

Application Narrative

Vubiq Networks, Inc, (“Vubiq”) requests authorization to test and demonstrate equipment for use with close-range, point-to point-broadband backhaul links for 5G connectivity at the private facilities identified below.

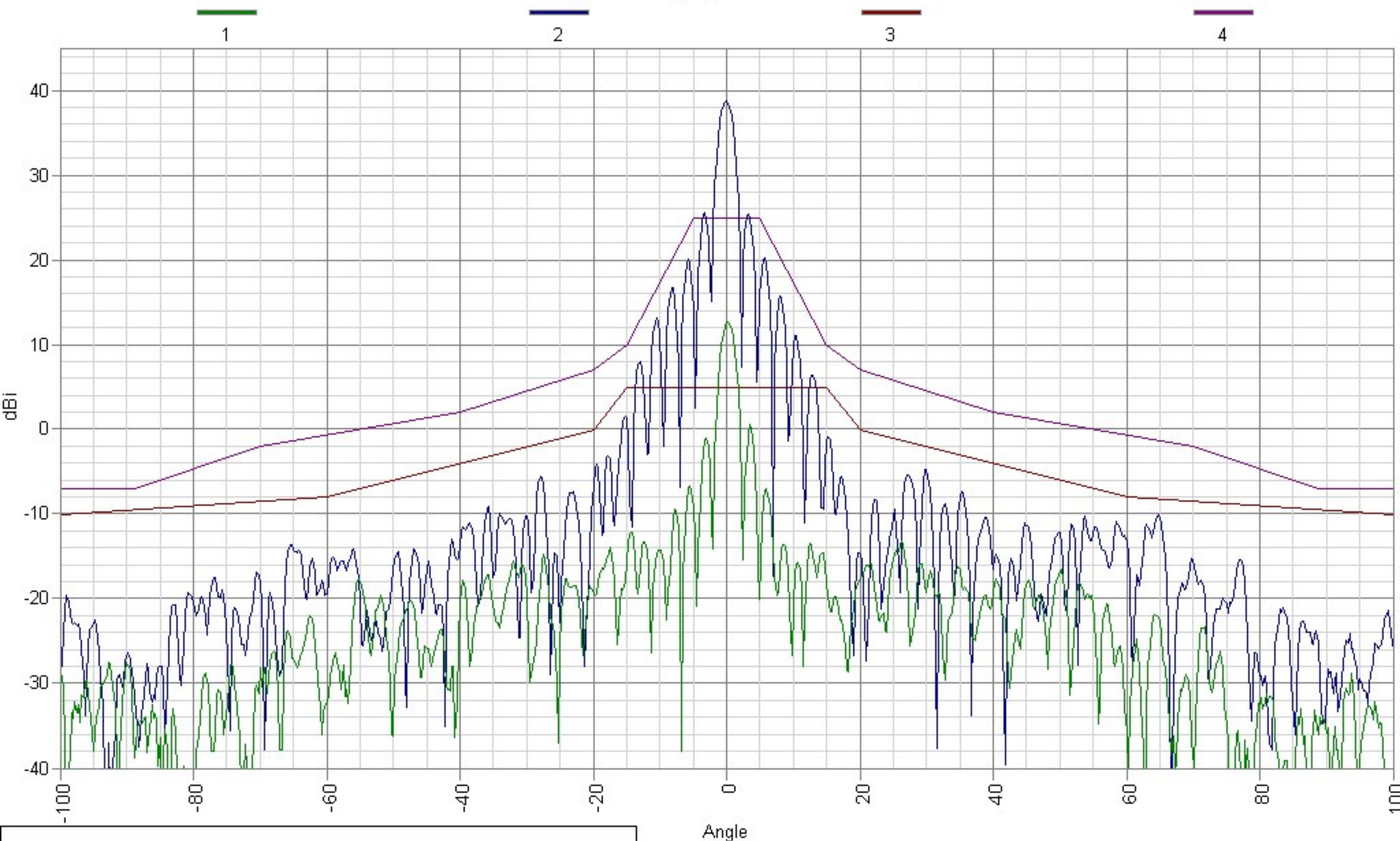
The antennas are less than a meter in diameter with a gain of approximately 38 dBi. Vubiq seeks to demonstrate operation of its small antennas at a lower gain than authorized by the Commission’s rules, but no less than the Commission has proposed in a pending rulemaking.¹ Vubiq seeks to demonstrate the benefits and lower costs associated with such backhaul links.

