

Specifications Sheet			Draft	Check	Approval
					
Object	Cabled Antenna		/	/	5/ 26
Customer			REV.	A	Page 1 of 37
Model Name	KBWI – COIU – 16L		Date		May 26, 2003
System	W – LAN		Written by		W.I.Kwak
Electrical Specifications					
		Frequency Range			
		2.39 ~ 2.49 (GHz)		4.9 ~ 5.9 (GHz)	
Band Width		100 (MHz)		1000 (MHz)	
V.S.W.R (Min)		1.9 : 1		1.9 : 1	
Gain (Max)		2 dBi		4 dBi	
Input Impedance		50 (Ω)			
Polarization		Linear			
Mechanical Specifications					
Antenna Size		47 × 8 × 1 mm			
Cable Length		280 mm			
Cable Diameter		1.13 mm			
Connector		Hirose (U.FL-LP-5016-A-(L))			
Weight		2 (g)			
Radiator Material		Copper			
Operation Temperature		-30 ~ 90 (°C)			
Operation Humidity		10 ~ 90 (%)			
Remarks	This antenna was measured in free-space (without installation to any housing)				
Revision	A	June 27, 2003	Correction of horn antenna polarization definition in the radiation patterns.		

Fig 1. Antenna Position

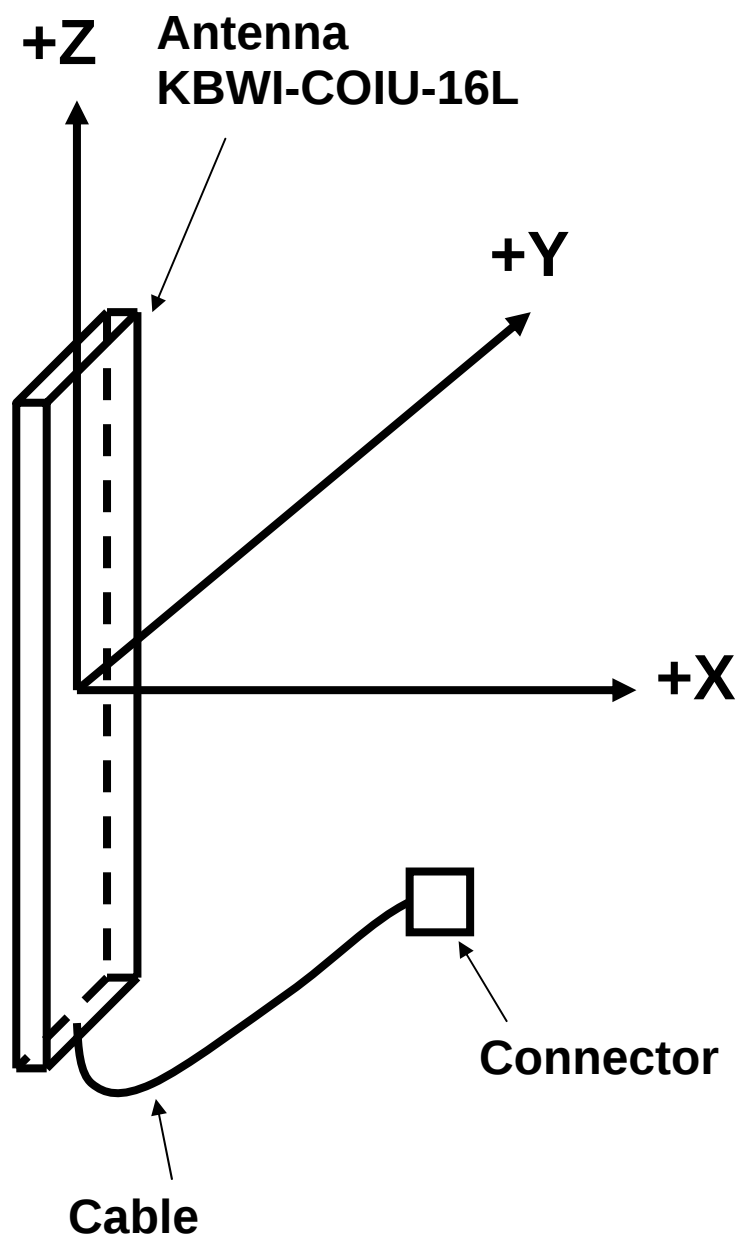
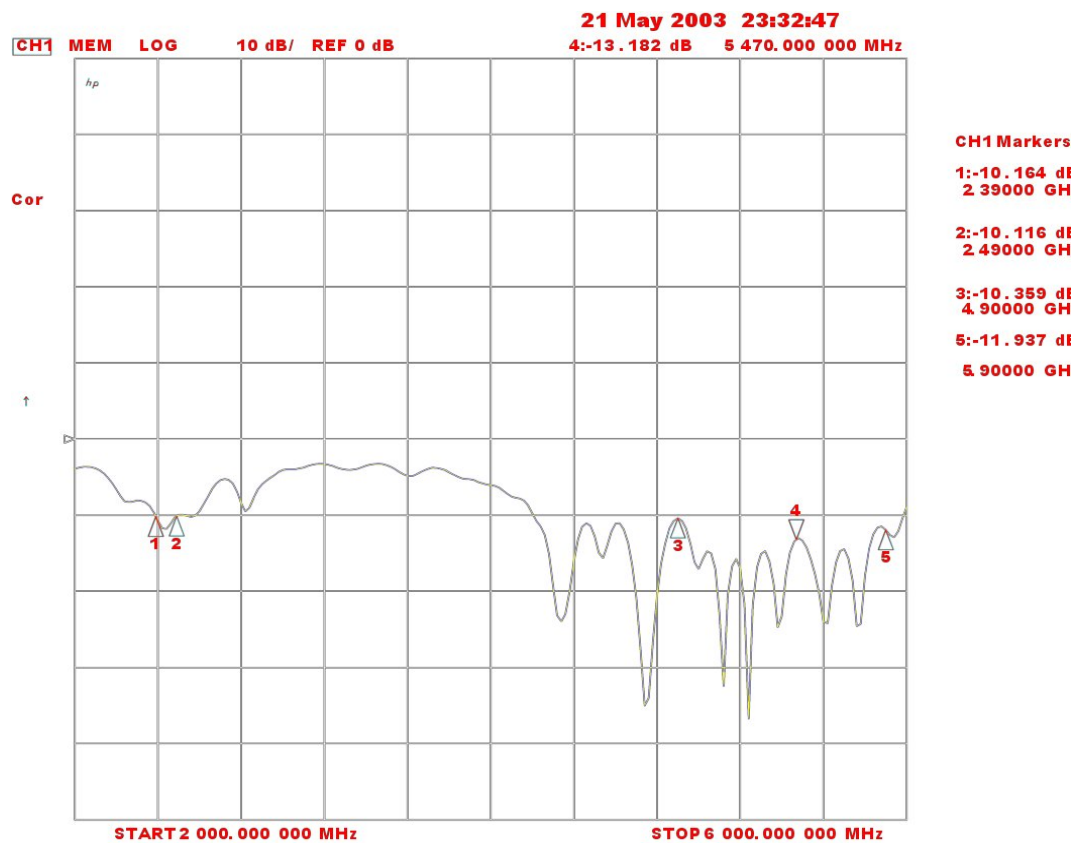
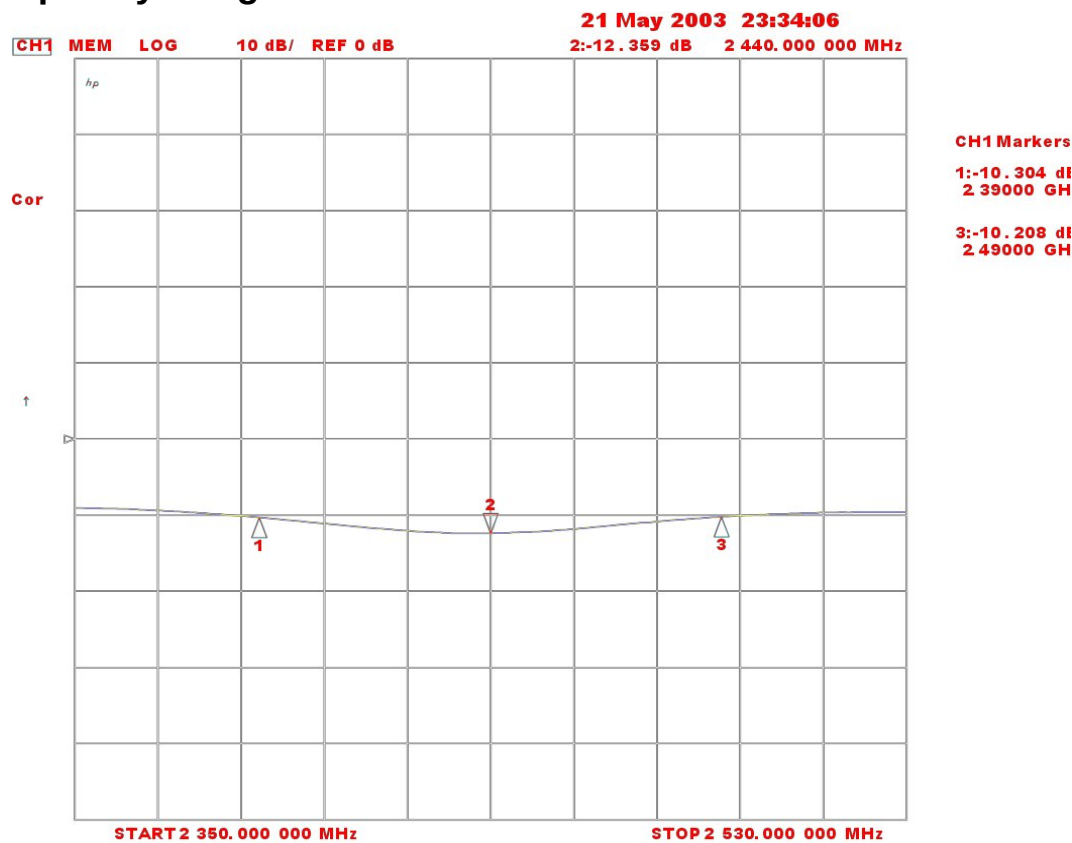


Fig 2. RETURN LOSS

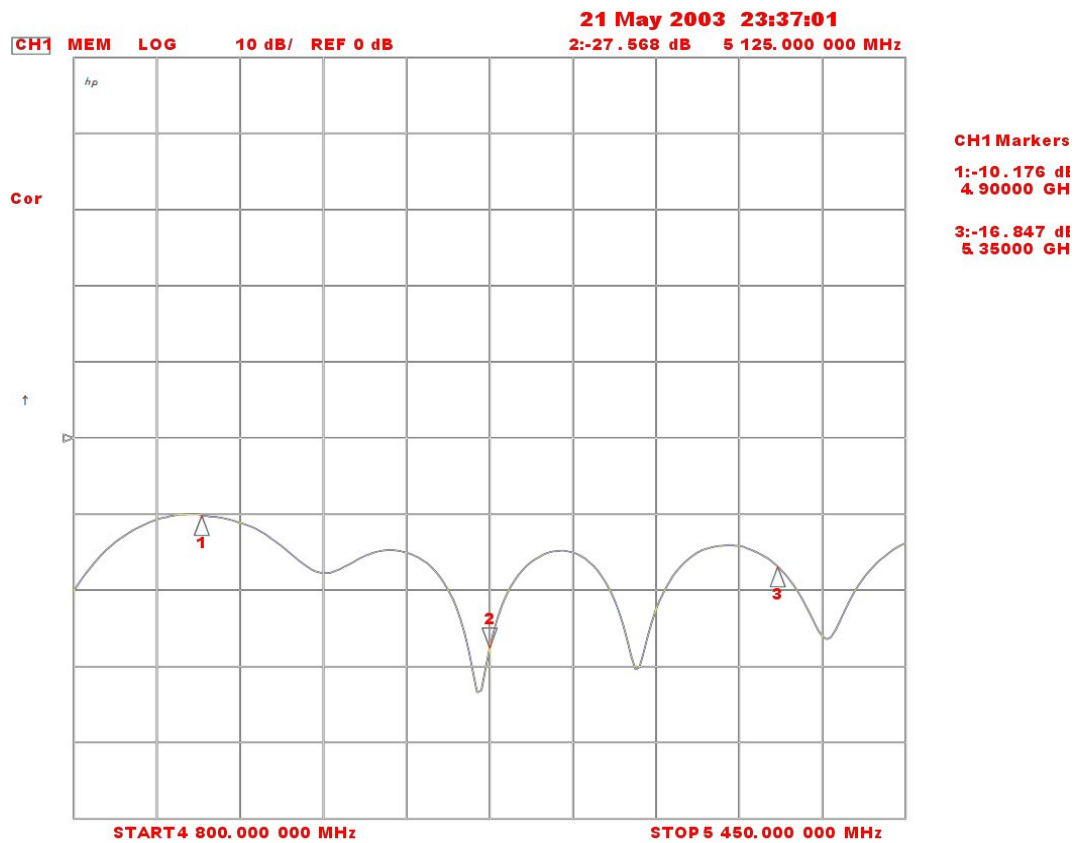
A. Frequency Range 2.39 ~ 2.49 GHz, 4.9 ~ 5.35 GHz, 5.47 ~ 5.9 GHz



B. Frequency Range 2.39 GHz ~ 2.49 GHz



C. Frequency Range 4.9 GHz ~ 5.35 GHz



D. Frequency Range 5.47 GHz ~ 5.9 GHz

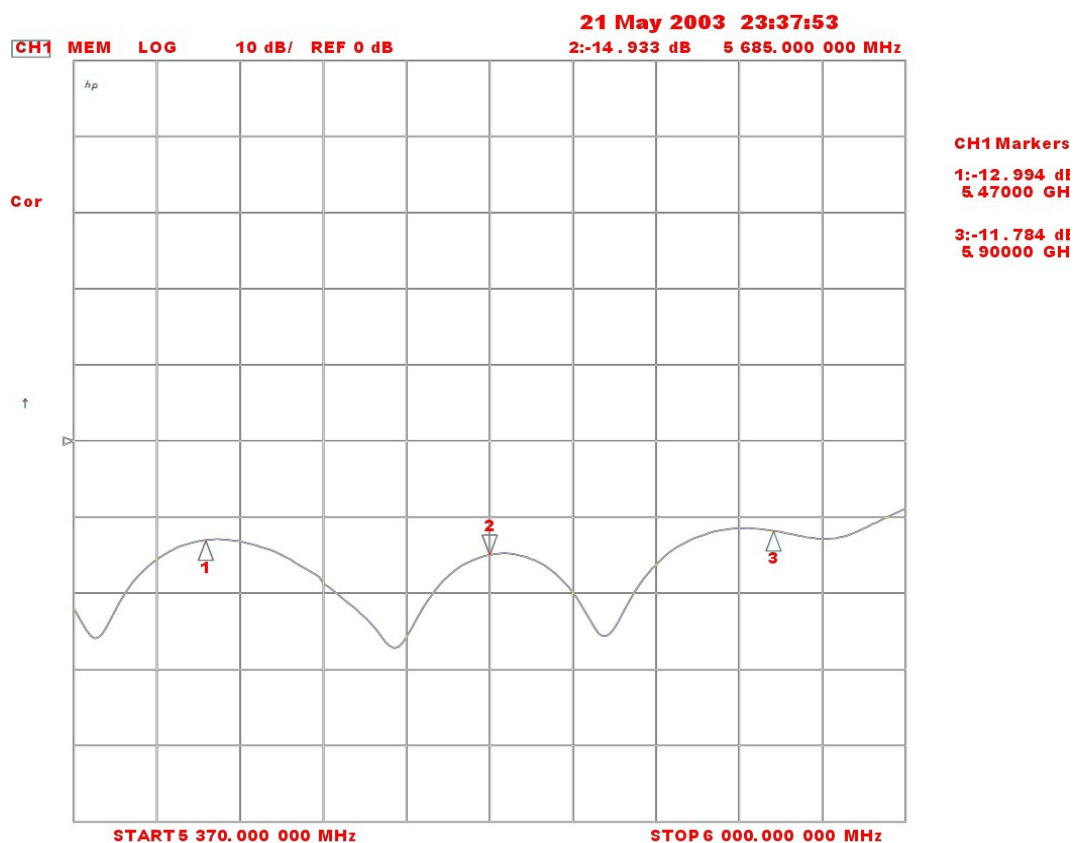
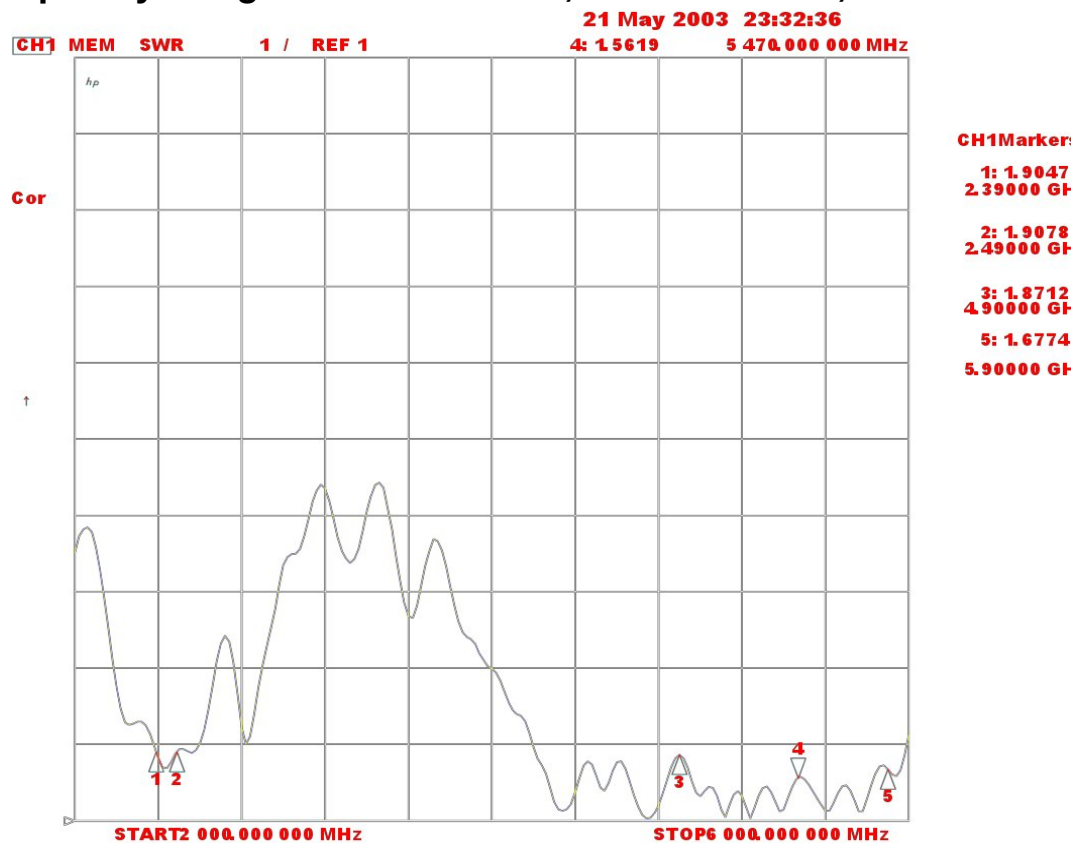
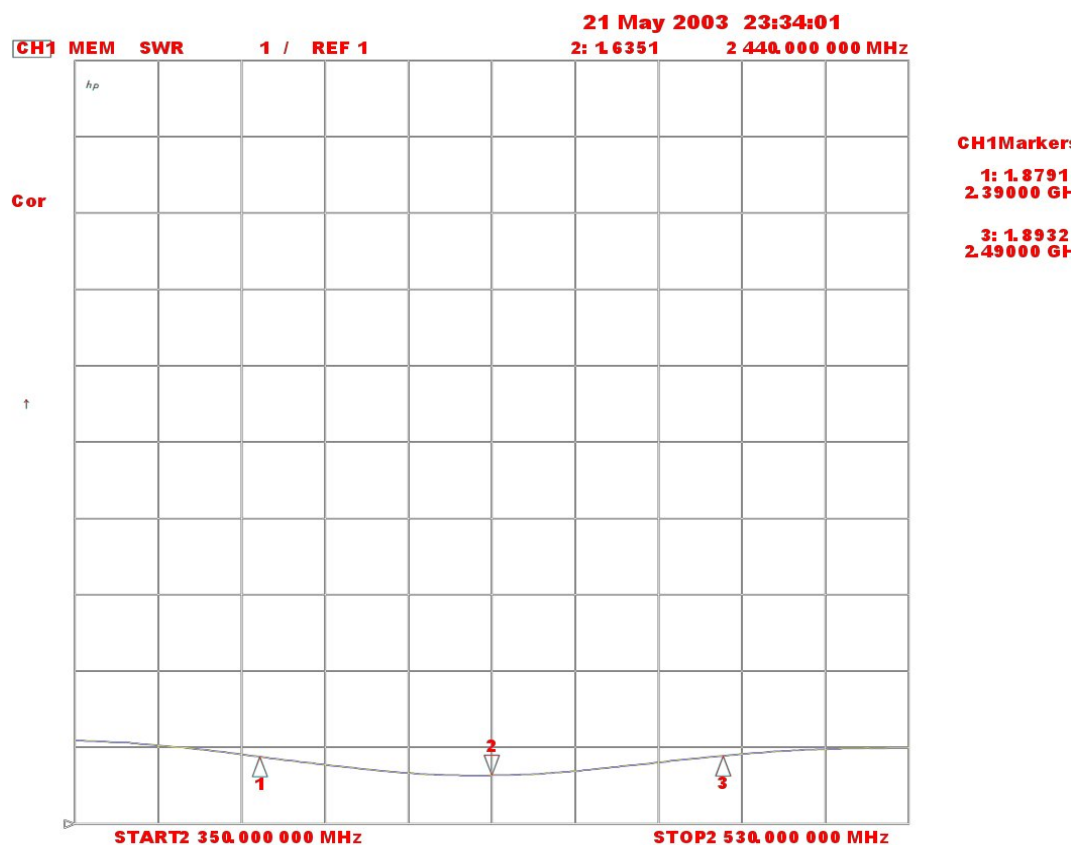


Fig 3. VSWR

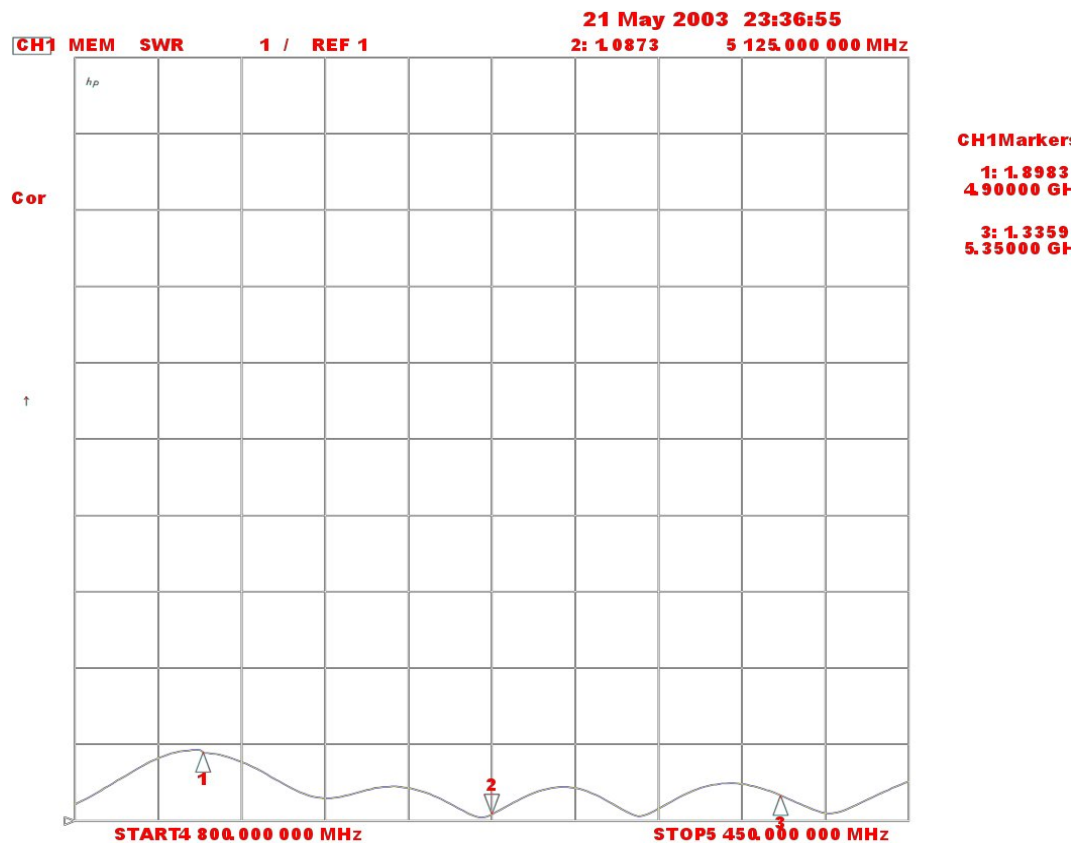
A. Frequency Range 2.39 ~ 2.49 GHz, 4.9 ~ 5.35 GHz, 5.47 ~ 5.9 GHz



