

P-ALFA and E-ALFA Basic Spectrometer Specifications

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	P-ALFA (Includes GALFACTS)	E-ALFA
Analog Input		
	7-beams, 2-pols/beam	7-beams, 2-pols/beam
	14 IF signals nominally covering 100-400 MHz	14 IF signals nominally covering 100-400 MHz
	14 channel IF to quadrature baseband converter	14 channel IF to quadrature baseband converter
Sampling	Four 12-bit 300 MHz ADCs (2 pols, baseband data, I and Q inputs)	Four 12-bit 200 MHz ADCs (2 pols, baseband data, I and Q inputs)
	Sub-banding in 100 MHz, or smaller, bands to cover the 300 MHz	Sub-banding in 100 MHz, or smaller, bands to cover the 200 MHz
	Flexibility for steering the sub-bands	Flexibility for steering the sub-bands
Outputs		
	Selectable number (256, 512, 1024, 2048) spectral channels over 300 MHz per polarization	8192 spectral channels over 200 MHz per polarization
	Output bits, 8	Output bits, 8
	Selectable time sampling (16 μ sec, 32 μ sec, 64 μ sec)	~3 msec time sampling for RFI excision-fixed, not selectable
	Option for cross products for GALFACTS or polarization summing for pulsars	Cross products for RFI Identification
	External clock and sync	External clock and sync
	Spectral normalization	Capability for radar blanking
Desirable Options		
	Capability for reprogrammable polyphase filter shapes should not be excluded	
	Computations done in PC whenever possible	