

October 28, 2015

VIA ELECTRONIC DELIVERY

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, S.W., Room TW-B204
Washington, D.C. 20554

Re: Comprehensive Review of Licensing and Operating Rules for Satellite Services; IB Docket No. 12 - 267

Dear Ms. Dortch:

The Satellite Industry Association (“SIA”) submits this letter to follow-up on an issue discussed during the September 17, 2015 meeting between SIA and Federal Communications Commission (“FCC”) International Bureau staff regarding the above-captioned proceeding.¹

In its Reply Comments², SIA recommended that the FCC modify the off-axis EIRP spectral density mask from 19.1° - 48° for Ka-band and conventional Ku-band satellite earth terminals in various service applications, including ESV, VMES and ESAA. SIA now recommends that the FCC also modify the off-axis gain masks set forth in 25.209 for GSO FSS earth stations,³ the off-axis EIRP spectral density mask for operations in the 17/24 GHz band BSS band, and the off-axis spectral density mask for digital operations in the extended Ku-band.

Aligning the GSO FSS earth station gain mask in Section 25.209 with the off-axis spectral density masks would avoid inconsistency and potential unintended consequences. The shape of the gain mask follows the shape of the off-axis spectral density mask because off-axis EIRP spectral density is the result of gain plus input power spectral density.

Modifying the off-axis spectral density mask for operations in the 24.75 – 25.75 GHz portion of the 17/24 GHz BSS band will harmonize that mask with the off-axis EIRP spectral density mask proposed by SIA for the conventional Ka-band.

Finally, aligning the off-axis spectral density mask for digital operations in the extended Ku-band with the off-axis EIRP spectral density mask already proposed by SIA for the conventional Ku-band would harmonize the mask applied to digital operations in the entire Ku-band, and avoid inconsistency and potential unintended consequences.

¹ See Satellite Industry Association, Notice of Oral Ex Parte, Comprehensive Review of Licensing and Operating Rules for Satellite Services, IB Docket No. 12-267 (Sept. 21, 2015).

² Reply Comments of the Satellite Industry Association, Comprehensive Review of Licensing and Operating Rules for Satellite Services, IB Docket No. 12-267 (filed Mar. 2, 2015)(“SIA Reply Comments”).

³ The mask for primary NGSO FSS earth stations is also modified as 25.209(a)(2) is referenced in 25.209(d).

Attached are the following materials, which provide further details regarding SIA's revised proposal:

- Exhibit A is a chart summarizing the proposed further modifications.
- Off-axis gain and off-axis EIRP spectral density mask plots for the relevant rule sections.

If you have any questions, please do not hesitate to contact me.

