

**TECHNICAL NOTE :****DIRECTION OF GMRT ANTENNA FEEDS AS A FUNCTION OF FOUR AZIMUTH VALUES OF 45-METRE DISH AND FOUR FPS POSITIONS FOR ELEVATION =90°**

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For GMRT Observers Technical Manual
For GMRT Astronomers Manual
For GMRT Engineers Technical Manual

Keywords : ANTENNA FEEDS; ORIENTATION; FPS POSITIONS

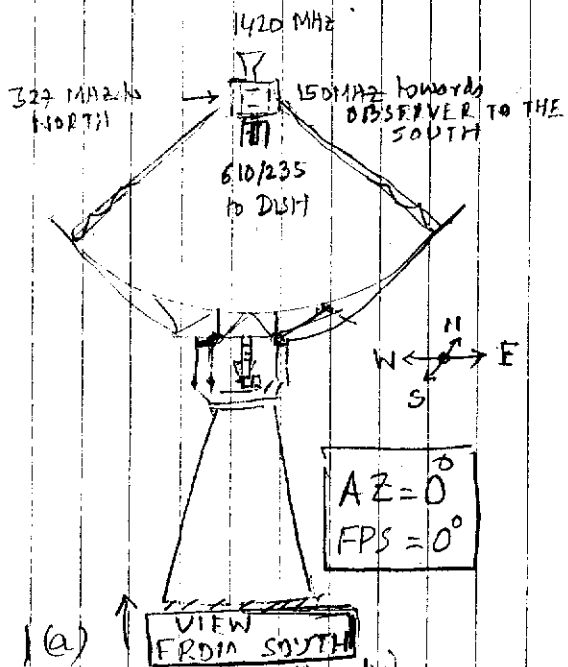
Fig. 1 describes schematically relative orientations of antenna feeds of the GMRT 45-m dishes for the case when Azimuth = 0°, Elevation=90°, FPS position = 0°, i.e. 610/233 MHz feed faces the dish AND an engineer or Observer is located either to the south of the dish (Fig. 1a) or located to the West (Fig. 1b). Plan is given in Fig. 1c and FPS positions for feeds towards the dish in Fig. 1 (d).

In Table A are given directions of antenna feeds for 4 different values of azimuth and FPS positions for El=90°.

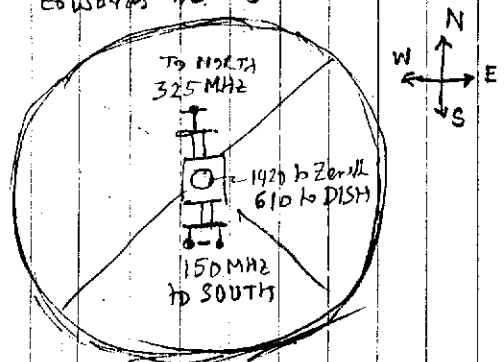
It may be noted that for Az=0°, dish is pointed towards south for El=less than 90°. Hence any feed pointed towards zenith when the dish has El=90°, will be pointed nearby towards the Southern horizon for El = 20°. Therefore, the feed towards the zenith can also be used for RFI monitoring by tilting the antenna in elevation with El = 20° if the rotation of the feed is not possible in some cases.

Directions of GMRT Antenna Feeds as a Function of four Azimuth values of 45-m dishes and four FPS positions for Elevation = 90 Deg.

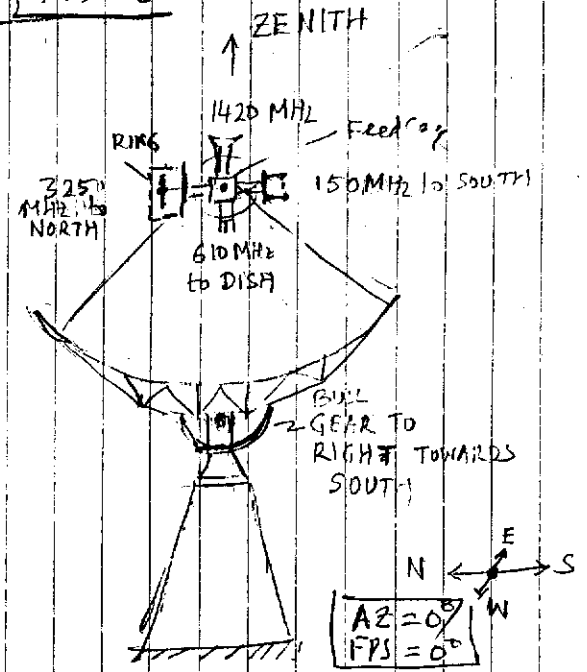
Azimuth Position (Deg)	FPS Position* (Deg)	Feed to Dish (MHz)	Feed to Zenith (MHz)	N	E	(MHz) to S	W
0	270	325	150	1420	-	610/235	-
	180	1420	610	150	-	325	-
	90	150	325	610/235	-	1420	-
	0	610	1420	325	-	150	-
90	270	325	150	-	1420	-	610/235
	180	1420	610	-	150	-	325
	90	150	325	-	610/235	-	1420
	0	610	1420	-	325	-	150
180	270	325	150	610/235	-	1420	-
	180	1420	610	327	-	150	-
	90	150	325	1420	-	610/235	-
	0	610	1420	150	-	327	-
270	270	325	150	-	610/235	-	1420
	180	1420	610	-	327	-	150
	90	150	325	-	1420	-	610/235
	0	610	1420	-	150	-	327
* Encoder							
book2.xls							



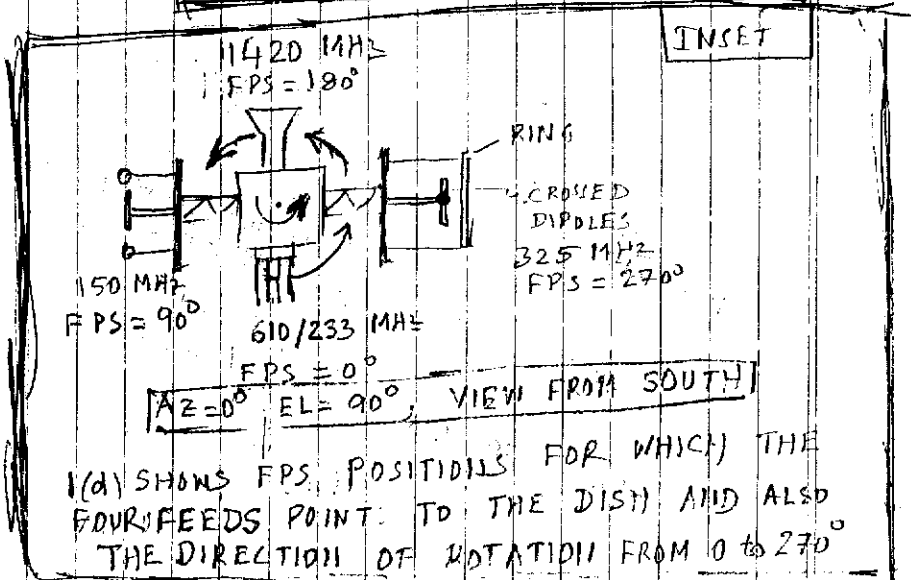
(a) VIEW FROM SOUTH
(Large part of the dish towards the OBSERVER)



(b) PLAN from Zenith



(c) VIEW FROM WEST



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