B. Frequency Range 2.39 GHz ~ 2.49 GHz



C. Frequency Range 4.9 GHz ~ 5.35 GHz



D. Frequency Range 5.47 GHz ~ 5.9 GHz

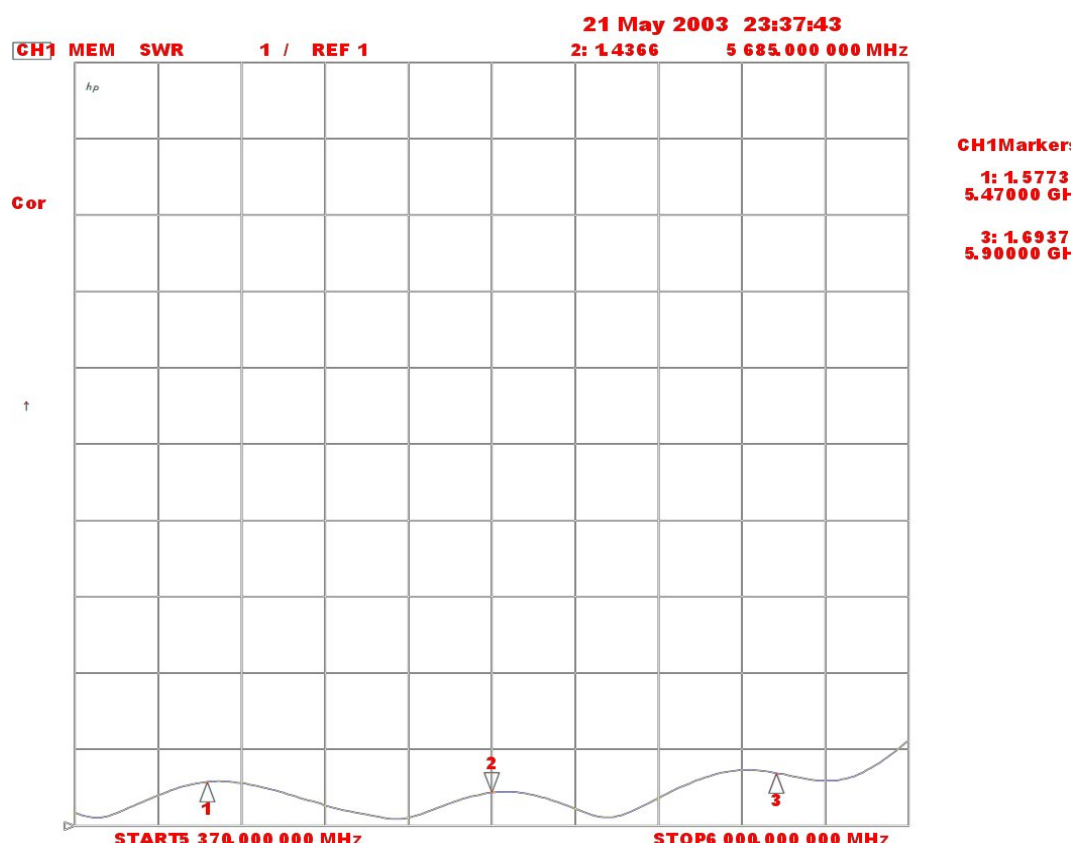
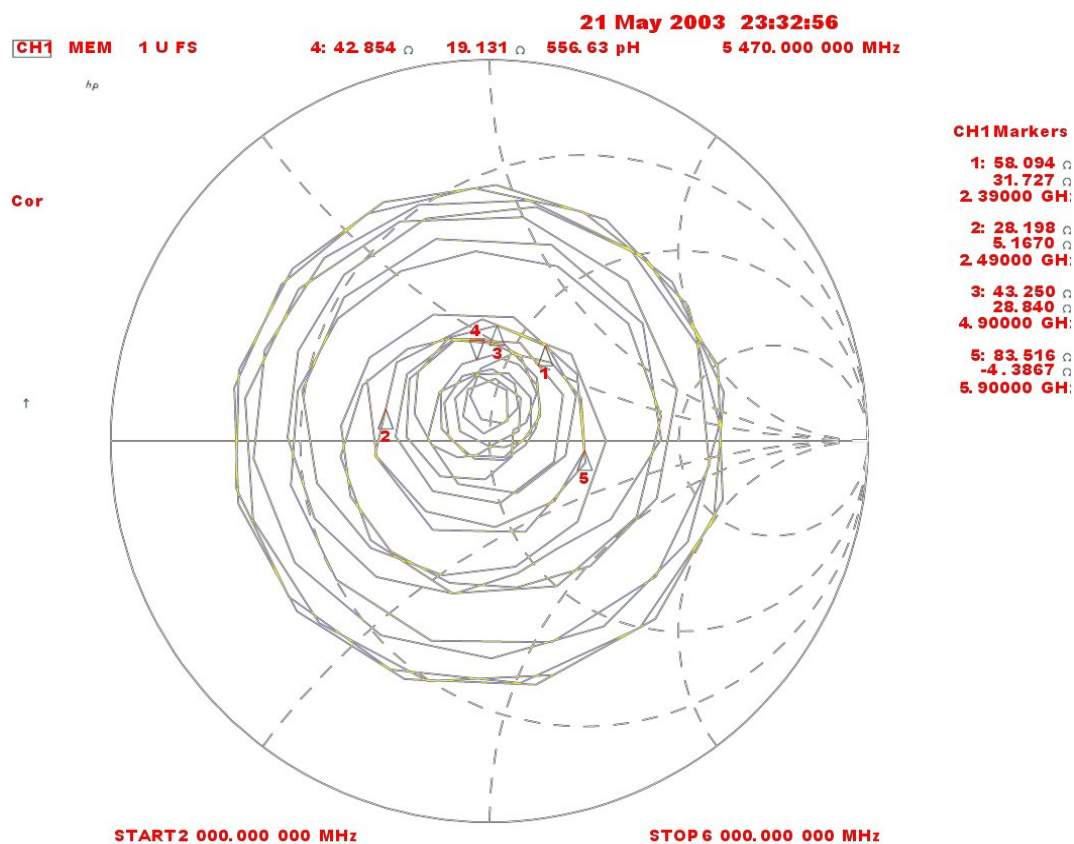
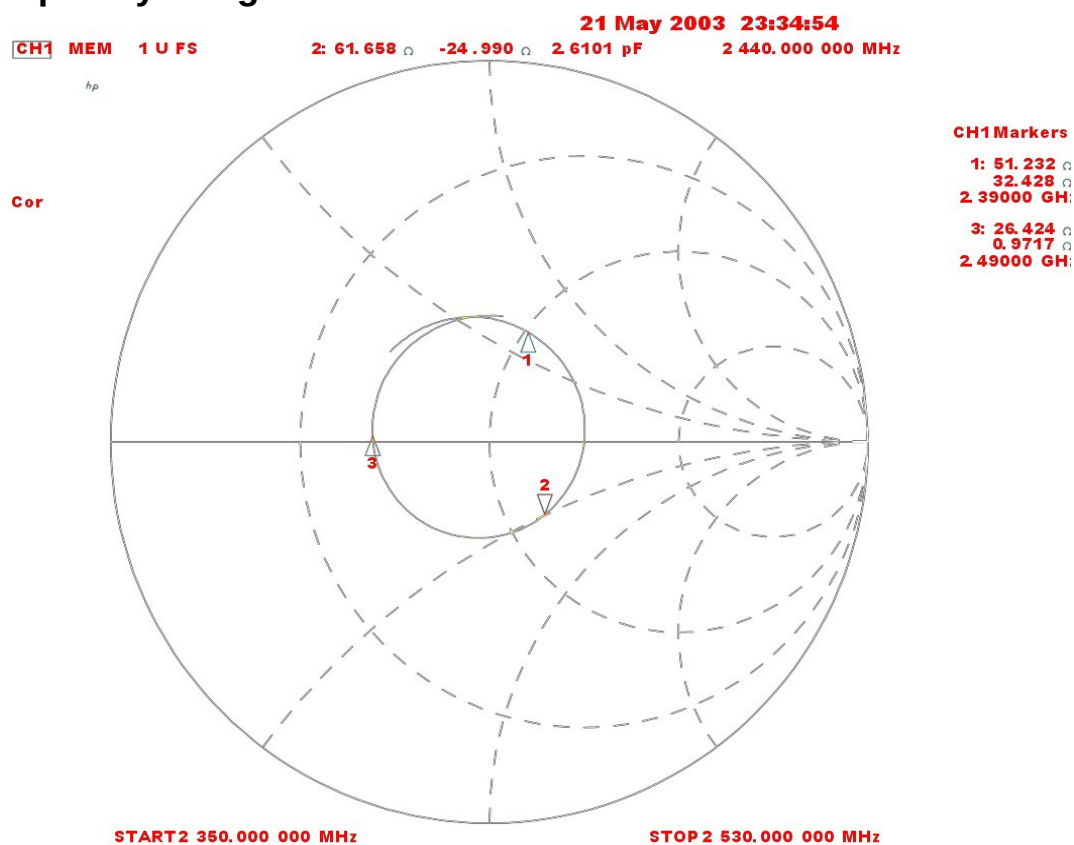


Fig 4. SMITH CHART

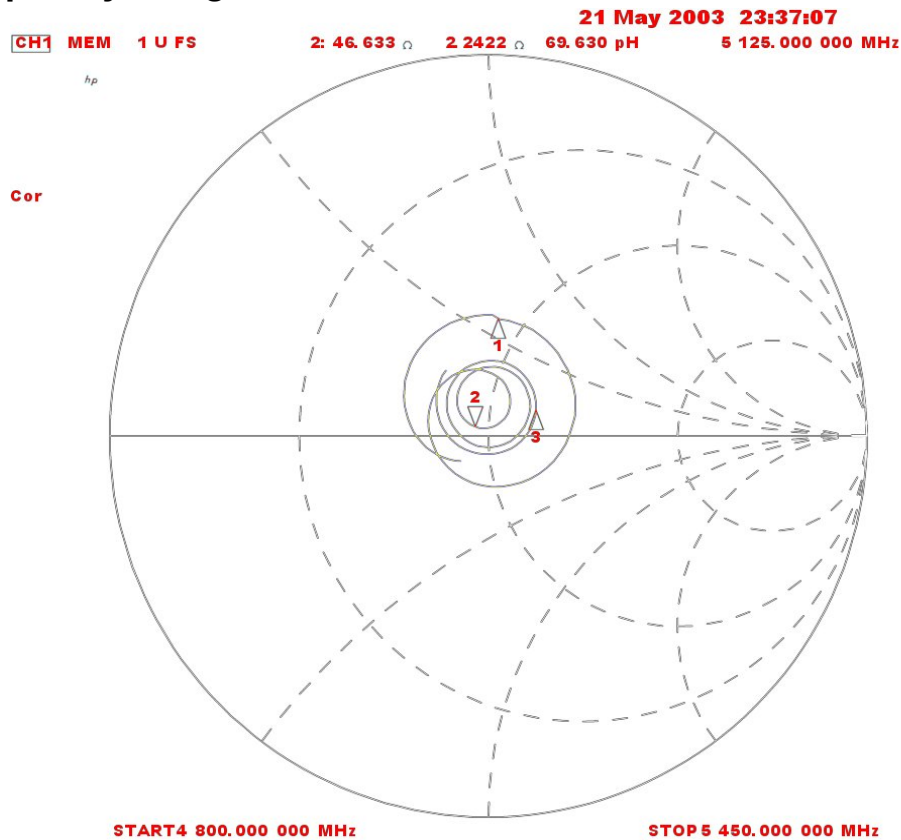
A. Frequency Range 2.39 ~ 2.49 GHz, 4.9 ~ 5.35 GHz, 5.47 ~ 5.9 GHz



B. Frequency Range 2.39 GHz ~ 2.49 GHz



C. Frequency Range 4.9 GHz ~ 5.35 GHz



D. Frequency Range 5.47 GHz ~ 5.9 GHz

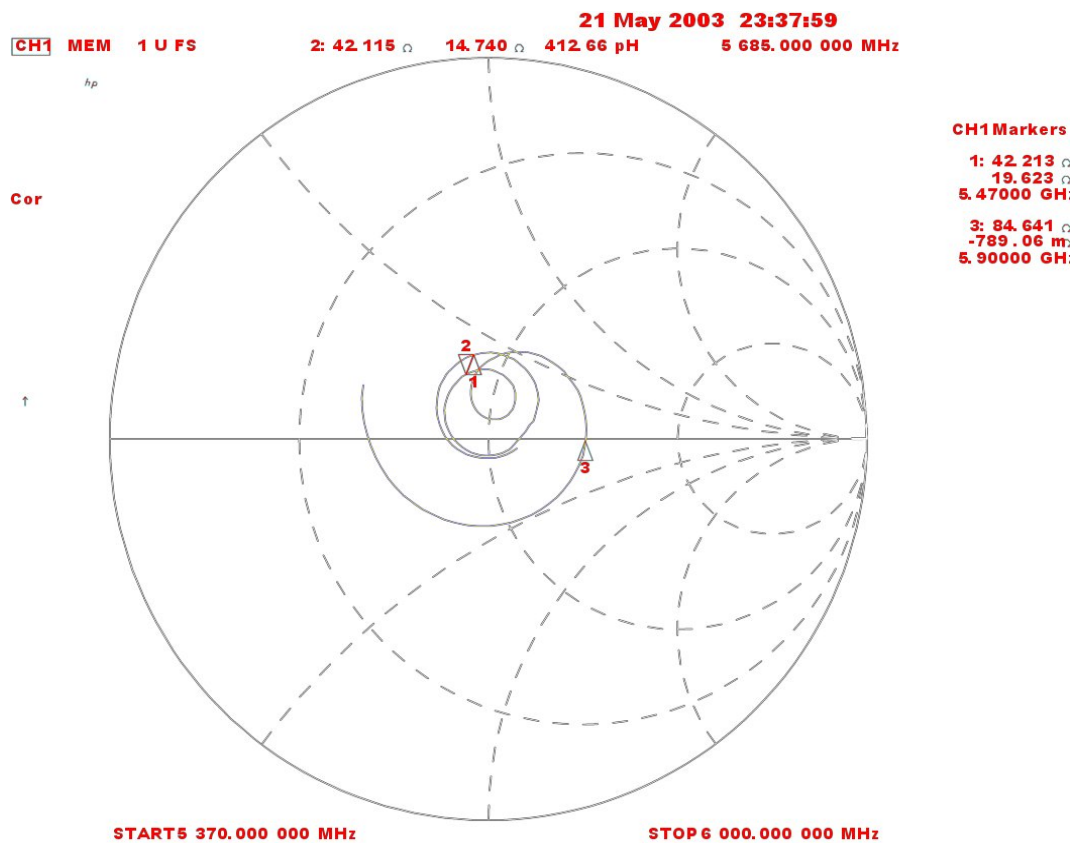
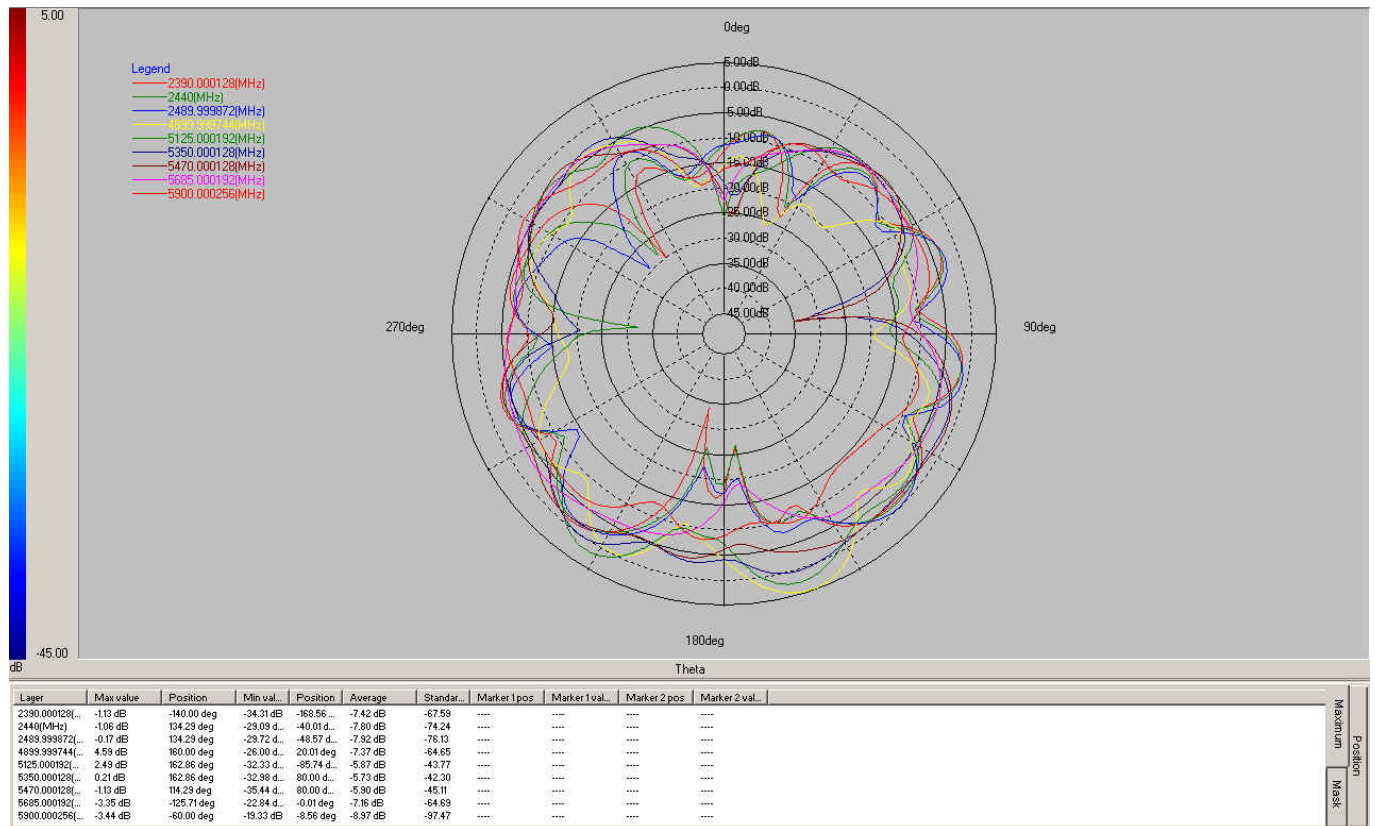


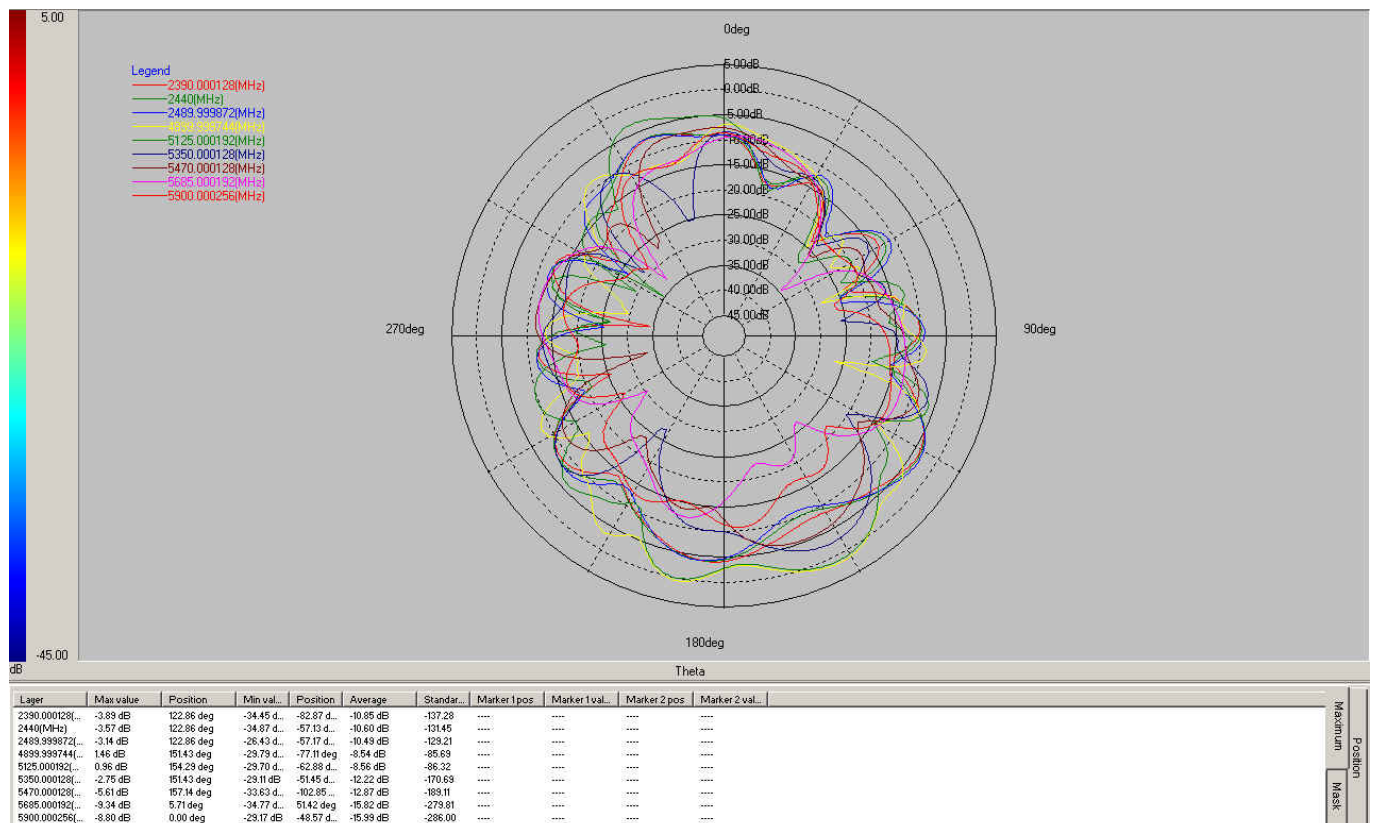
Fig 5. RADIATION PATTERN

A. Frequency Range 2.39 ~ 2.49 GHz, 4.9 ~ 5.35 GHz, 5.47 ~ 5.9 GHz

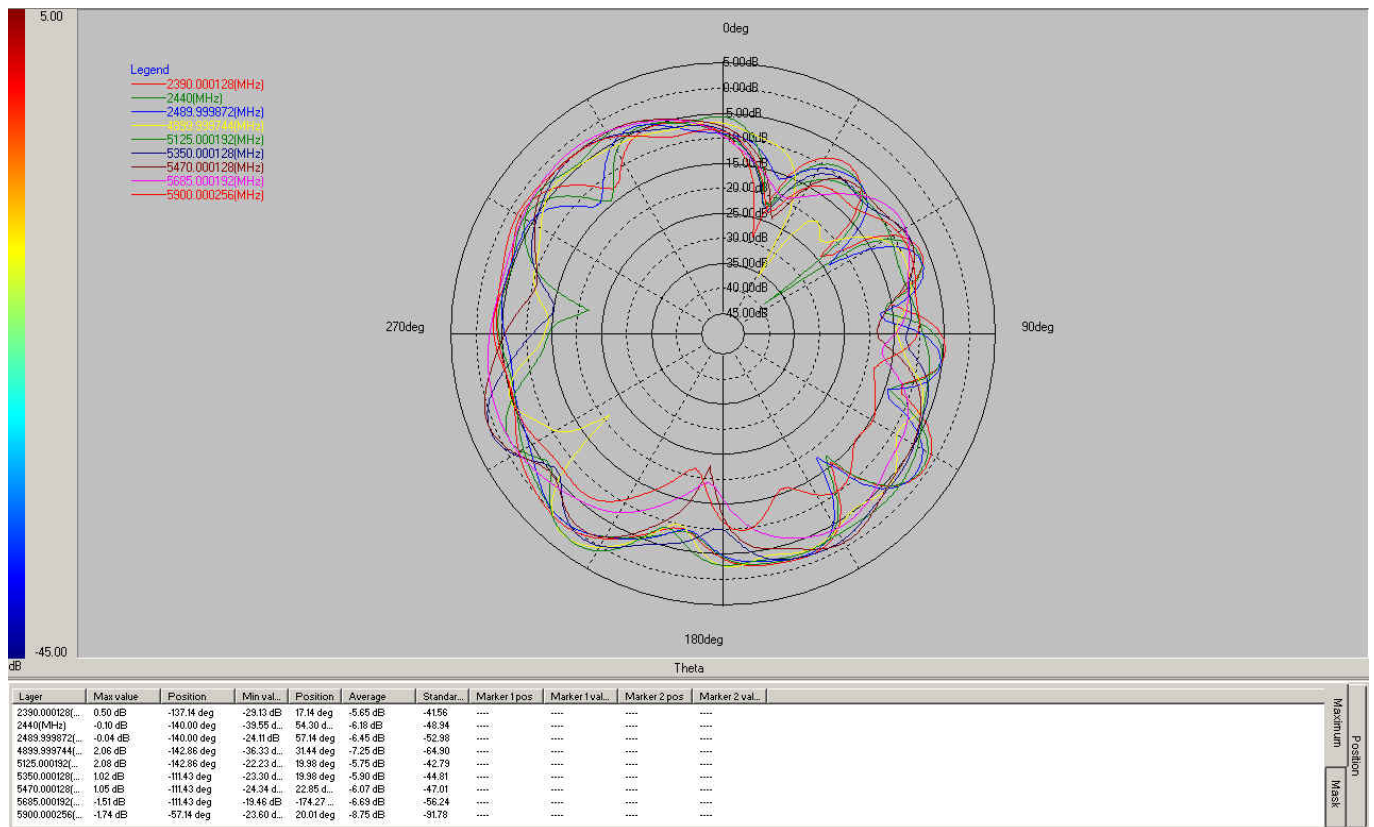
EL1 (PHI = 0 ; XZ-PLANE) ; (Horn Ant Polarization = Horizontal)



