

4040A Key Features



- Programmable Gain, Attenuation and Offset
- PXI
- Low Noise
- 1MΩ and 50Ω Input Impedance
- Specified Gain Accuracy, Pass-band Ripple and Temperature Stability

Superior, compared to others

	TEGAM 4040A		Tek P5200	Tek P5205	Tek P5210	Probemaster 4222	Probemaster 4232	Probemaster 4233	Probemaster 4234	Lecroy DA1855A	Stanford SR560
Channels	Single	Differential Inputs									
Configuration	PXI		Probe/box	Probe/box	Probe/box	Probe/box	Probe/box	Probe/box	Probe/box	Box	Box
Gains	100, 10, 1		-	-	-	-	-	-	-	1,10	1-50,000
Attenuation	÷10, ÷100		÷50, ÷500	÷50, ÷500	÷100, ÷1000	÷10	÷10, ÷100	÷10, ÷100	÷100, ÷1000	÷10	None
Maximum Voltage	±100V	DC + peak AC	±1000V	±1000V	±2200V	±60V	±700V	±700V	±1400V	±155V	±1.5V
Coupling	AC-10Hz, DC		DC	DC	DC	DC	DC	DC	DC	AC/DC	AC/DC
Input Impedance	1MΩ 20pF or 50Ω	Selectable	4MΩ 7pF	4MΩ 7pF	8MΩ 7pF	500K/7pF	4MΩ 10pF	4MΩ 7pF	4MΩ 7pF	1MΩ 20pF	100MΩ 25pF
CMRR	>77dB at 60Hz	> 50dB at 1MHz	80dB @ 60Hz	80dB @ 60Hz	80dB @ 60Hz	80dB @ 100Hz	86dB @ 50Hz	85dB @ 50Hz	80dB @ 50Hz	94dB @ 70Hz	100dB @ 60Hz
Total Harmonic Distortion	<-60dB @ 1MHz	Output 1Vpp in 50Ω	-	-	-	-	-	-	-	-	66dB @ 1KHz
DC Gain Accuracy	±(0.1% input + 100μV)	Offset set to 0	-	-	-	1%	2%	2%	2%	1%	N/A
AC Gain Accuracy	1%	10KHz sine wave, calibrated	N/A	N/A	N/A	1%	2%	2%	2%	1%	N/A
Oversoltage Protection	±100V	DC + Peak AC	-	-	-	-	-	-	-	-	-
Offset Range(Referred to input)	0-Full Scale	All gain ranges	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0-Full Scale	N/A
Offset Resolution	32 PPM of full scale	All gain ranges	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	Manual pot adjustment
Offset Accuracy	±(0.5% of setting + 300uV)	Referenced to 1V range	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Temperature Stability	±(0.01% of rdg + 40uV)/C	All gains									0.02%/C
Noise	9nV/√Hz	CMR=±1V, gain 10 and 100, referred to input For frequencies >100Hz	-	-	-	21nV/√Hz	400nV/√Hz	90nV/√Hz	90nV/√Hz	-	4nV/√Hz
Output											
Type	Single ended 2Vpp					±2V	±7V (into 2KΩ)	±7V	±3.5V	±0.5V	
Output Resistance	50Ω					50Ω	1Ω at 1 KHz, 8Ω at 1 MHz	50Ω	50Ω		600Ω, 50Ω
Bandwidth	50MHz	Filters Off, gains 10, 1, 0.1, 0.01	25MHz	100MHz	50MHz	200MHz	25MHz	100MHz	100MHz	100MHz	1MHz
	10MHz	Filters Off, gain 100	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Passband Ripple	±0.25dB	DC to 10MHz referred to 10KHz	-	-	-	-	-	-	-	-	-
LP Filter, Cutoff Frequency	100KHz, 1MHz	Single pole filter	-	-	-	-	-	-	-	20MHz, 1MHz, 100KHz	Two programmable 0.3Hz to 1MHz
Relative Price (1 = lowest, 10 = highest)	6		2	5	8	4	1	3	3	9	7