Respectfully submitted,
/s/

SATELLITE INDUSTRY ASSOCIATION

Tom Stroup, President
1200 18th St., N.W., Suite 1001
Washington, D.C. 20036

Attachments

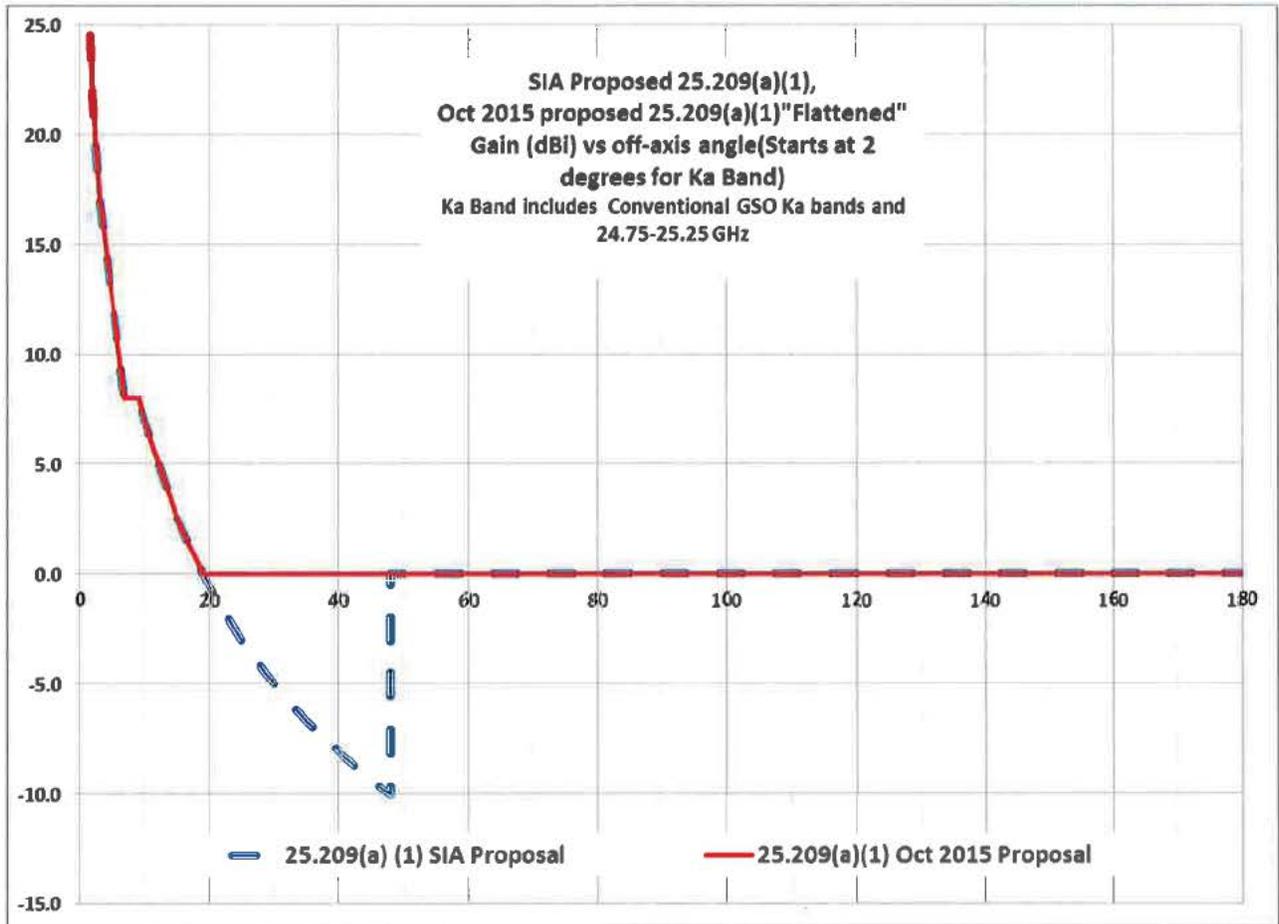
cc/ with attachments (via e-mail):

Jose Albuquerque
Stephen Duall
Kerry Murray
Chip Fleming
Diane Garfield
Clay DeCell

Off-Axis Mask: Relevant FCC Rules

Rule Section	Nature of Off-Axis Mask	Band and Authorized Use	Initial SIA Proposal (in Matrix attached to Reply Comments)	Updated SIA Recommendation	Notes
25.209(a)(1)	Antenna Gain	GSO FSS	SIA proposed to relax the off-axis mask in the main plane of the antenna from -10 dBi to 0 dBi in the angular range of 48 – 180 degrees.	Modify mask to 0.00 dBi in the main plane of the antenna from 19.1 – 48 degrees.	SIA proposal would apply a modified and uniform mask to GSO FSS bands as specified in 25.209(a)(1).
25.209(a)(5) (25.209(a)(2) for SIA Proposal)	Antenna Gain	GSO FSS and Primary NGSO	SIA proposed to relax the off-axis mask in the plane orthogonal to the main plane of the antenna from -10 dBi to 0 dBi in the angular range of 48 – 180 degrees.	Modify mask to 0.00 dBi in the plane orthogonal to the main plane of the antenna from 19.1 – 48 degrees.	SIA proposal would apply a modified and uniform 25.209(a)(2) to all GSO FSS bands and, as specified in 25.209(d), primary NGSO bands .
25.223(b)(1)	Spectral Density	24.75 – 25.25 GHz portion of the 17/24 GHz BSS band	No change to the mask was proposed.	Modify mask to 3.5 dBW/MHz for co-polarized signals in the plane of the GSO arc and to 6.5 dBW/MHz in the plane orthogonal to the local plane of the GSO arc from 19.1 – 48 degrees.	SIA proposal would harmonize the mask with the previous SIA proposal for the conventional Ka-band.
25.218(h)(1) and (2)	Spectral Density	Digital operation in extended Ku-band	No change to the mask was proposed.	Modify mask to -14 dBW/4 kHz in the local plane of the GSO arc and in the plane orthogonal to the local plane of the GSO arc from 19.1 – 48 degrees.	This change will harmonize the mask for the extended Ku-band with the mask proposed by SIA for the conventional Ku-band.

Initial and Modified SIA Proposals for Section 25.209(a)(1)



Initial and Modified SIA Proposals for Section 25.209(a)(2)