<u>State</u>	<u>County</u>	<u>City</u>	<u>Street</u>	<u>N Latitude</u>	<u>W Longitude</u>
FL	Palm Beach	Boca Raton	777 Yamato Road	26° 23’ 41”	080° 06’ 01”
CA	Santa Clara	Santa Clara	3150 Coronado Dr	37° 22’ 43’	121° 58’ 29”
IL	Cook	Tinley Park	18900 Panduit Drive	41° 32’ 58”	087° 48’ 38”
IL	DuPage	Lisle	2222 Wellington Ct	41° 47’ 45’	088° 05’ 56”
UT	Utah	Lehi	3301 N Thanksgiving Way	40° 25’ 45”	111° 53’ 28”
NH	Hillsborough	Nashua	100 Innovative Way	42° 42’ 49”	071°27’ 30”
TX	Travis	Austin	1701 Directors Blvd	30° 12’ 48”	097°45’ 06”
IN	Tippecanoe	West Lafayette	610 Purdue Mall	40° 25’ 41”	86° 54’ 51”
IL	Rock Island	Moline	4101 John Deere Expy	41° 28’ 16”	090° 28’ 25”
CA	Orange	San Juan Capistrano	33841 Calle Borrego	33° 28’ 17”	117° 39’ 43”
CA	Orange	Dana Point	34555 Casistas Pl	33° 27’ 39”	117° 41’ 48”
CA	Orange	Irvine	9231 Irvine Blvd.	33° 39’ 55”	117° 42’ 16”

¹ A gain of approximately 38 dBi instead of 43 dBi that is currently authorized by 47 C.F.R. 101.115(b)(2) of the Commission’s rules already is being considered by the Commission for smaller antenna sizes. See *Modernizing and Expanding Access to the 70/80/90 GHz Bands, et al*, Notice of Proposed Rulemaking and Order, 35 FCC Rcd 6039, 6045-6048 (2020).

The directional antennas will be vertically polarized with a beamwidth at the half-power point of 1.9° . Attached are four images of the azimuth and elevation patterns showing the vertical and horizontal components at the center of the operating frequencies in full duplex operation. The patterns are similar at the different frequencies in both azimuth and elevation.