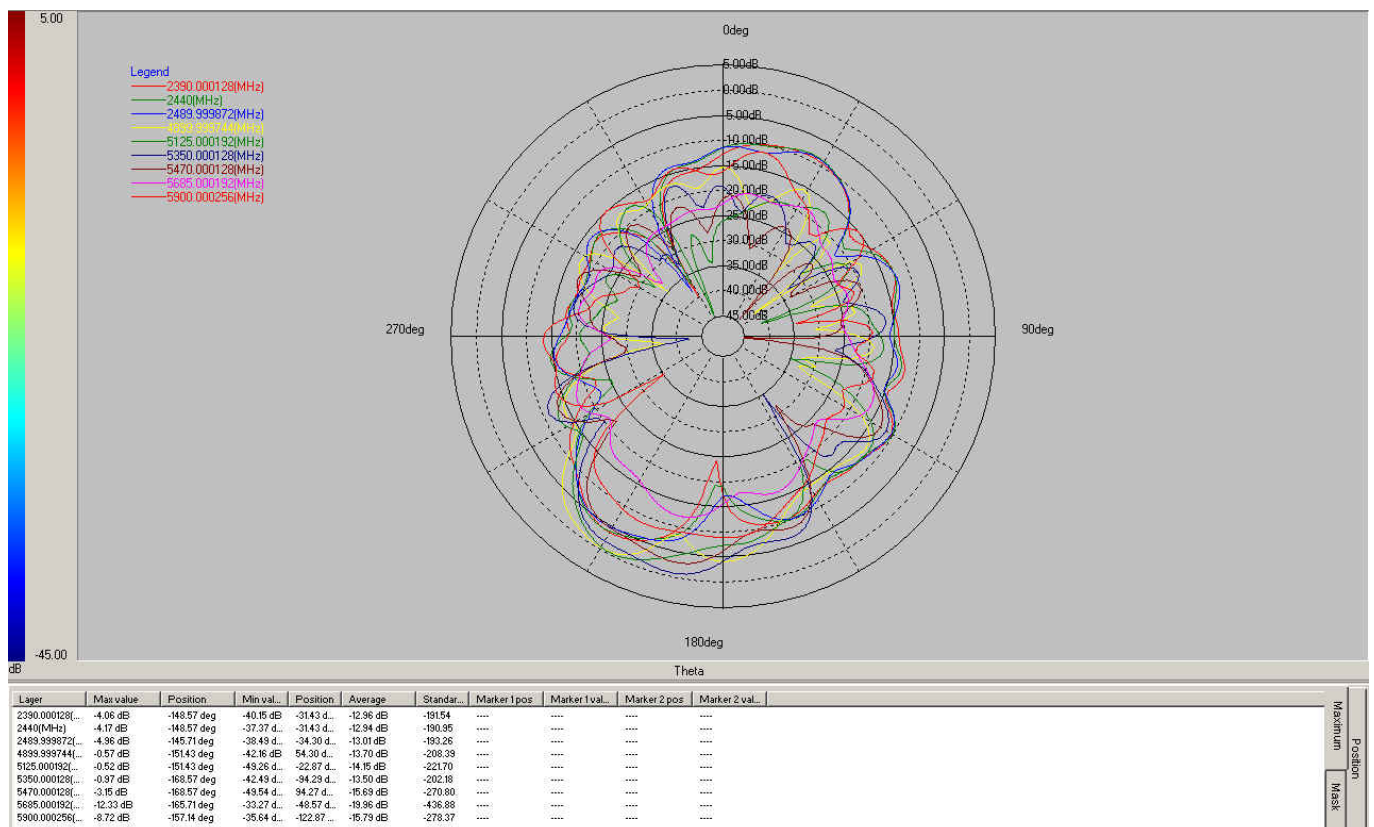
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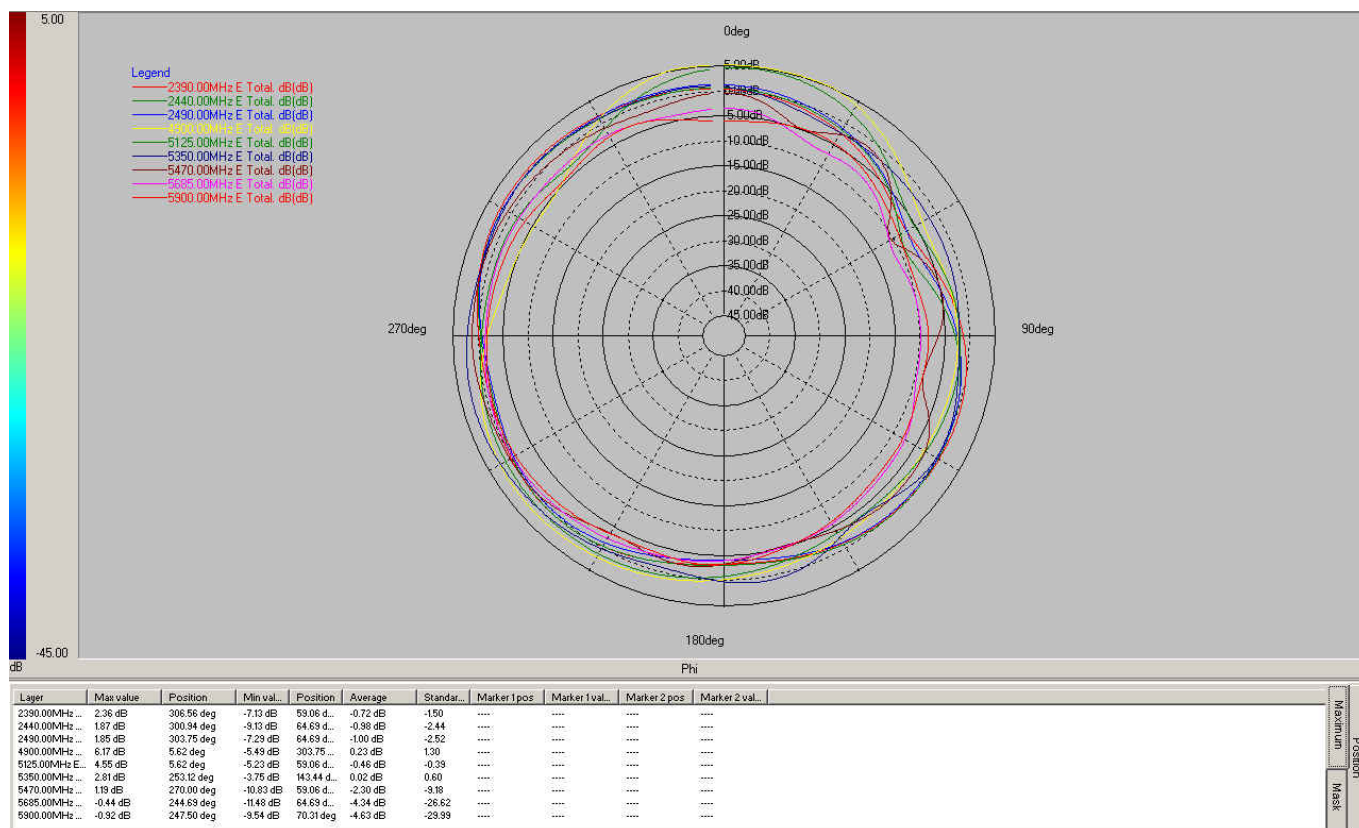
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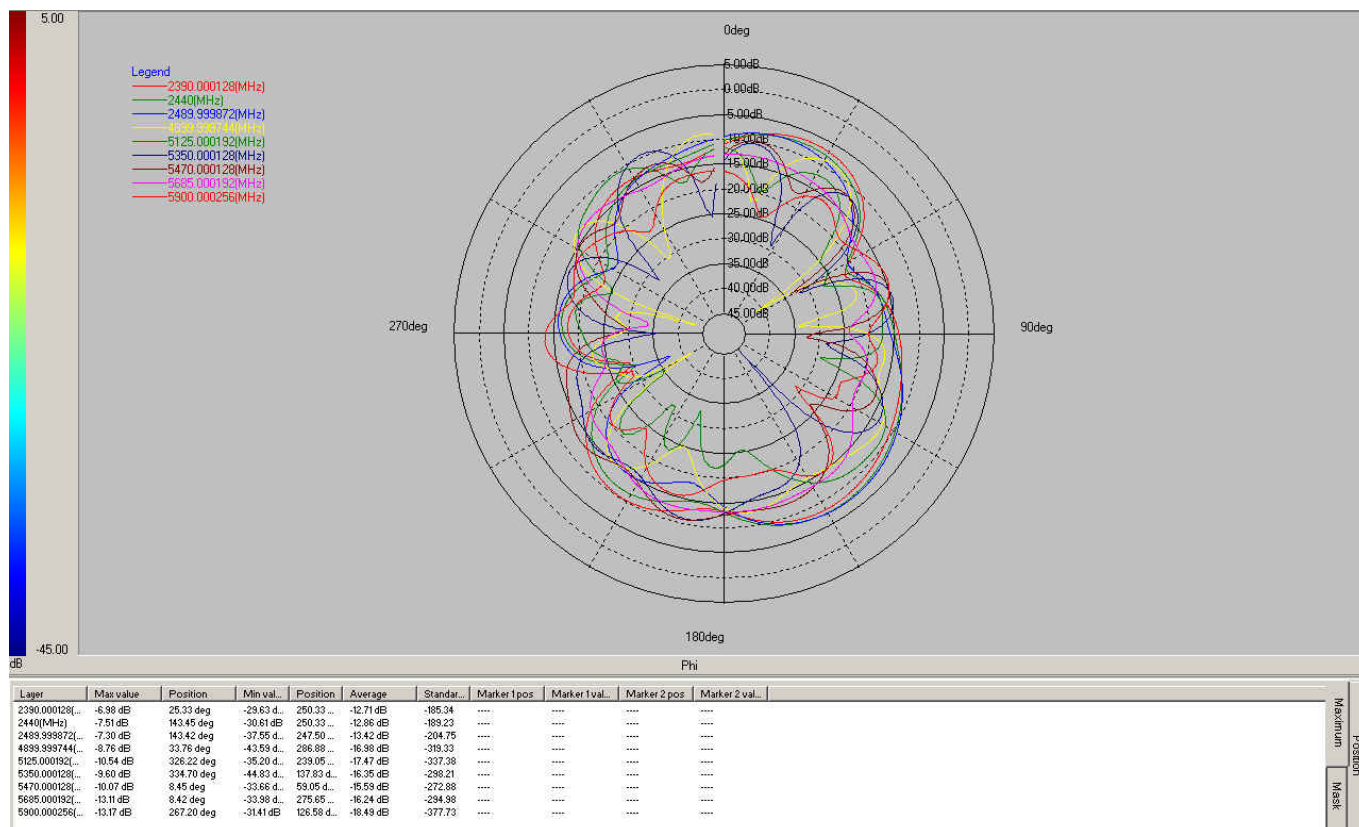
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AZ (THETA=90 ; XY-PLANE) ; (Horn Ant Polarization = Vertical)

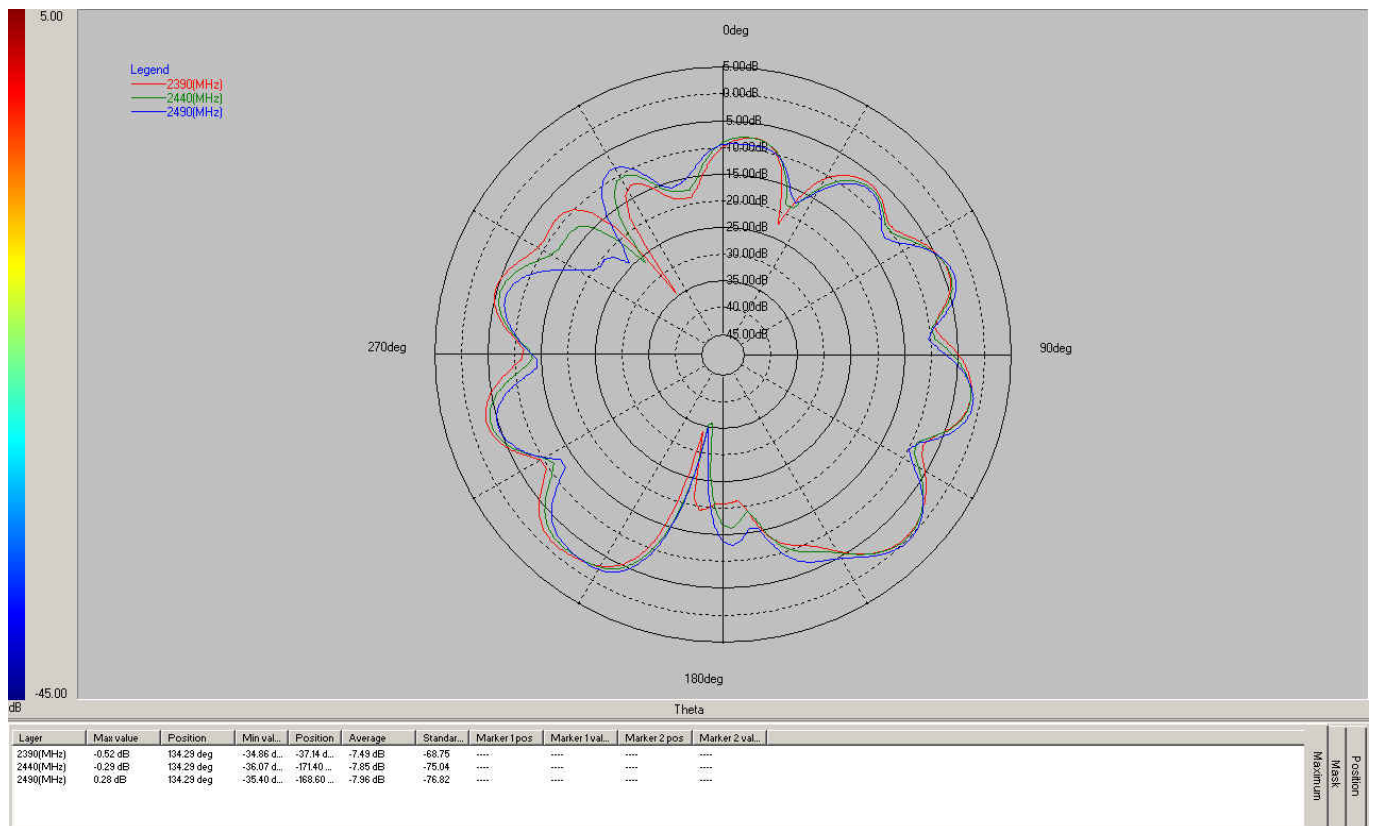


AZ (THETA=90 ; XY-PLANE) ; (Horn Ant Polarization = Horizontal)

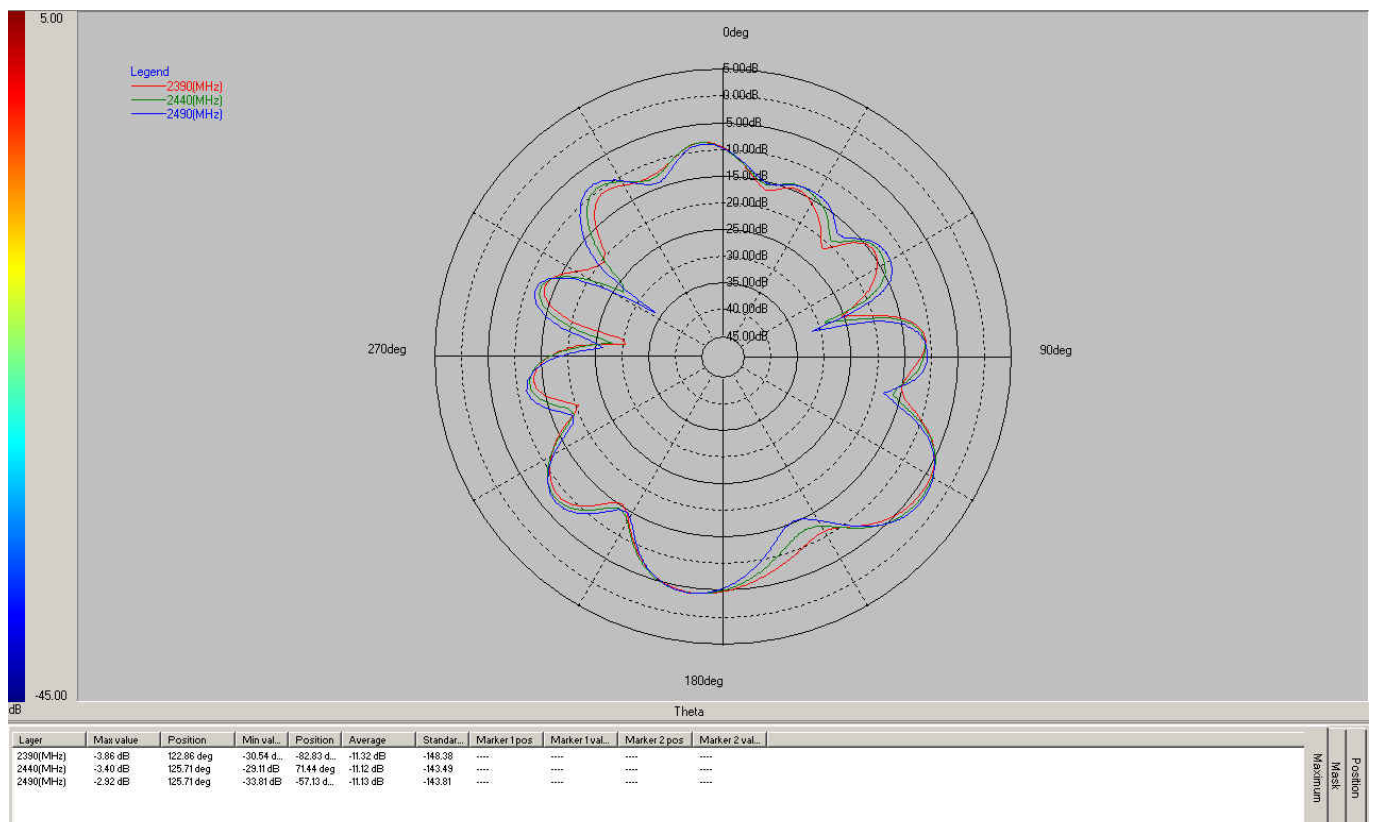


B. Frequency Range 2.39 GHz ~ 2.49 GHz

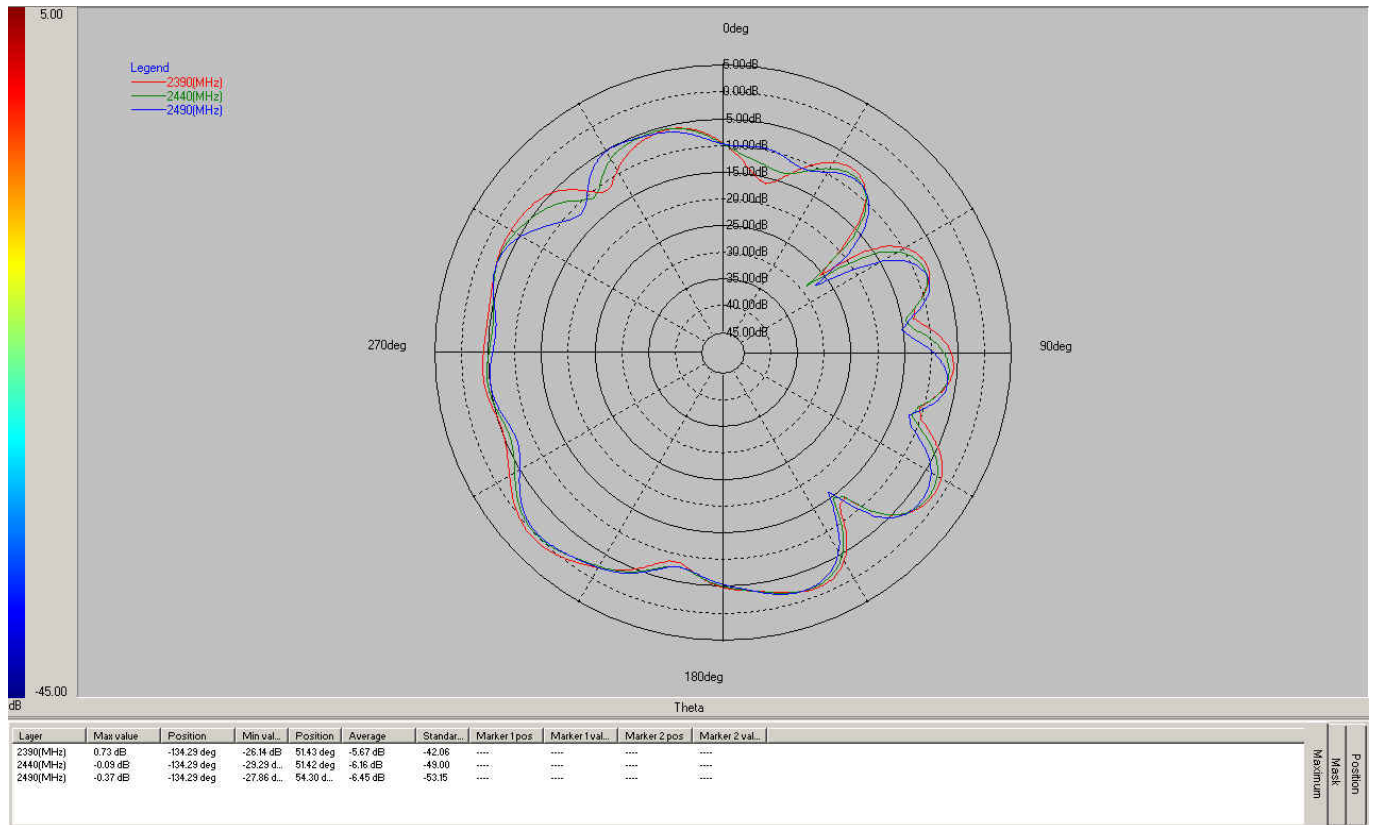
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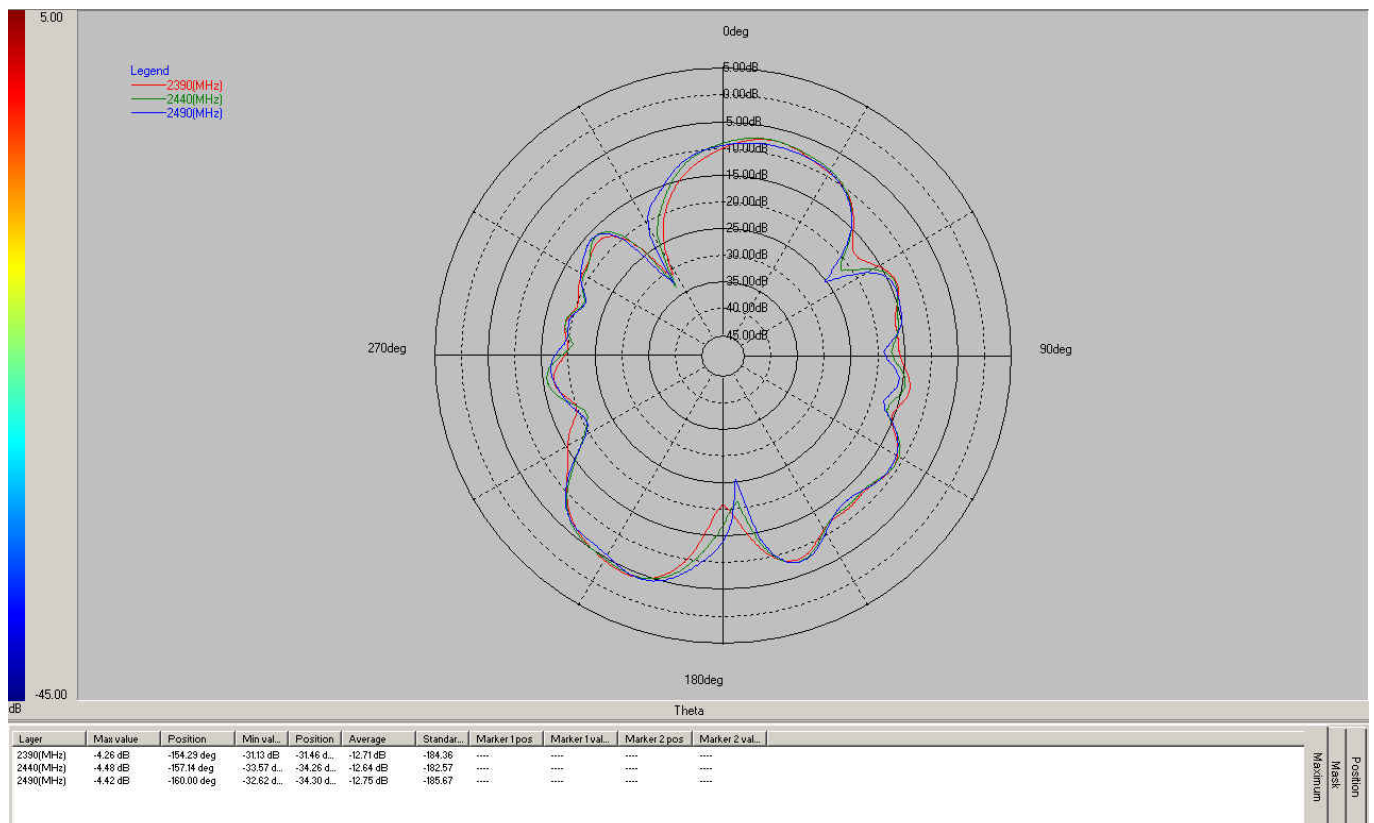
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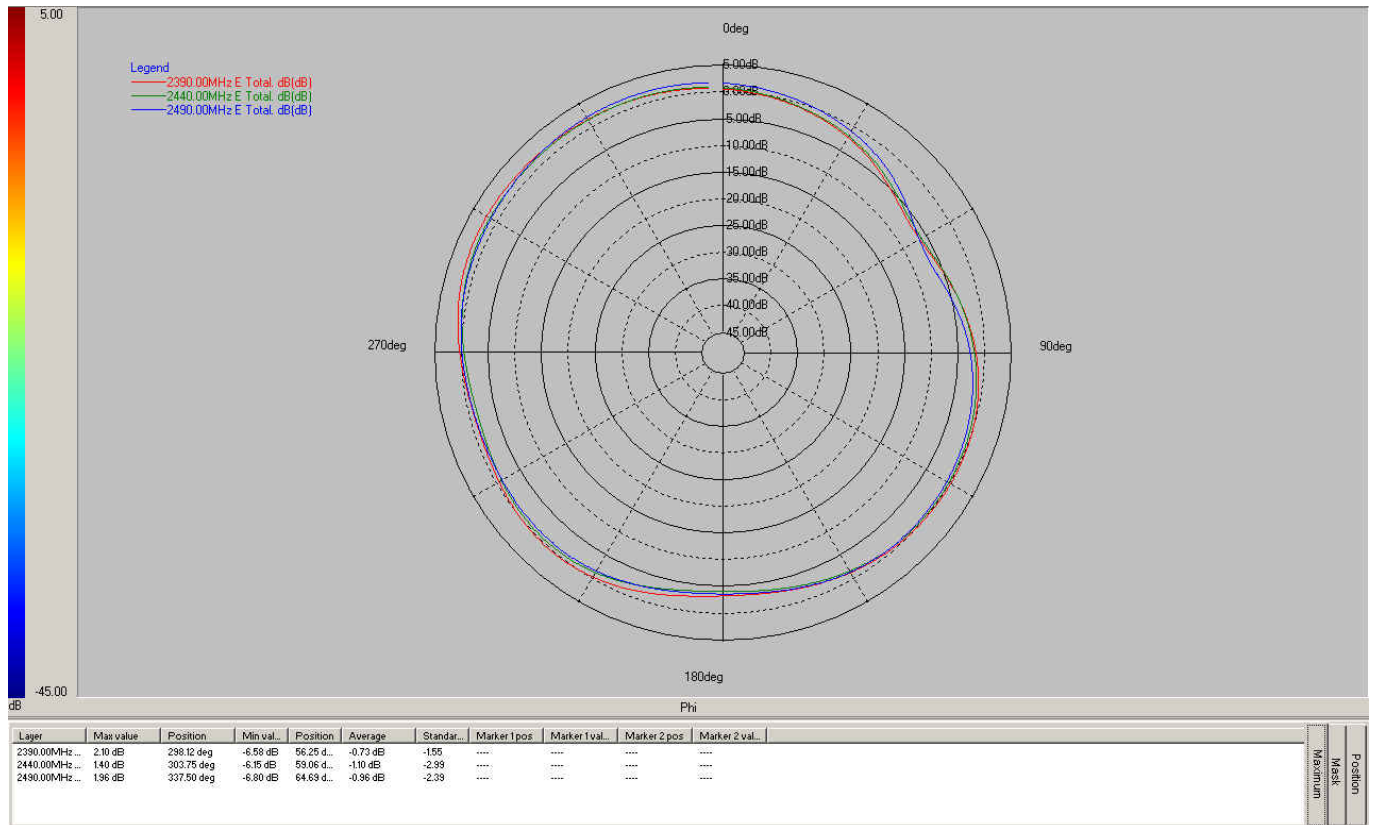
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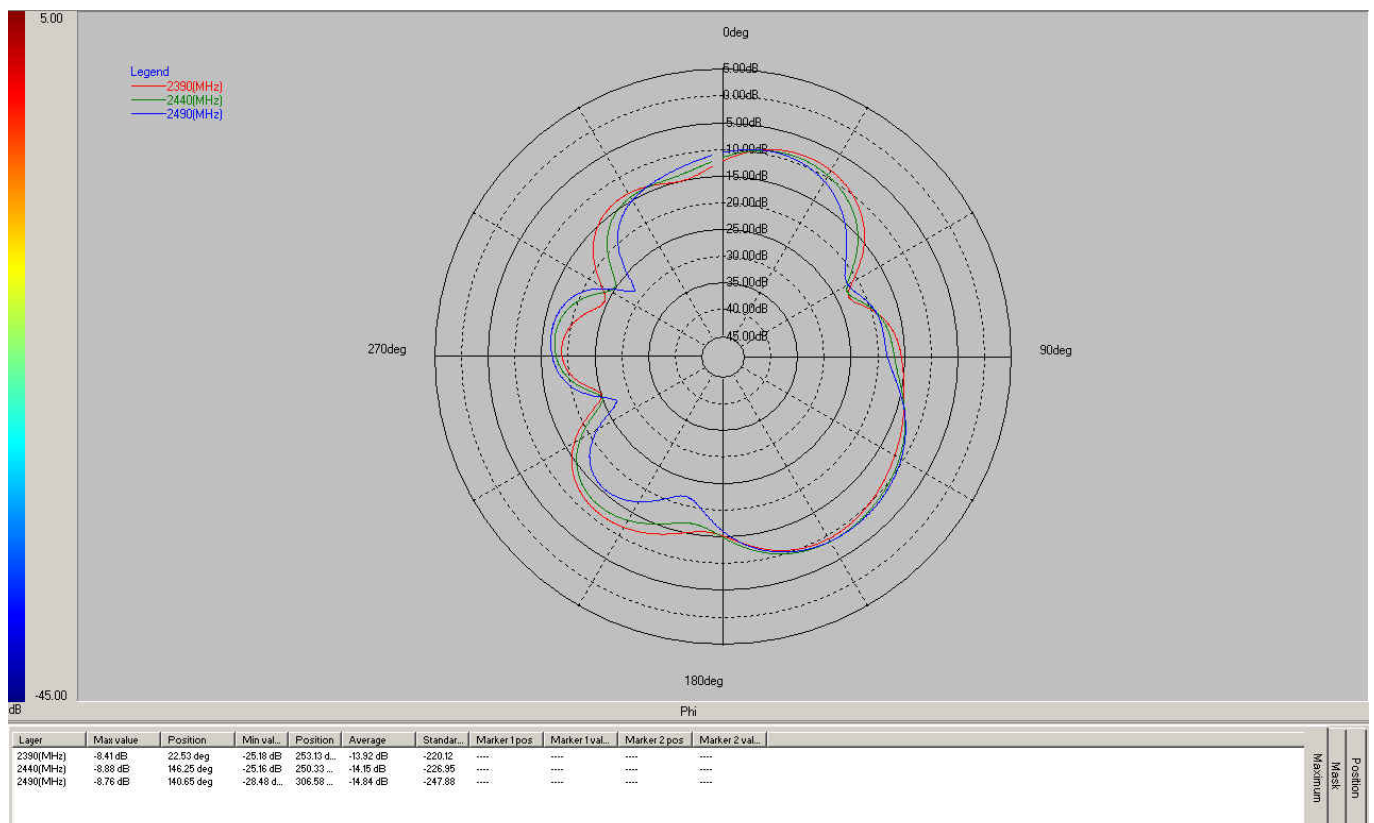
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AZ (THETA=90 ; XY-PLANE) ; (Horn Ant Polarization = Vertical)

