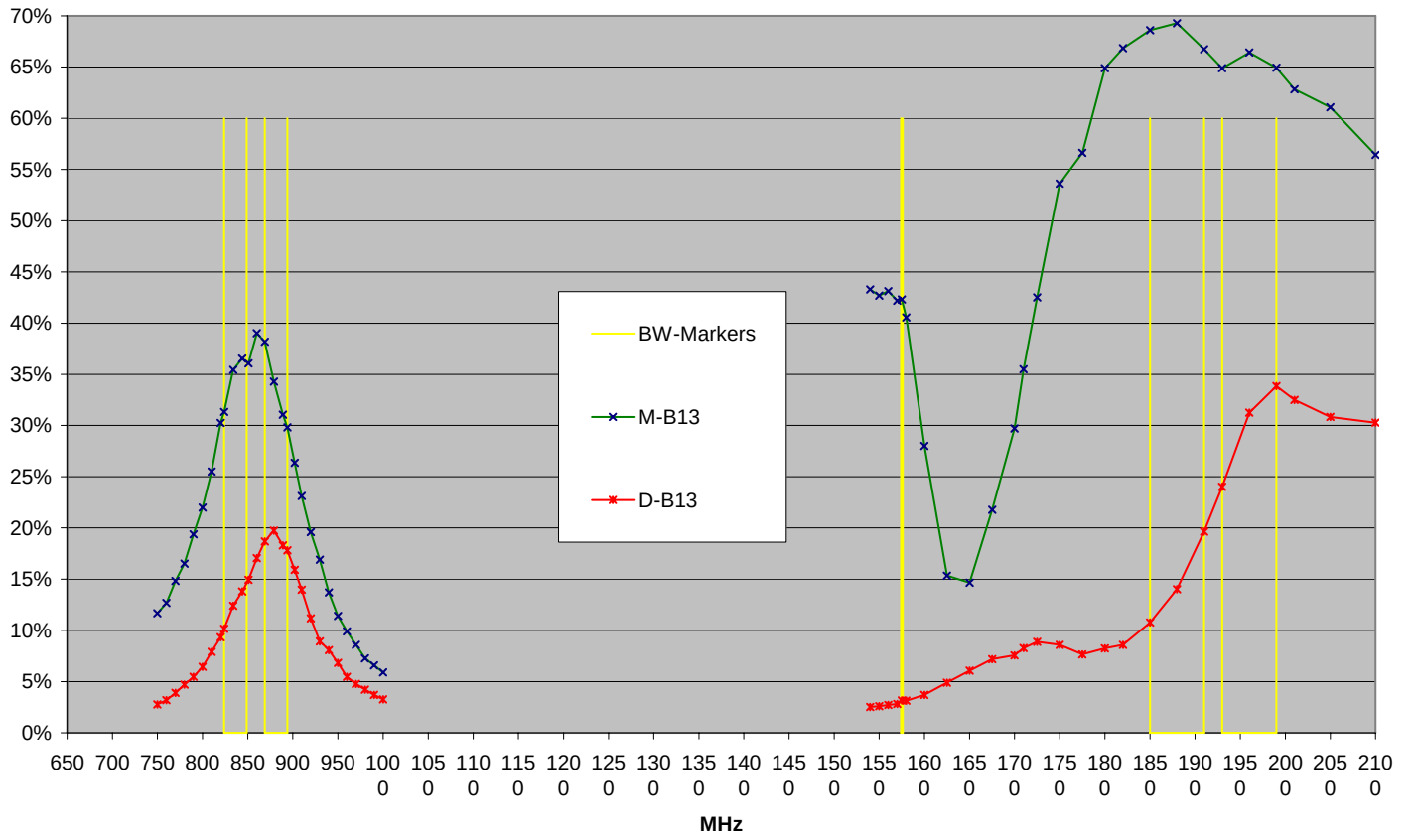


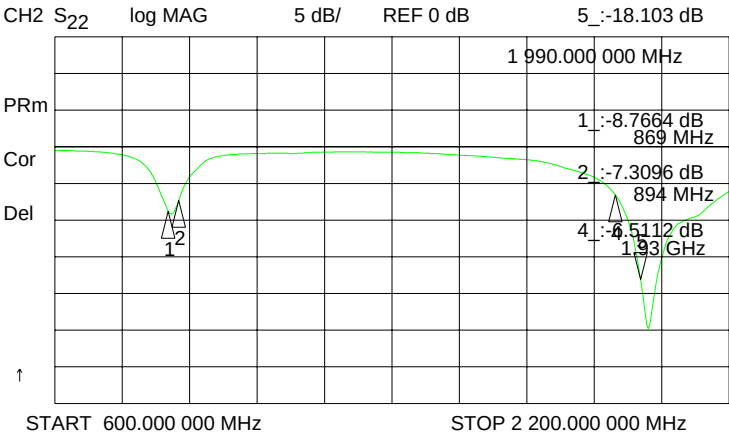
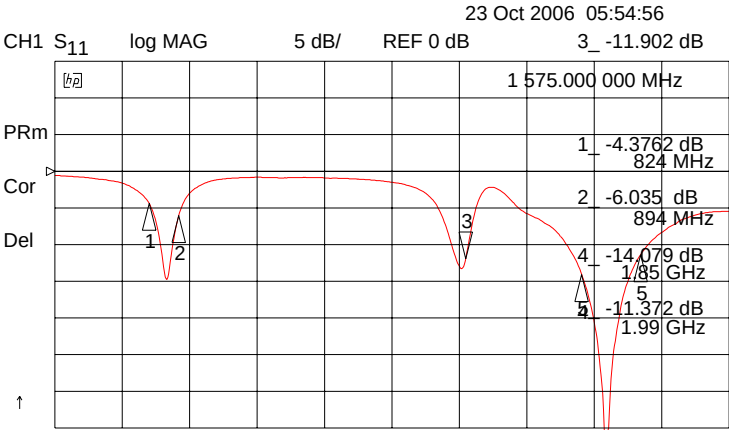
<u>Thomas Liu</u> <u>10/23/2006</u> AUTHOR DATE	 Laird Product Engineering	 REPORT NUMBER: <u>P5167-CN3-CDMA-004</u>
TO: Requester: <u>Intermec</u> Manager: ____ COPY:		
<u>EXECUTIVE SUMMARY:</u> Performance of Intermec CN3 CDMA Antennas were measured, provide for Intermec FCC filings. <u>SCOPE:</u> Performance of CN3 CDMA Diversity antennas <u>DESIGN OF EXPERIMENT:</u> Return Loss, Efficiency and Gain Patterns were measured on a CN3 CDMA PROTO-C fixture. <u>CONCLUSIONS:</u> The Return Loss, Efficiency, Peak Gain, Average Gain and Gain Patterns are provided.		
KEY WORDS: Intermec, CN3, CDMA, Diversity antennas, gain, radiation patterns, return loss, impedance.		

