4. Results

Fig-4 shows radiation pattern of yagi-uda antenna with additional two reflectors. It shows approximate 3.5 db forward gain improvement compared to 3 element yagi, ie upto 10.56 dbm compared to isotropic antenna. This structure modifies backlobe & gives gain in backward direction also on specific area and angle.

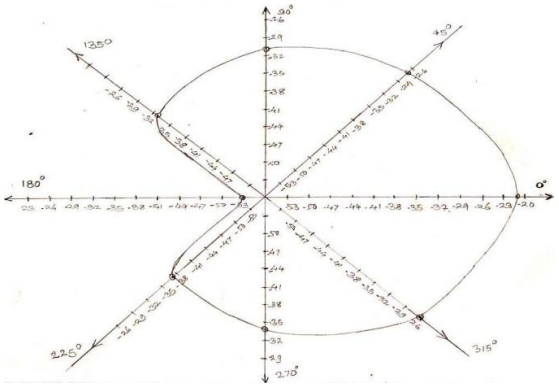

Figure 4

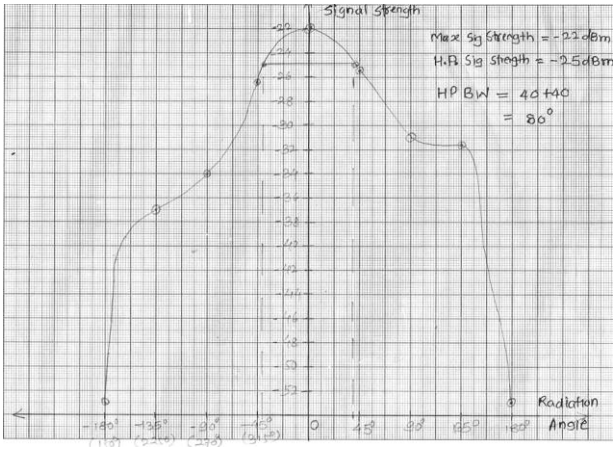

Figure 5

Figure-5 shows half power beamwidth of yagi-uda antenna with additional two reflectors.

5. Measured Parameters of Antenna

- Type:- Yagi-Uda antenna with additional two reflectors
- Input :-FM modulated signal of 158.6 MHz, with 2ppm
- Frequency stability
- Antenna polarization: Vertical
- Signal measured: Communication Service Monitor in dbm
- Coaxial cable: RG 8Au with BNC
- Radio used: Motorola GP339 Handheld Transreceiver.

Sr. No.	Parameter	3 Element Yagi-uda	Yagi-uda with additional two reflectors
1	Gain	7dbi	8.3 dbi
2	Directivity	7 dbi	10.56 dbi
3	Half Power Beamwidth	120^0	80^0
4	F/B ratio	16	31
5	Gain in backward lobe 135^0 , 225^0	--	7 to 8.5 db v/s yagi

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