

To: Thomas Voltero  
E-Mail: thomas.a.voltero@rtx.com  
From: Behnam Ghaffari  
Date: August 11, 2021

Subject: FCC File No. 1293-EX-ST-2021

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Message:

() Please provide NARRATIVE EXPLANATION OF OPERATION. Please provide a sketch/figure of the Ground-tests to support the proposed operation. Which antenna is fixed tripod-mounted antenna? and which antenna is van-mounted antenna. Are these antennas transmitting to OneWeb satellites in the 14-14.5 GHz (Earth-to-space) simultaneously at the same and given time?

() Please provide the size (meter), antenna gain (dBi), input power at antenna flange (watts), and EIRP (dBW) of the proposed OneWeb Compact Array and Penn Horn Antenna 9040-1B20 antennas.

() Please provide Specification data sheet from manufacture or the antenna patterns for OneWeb Compact Array and Penn Horn Antenna 9040-1B20 antennas:

- (a) Co-polarized gain in the azimuth plane must be measured across a range extending to 180° on each side of the main-lobe axis, and the measurements must be represented in two plots: one across the entire angular range of  $\pm 180^\circ$  from the main-lobe axis and the other across  $\pm 10^\circ$  from the main-lobe axis.
- (b) Co-polarized gain must be measured from 0° to 30° from beam peak in the elevation plane.
- (c) Cross-polarization gain must be measured across a range of plus and minus 7° from beam peak in the azimuth and elevation planes.

() OneWeb NGSO satellites (Call Sign S2963) authorized to operate in the 10.7-12.7 GHz (space-to-Earth) and 14-14.5 GHz (Earth-to-space) frequency bands. Please amend the proposed frequency band from 10000-15000 MHz to 14-14.5 GHz (Earth-to-space) for communication with OneWeb NGSO satellites or Please provide another Point of communication (satellite): name, call sign and/or file no. of satellite(s) operating in the proposed 10-14 GHz and 14.5-15 GHz bands or 10-15 GHz (Earth-to-space) frequency band.

() Does one of the proposed antennas operate in dual mode: transmit and receive - transmitting in the 14-14.5 GHz (Earth-to-space) and receiving in the 10.7-12.7 GHz (space-to-Earth)? Or does one of the proposed antennas can only transmit in the 10-15 GHz (Earth-to-space) and is unable to limit/switch to 14-14.5 GHz (Earth-to-space) frequency band?

() For communication with OneWeb NGSO Ku-band satellite, does the proposed operation in the 14-14.5 GHz band meet the applicable equivalent power Flux-density levels in Article 22 of the ITU radio Regulations?

The items indicated above must be submitted before processing can continue on the above referenced application. Failure to provide the requested information within 30 days of August 11, 2021 may result in application dismissal pursuant to Section 5.67 and forfeiture of the filing fee pursuant to Section 1.1108.

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Responses to this correspondence must contain the Reference number : 63933