MT_799011W_SN_002 AZIMUTH

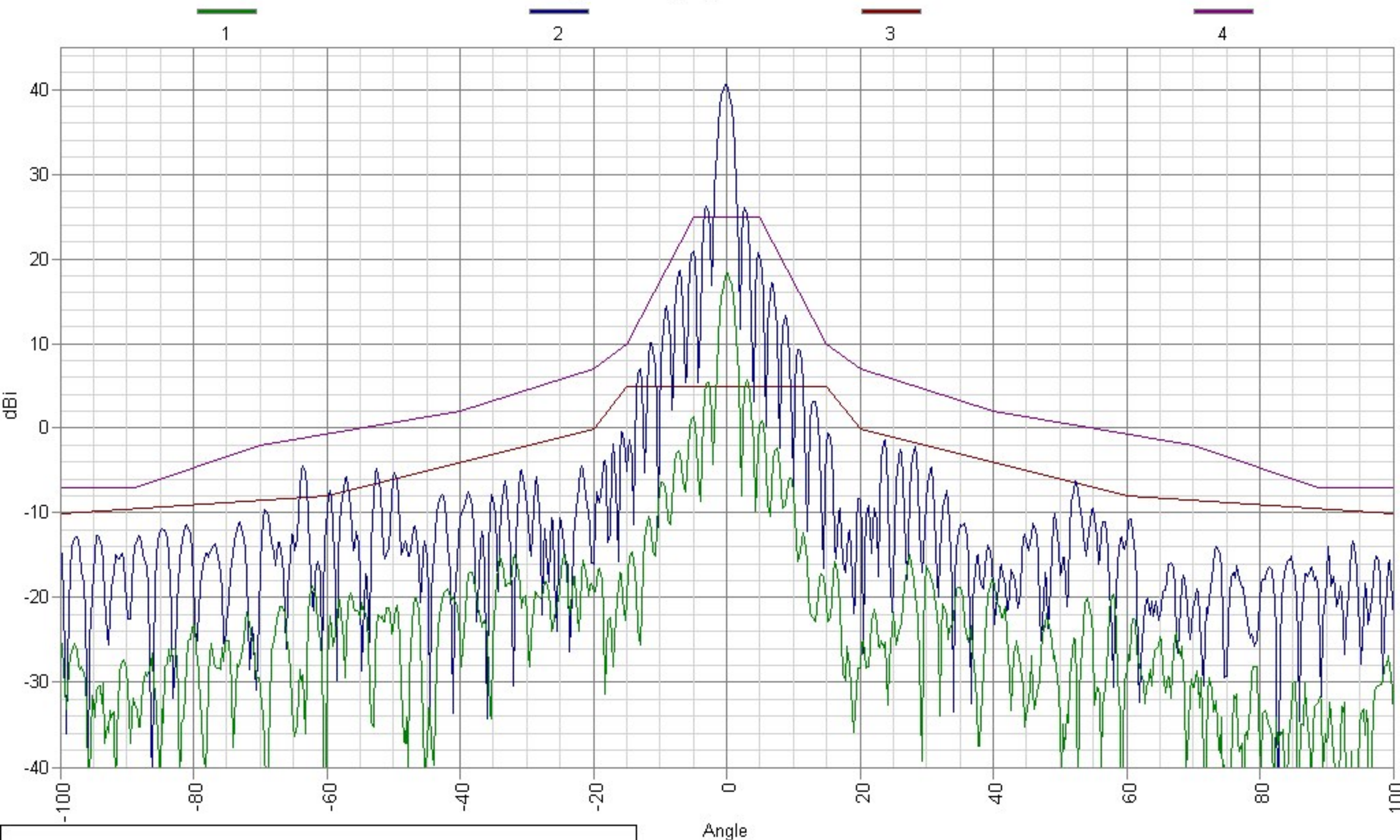


FileName	Gain	Freq(Ghz)	BW(3db)
1: MT_799011W_SN_002_VH_03-73.500_GHz.az12.711	73.50000	2.01	
2: MT_799011W_SN_002_VV_03-73.500_GHz.az38.752	73.50000	2.08	
3: XP ETSI CLASS 2			
4: CP ETSI CLASS 2			