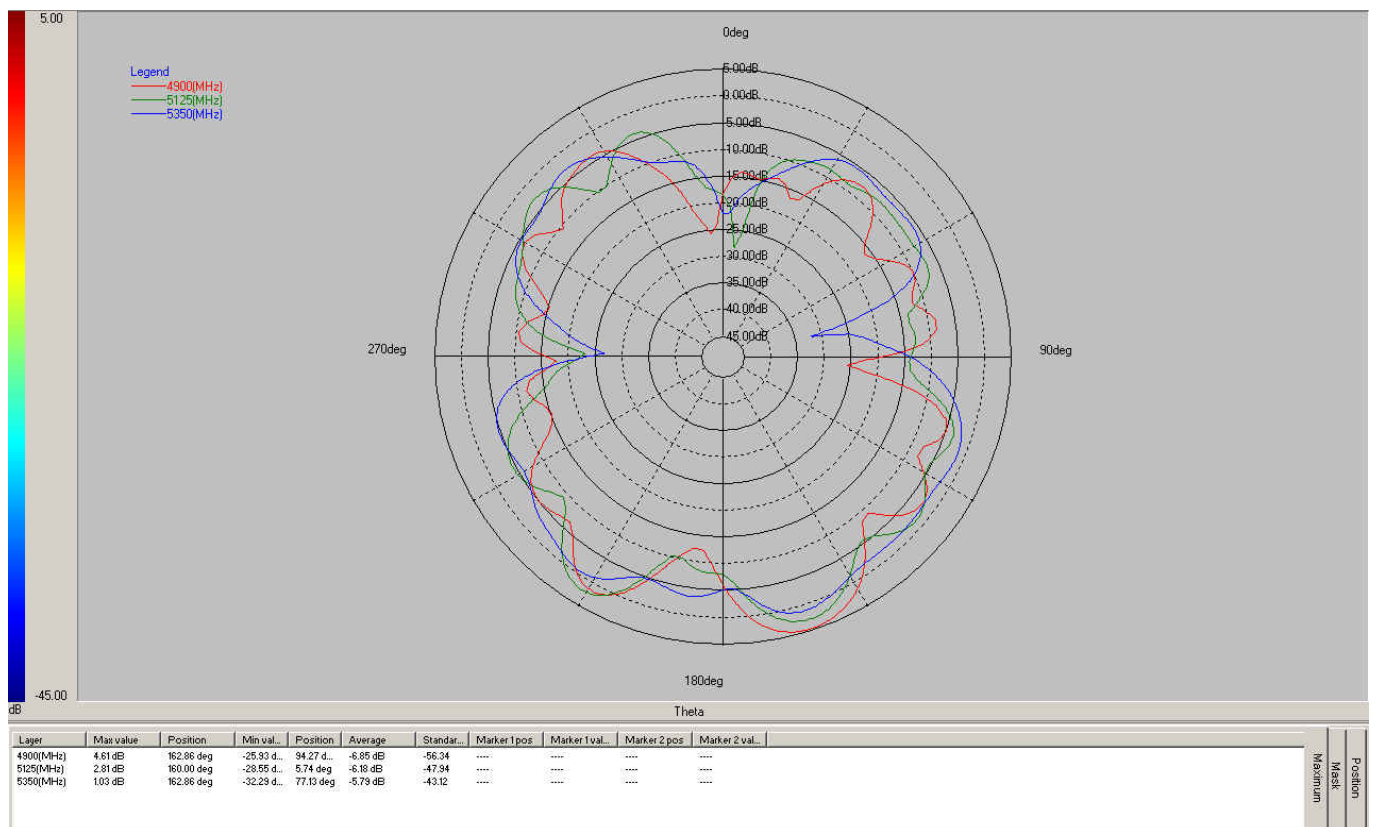


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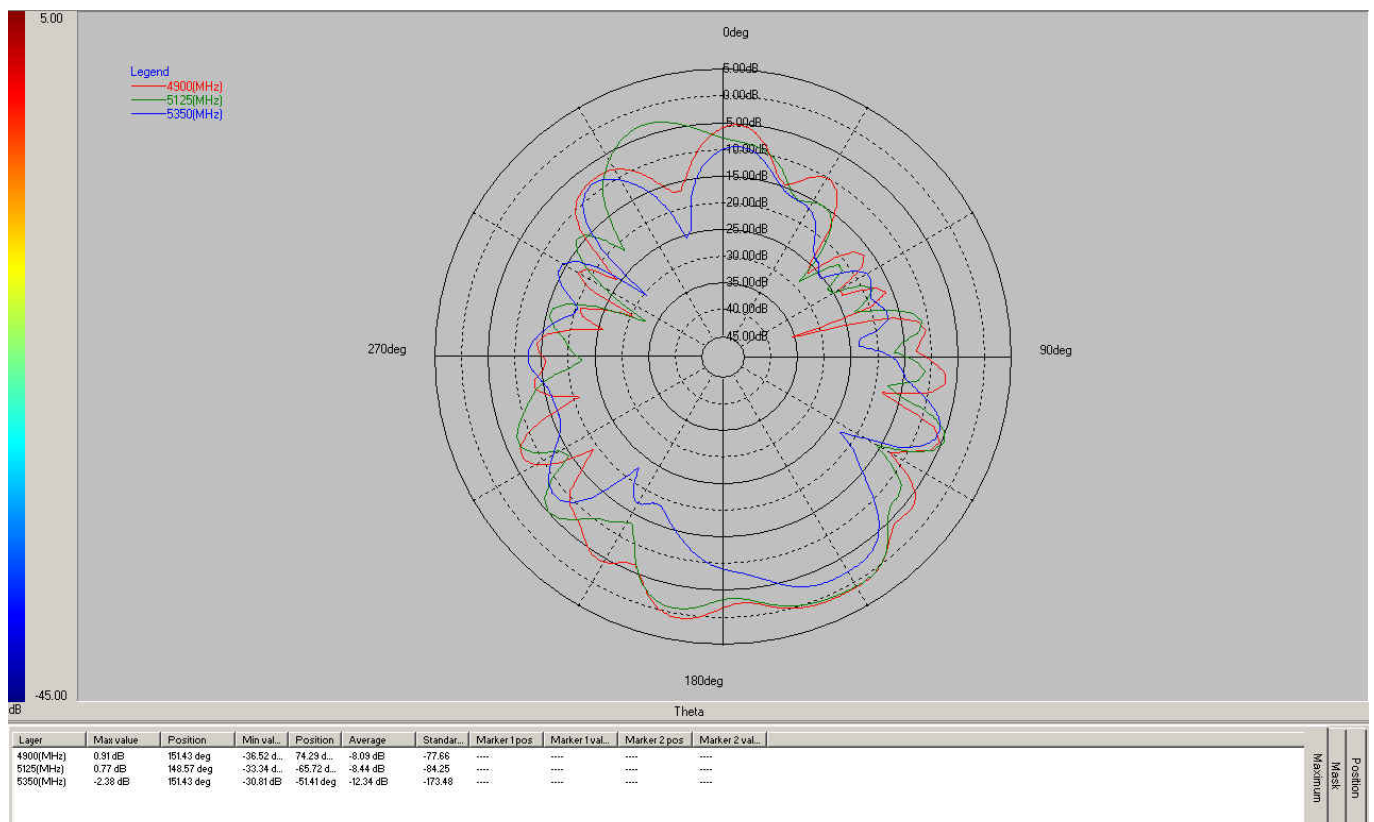


C. Frequency Range 4.9 GHz ~ 5.35 GHz

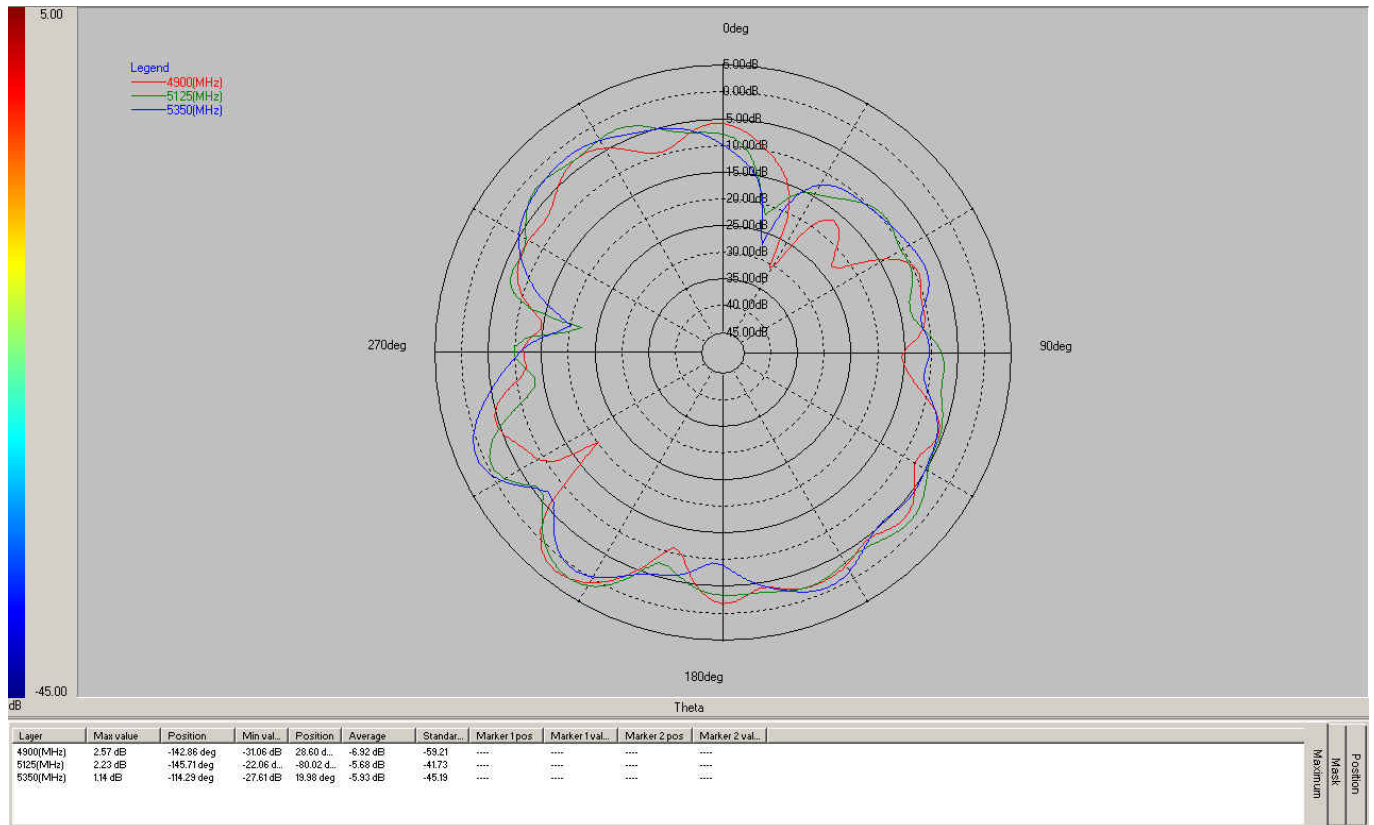
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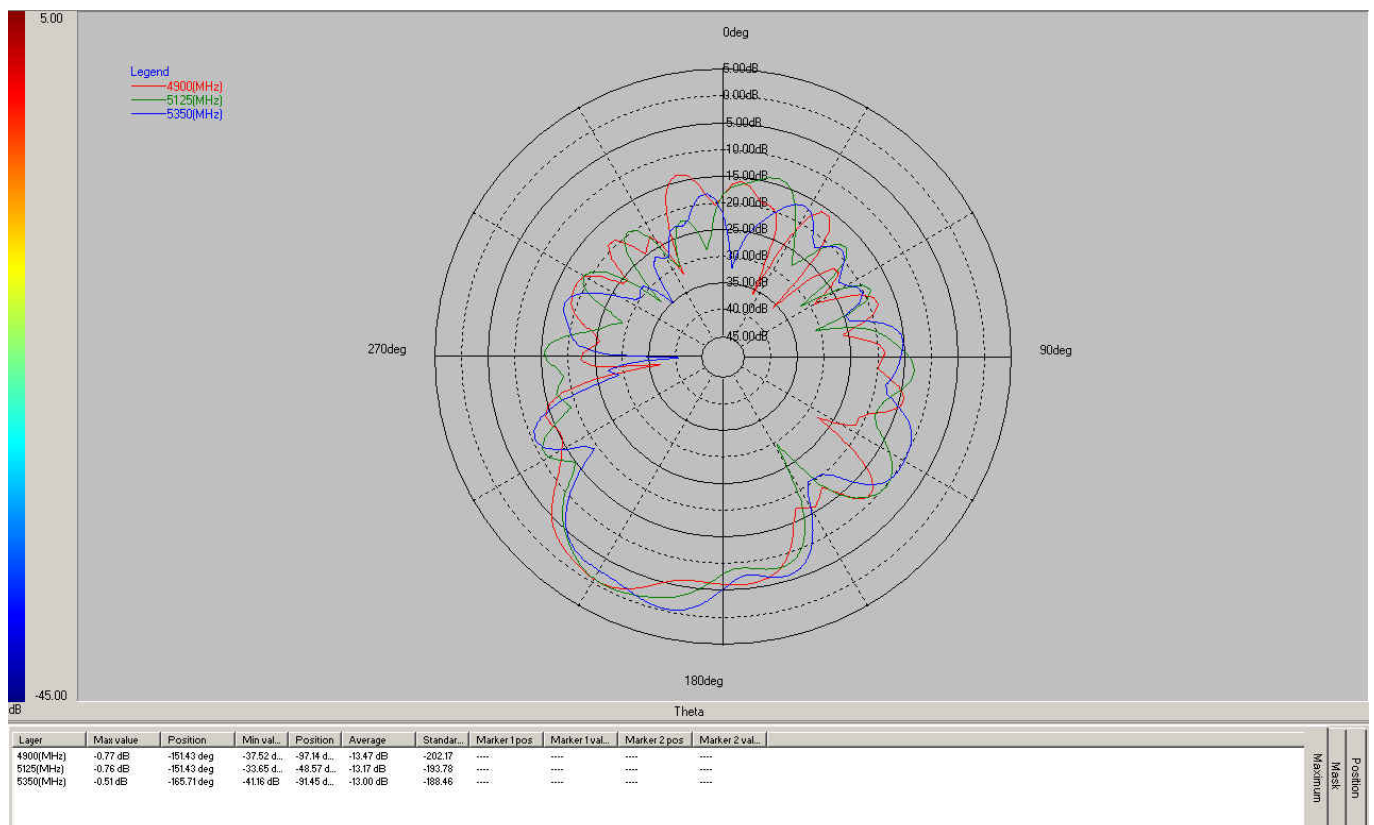
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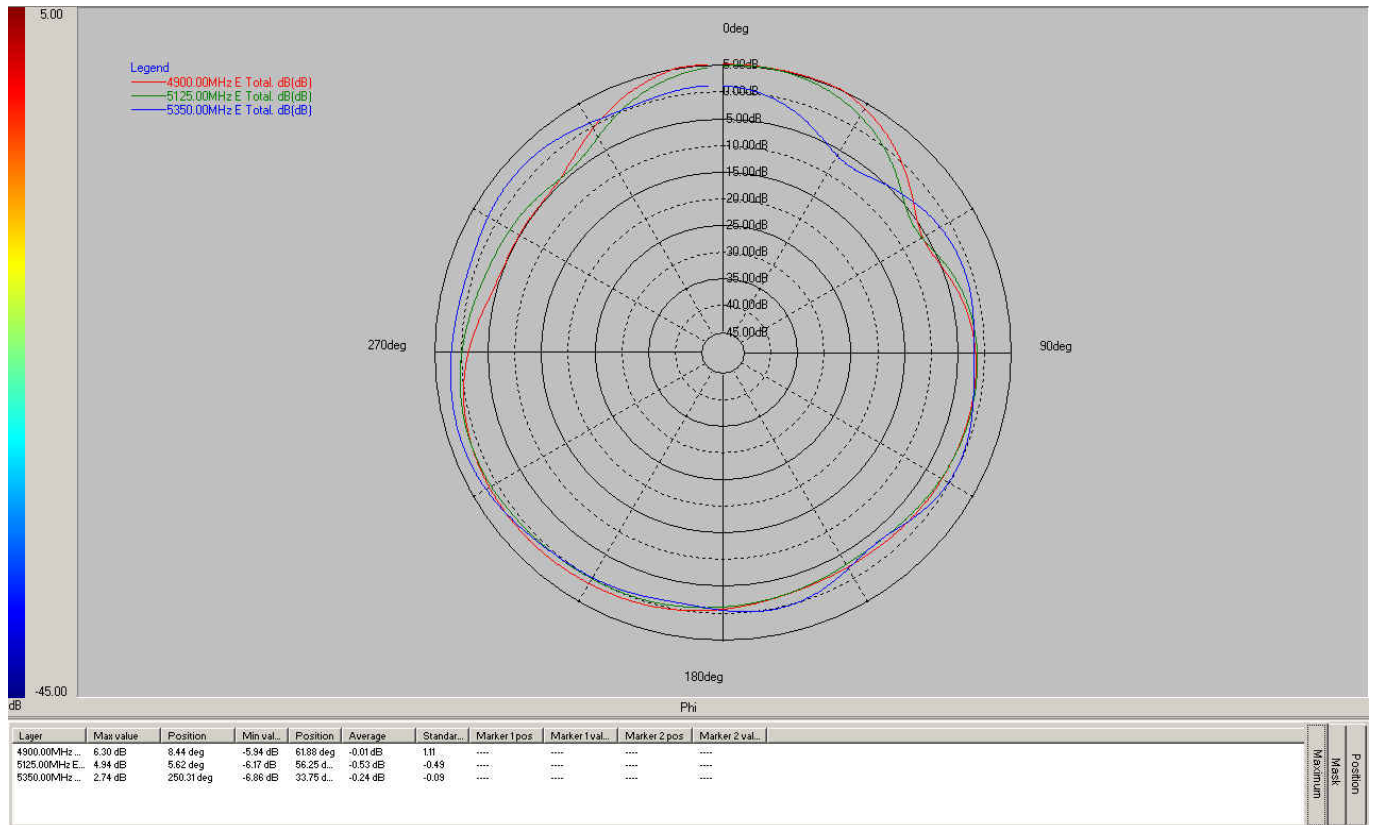
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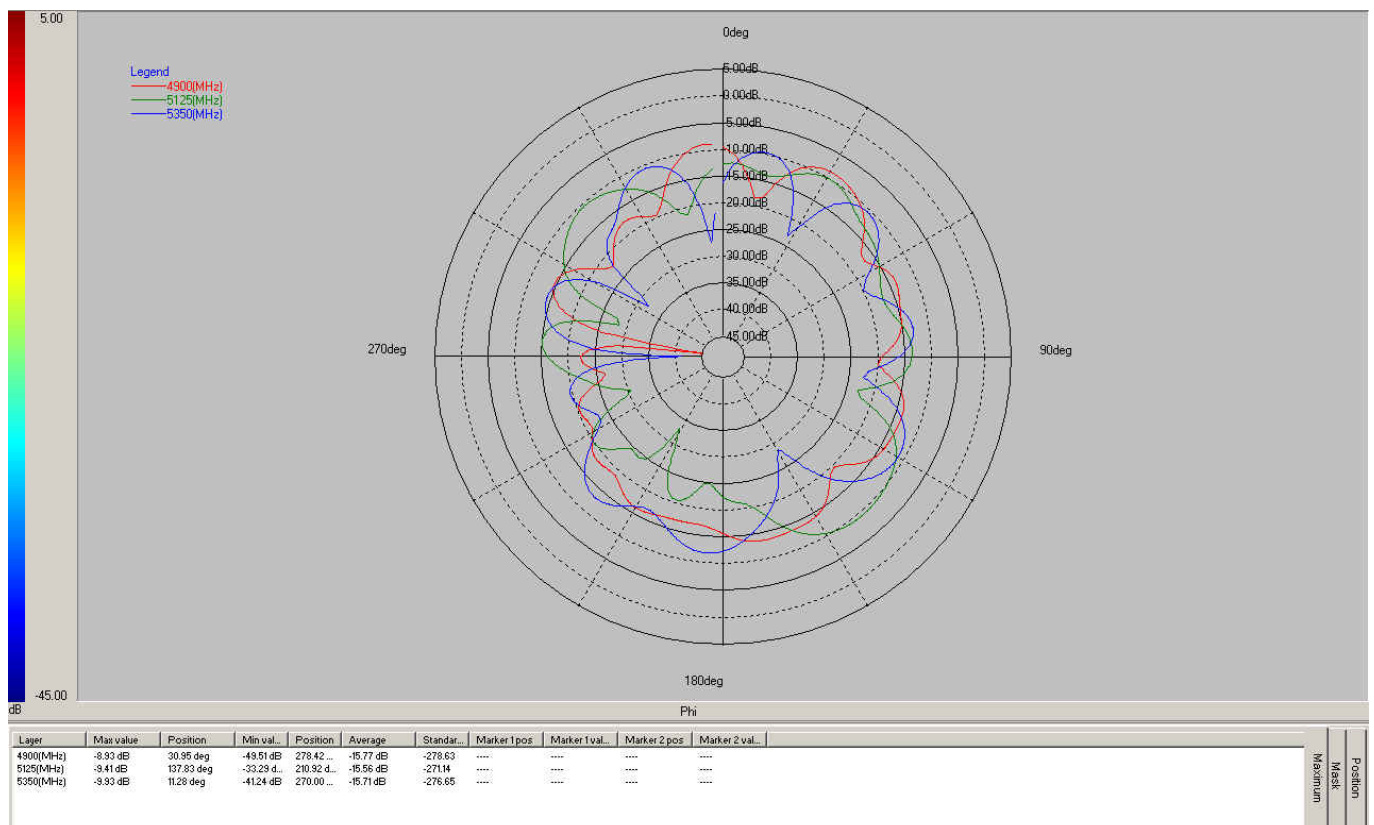
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AZ (THETA=90 ; XY-PLANE) ; (Horn Ant Polarization = Vertical)

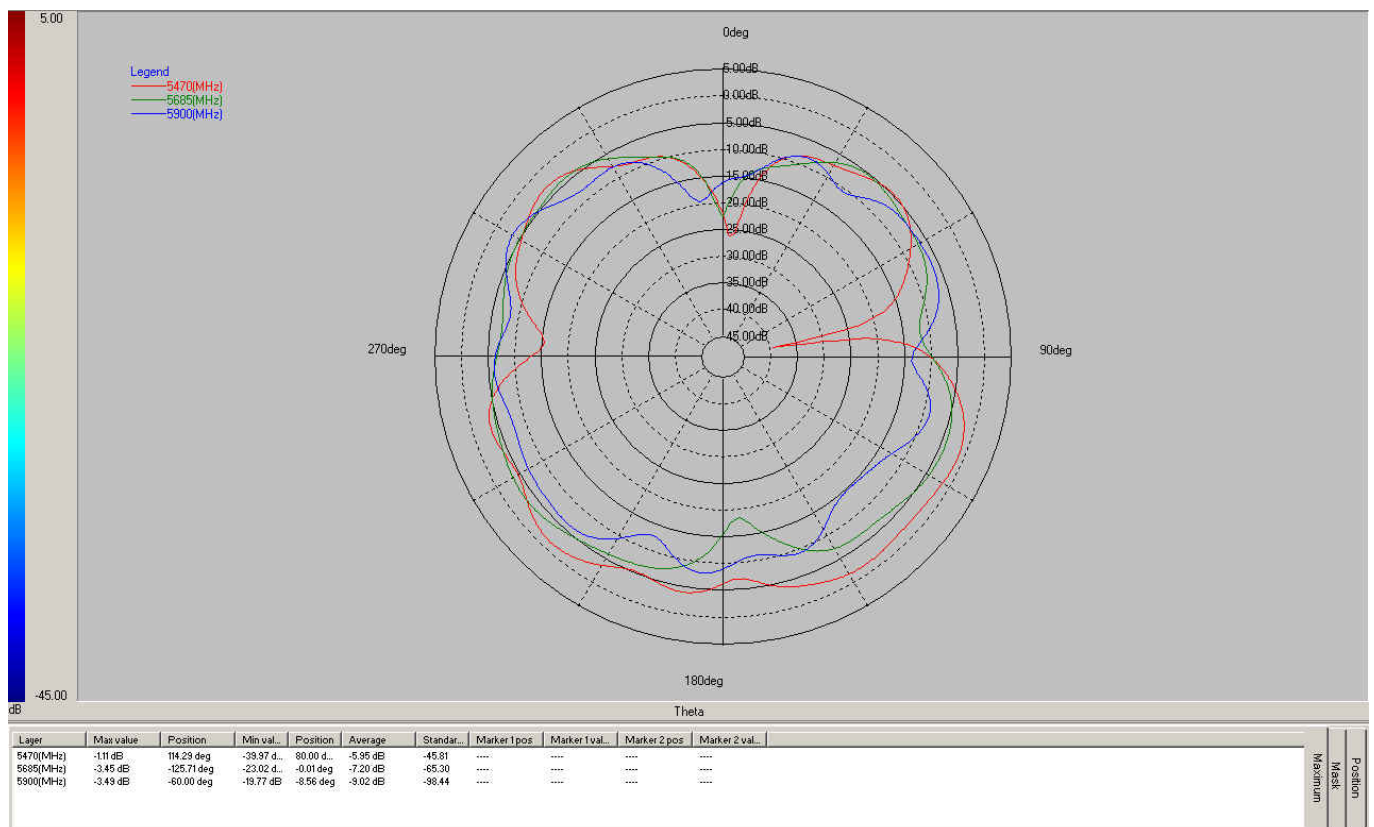


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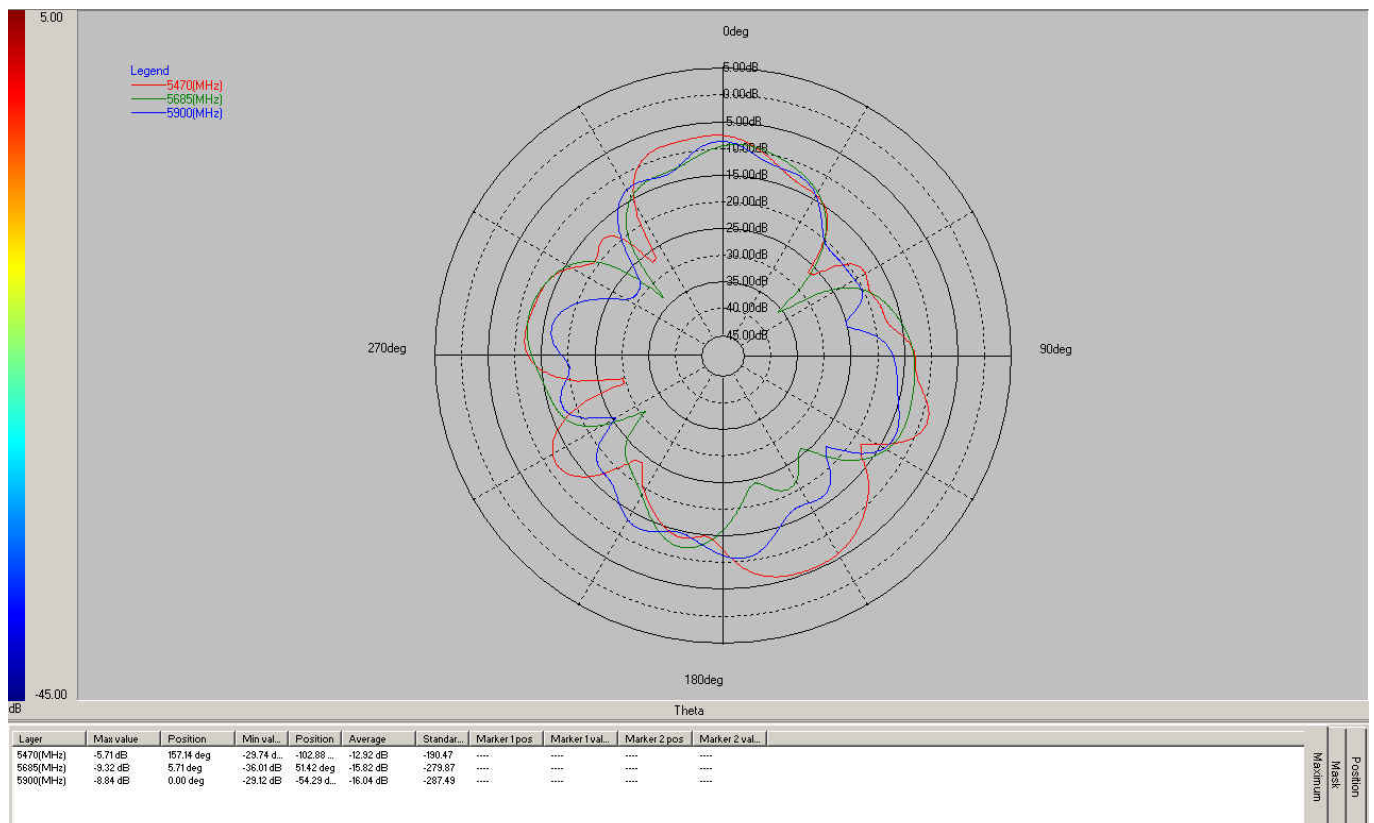


