

GBT Receiver Status

Instrument	Frequency Range	Upgrades
PF300	0.29 - 0.395	
PF450	0.385 - 0.520	
PF600	0.510 - 0.690	
PF800	0.680 - 0.920	
PF2	0.91 - 1.23	UWBR: 0.7 - 4.0
L	1.15 - 1.73	New Design Tsys < 14 K
S	1.73 - 2.60	1.73 - 4.00
C	3.95 - 8.00	
X	8.00 - 11.60	8.0 - 12.0
Ku	12.0 - 15.4	Close the Gap with KFPA?
KFPA - 7pix	18.0 - 27.5	
Ka - 2 pic	26.0 - 39.5	Combine Ka + Q
Q - 2 pix	38.2 - 49.8	Combine Ka + Q
W - 2 pix	67.0 - 93.3	
ARGUS - 16 pix	80.0 - 115.3	
3mm		2-pix, 2-pol 85 - 116 GHz
MUSTANG - 223 pix	75 - 105	
FLAG - 7 pix phased-array receiver	1.38 - 1.5	Engineering Demo

Improvements to Bandwidth

Table 3: High Frequency GBT Receiver BW

Receiver	Frequency Range (GHz)	Current Max. BW (GHz)	Potential Max. BW (GHz)	Factor Increase
7-pixel KFPA	18.0–27.5	1.8	9.5	5.28
Ka-Band MM1	26.0–31.0	4.0	13.5	3.375
Ka-Band MM2	30.5–37.0	4.0		
Ka-Band MM3	36.0–39.5	4.0		
Q-Band	39.2–49.8	4.0	10.6	2.65
W-Band MM1	67.0–74.0	6.0	26.3	4.38–6.575
W-Band MM2	73.0–80.0	4.0		
W-Band MM3	79.0–86.0	4.0		
W-Band MM4	85.0–92.0	4.0		
16-pixel Argus	75.0–115.3	1.5	8	5.3

NSF Funded ATI grant to R. Lynch for R&D