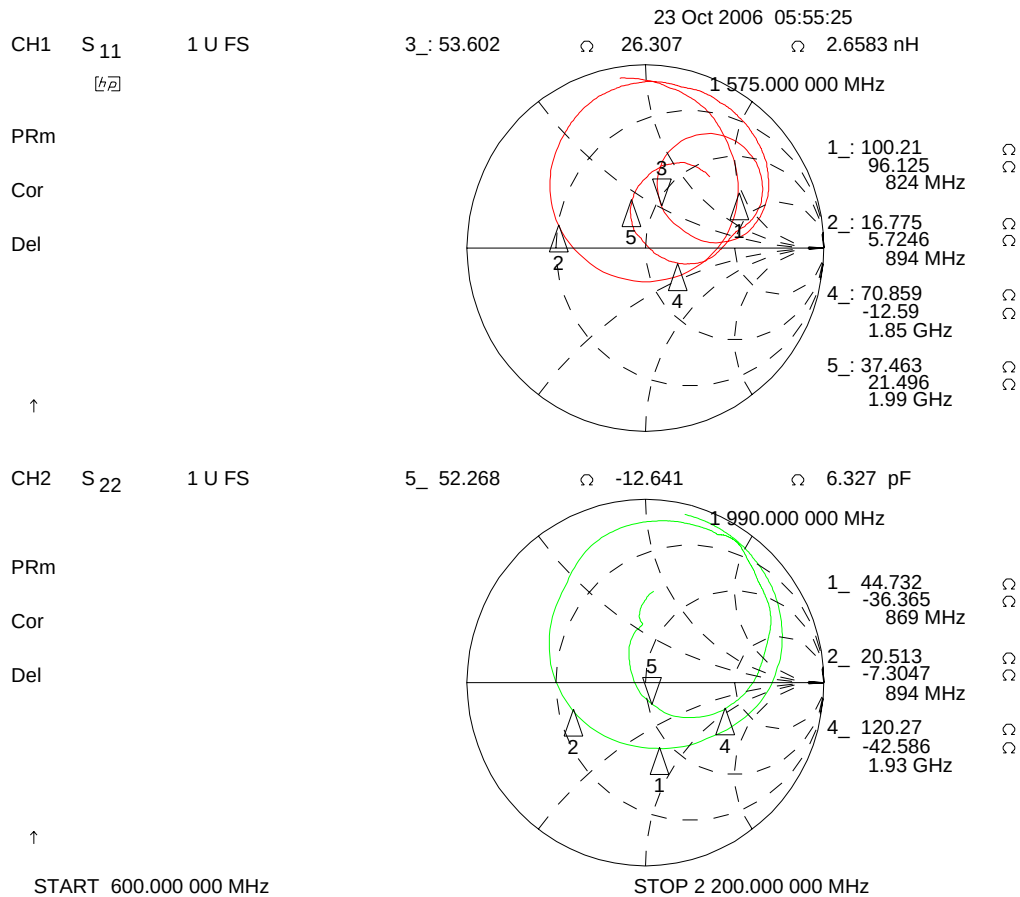
Efficiency in Free Space

10-23-2006 CDMA Antennas



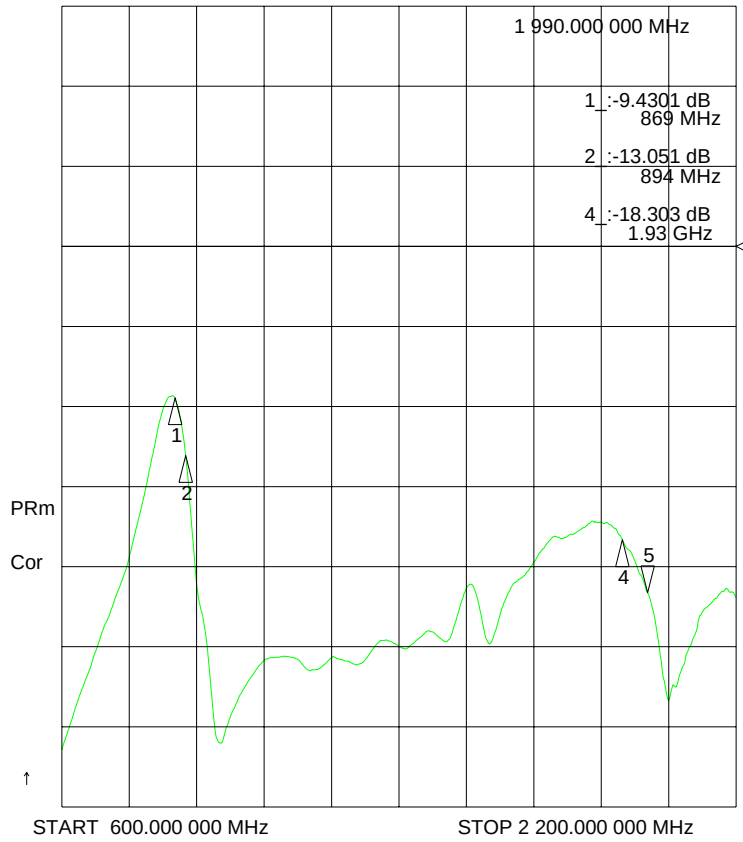
Return Loss, Free Space