D. Frequency Range 5.47 GHz ~ 5.9 GHz

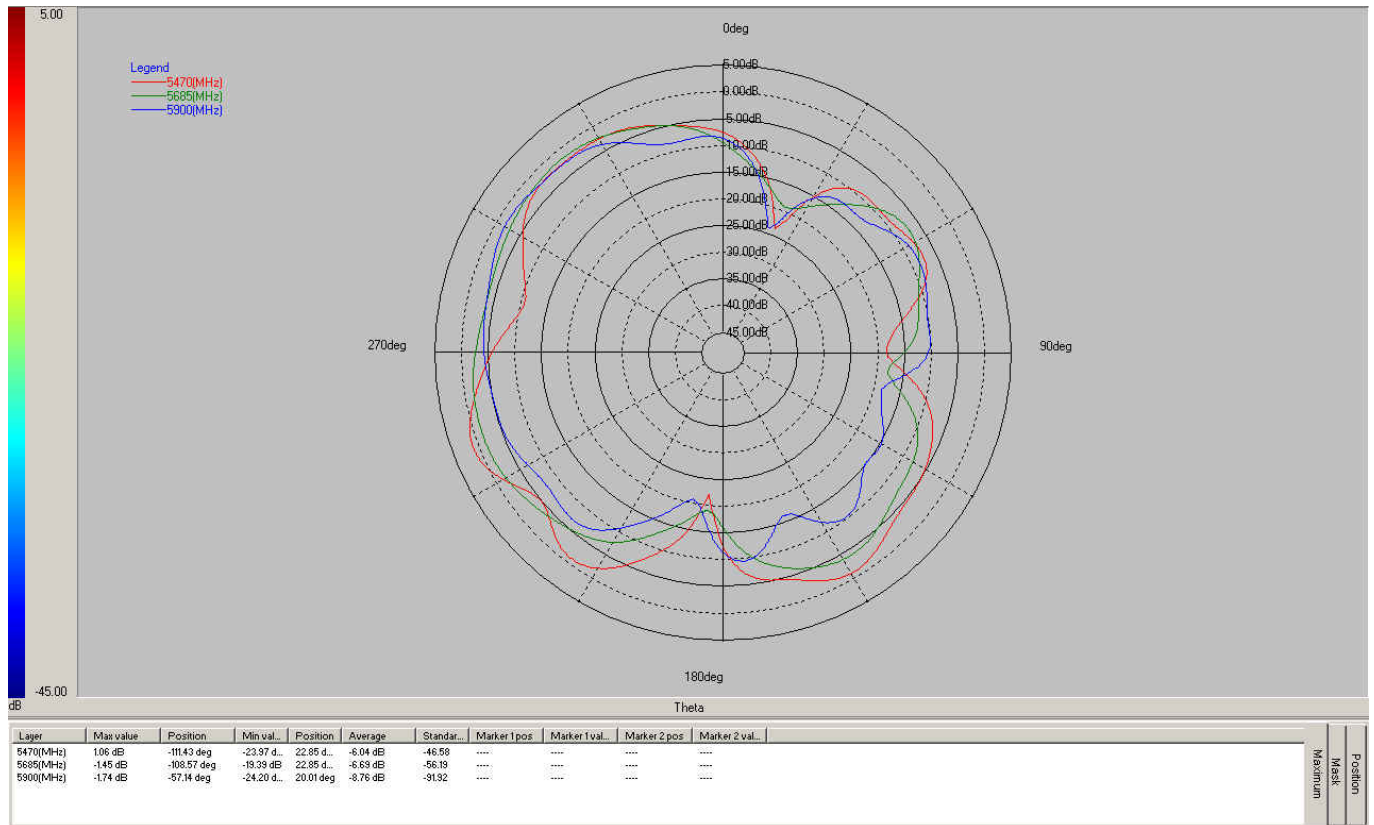
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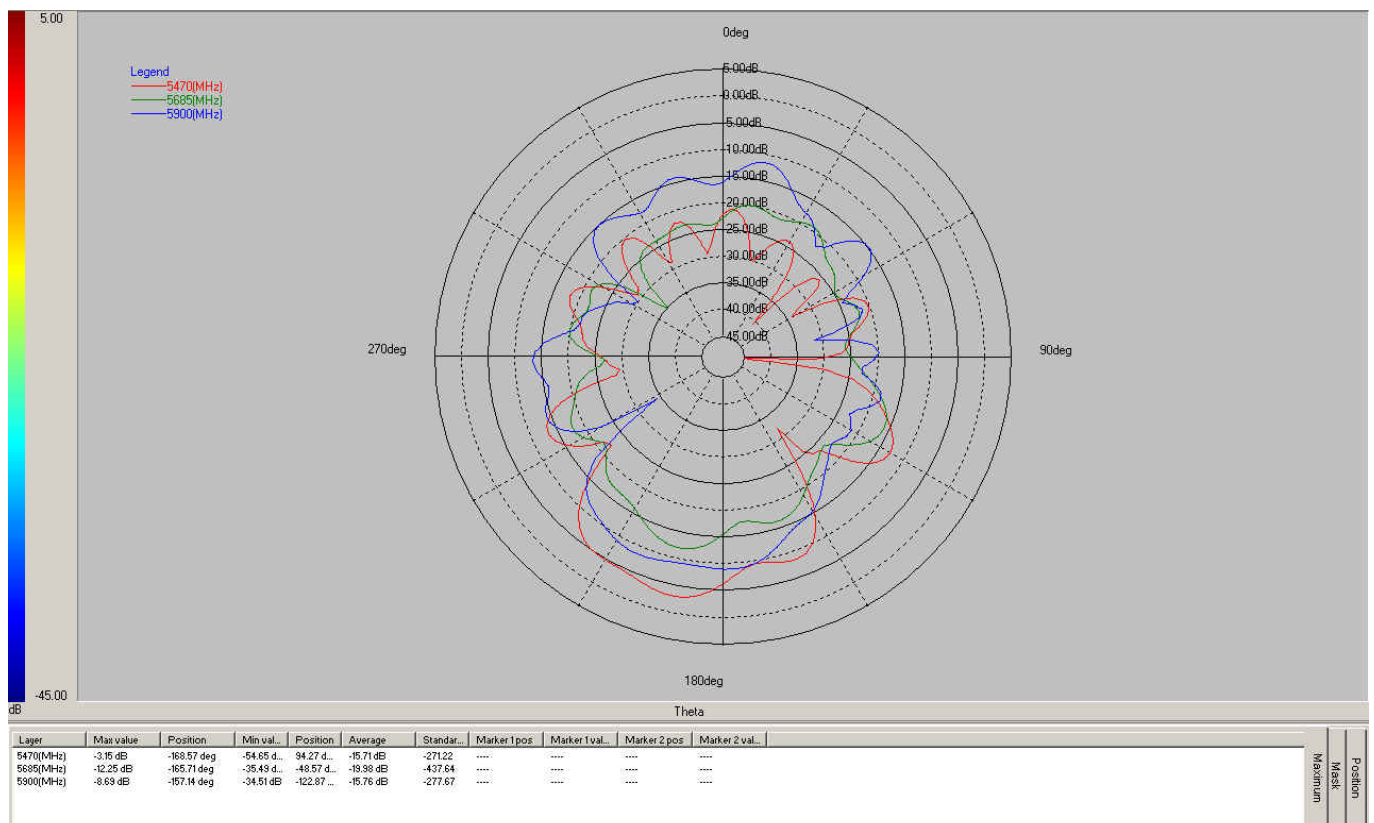
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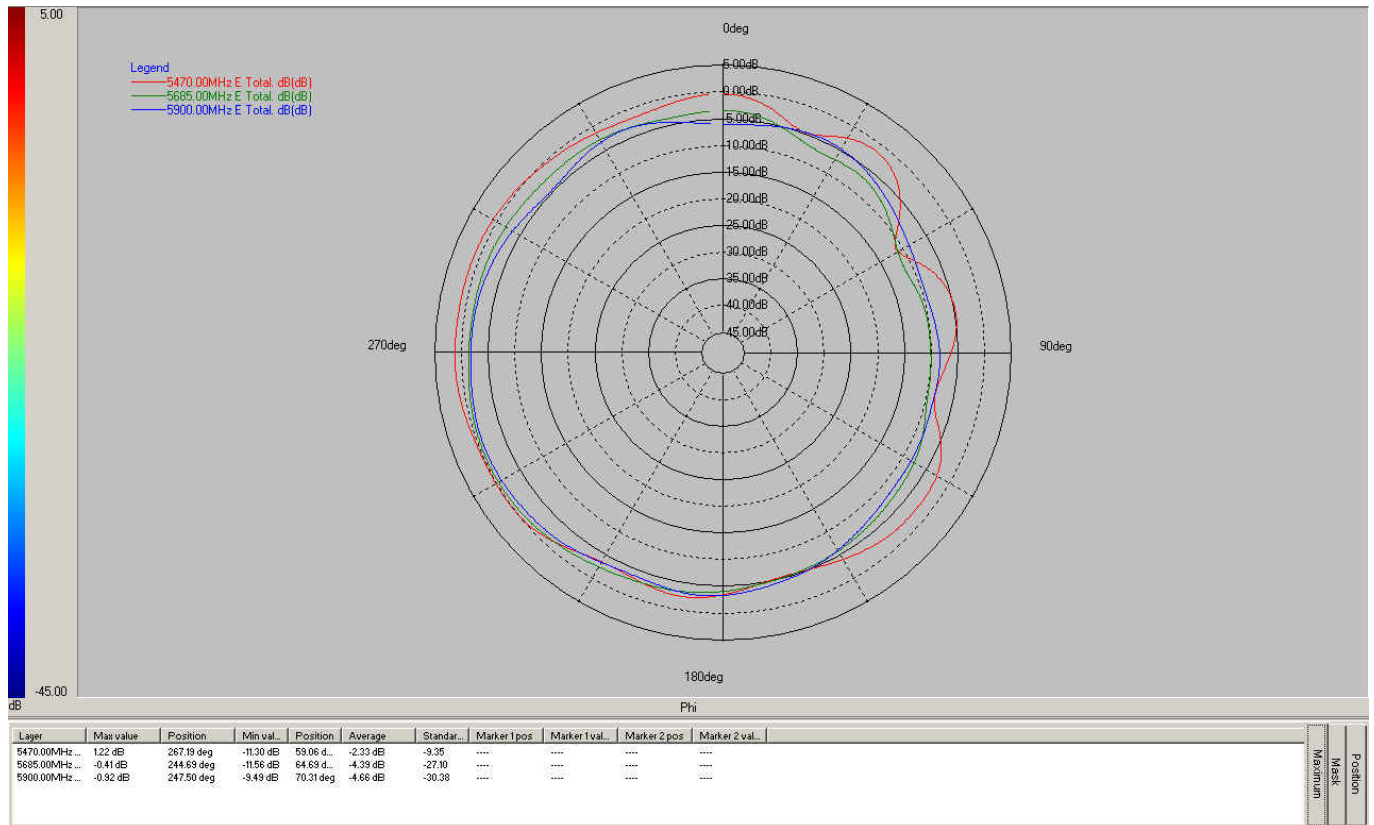
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EL2 (PHI = 90 ; YZ-PLANE) ; (Horn Ant Polarization = Vertical)



AZ (THETA=90 ; XY-PLANE) ; (Horn Ant Polarization = Vertical)



AZ (THETA=90 ; XY-PLANE) ; (Horn Ant Polarization = Horizontal)

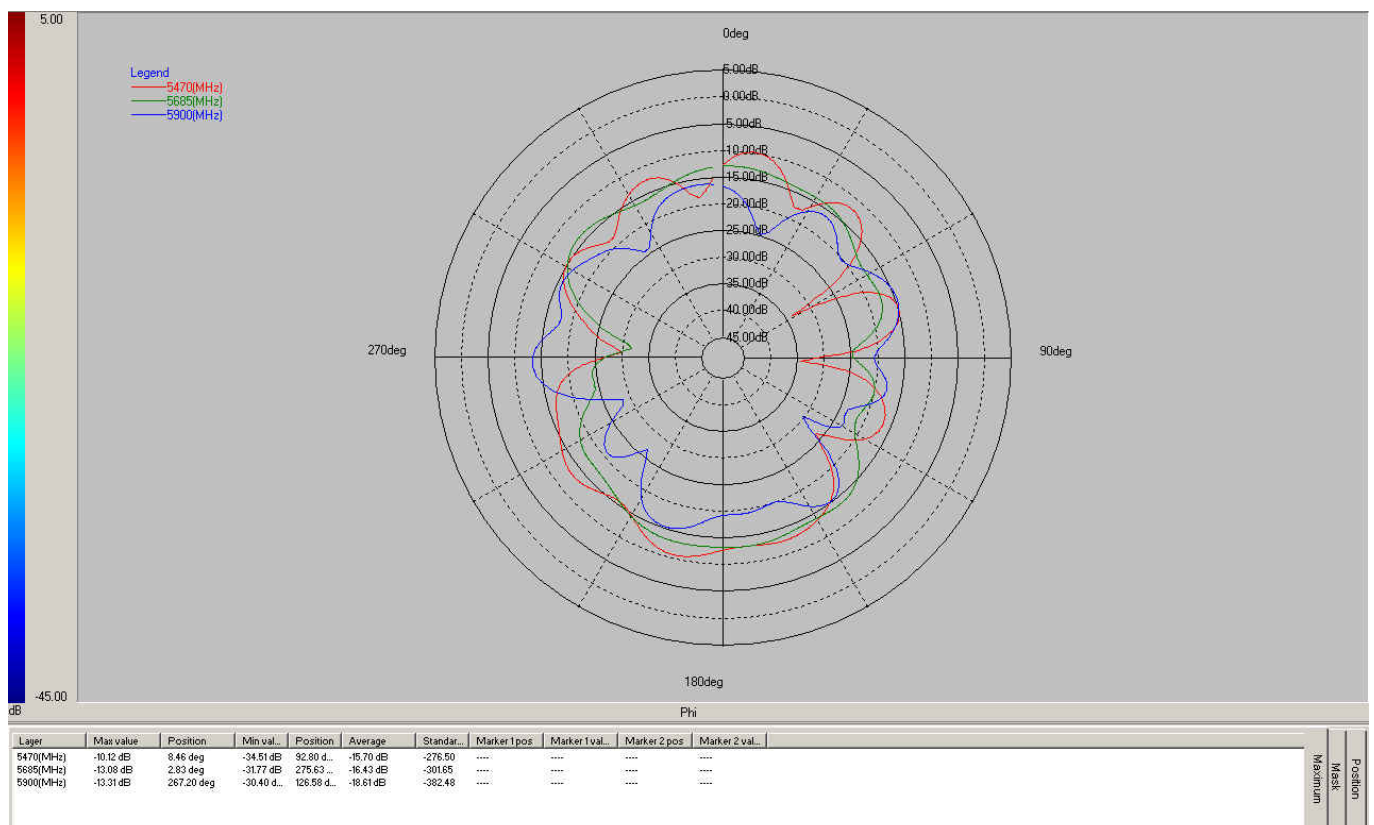
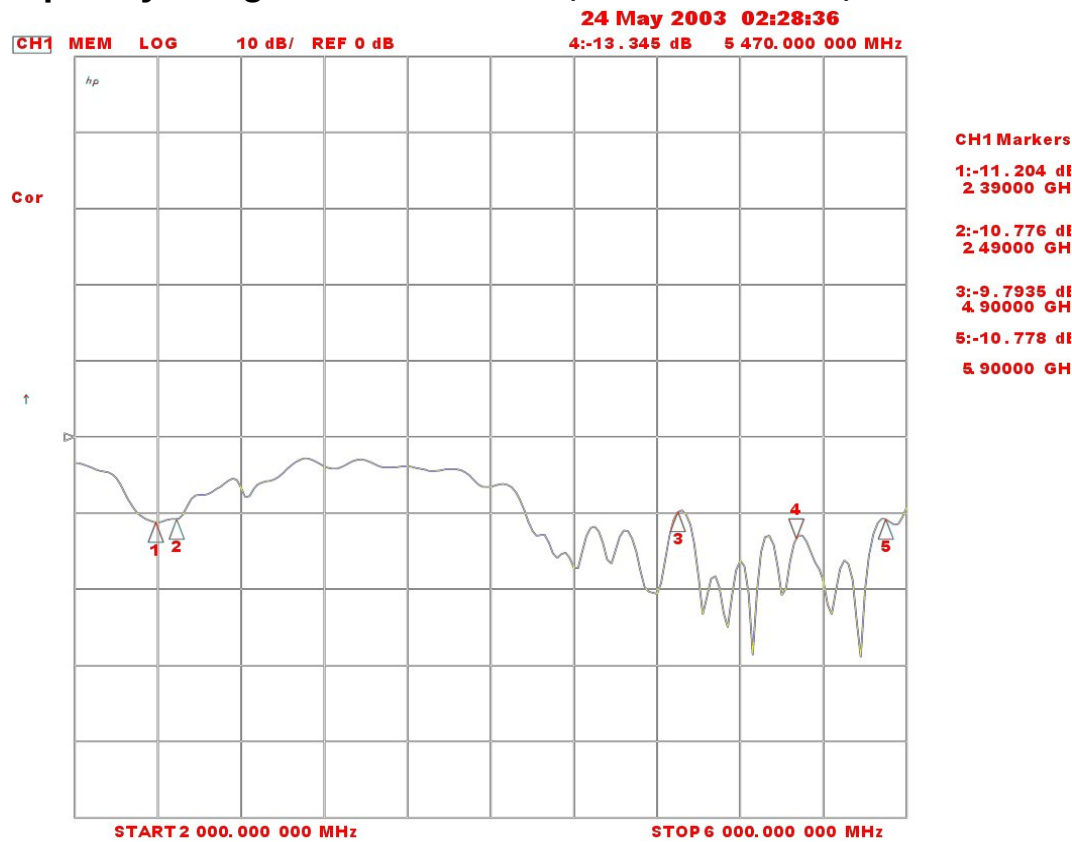


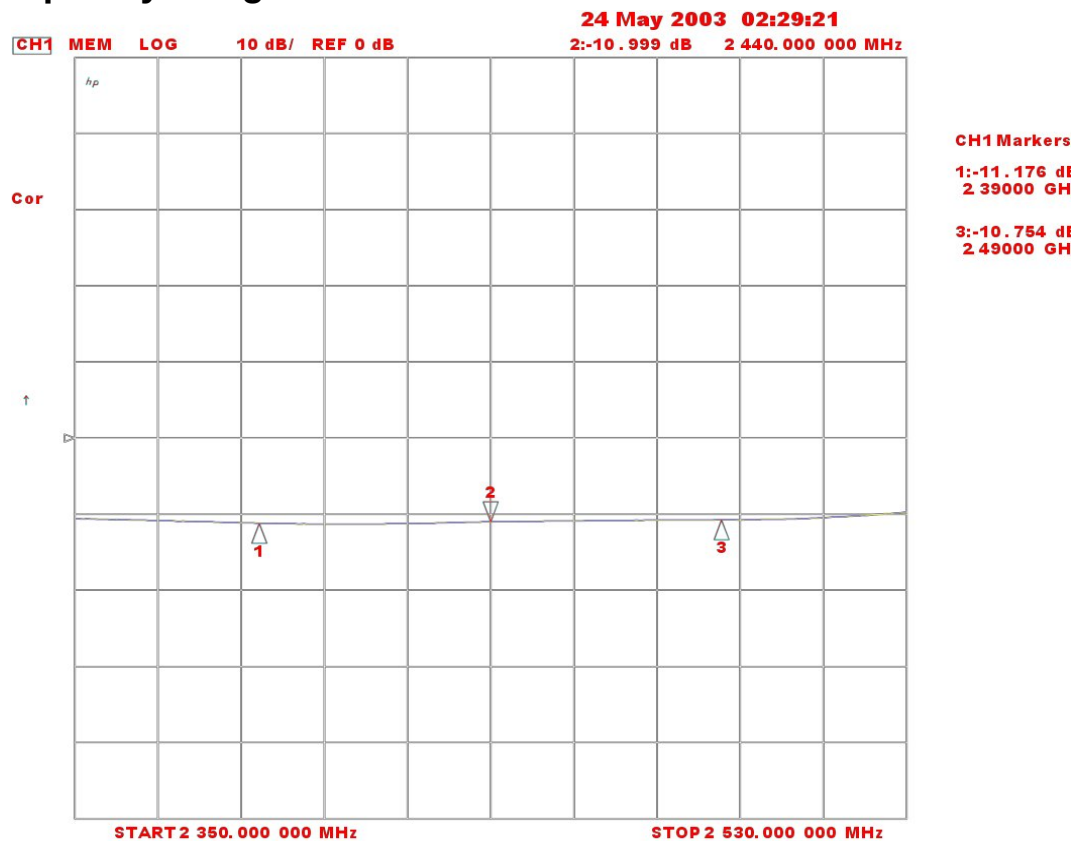
Fig 6. ENVIRONMENTAL - TEMPERATURE 70°C

1. RETURN LOSS

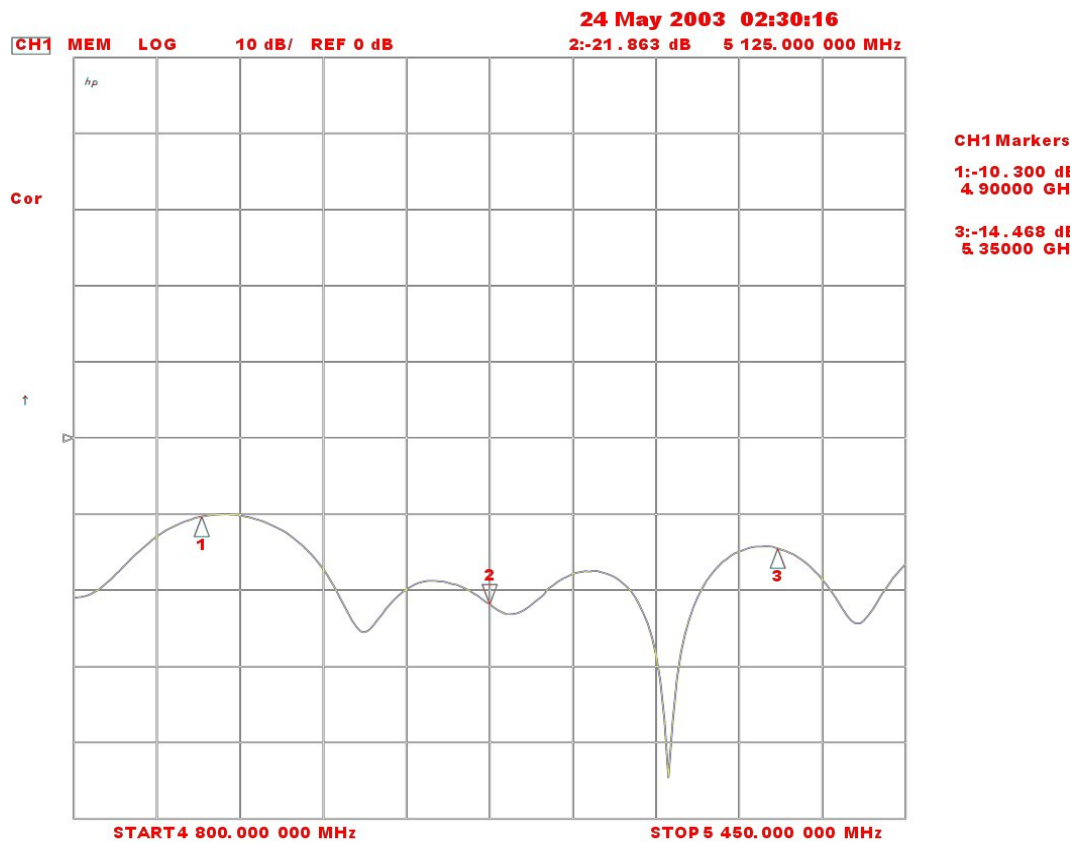
A. Frequency Range 2.39 ~ 2.49 GHz, 4.9 ~ 5.35 GHz, 5.47 ~ 5.9 GHz



