direct sequence spread spectrum signal in accordance with the DVB-CID standard, ETSI TS 103 129 (2013-05), “Technical Specification, Digital Video Broadcasting (DVB); Framing structure, channel coding and modulation of a carrier identification system (DVB-CID) for satellite transmission” (incorporated by reference, see §25.108).

NOTE TO PARAGRAPH (b): Paragraph (b) is waived for earth stations using modulators manufactured before [release date of Order] that cannot be made compliant with the DVB-CID standard by a software upgrade.