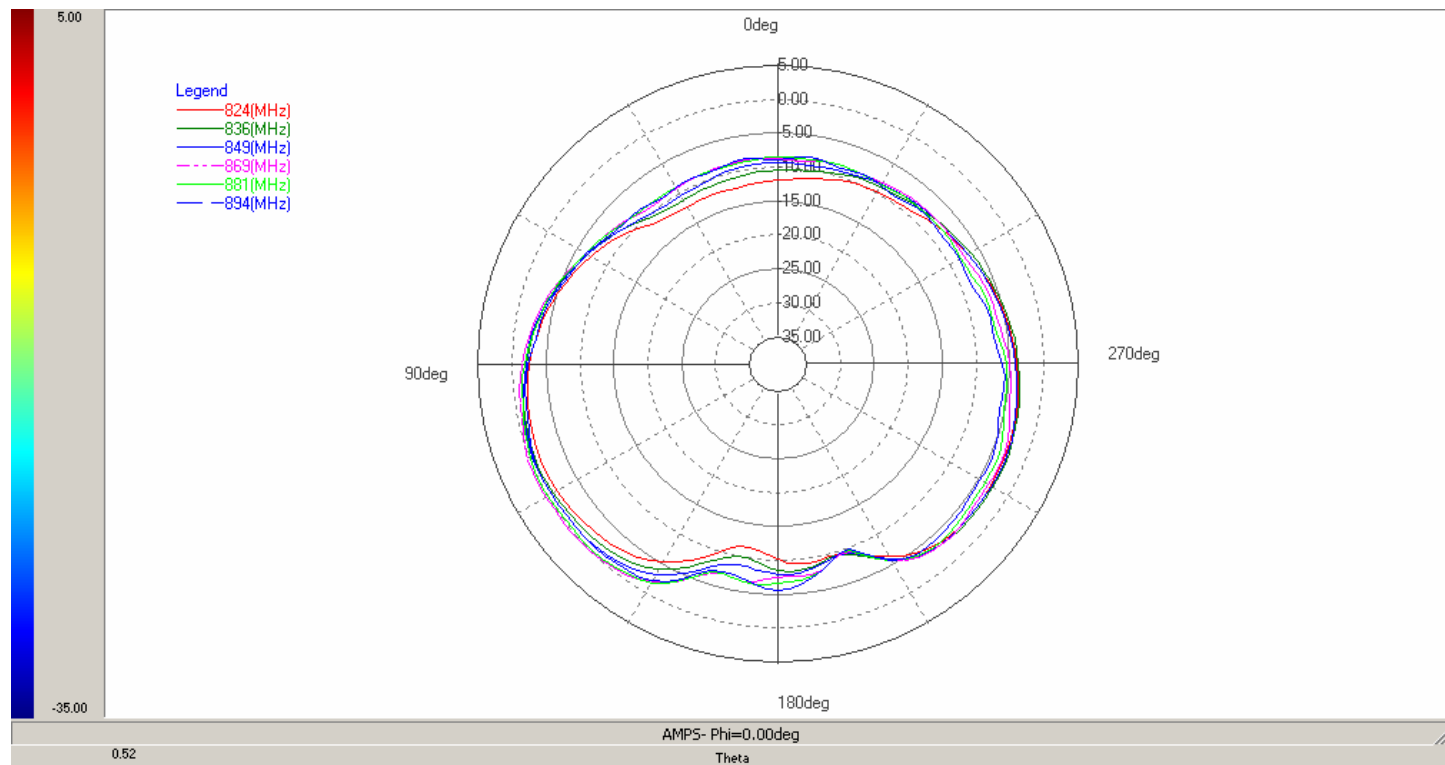
23 Oct 2006 05:56:49

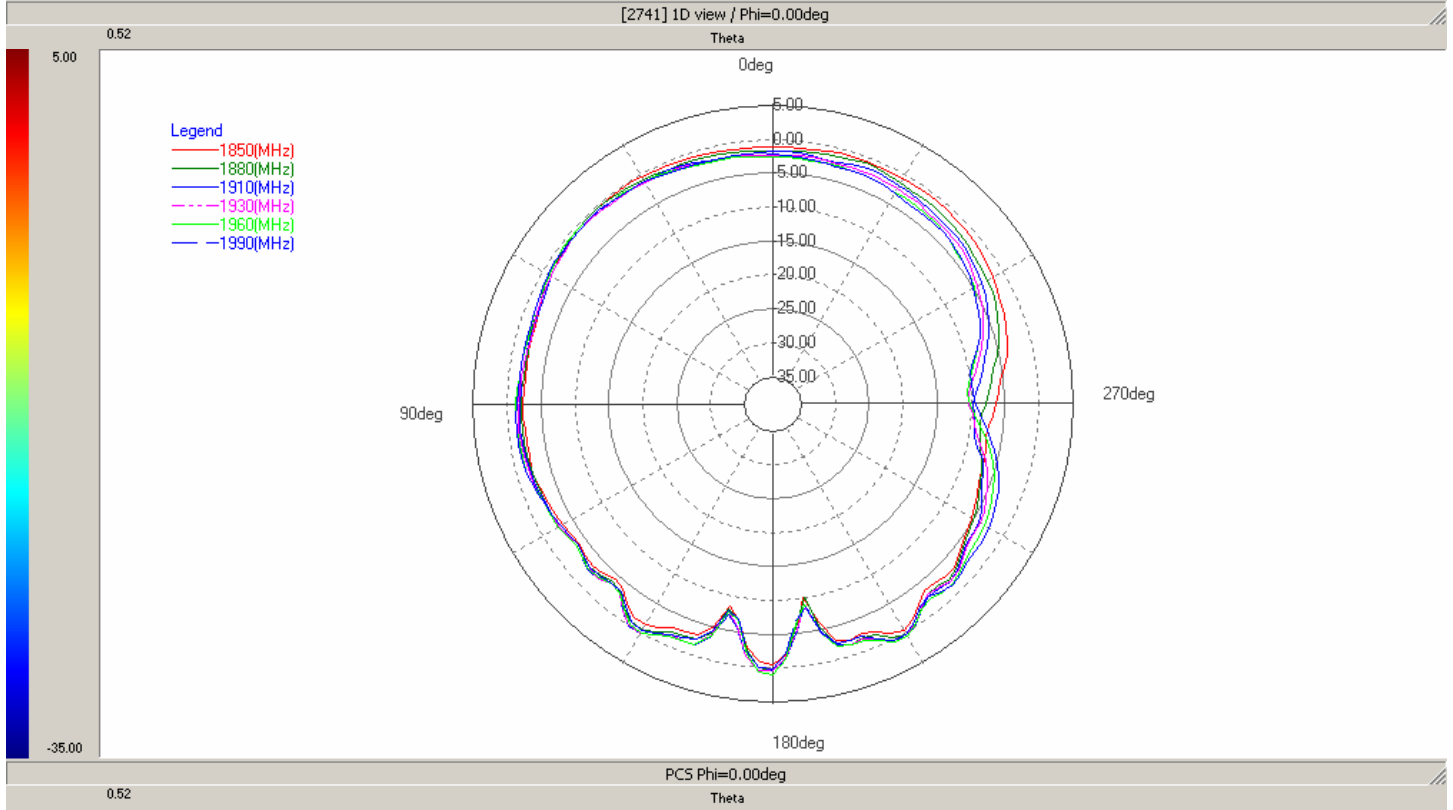
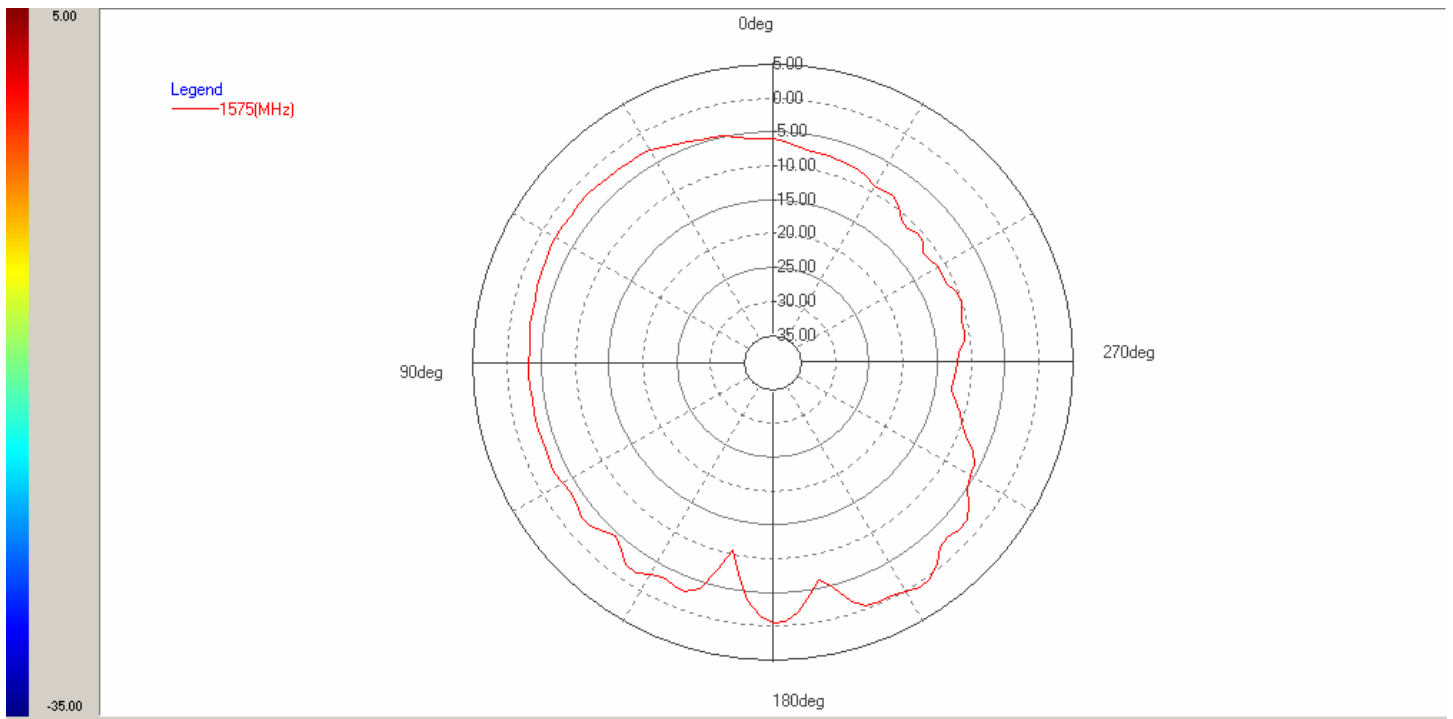
CH2 S₁₂ log MAG 5 dB/ REF 0 dB 5_:-21.635 dB