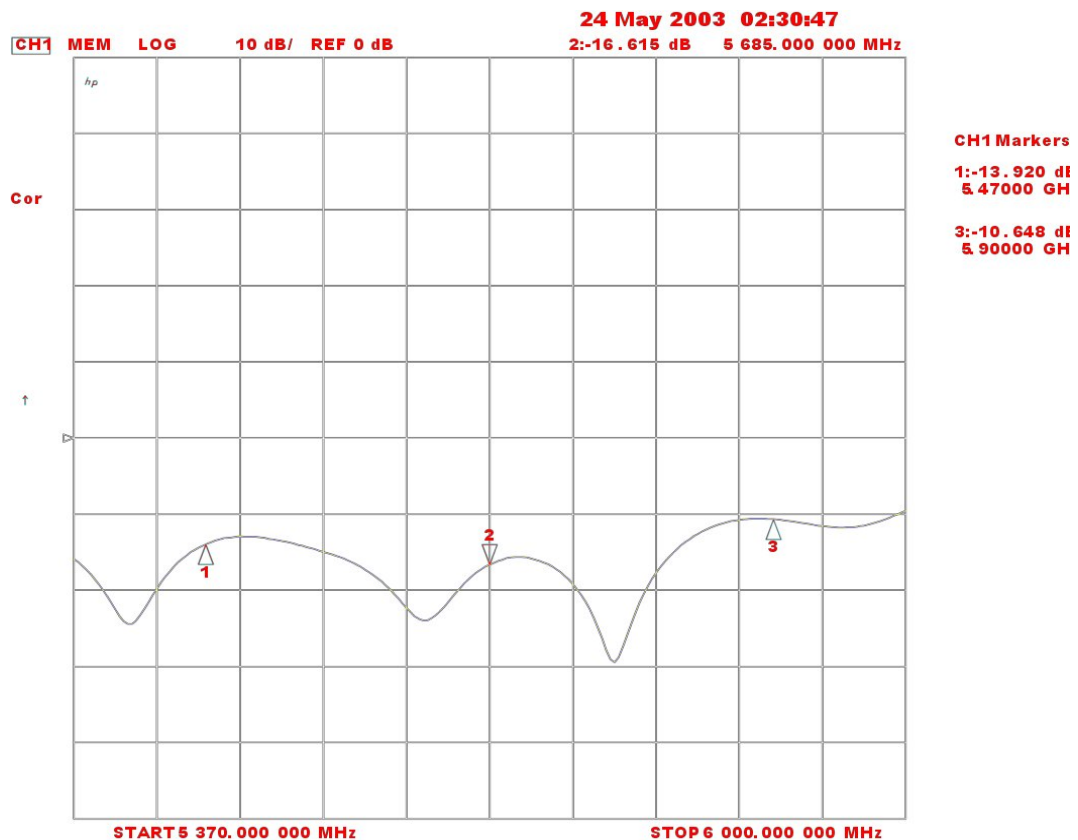
B. Frequency Range 2.39 GHz ~ 2.49 GHz



C. Frequency Range 4.9 GHz ~ 5.35 GHz

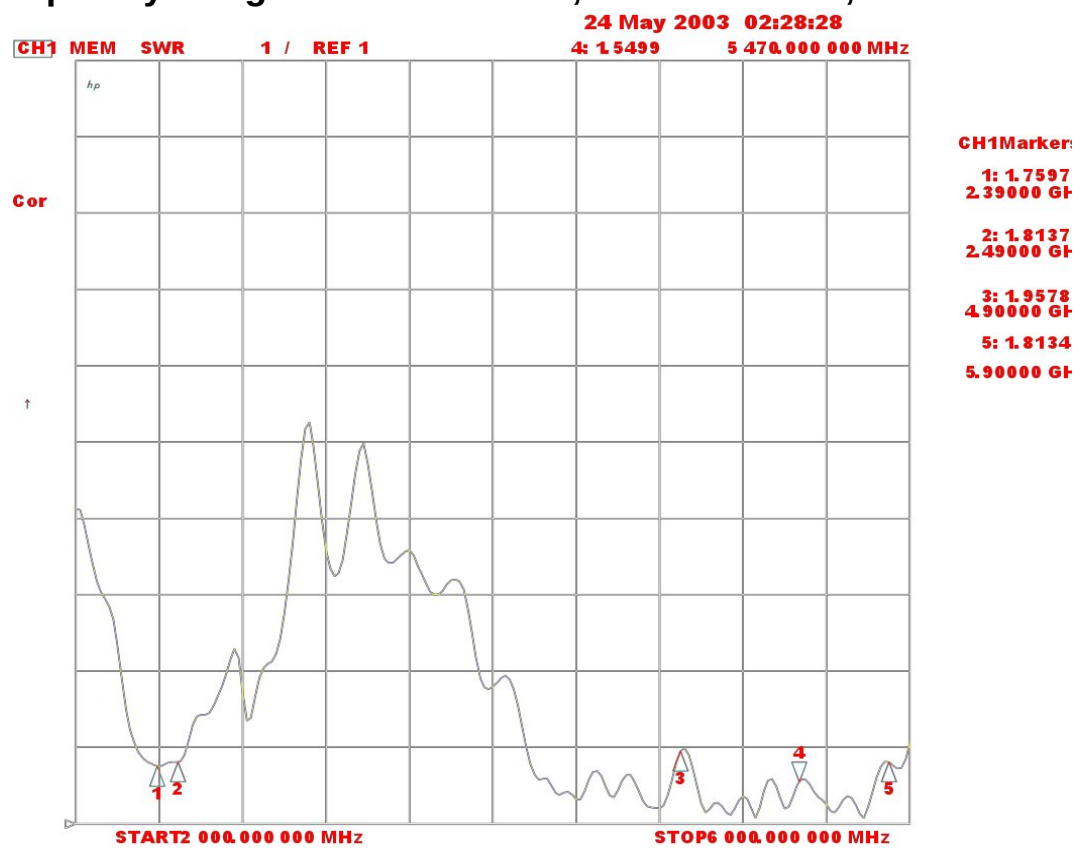


D. Frequency Range 5.47 GHz ~ 5.9 GHz

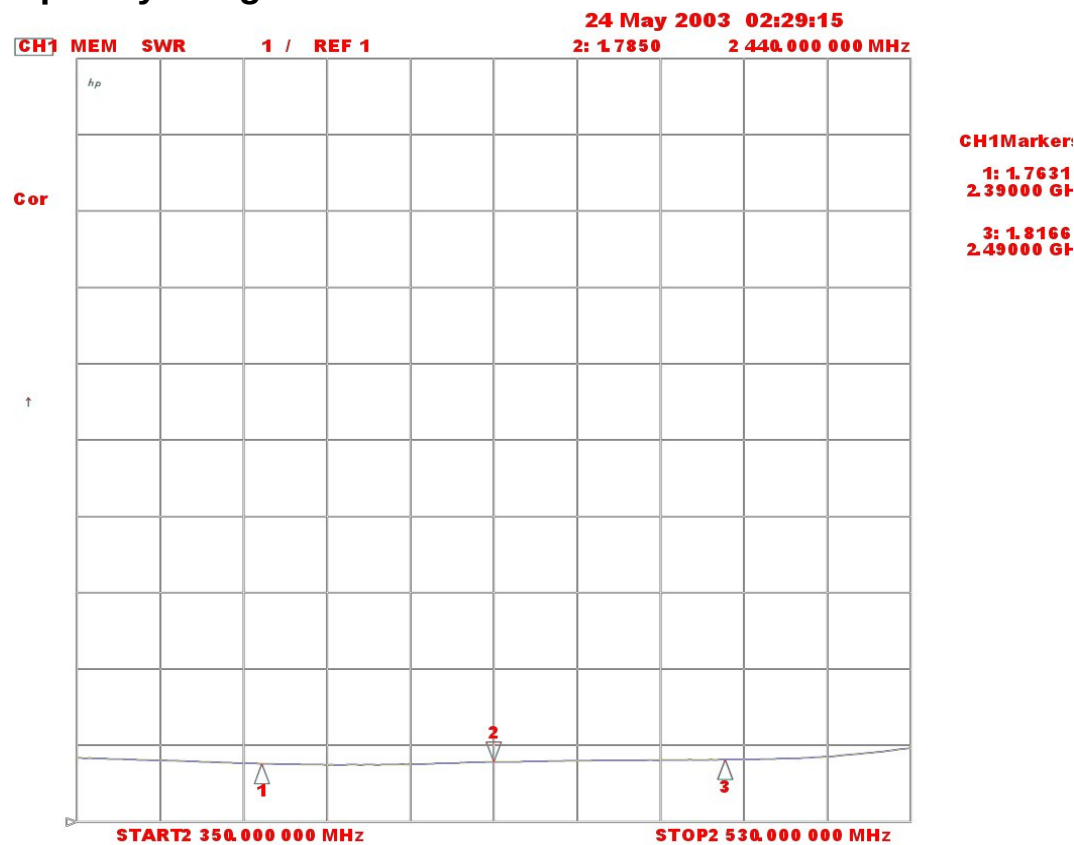


2. VSWR

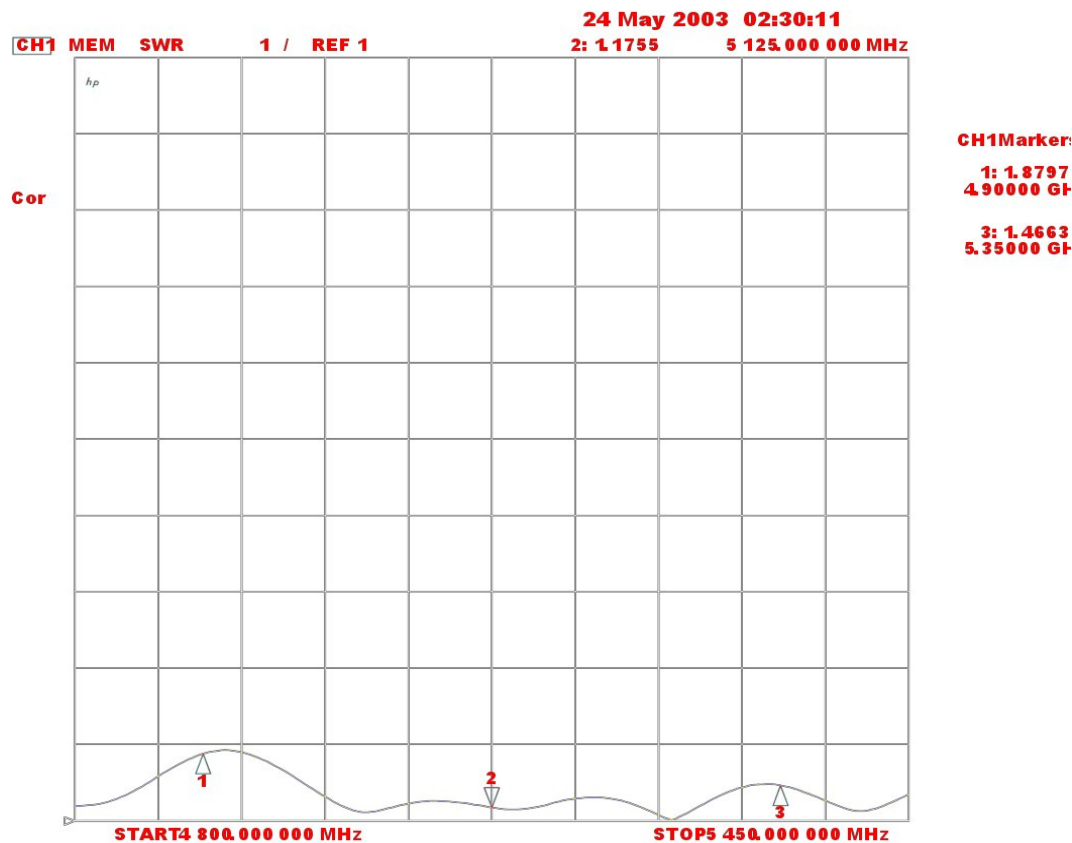
A. Frequency Range 2.39 ~ 2.49 GHz, 4.9 ~ 5.35 GHz, 5.47 ~ 5.9 GHz



B. Frequency Range 2.39 GHz ~ 2.49 GHz



C. Frequency Range 4.9 GHz ~ 5.35 GHz



D. Frequency Range 5.47 GHz ~ 5.9 GHz

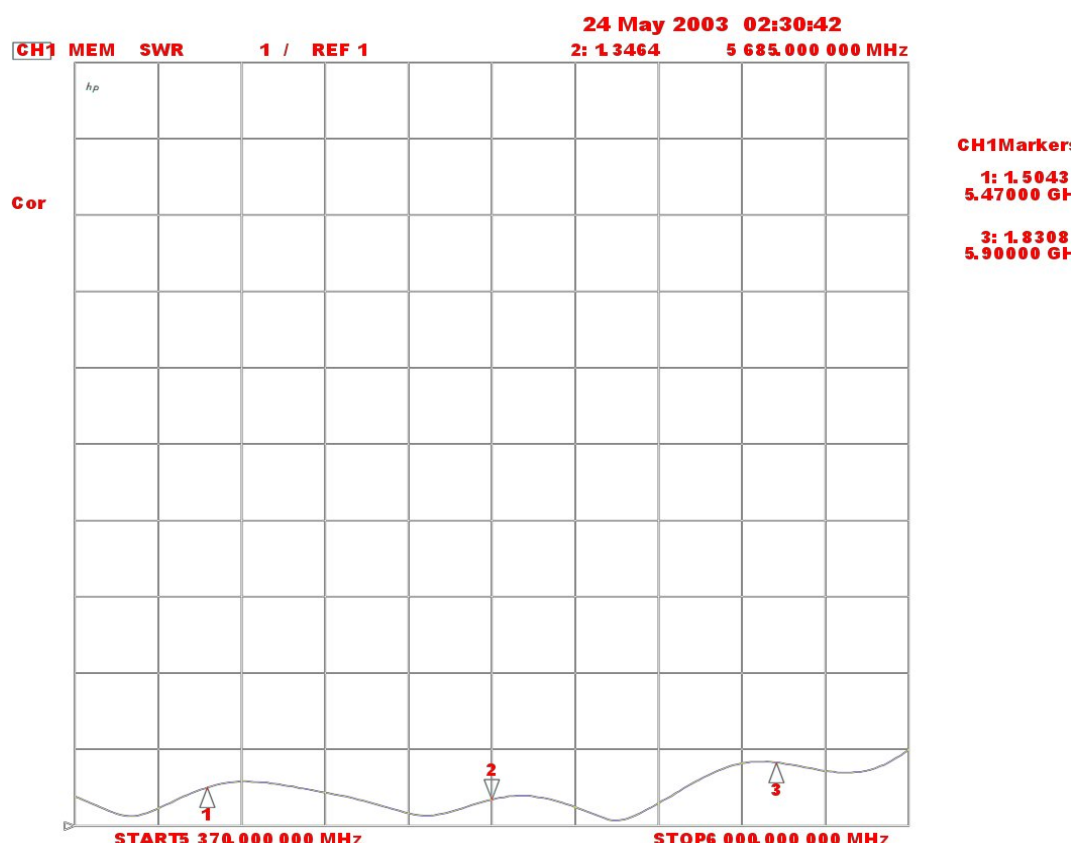
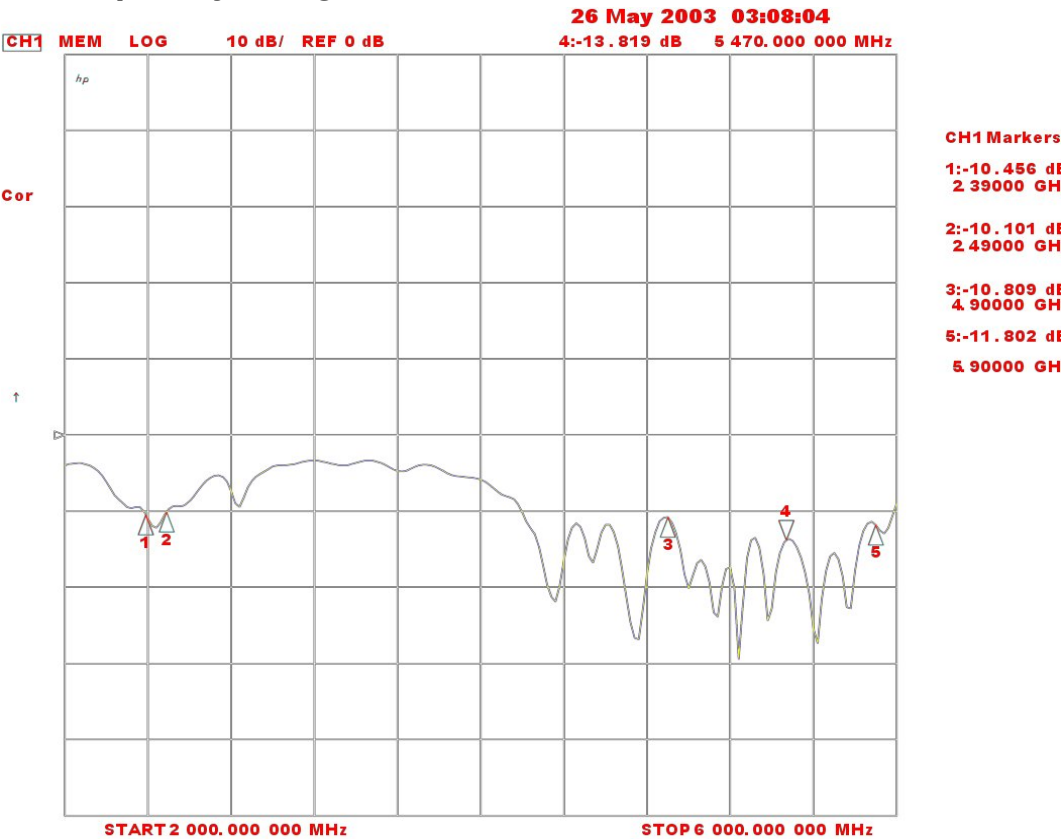


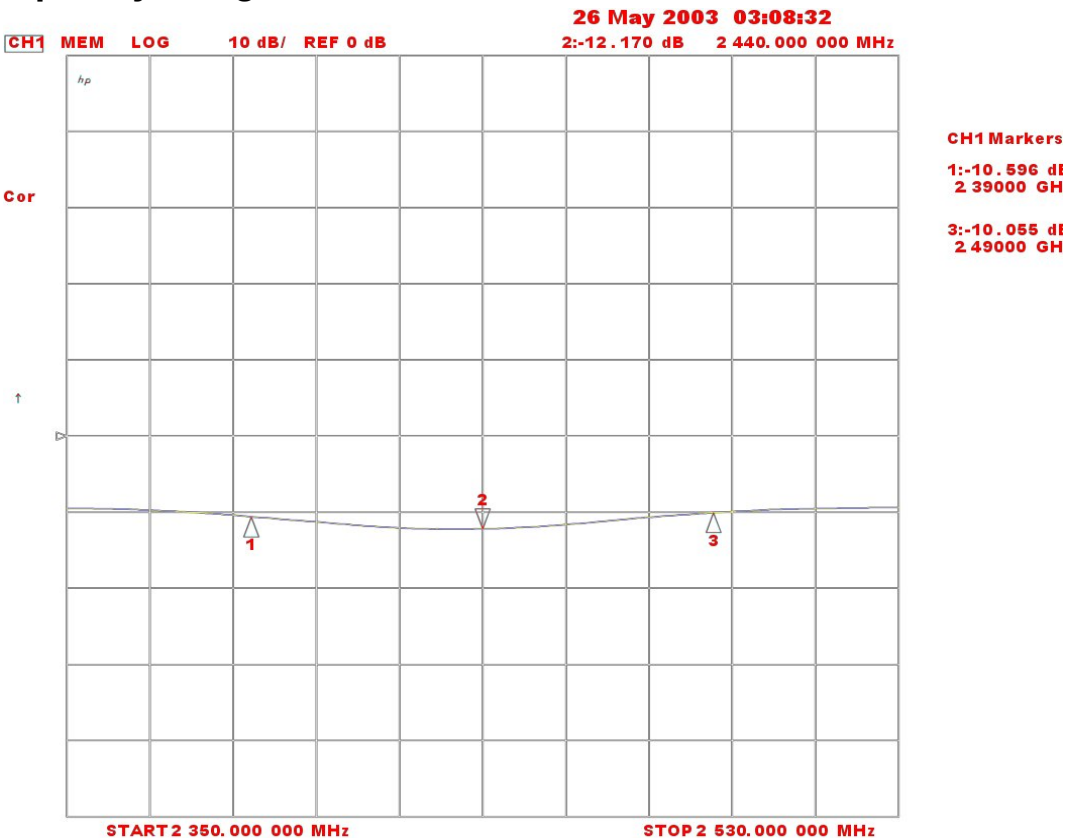
Fig 7. ENVIRONMENTAL - TEMPERATURE 0°C

1. RETURN LOSS

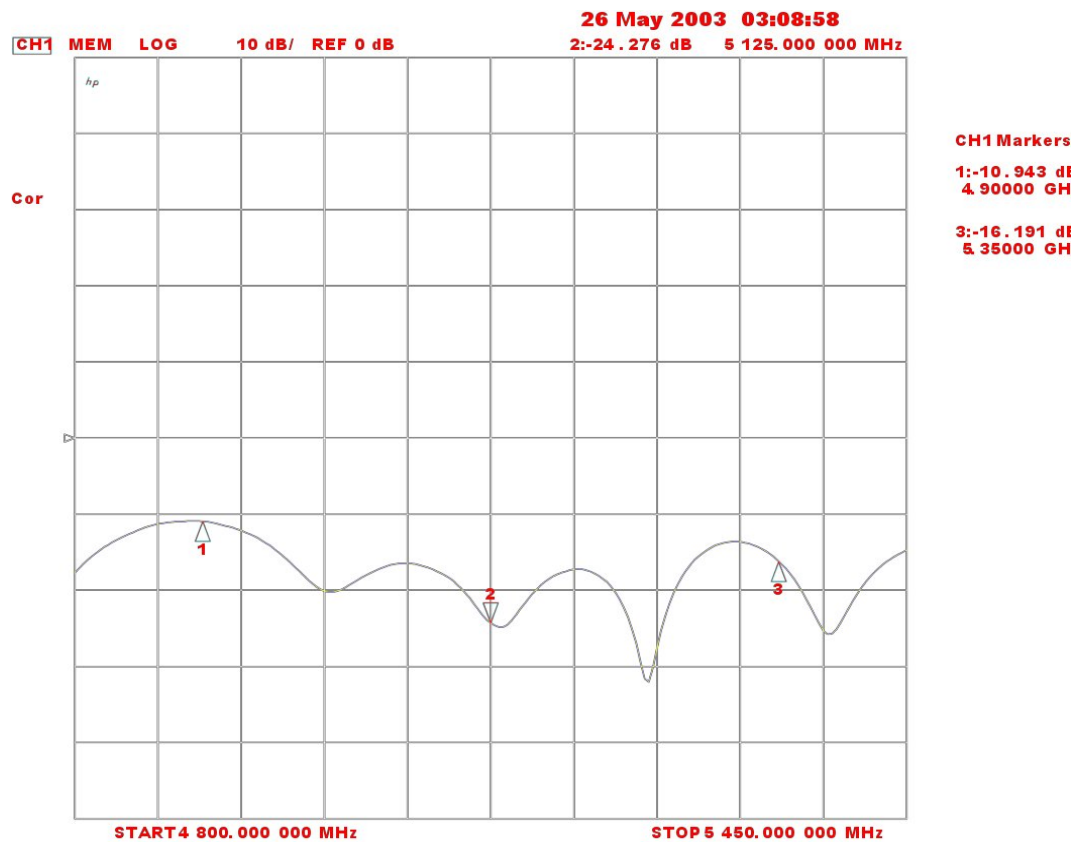
A. Frequency Range 2.39 ~ 2.49 GHz, 4.9 ~ 5.35 GHz, 5.47 ~ 5.9 GHz



