

From: DeFede Thomas

To: Behnam Ghaffari

Date: February 28, 2012

Subject: FCC File No. 0025-EX-PL-2012

Message:

the following estimates for WGS and G-28. Technical information on Amazonas not publicly available.

Satellite	Est. Receive Antenna Gain (dBi)	Est. Receive Antenna Beamwidth (deg.)
Intelsat G-28 1	22.1	13.4°
WGS-3 (X-Band) 2	27.6	7°
WGS-3 (Ka-Band) 3	36.4	2.5°
Amazonas-2	n/a	n/a

1 G-28 C-Band G/T > -3.3 dB/K typ. North America. Assuming a system noise temperature of 350K, Grx= 22.1 dBi.

2 WGS-3 X-Band SBR1 Uplink Beam (4° beam diameter, 6° scan angle)

3 WGS-3 Ka-Band NRC1 Uplink Beam