M-Antenna: Gain Patterns, Phi=0, Free Space

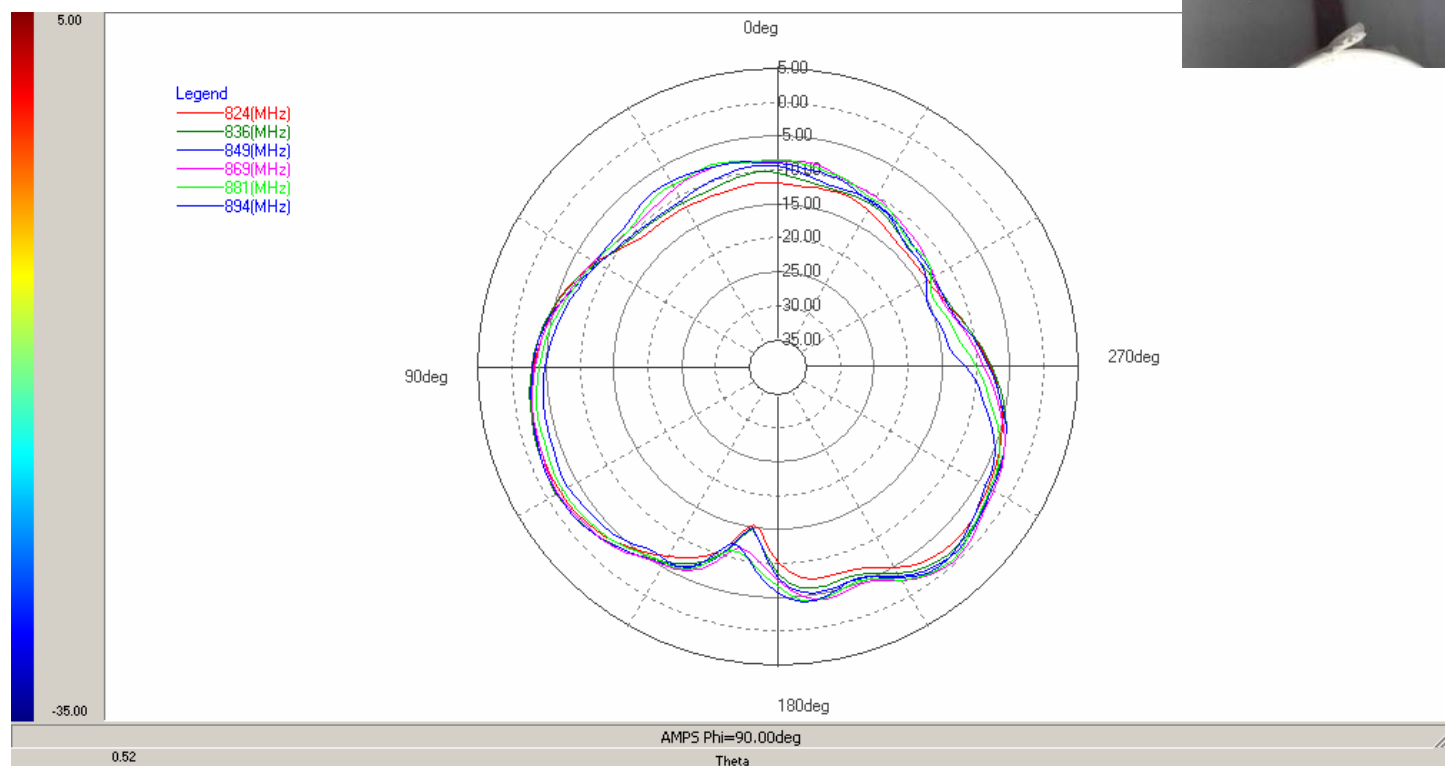
freq(MHz)	Peak Gain . dBi	Ave Gain. dBi
824	-1.4	-5.6
836	-0.7	-4.9
849	-0.4	-4.8
869	0.4	-4.4
881	0.1	-4.7
894	-0.5	-5.1
1575	0.5	-4.2
1850	-0.4	-2.4
1880	0.2	-2.4
1910	0.3	-2.5
1930	0.2	-2.6
1960	0.7	-2.5
1990	0.1	-2.6

