

To: Rob Rainhart
E-Mail: Rob@HE360.com
From: Doug Young
Date: June 23, 2017

Subject: Request for Info - File # 0024-EX-CN-2017

Message:

Please address the following issues raised by the FCC's International Bureau/Satellite Division:

Applicant, please provide detail information of any other receiver and/or sensor that may not have been included in this application (all the RF characteristics of each individual sensor).

Orbital Debris Assessment Report (ODAR)

Will the propulsion fuel (FE36) when disperse in space evaporate?

US Table of Frequency Allocation:

Operations in 432-438 MHz band, applicant be aware that per footnote US397 the EESS (active) allocation is for Federal use only and therefore, your operations will be on a non-interference basis (NIB) and will required a detail showing of electromagnetic compatibility analysis.

US397: In the band 432-438 MHz, the Earth exploration-satellite service (active) is allocated on a secondary basis for Federal use. Stations in the Earth exploration-satellite service (active) shall not be operated within line-of-sight of the United States except for the purpose of short duration pre-operational testing. Operations under this allocation shall not cause harmful interference to, nor claim protection from, any other services allocated in the band 432-438 MHz in the United States, including secondary services and the amateur-satellite service.

US347: In the band 2025-2110 MHz, non-Federal Earth-to-space and space-to-space transmissions may be authorized in the space research and Earth exploration-satellite services subject to such conditions as may be applied on a case-by-case basis. Such transmissions shall not cause harmful interference to Federal and non-Federal stations operating in accordance with the Table of Frequency Allocations.

US258: In the bands 8025-8400 MHz and 25.5-27 GHz, the Earth exploration-satellite service (space-to-Earth) is allocated on a primary basis for non-Federal use. Authorizations are subject to a case-by-case electromagnetic compatibility analysis.

Relevant ITU RR Footnotes:

5.279A: The use of the frequency band 432-438 MHz by sensors in the Earth exploration-satellite service (active) shall be in accordance with Recommendation ITU-R RS.1260-1. Additionally, the Earth exploration-satellite service (active) in the frequency band 432-438 MHz shall not cause harmful interference to the aeronautical radionavigation service in China. The provisions of this footnote in no way diminish the obligation of the Earth exploration-satellite service (active) to operate as a secondary service in accordance with Nos. 5.29 and 5.30. (WRC-15)

Prior to the Grant being issue, Applicant will need to pre-coordinate with the FCC license Satellite operators on below for operations in the following frequency bands:

2025-2110 MHz: DG Consent, Terra Bella and Planet Labs.

8025-8400 MHz: DG Consent, Terra Bella and Planet Labs.

API File for S-band and X-band:

In Beam SBAND, Group ID #2 for 2200-2290 MHz band, the max peak power is given as 20 dBW; however, Form 442 has output power 0.35 watts = -4.6 dBW. Applicant please confirm the output power in the API and update as appropriate.

For all the beams (uplinks and downlinks), the power spectral density values are not correct. Applicant please review and verify the power spectral density; use the formula below.

PSD = Peak power in dBW - 10 * Log10(emission bandwidth in Hertz).

For all the downlink beams, please provide the minimum elevation angle value in Box B2bis.b

Exhibit documents:

Exhibit 2, Technical Information, page 7, top of the page, there is a power flux density value of -255.1 dB(W/(m²*Hz)). We could not derive this value. Applicant please provide all the values and computation of how this PFD value was derived.

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 June 23, 2017 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 : 37636