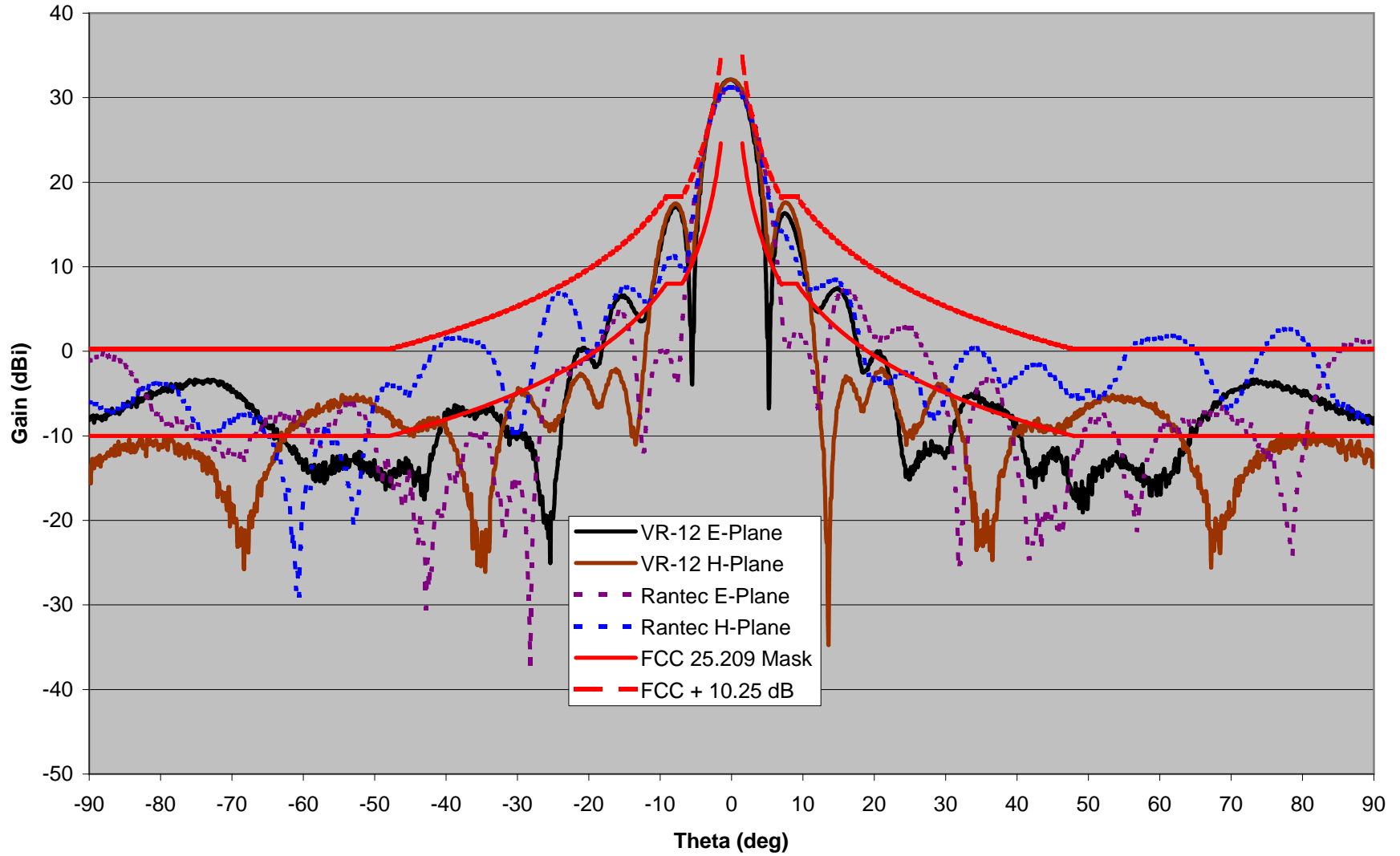


Supplement to ViaSat, Inc. AMSS Modification Application
FCC File No. SES-MFS-20090624-00789
Call Sign E050318
November 5, 2009

At the request of Commission staff, ViaSat supplements its above-referenced modification application (“Modification Application”) with additional antenna gain pattern charts. The attached charts plot the gain of the VR-12 antenna that ViaSat seeks to add in the Modification Application, overlaid on the gain of the currently authorized antenna. The patterns illustrate that the performance of the antennas is very similar, but that the VR-12 antenna has improved sidelobe performance compared to the currently authorized antenna.

As ViaSat indicated in the modification application, the VR-12 antenna is a 0.2921 meter parabolic reflector antenna, which is very similar to the currently authorized antenna. Both the proposed antenna and the currently authorized antenna are non-conforming because the off-axis gain exceeds the Section 25.209 antenna performance standard by a maximum of 10.25 dB in the main-lobe region. To compensate, ViaSat will reduce the effective power spectral density into each individual antenna flange such that the aggregate off-axis EIRP density is equivalent to that of a single antenna having at its flange a power density of -24.25 dBW/4 kHz, or 10.25 dB below the -14.0 dBW/4 kHz limit set forth in the Commission’s rules. The nominal individual antenna flange density will be -34.64 dBW/4 kHz. The attached charts depict the Section 25.209 mask increased by 10.25 dB to illustrate that a 10.25 dB reduction in power spectral density is sufficient to bring the aggregate off-axis EIRP density of all antennas in the network within the envelope for routinely licensed VSATs.

Gain versus Theta



Gain versus Theta