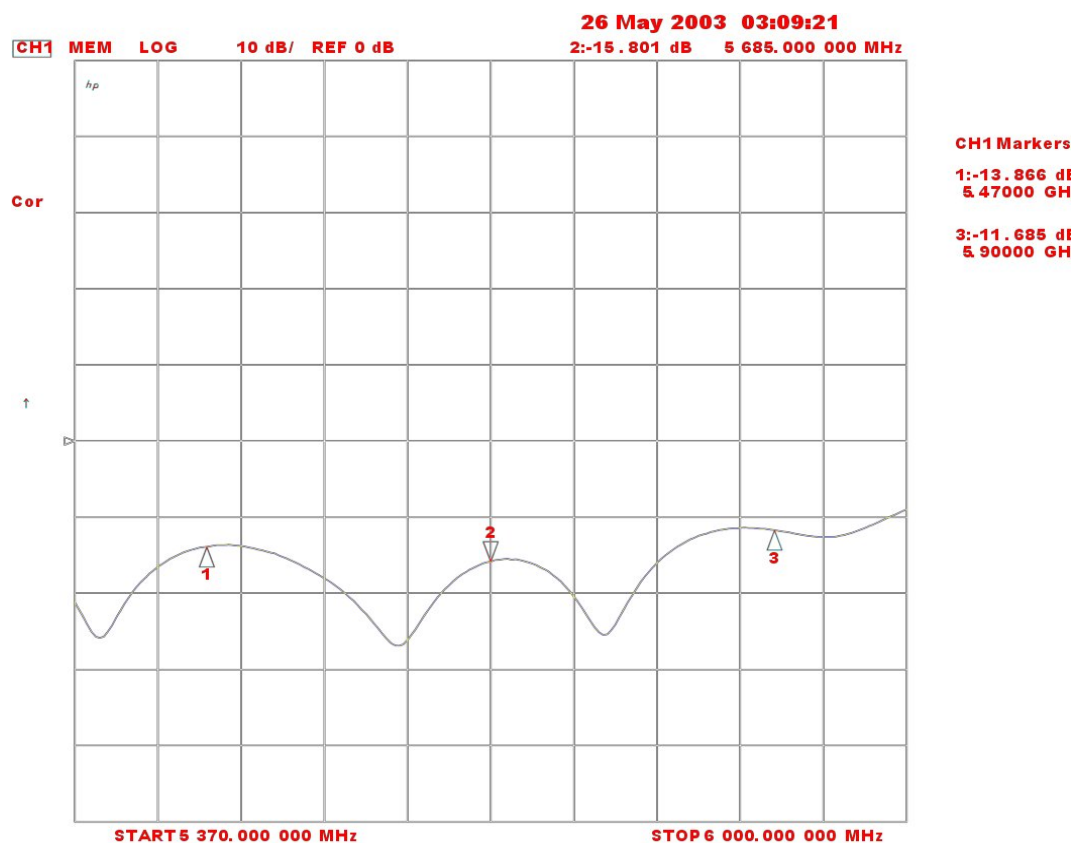
B. Frequency Range 2.39 GHz ~ 2.49 GHz



C. Frequency Range 4.9 GHz ~ 5.35 GHz

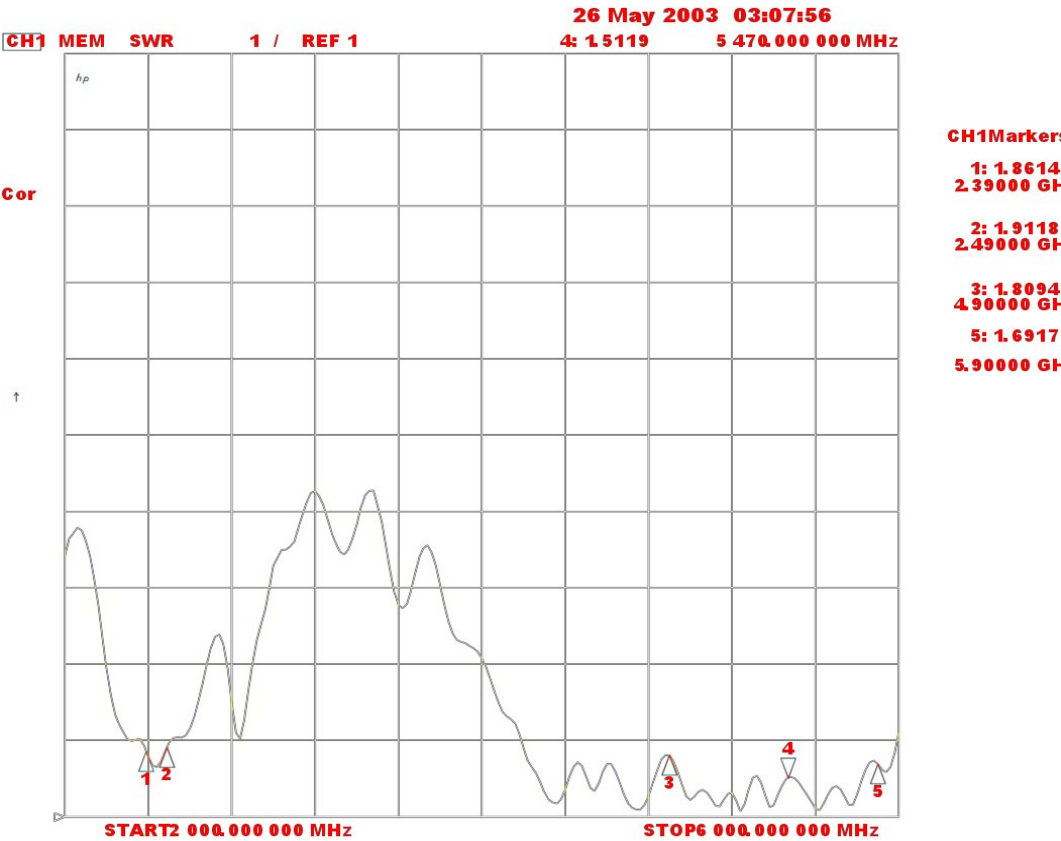


D. Frequency Range 5.47 GHz ~ 5.9 GHz

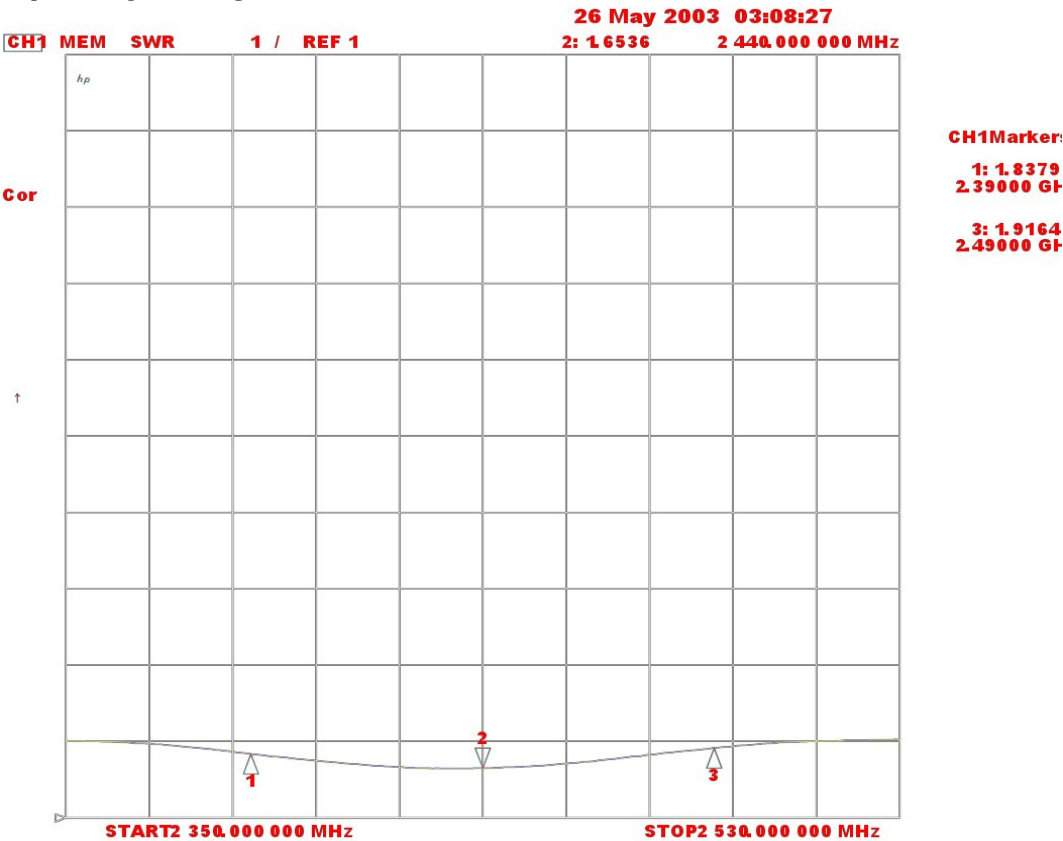


2. VSWR

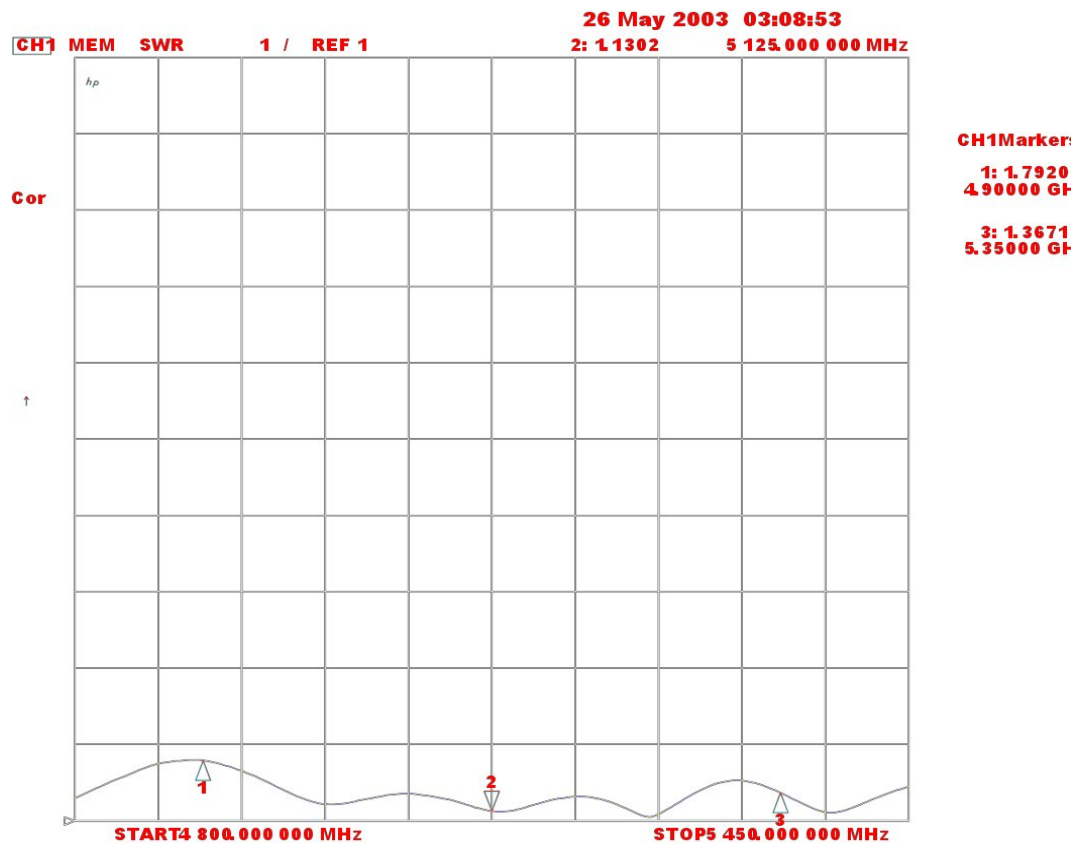
A. Frequency Range 2.39 ~ 2.49 GHz, 4.9 ~ 5.35 GHz, 5.47 ~ 5.9 GHz



B. Frequency Range 2.39 GHz ~ 2.49 GHz



C. Frequency Range 4.9 GHz ~ 5.35 GHz



D. Frequency Range 5.47 GHz ~ 5.9 GHz

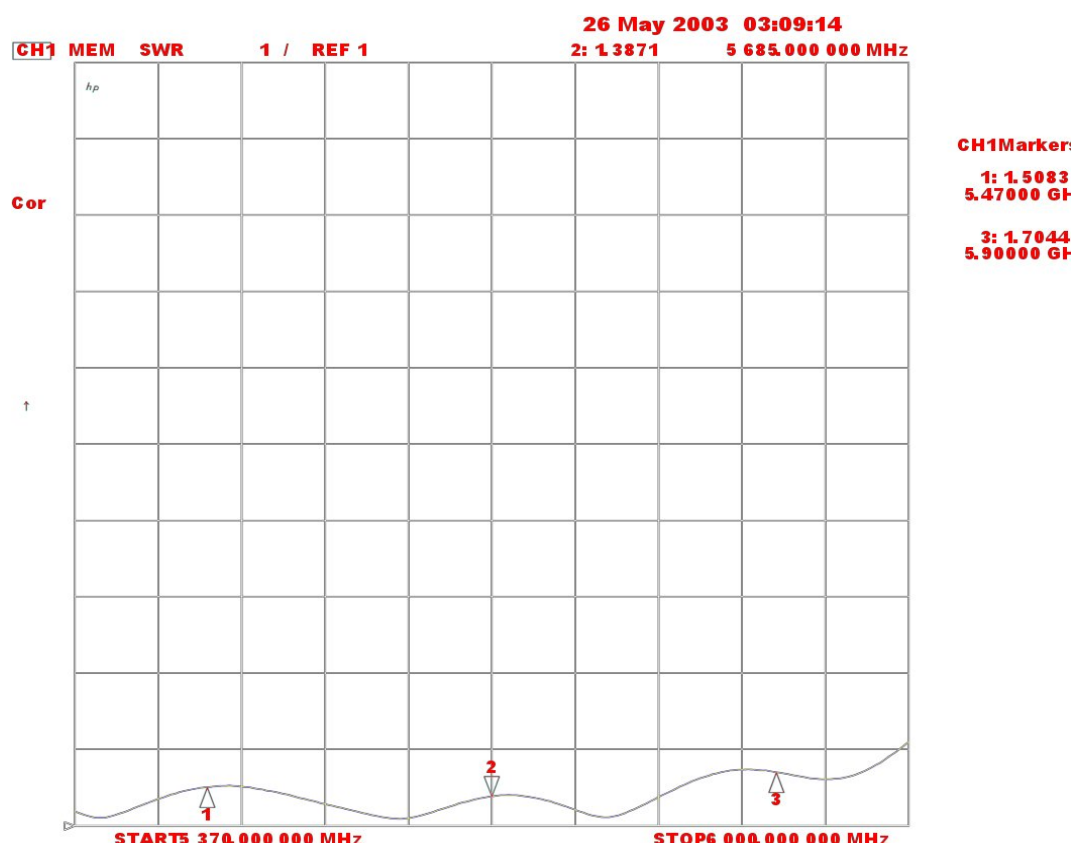
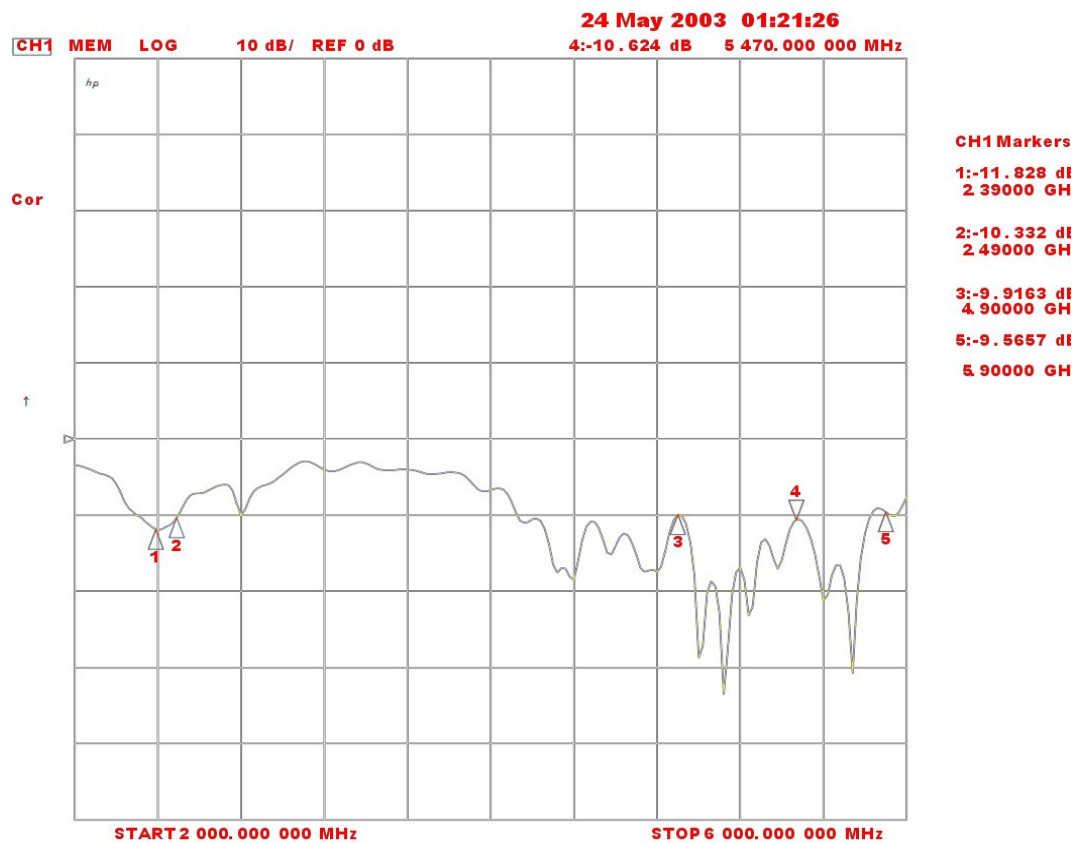


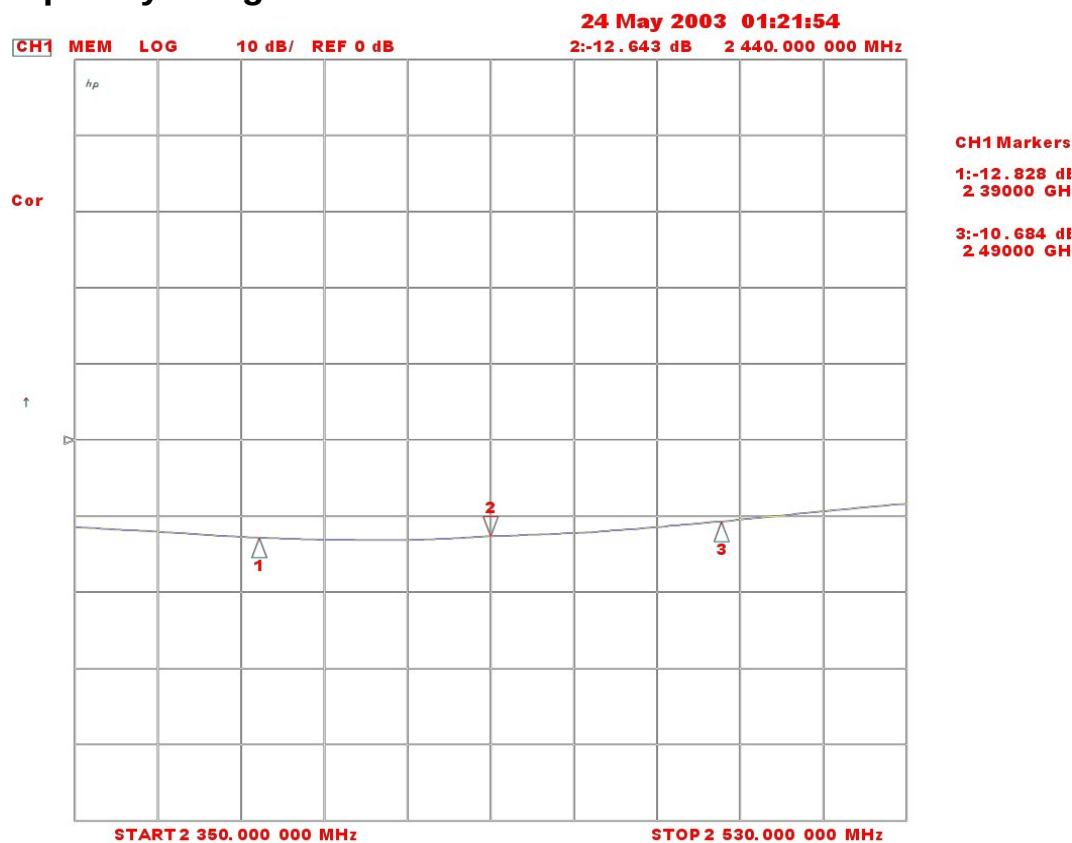
Fig 8. ENVIRONMENTAL - HUMIDITY 95%

1. RETURN LOSS

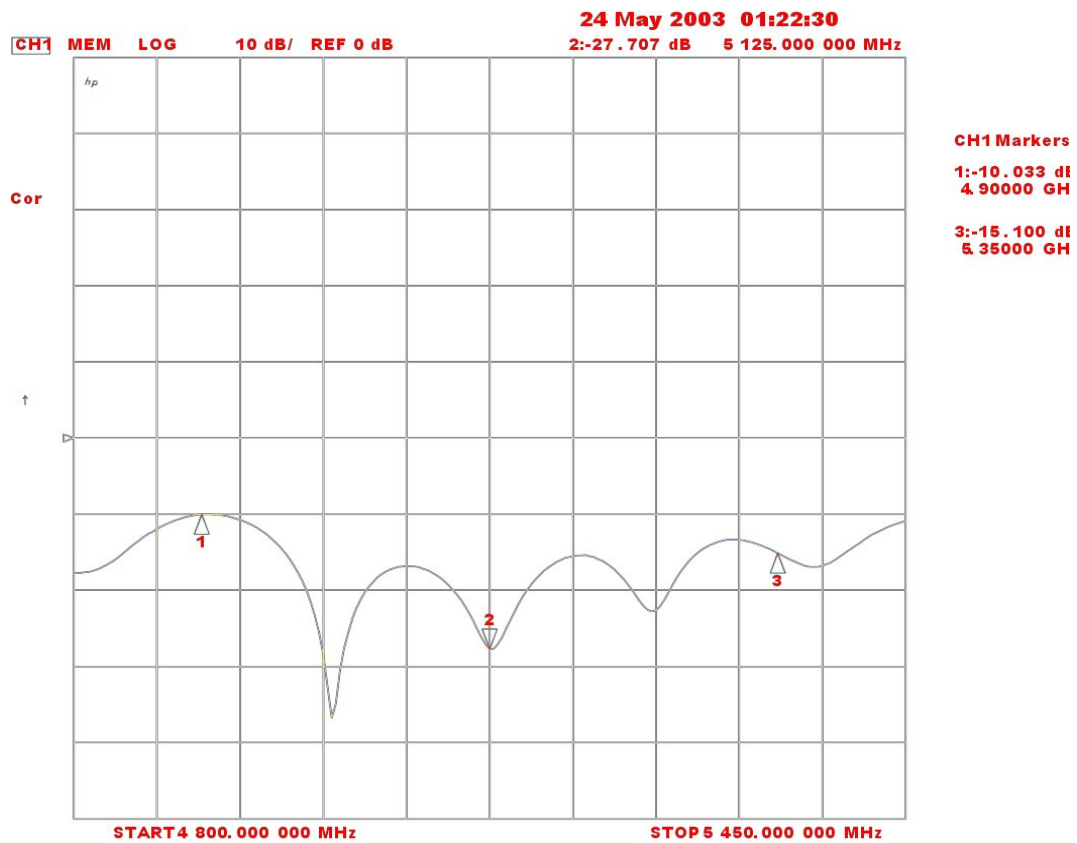
A. Frequency Range 2.39 ~ 2.49 GHz, 4.9 ~ 5.35 GHz, 5.47 ~ 5.9 GHz



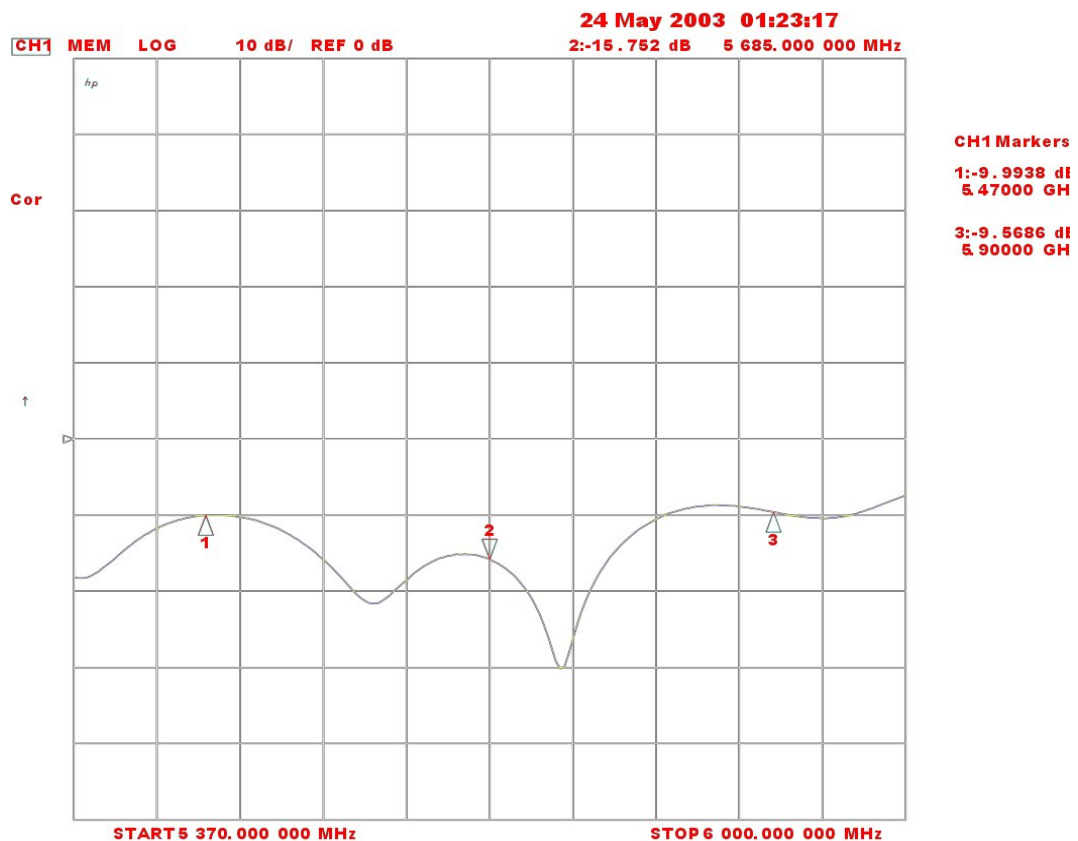
B. Frequency Range 2.39 GHz ~ 2.49 GHz



C. Frequency Range 4.9 GHz ~ 5.35 GHz

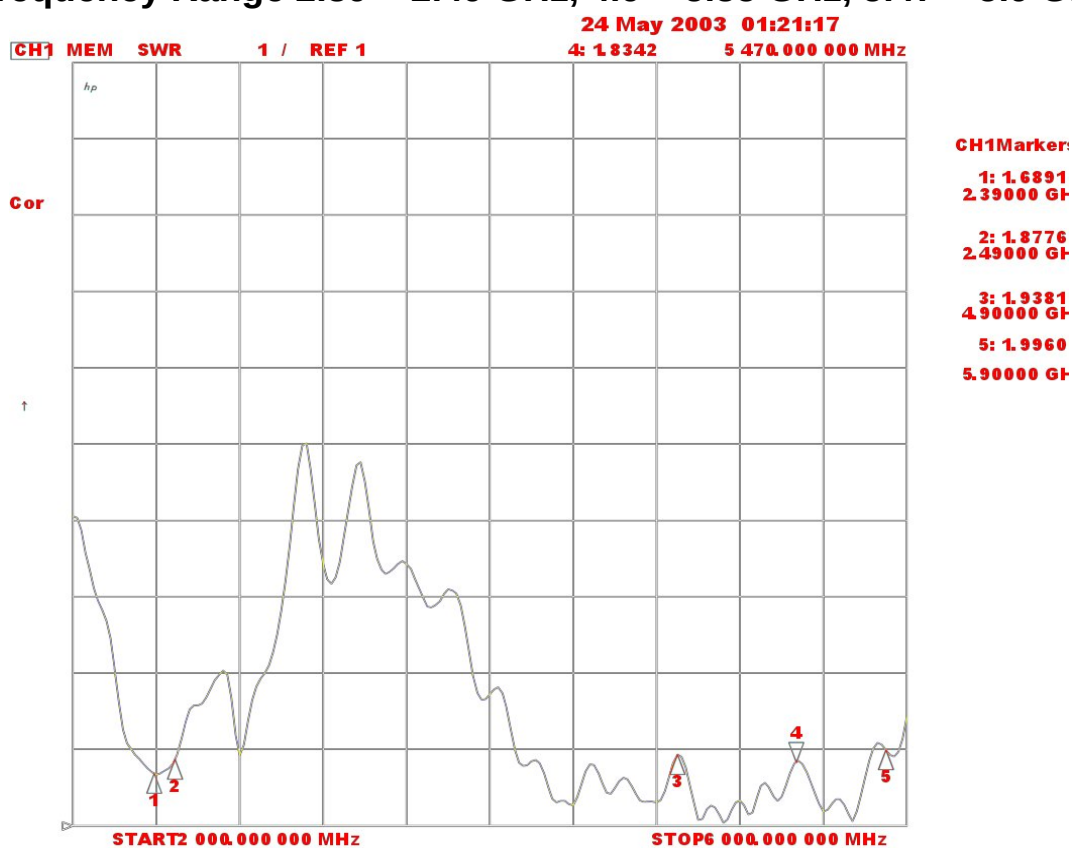


D. Frequency Range 5.47 GHz ~ 5.9 GHz

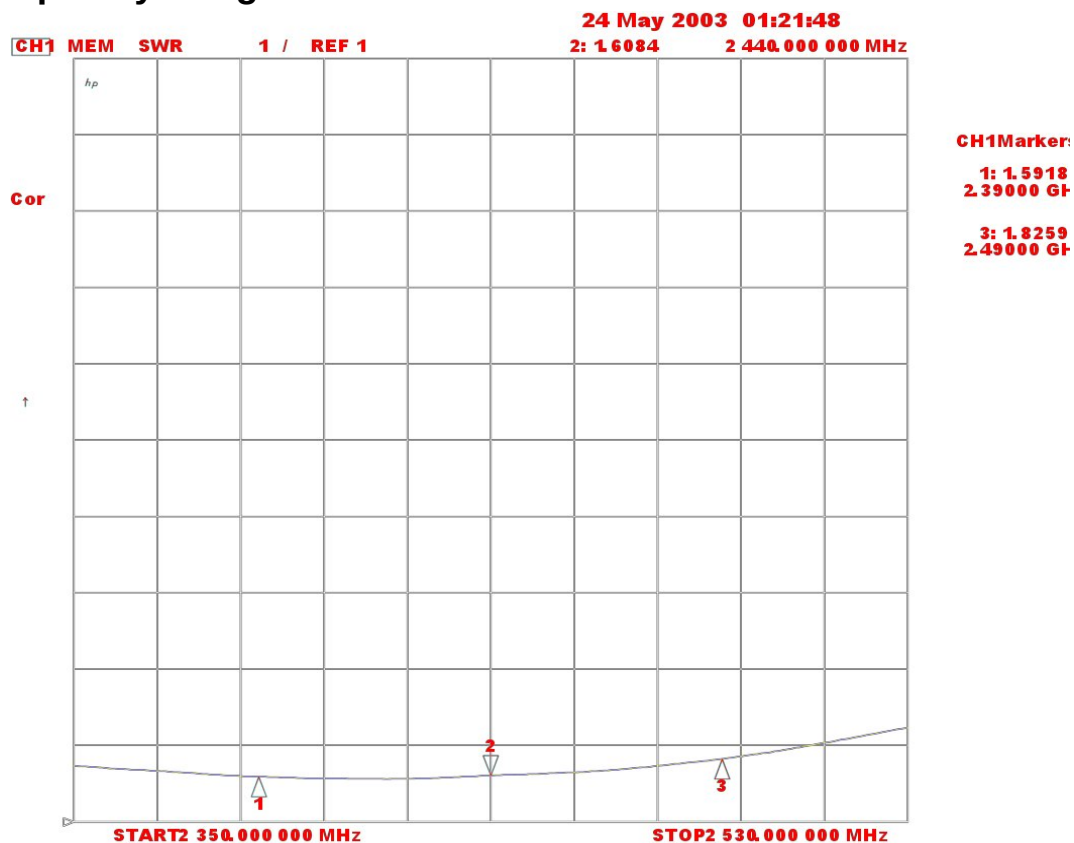


2. VSWR

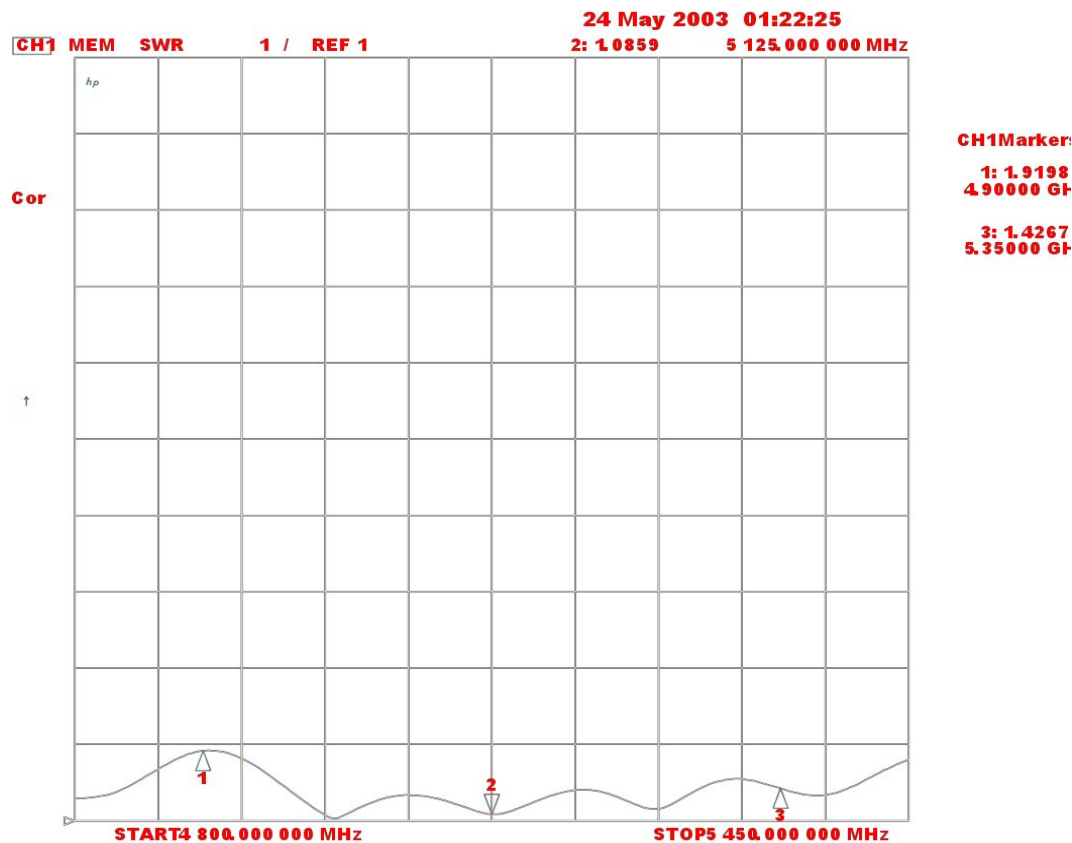
A. Frequency Range 2.39 ~ 2.49 GHz, 4.9 ~ 5.35 GHz, 5.47 ~ 5.9 GHz



