

Available modes of the GSB

(Release Ver. 2.4 04th May 2014)

Observation Type	Usage Mode	Input IF BW (MHz)	Acquisition BW or Final o/p BW (MHz)	Number of Channels	Output Time Resolution	
1 Interferometry : Continuum	Total Intensity (32 MHz mode)	32,16,6	32	512, 256	2,4,8..(sec)	
	Total Intensity (16 MHz mode)	16,6	16	512, 256	2,4,8..(sec)	
				128	0.5,1,2..(sec)	
				64, 32	0.25,0.5,1..(sec)	
	Full Stokes (32 MHz mode)	32,16,6	32	512(*), 256	2,4,8..(sec)	
Full Stokes (16 MHz mode)	16,6	16	512, 256	2,4,8..(sec)		
2 Interferometry : Spectral Line	Total Intensity (16 MHz and lower BW modes)	16,6	16 / N (N=4,8,16,32,64,128, i.e. 4, 2, 1, 0.5,0.25 & 0.125 MHz resp.)	512, 256	2,4,8..(sec)	
3 Array: Beams	IA	Total Intensity (32 MHz mode)	32,16,6	32	512, 256	Pre : (#) Post: 1,2,4.
		Total Intensity (16 MHz mode)	16,6	16 / N (N=4,8,16, i.e. 4,2,1 MHz resp.)	512, 256	Pre: (#) Post: 1,2,4.
	PA	Total Intensity (32 MHz mode)	32,16,6	32	512, 256	Pre: (#) Post:1,2,4.
		Full Stokes (32 MHz mode)	32,16,6	32	512, 256	Pre: (#) Post:2,4.
		Total Intensity (16 MHz mode)	16, 6	16 / N (N=4,8,16, i.e. 4,2,1 MHz resp.)	512, 256	Pre: (#) Post: 1,2,4.
		Full Stokes (16 MHz mode)	16,6	16	512, 256	Pre: (#) Post:1,2,4.
		Voltage Beam (32 MHz mode)	32,16,6	32	512, 256	15 nsec (@)
		Voltage Beam (16 MHz mode)	16,6	16	512, 256	30 nsec (@)
4 Raw Dump	Raw voltages from all antennas	16,6	16		30 nsec at 4 bits per sample	

Notes :

(*) Released on trial basis : set lta-visibility pre-integration to 4sec and beam output 245.76 uSec.

(#) Regarding beam integration and beam-data-host

BW	CHANNEL	PRE-INTEG	IFR	Beam-Stokes	Data-Nodes (Beam1-Beam2)
16.666	256	30.72 uSec	TI	IA(TI):PA(TI)	node33-34
16.666	512	61.44 uSec	TI	IA(TI):PA(TI)	node33-34
16.666	256	61.44 uSec	FS	IA(TI):PA(FS)	node33-34
16.666	512	122.88 uSec	FS	IA(TI):PA(FS)	node33-34
33.333	256	30.72 usec	TI	IA(TI):PA(TI)	node33-34
33.333	512	61.44 usec	TI	IA(TI):PA(TI)	node33-34
33.333	256	122.88 usec	FS	IA(TI):PA(FS)	node33-34
33.333	512	245.76 usec	FS	IA(TI):PA(FS)	node33-34 with XNET

(@) Output data is in spectral voltage form; needs one inverse FT to get voltage time series with time resolution of 15 nsec for 32 MHz mode and 30 nsec for 16 MHz mode.