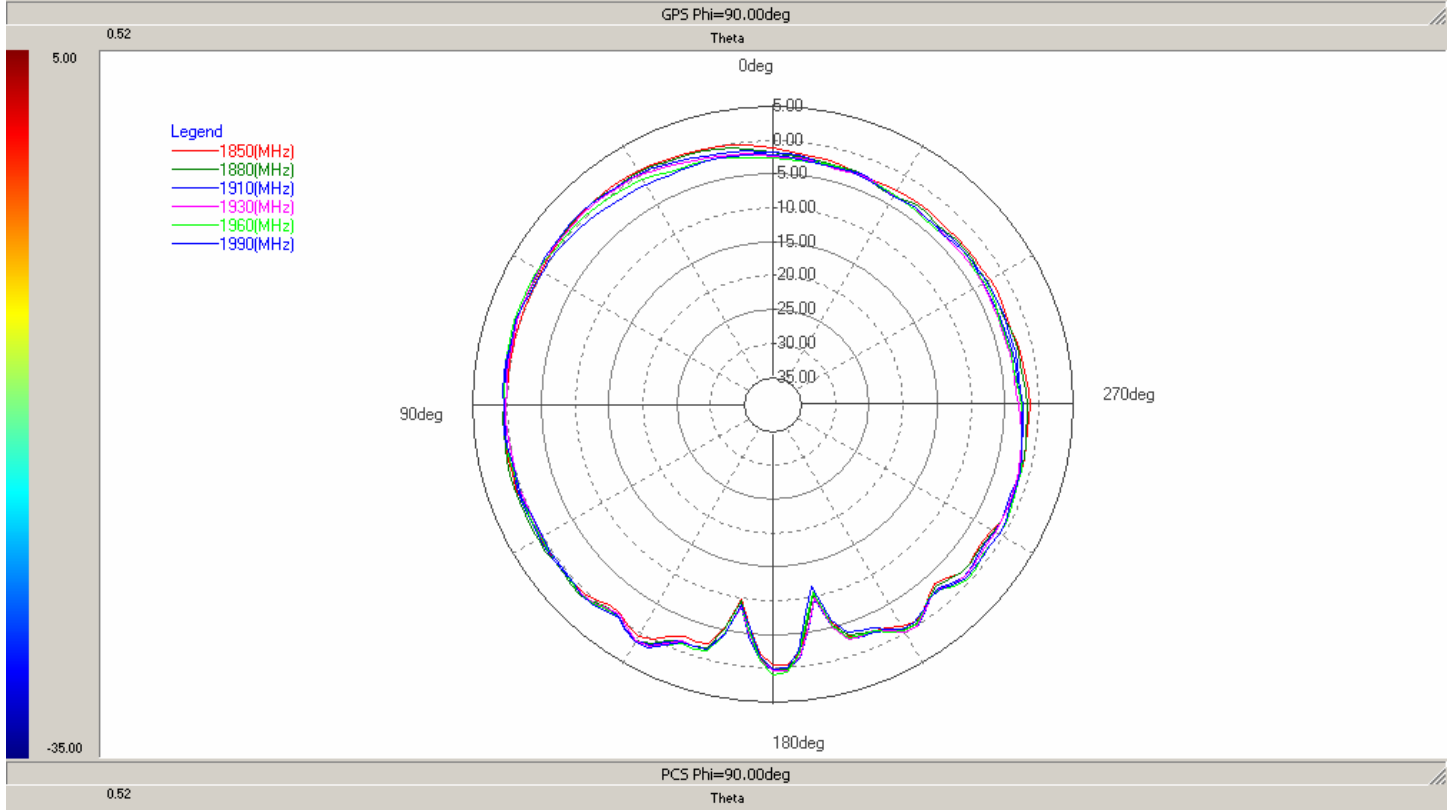
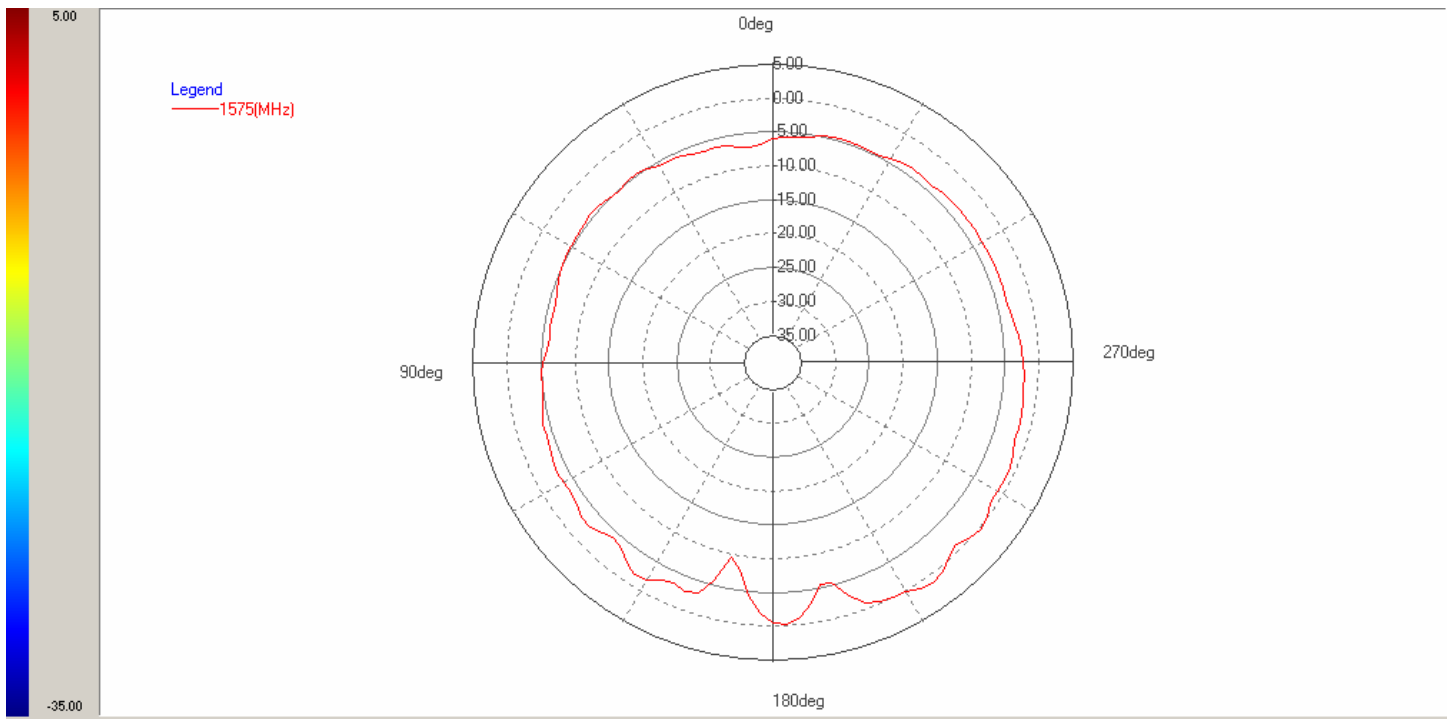




M-Antenna: Gain Patterns, EL at plane Phi=90, Free Space

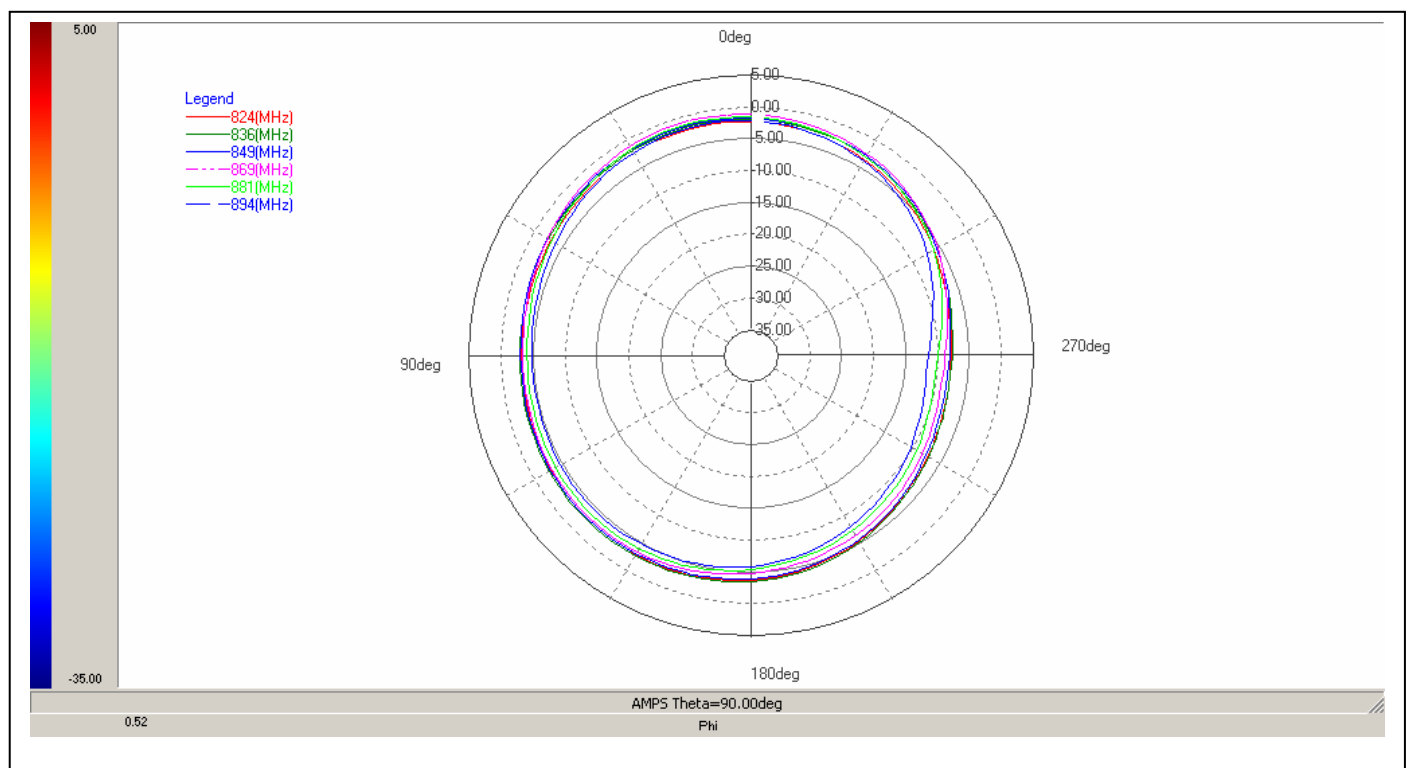
Phi=90deg.		
freq(MHz)	Peak Gain . dBi	Ave Gain. dBi
824	-2.1	-6.5
836	-1.5	-5.9
849	-1.3	-5.7
869	-0.5	-5.5
881	-0.8	-5.8
894	-1.4	-6.4
1575	1.1	-3.2
1850	0.8	-1.1
1880	1.1	-1.0
1910	1.1	-1.1
1930	1.1	-1.2
1960	1.4	-1.2
1990	1.4	-1.3