B. Frequency Range 2.39 GHz ~ 2.49 GHz



C. Frequency Range 4.9 GHz ~ 5.35 GHz



D. Frequency Range 5.47 GHz ~ 5.9 GHz

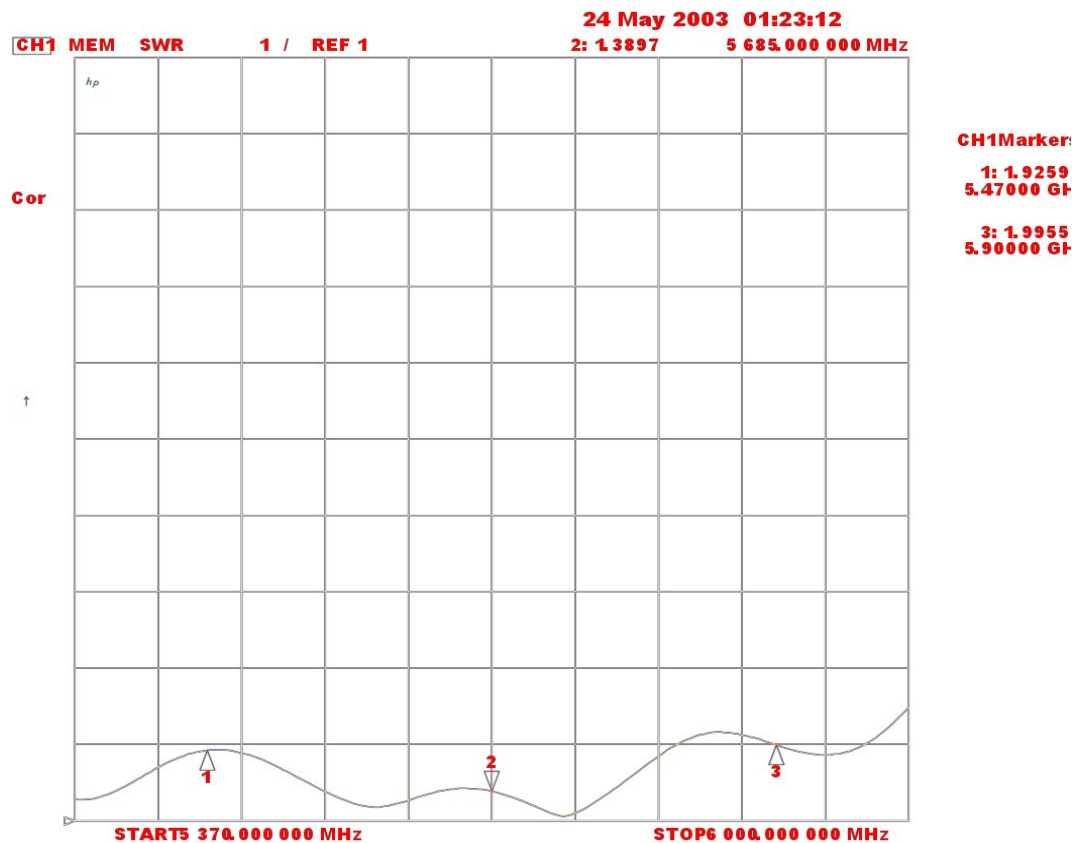
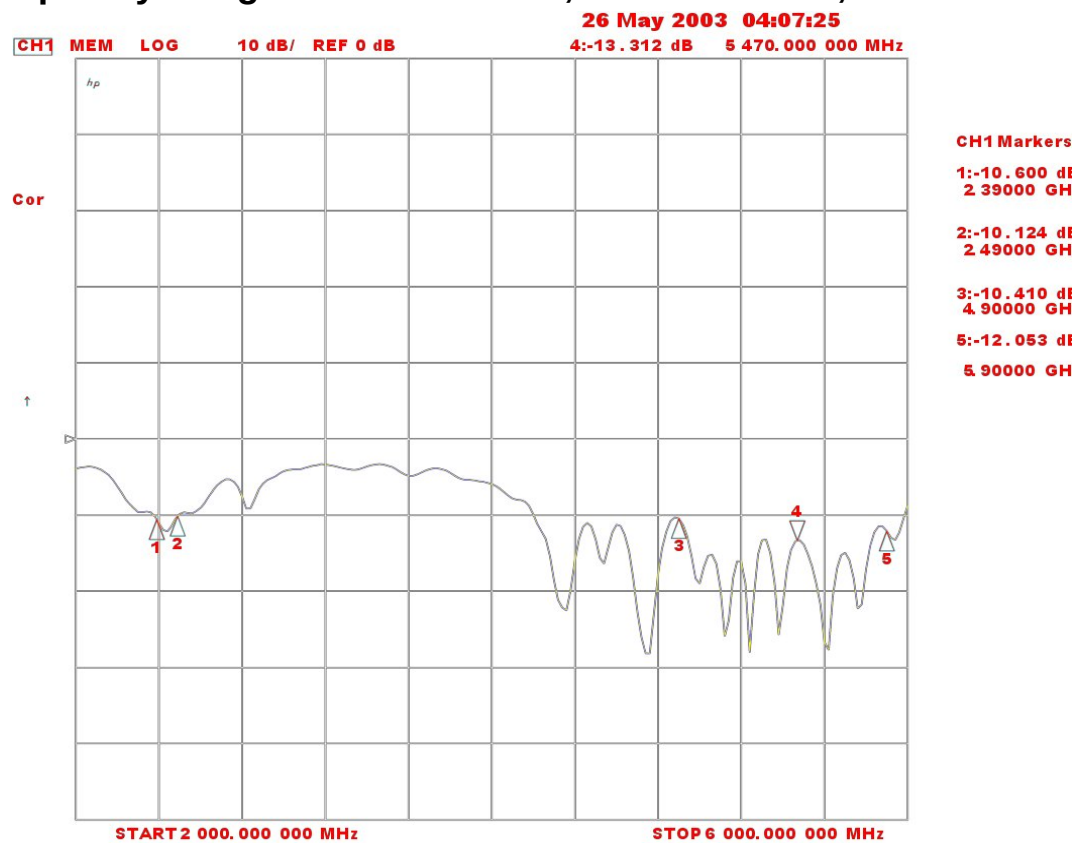


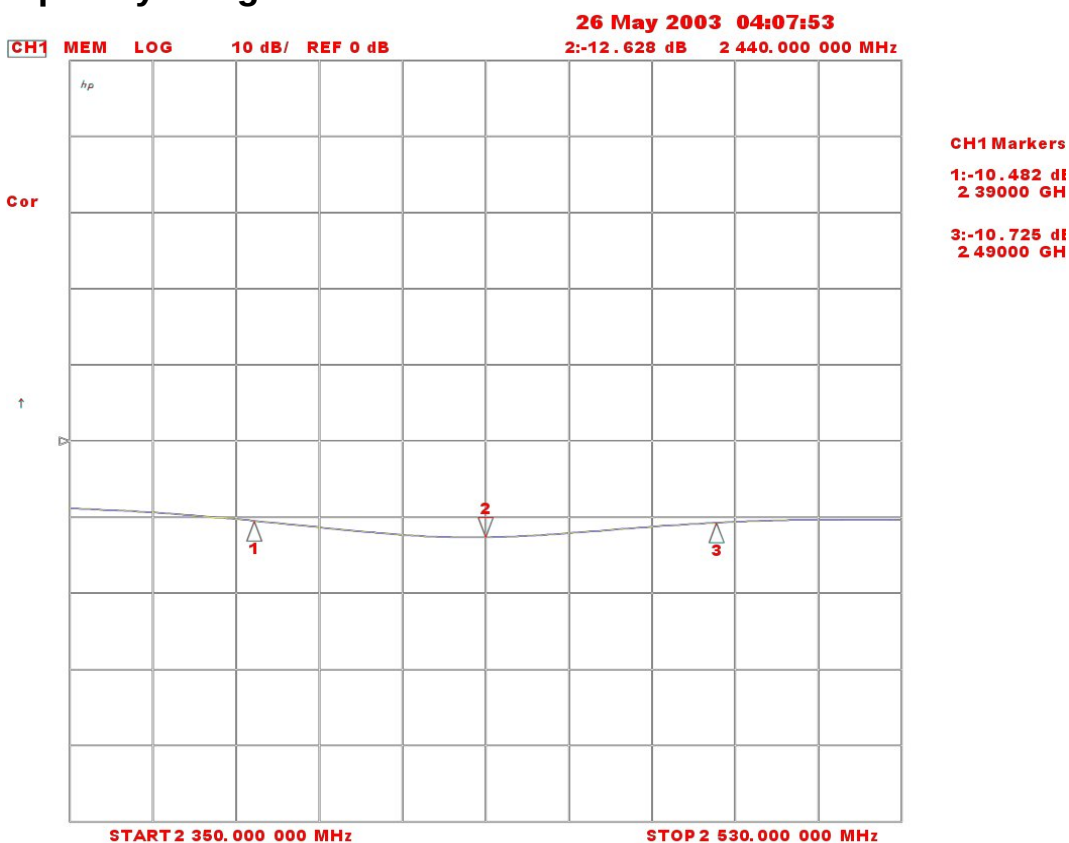
Fig 9. ENVIRONMENTAL – HUMIDITY 0%

1. RETURN LOSS

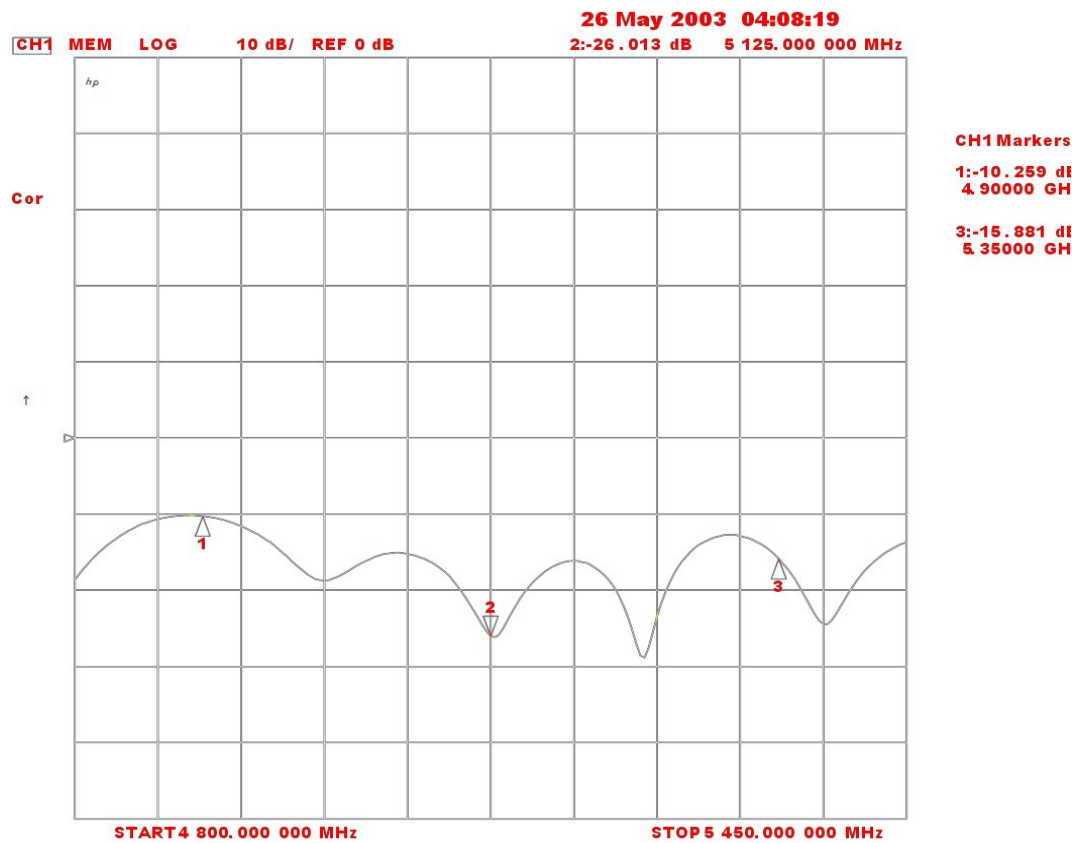
A. Frequency Range 2.39 ~ 2.49 GHz, 4.9 ~ 5.35 GHz, 5.47 ~ 5.9 GHz



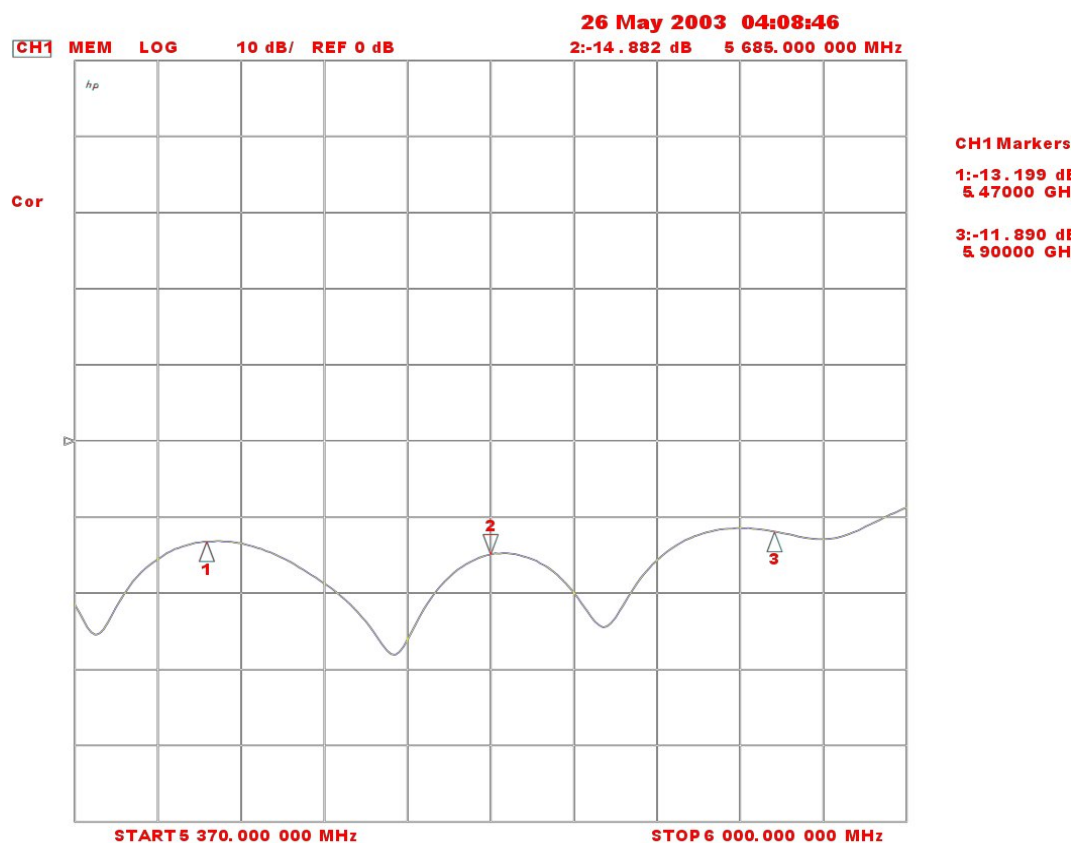
B. Frequency Range 2.39 GHz ~ 2.49 GHz



C. Frequency Range 4.9 GHz ~ 5.35 GHz

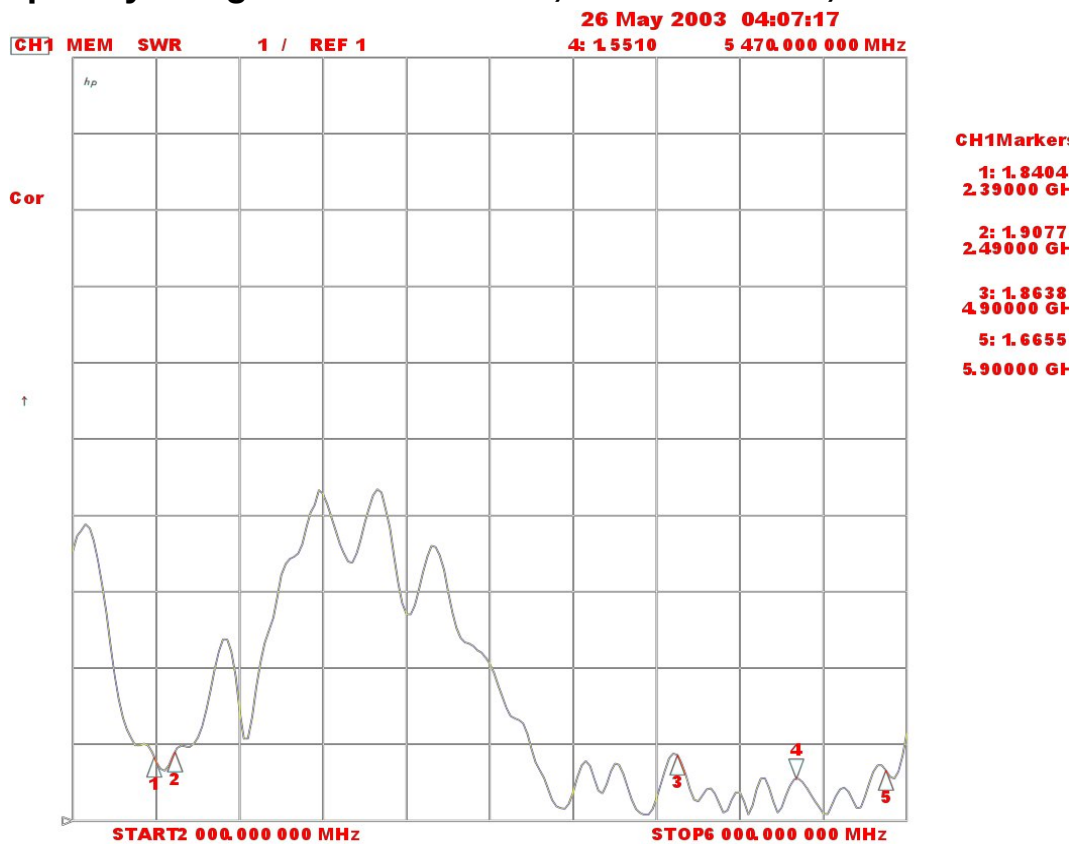


D. Frequency Range 5.47 GHz ~ 5.9 GHz

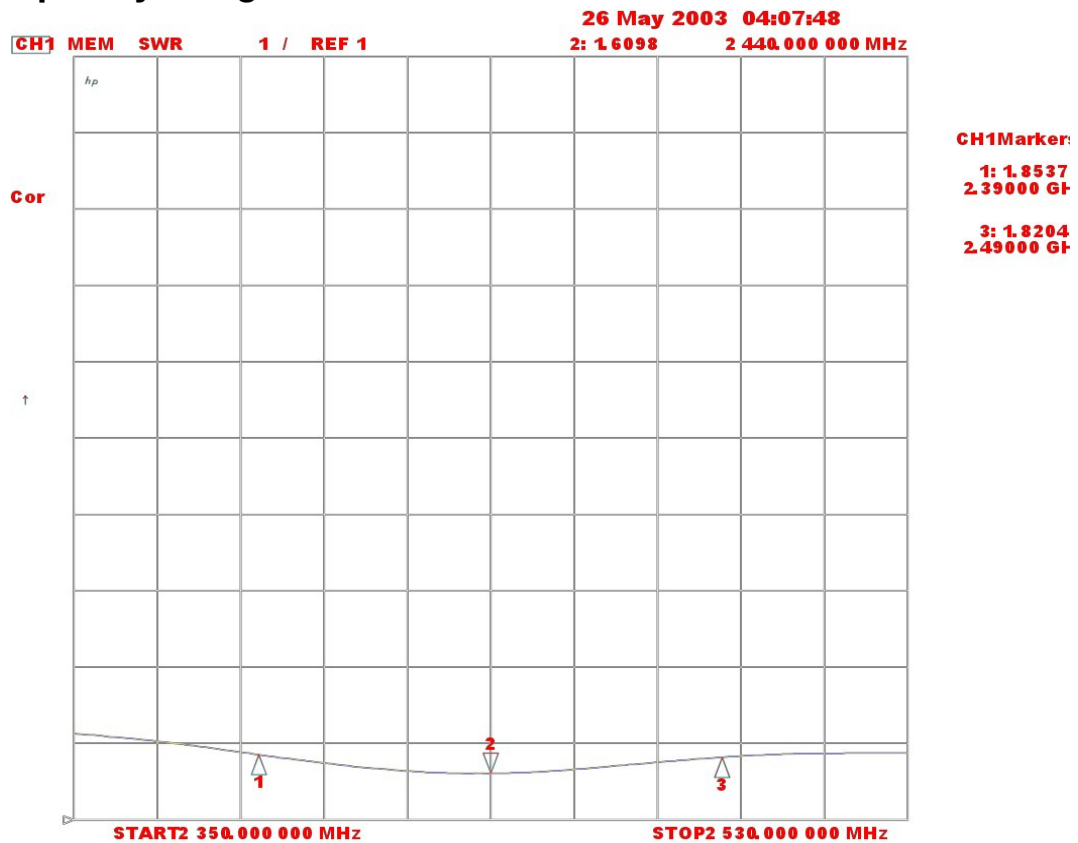


2. VSWR

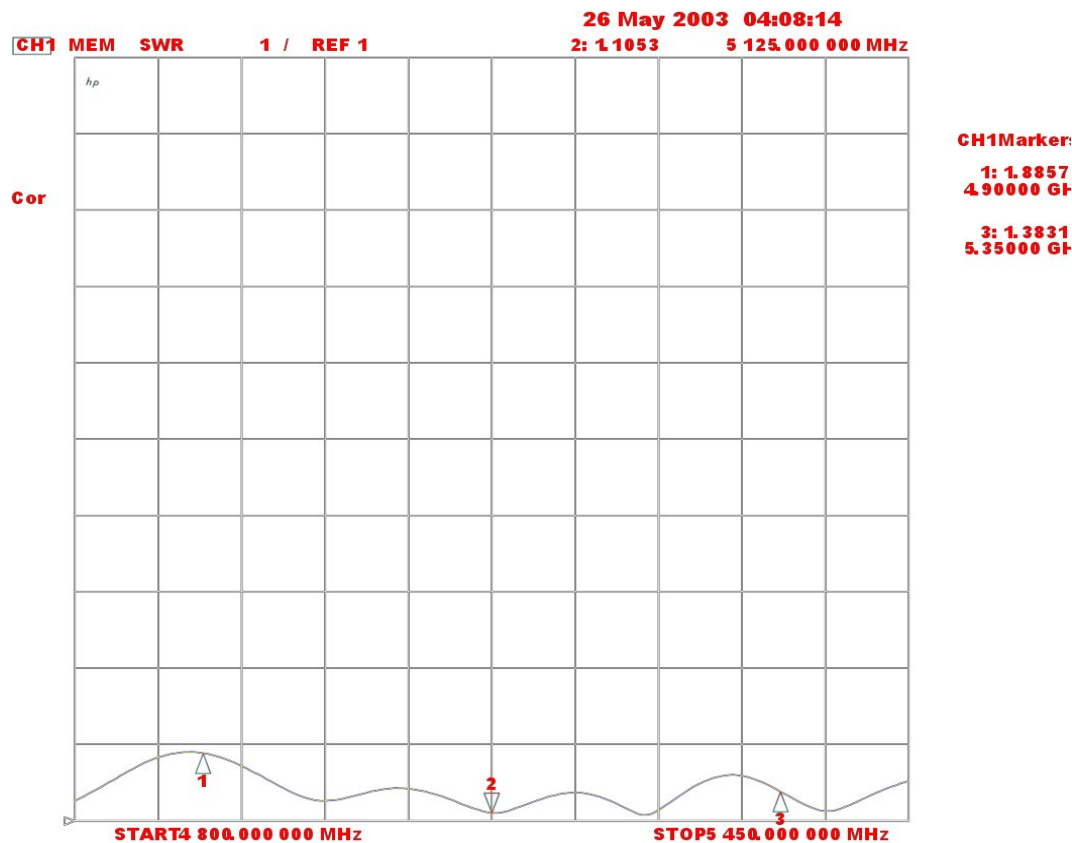
A. Frequency Range 2.39 ~ 2.49 GHz, 4.9 ~ 5.35 GHz, 5.47 ~ 5.9 GHz



B. Frequency Range 2.39 GHz ~ 2.49 GHz



C. Frequency Range 4.9 GHz ~ 5.35 GHz



D. Frequency Range 5.47 GHz ~ 5.9 GHz

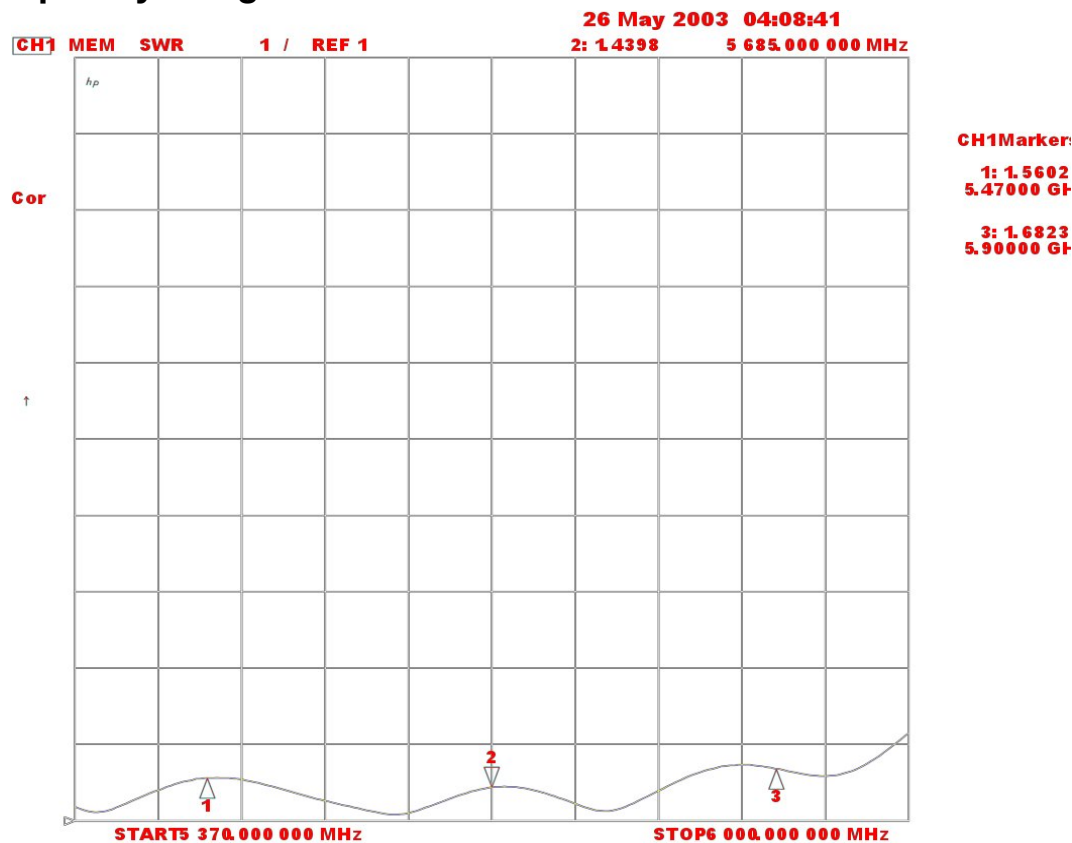


Fig 10. Antenna Mechanical Drawing

