

July 28, 2021

*VIA ELS*

Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 Twelfth Street, S.W.  
Washington, DC 20554

Re: Response to Additional Information Request RE: 0331-EX-CN-2021; Correspondence  
Reference Number 63099

Dear Ms. Dortch:

O3b Limited (“O3b”) hereby provides responses to additional information request from the Office of Engineering and Technology as copied below:

|                                  |                 |
|----------------------------------|-----------------|
| Applicant:                       | O3b Limited     |
| File Number:                     | 0331-EX-CN-2021 |
| Correspondence Reference Number: | 63099           |
| Date of Original Email:          | 07/01/2021      |

Please address the following questions and concerns: 1) Please provide the size (meter), antenna gain (dBi) of the GetSat Microsat, GetSat Nanosat H, and Intellian X130D antennas. 2) Please provide Specification data sheet from manufacture or the antenna patterns for GetSat Microsat, GetSat Nanosat H, and Intellian X130D 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. (ii) Cross-polarization gain must be measured across a range of plus and minus 7° from beam peak in the azimuth and elevation planes.

Please see below a chart indicating providing the requested information or indicating the location of information responsive to each request if that information is contained in one of the attachments being submitted in tandem with this letter.

Please let me know if you have any questions or need any further information.

Respectfully submitted,

/s/ Noah Cherry  
Senior Legal & Regulatory Counsel  
O3b Limited  
1129 20th Street, NW #1000  
Washington, D.C. 20036  
(571) 229-0879

*Enclosures:*

Annex A – Intellian Antenna Test Report V1.2  
Annex B – NanoSat Spec Sheet  
Annex C – MicroSat Spec Sheet  
Annex D (1-3) – Nanosat H Antenna Skew  
Annex E – Microsat Antenna Skew

|                    | Size<br>(meters)  | Antenna<br>gain<br>(dBi)   | Datasheet from manufacturer                                                                                                                                                                                                                                   | If no<br>datasheet,<br>Antenna<br>Pattern? | Co-polarized gain in<br>the azimuth plane<br>must be measured<br>across a range ex-<br>tending to 180° on<br>each side of the<br>main-lobe axis, and<br>the measurements<br>must be represented<br>in two plots: one<br>across the entire an-<br>gular range of $\pm 180^\circ$<br>from the main-lobe<br>axis and the other<br>across $\pm 10^\circ$ from the<br>main-lobe axis. | Co-po-<br>larized<br>gain<br>must be<br>measured<br>from 0°<br>to 30°<br>from<br>beam<br>peak in<br>the ele-<br>vation<br>plane. | Cross-polar-<br>ization gain<br>must be<br>measured<br>across a<br>range of<br>plus and mi-<br>nus 7° from<br>beam peak<br>in the azi-<br>muth and el-<br>elevation<br>planes. |
|--------------------|-------------------|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Intellian<br>X130D | 1.25m             | 47.3<br>dBi                | Annex A                                                                                                                                                                                                                                                       | See Annex<br>A                             | Annex A - p. 15                                                                                                                                                                                                                                                                                                                                                                  | Annex A<br>- p. 18                                                                                                               | Annex A -<br>p. 18                                                                                                                                                             |
| Microsat           | 0.25m x<br>0.135m | TX 34<br>dBi; RX<br>32 dBi | Annex C available at: <a href="https://478070-1503134-raikfcquaxqncofqfm.stackpathdns.com/wp-content/uploads/2021/06/MICRO_SAT_LM_06_21.pdf">https://478070-1503134-raikfcquaxqncofqfm.stackpathdns.com/wp-content/uploads/2021/06/MICRO_SAT_LM_06_21.pdf</a> | Annex C                                    | N/A                                                                                                                                                                                                                                                                                                                                                                              | N/A                                                                                                                              | N/A                                                                                                                                                                            |
| Nanosat<br>H       | 0.13m x<br>0.135m | TX 31<br>dBi; RX<br>29 dBi | Annex B available at: <a href="https://478070-1503134-raikfcquaxqncofqfm.stackpathdns.com/wp-content/uploads/2021/06/NANO_SAT_H_06_21.pdf">https://478070-1503134-raikfcquaxqncofqfm.stackpathdns.com/wp-content/uploads/2021/06/NANO_SAT_H_06_21.pdf</a>     | Annex B                                    | N/A                                                                                                                                                                                                                                                                                                                                                                              | N/A                                                                                                                              | N/A                                                                                                                                                                            |