Table 3: Variation of Reflection coefficient and VSWR at frequency 2.45 GHz.

Frequency (GHz)	Reflection Coefficient (Γ)	VSWR
2.2	0.31	1.989
2.25	0.33	1.985
2.3	0.32	1.941
2.35	0.31	1.989
2.4	0.32	1.941
2.45	0.25	1.666
2.5	0.3	1.857
2.55	0.25	1.666
2.6	0.33	1.985
2.65	0.3	1.857
2.7	0.25	1.666

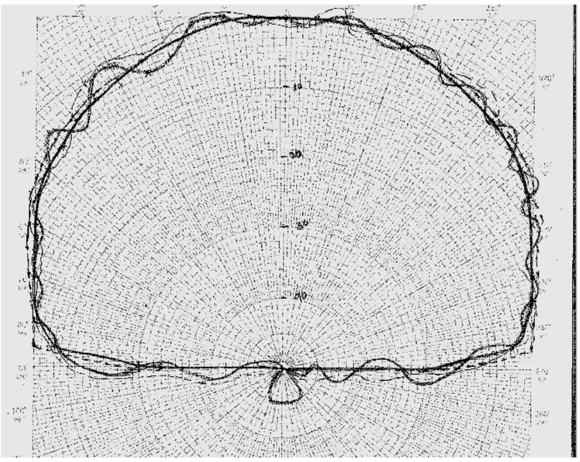

Figure 10: Antenna radiation pattern at 5.7GHz

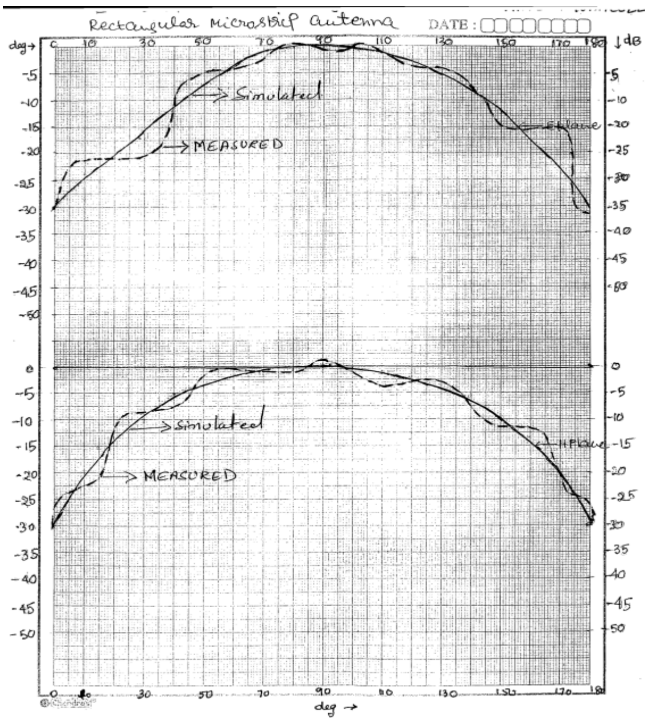

Figure 11: Antenna radiation pattern at 2.45 GHz

5. Conclusion

The design and development of patch antenna using rohacell material are provided. Though the size of the radiating patch increases marginally compared to the standard dielectric materials, the loss tangent of the rohacell material is very low, leading to achieving higher gain figures. One of the disadvantages of the rohacell material is that a separate power divider is required when building array antennas. A higher dielectric constant value for the substrate material greater than 5 is preferred for power dividers. This may not be a problem when building large arrays.

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