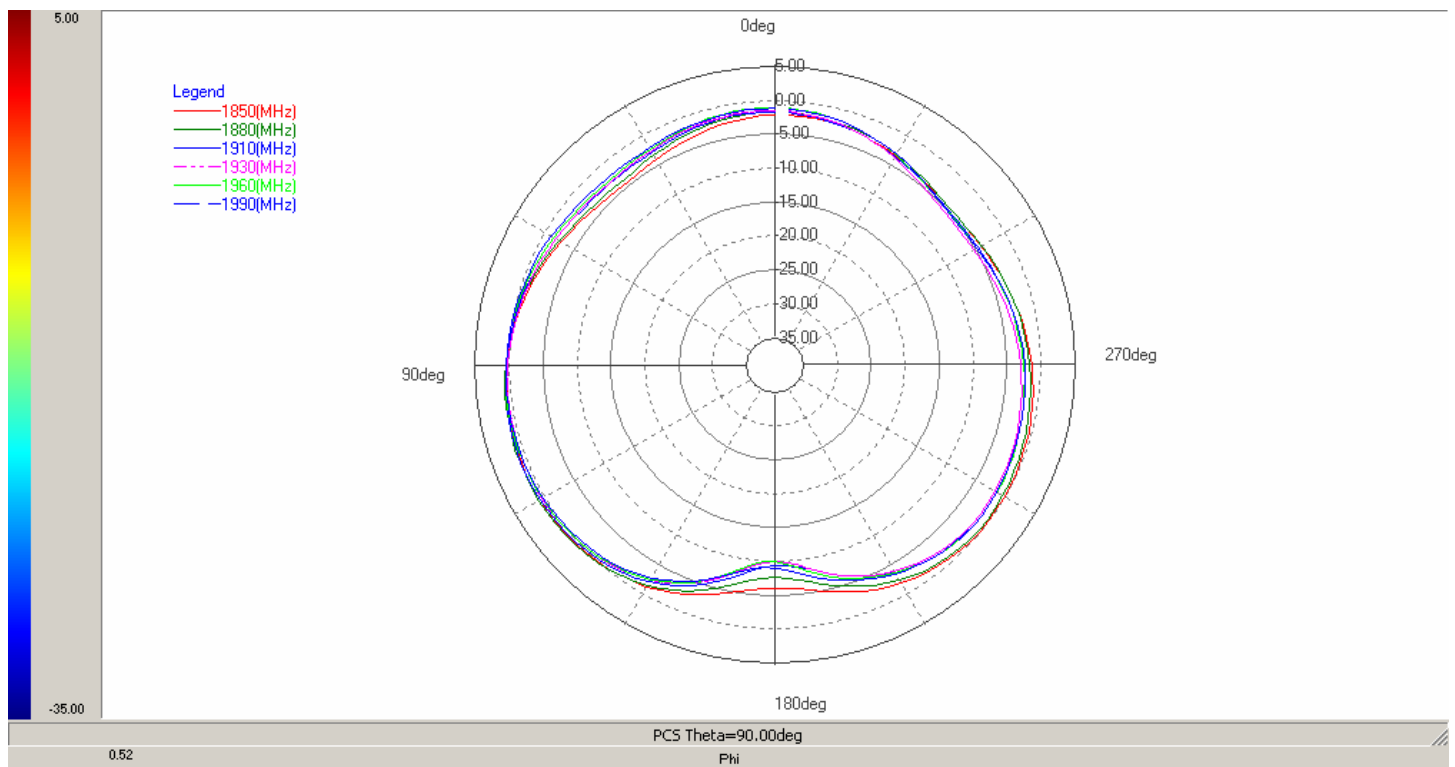
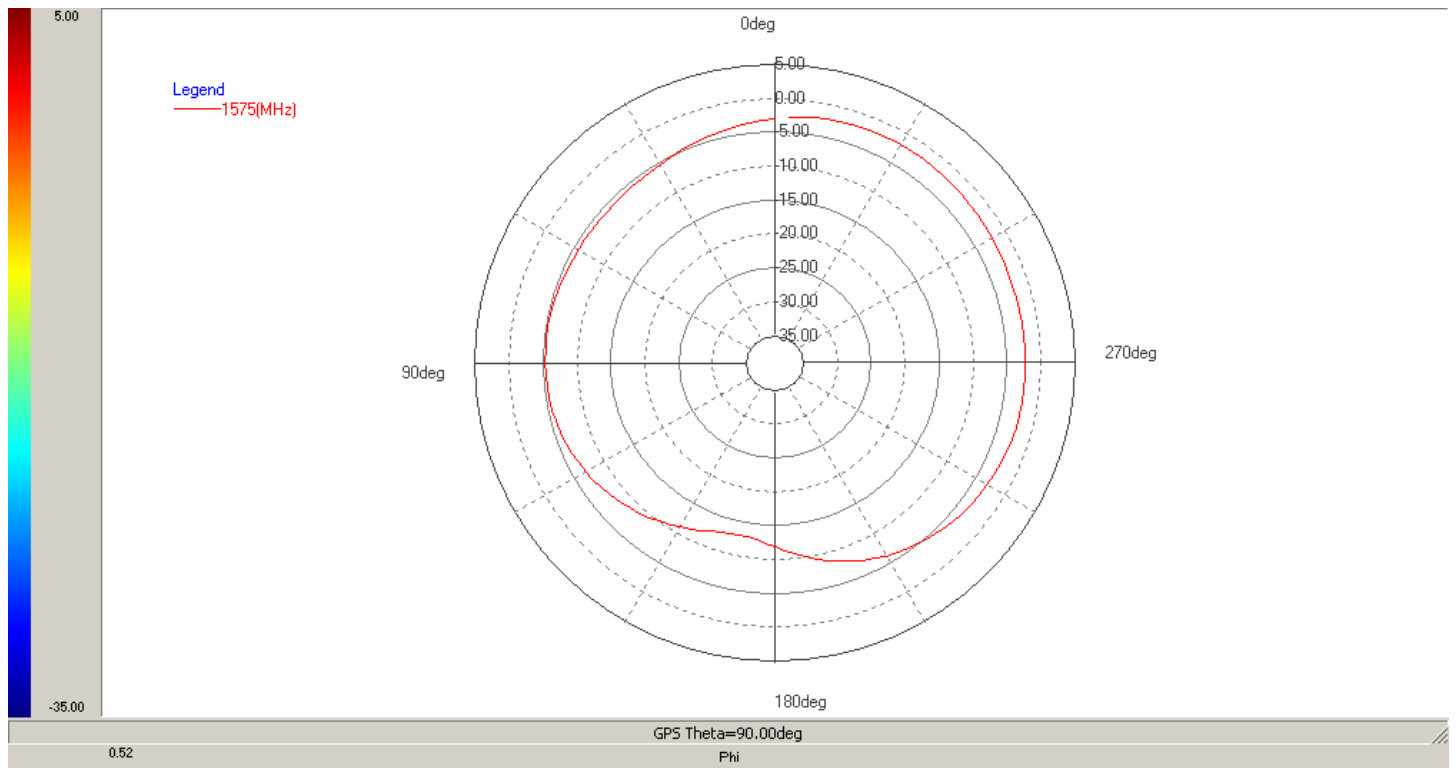




