

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

In the Matter of	)	
	)	
Revision of Part 15 of the Commission’s Rules to Permit Unlicensed National Information Infrastructure (U-NII) Devices in the 5 GHz Band	)	ET Docket No. 13-49
	)	

**OPPOSITION OF  
ECHOSTAR TECHNOLOGIES LLC AND HUGHES NETWORK SYSTEMS, LLC  
TO PETITION FOR RECONSIDERATION**

EchoStar Technologies LLC and Hughes Network Systems, LLC (together with their affiliates, “EchoStar”), pursuant to Section 1.429(f) of the Commission’s Rules, hereby files its opposition to the Petition for Reconsideration filed May 6, 2016 by the Association of Global Automakers and the Alliance of Automobile Manufacturers (collectively, “the AutoMakers”)<sup>1</sup> regarding the Commission’s *Memorandum Opinion and Order* issued March 2, 2016 in the above-captioned proceeding.<sup>2</sup> Specifically, EchoStar opposes the AutoMakers’ request to impose more stringent out-of-band emissions (“OOBE”) limits for the 5.725-5.85 GHz (U-NII-3) band, limits that the Commission correctly relaxed in March 2016 after careful consideration of a voluminous record and extensive technical input. Because the OOBE emission limits now in effect closely reflect the emissions mask in U-NII-3 devices that already were being sold for years, manufacturers have a reduced need to undergo extensive redesigns to their equipment,<sup>3</sup>

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<sup>1</sup> The Association of Global Automakers and the Alliance of Automobile Manufacturers, *Petition for Reconsideration*, ET Docket No. 13-49 (May 6, 2016) (“AutoMakers’ Petition”).

<sup>2</sup> *Revision of Part 15 of the Commission’s Rules to Permit Unlicensed National Information Infrastructure (U-NII) Devices in the 5GHZ Band, Memorandum Opinion and Order*, 31 FCC Rcd 2317 (2016) (“MO&O”).

<sup>3</sup> *Id.* at ¶ 16.

with no reduction in OOB protection for other bands. Accordingly, the Commission should deny the AutoMakers' Petition on this issue and retain the March 2016 OOB limits.

## I. BACKGROUND

On April 1, 2014, the Commission released the *First Report and Order* ("*First R&O*") in this proceeding, in which it, *inter alia*, extended the upper edge of the 5.725-5.825 GHz (U-NII-3) band to 5.85 GHz and consolidated the provisions applicable to digitally modulated devices from Section 15.247 of the rules with Section 15.407 so that all new digitally modulated devices operating in the U-NII-3 band would operate under a consolidated set of rules that included more stringent OOB limits to protect the Federal Aviation Administration's Terminal Doppler Weather Radar ("TDWR") and other radar facilities from interference.<sup>4</sup>

In response to the *First R&O*, several parties filed petitions for reconsideration; and subsequently various parties or groups of parties submitted multiple *ex parte* presentations proposing alternatives to the adopted OOB requirements. As the Commission noted, two hundred and twelve parties filed comments in response to the petitions generally supporting the arguments opposing the more stringent OOB limits.<sup>5</sup>

In the March 2, 2016 *MO&O*, after careful consideration of the extensive record, the Commission adopted a proposal to provide relief from the OOB limits in the U-NII-3 band, the so-called Joint Emissions Proposal.<sup>6</sup> The revised rules provide relief from the OOB limits adopted in the *First R&O* by permitting emissions to roll off linearly from 27 dBm/MHz at the band edge to a level of 15.6 dBm/MHz at 5 MHz from the band edge, then decreasing linearly to 10 dBm / MHz at 25 MHz from the band edge and continue to decrease linearly to a level of -27

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<sup>4</sup> *Revision of Part 15 of the Commission's Rules to Permit Unlicensed National Information Infrastructure (U-NII) Devices in the 5GHz Band, First Report and Order*, 29 FCC Rcd 4127 (2014) ("*First R&O*").

<sup>5</sup> *MO&O* at ¶ 5.

<sup>6</sup> *Id.* at ¶¶ 15-16.

dBm / MHz at all frequencies more than 75 MHz from band edge.<sup>7</sup> This approach offers relief for users and manufacturers by relaxing the OOB E roll-off requirement outside of the TDWR band while maintaining the same level of interference protection within the TDWR band as specified under the rules the Commission adopted in the *First R&O*.

## II. DISCUSSION

The Automakers' Petition for Reconsideration requests that the FCC revise Section 15.407 to reinstate the OOB E limits established in the *First R&O* for 5.725-5.85 GHz non-fixed point-to-point ("non-P2P") devices, while maintaining the more-relaxed OOB E limits established in the *MO&O* for fixed point-to-point ("P2P") systems, allegedly because the *MO&O*'s rule change will likely allow harmful interference to Dedicated Short Range Communications ("DSRC") operations in the 5.9 GHz band.<sup>8</sup> Although EchoStar supports the protection of DSRC devices, the Commission should deny the Automakers' Petition.

Specifically, EchoStar supports the *MO&O*'s modification of the OOB E limits for operation of the U-NII-3 band. As the extensive record in this proceeding evidences, the OOB E limits from the 2014 *First R&O* were overly restrictive and very costly to meet, without corresponding public benefit. Although the AutoMakers acknowledge that they have participated significantly in this proceeding,<sup>9</sup> they chose not to participate in the phase of the debate after submission of the Joint Emissions Proposal in November 2015. Thus, their claim that the *MO&O* was adopted without reasonable opportunity for affected parties to be heard rings hollow.<sup>10</sup> The Commission should reject the AutoMakers' dilatory complaints.

Moreover, the record in this proceeding shows that the restrictive limits from the *First*

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<sup>7</sup> *Id.* at ¶ 16.

<sup>8</sup> AutoMakers' Petition at 2.

<sup>9</sup> AutoMakers' Petition at 5.

<sup>10</sup> *Id.* at 2, 10.

*R&O* would adversely affect the ability to manufacture equipment for the U-NII-3 band on a cost-effective basis due to the need for increased filtering or reducing the amount of spectrum used.<sup>11</sup> Further, such a restrictive regulation is not needed for the protection of adjacent DSRC operations, as the rules adopted in the *MO&O* are sufficient to protect those operations. As the Commission found, even with the slight relaxation of the U-NII-3 OOB limit adopted in the *MO&O*, the allowed emissions from U-NII devices into the DSRC band will still be held to a lower limit than what was permitted by Section 15.247 prior to the adoption of the *First R&O*.<sup>12</sup> Today, hundreds of millions of UNII-3 enabled devices are already in the market, certified with equivalent OOB limits under the 15.247 rules, and there is no evidence that they have caused harmful interference.

In sum, in adopting the March 2016 *MO&O*, the Commission analyzed the extensive record and adopted appropriately relaxed OOB limits for the U-NII-3 band that also will protect DSRC operations. The Commission should affirm these rules and deny the Automakers' Petition for Reconsideration on this issue.

Respectfully submitted,

**EHOSTAR TECHNOLOGIES LLC and  
HUGHES NETWORK SYSTEMS, LLC**

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<sup>11</sup> See, e.g., Petition for Partial Reconsideration of the Wireless Internet Service Providers Association, ET Docket No. 13-49, June 2, 2014, at 8-10; Mimosa Networks Petition for Partial Reconsideration, ET Docket No. 13-49, June 2, 2014, at 8.

<sup>12</sup> *MO&O* at ¶ 23.