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Technician: AG

MT_799011W_SN_002 AZIMUTH

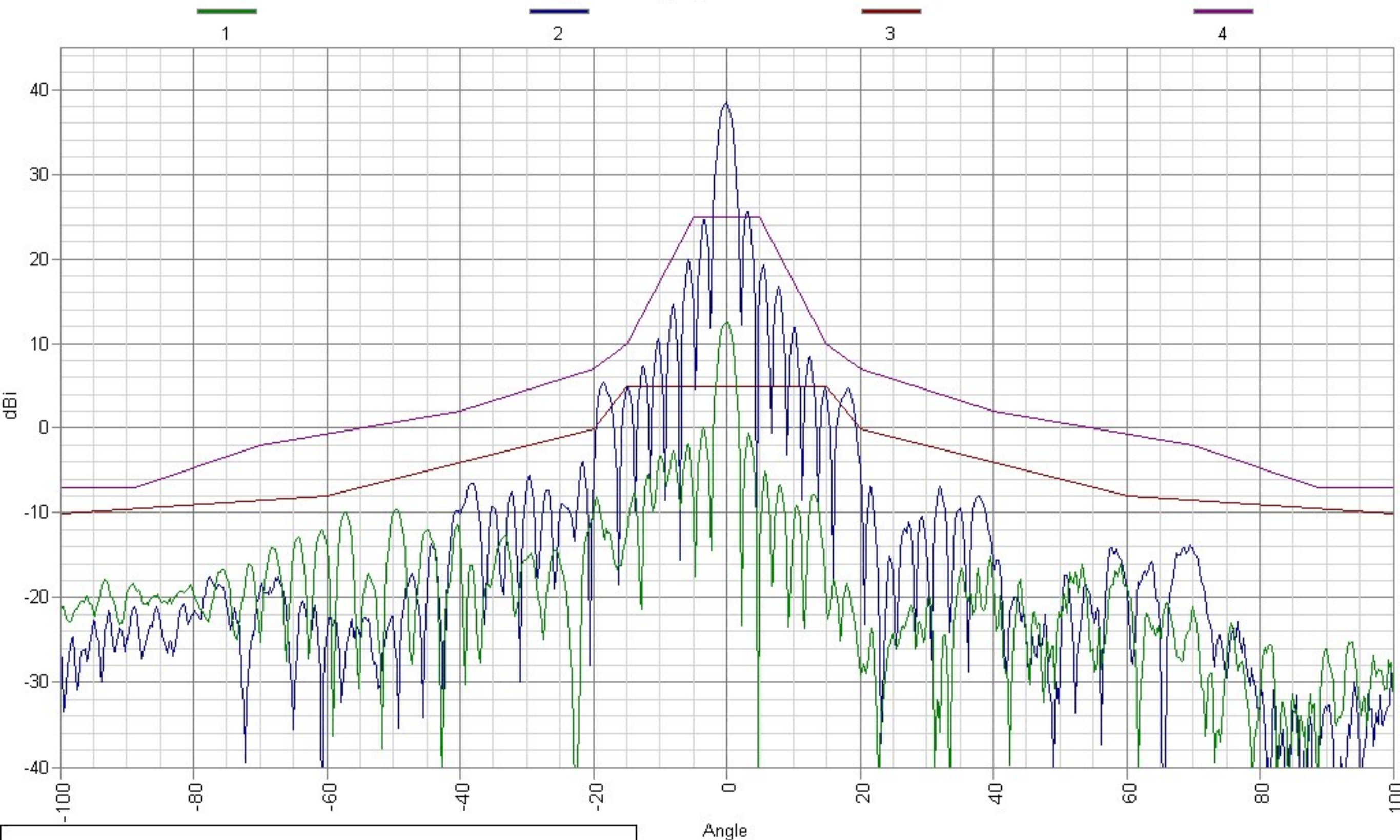


FileName	Gain	Freq(Ghz)	BW(3db)
1: MT_799011W_SN_002_VH_09-83.500_GHz.az	18.261	83.50000	1.87
2: MT_799011W_SN_002_VV_09-83.500_GHz.az	40.620	83.50000	1.88
3: XP ETSI CLASS 2			
4: CP ETSI CLASS 2			