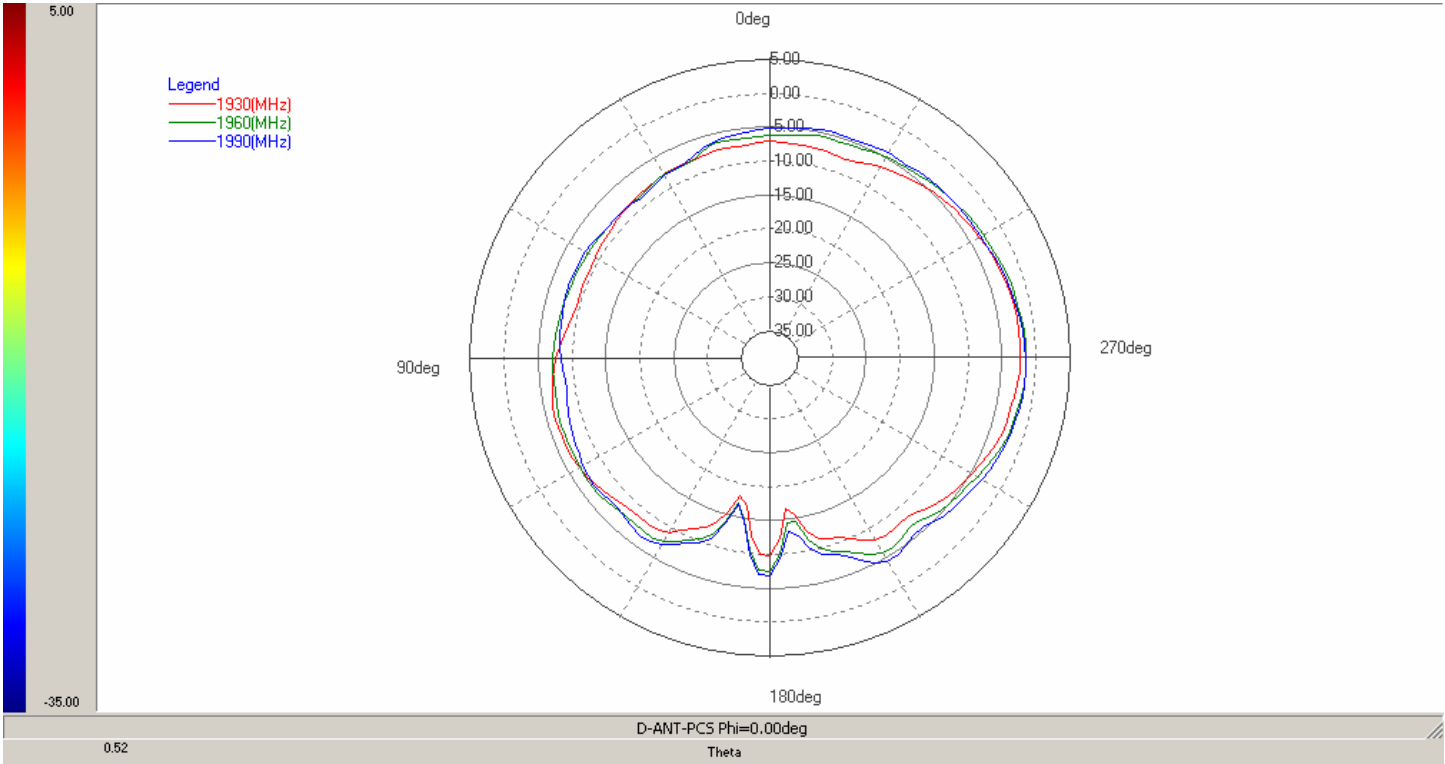
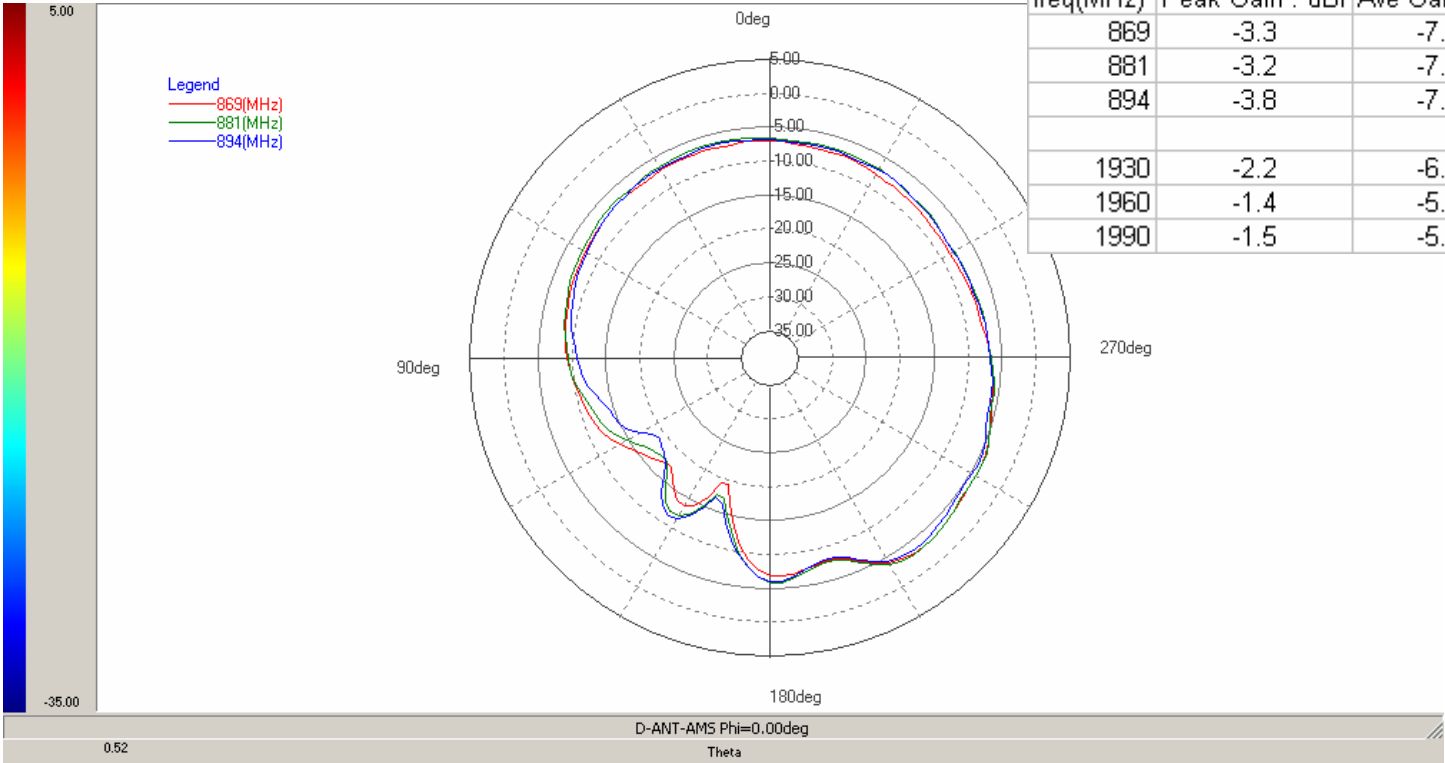
M-Antenna Gain Patterns, at Plane Theta=90deg, Free Space

Theta=90deg.		
freq(MHz)	Peak Gain . dBi	Ave Gain. dBi
824	-2.4	-4.0
836	-2.1	-3.6
849	-1.8	-3.7
869	-1.2	-3.7
881	-1.6	-4.4
894	-2.2	-5.1
1575	-2.1	-4.6
1850	0.9	-1.9
1880	1.1	-1.8
1910	0.9	-2.2
1930	0.6	-2.4
1960	0.7	-2.2
1990	0.6	-2.1