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MT_799011W_SN_002 ELEVATION

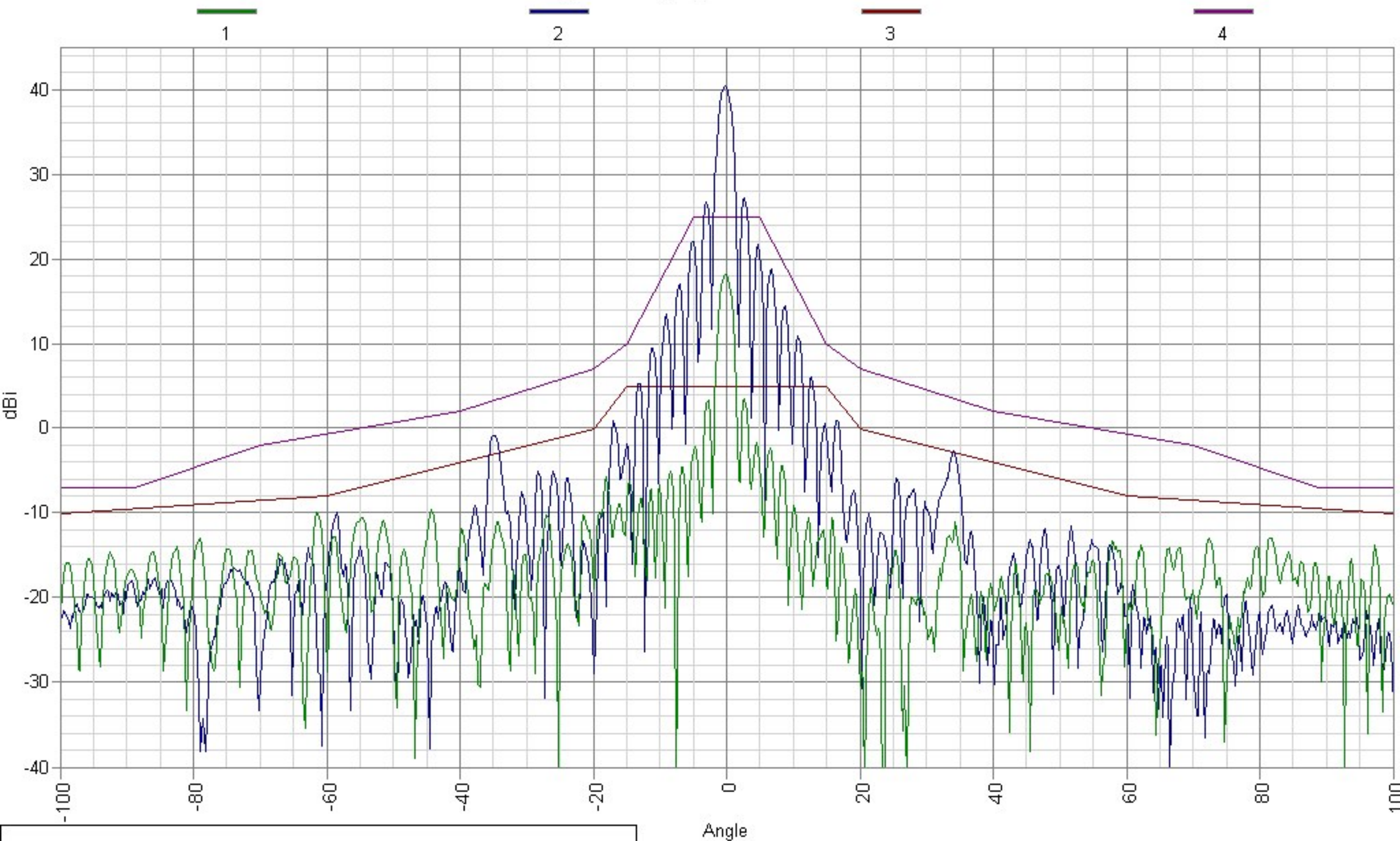


FileName	Gain	Freq(Ghz)	BW(3db)
1: MT_799011W_SN_002_HV_03-73.500_GHz.az12.545	73.50000	2.14	
2: MT_799011W_SN_002_HH_03-73.500_GHz.az38.445	73.50000	2.03	
3: XP ETSI CLASS 2			
4: CP ETSI CLASS 2			

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Technician: AG

MT_799011W_SN_002 ELEVATION



FileName	Gain	Freq(Ghz)	BW(3db)
1: MT_799011W_SN_002_HV_09-83.500_GHz.az18.218	18.218	83.50000	1.75
2: MT_799011W_SN_002_HH_09-83.500_GHz.az40.467	40.467	83.50000	1.8
3: XP ETSI CLASS 2			
4: CP ETSI CLASS 2			

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