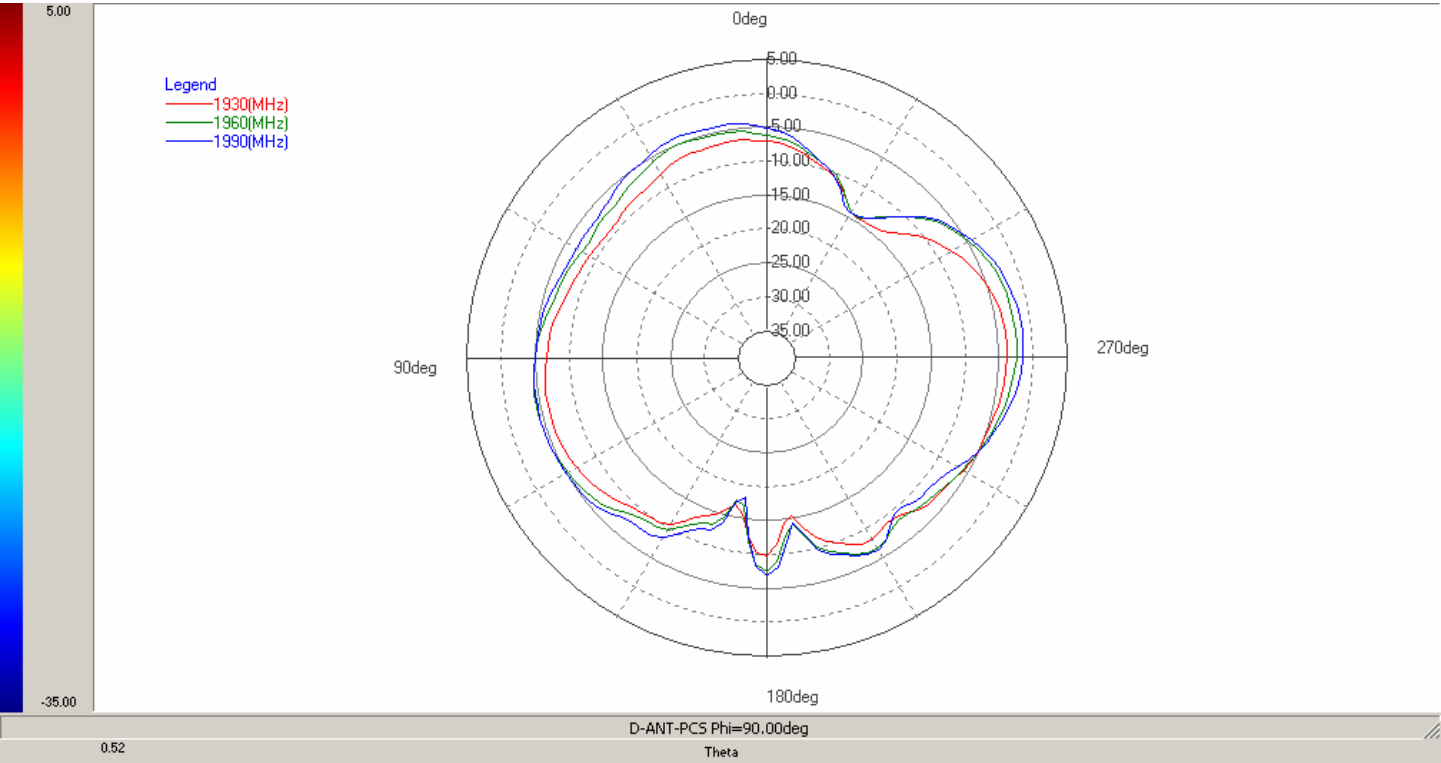
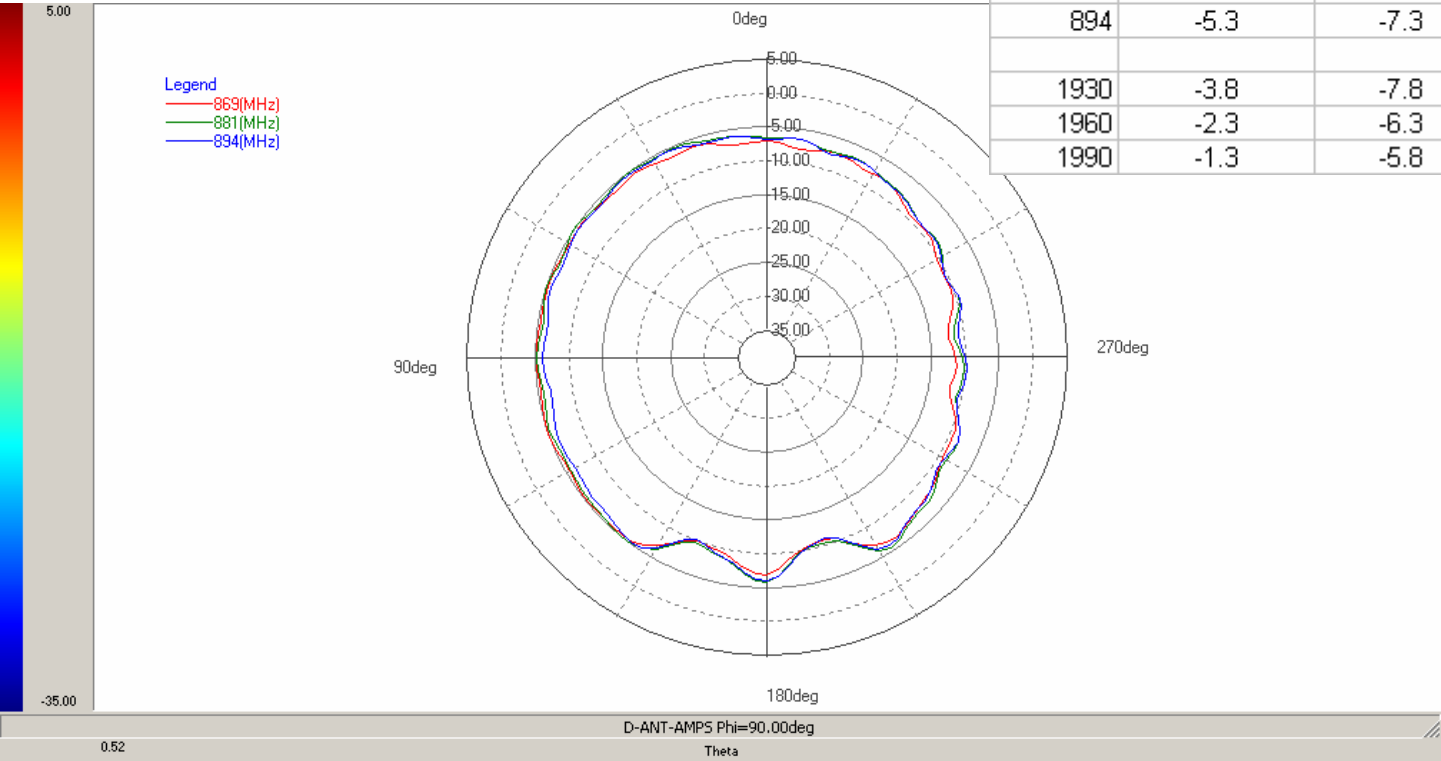




Diversity Antenna
Phi=0deg cut:



Phi=90deg cut:



Theta=90deg.		
freq(MHz)	Peak Gain . dBi	Ave Gain. dBi
869	-4.5	-7.4
881	-4.6	-7.3
894	-5.1	-7.9

Theta=90 cut

