

# PXI-Based Instrument Selection Guide



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	Multi-Function DAQ Modules									High-Speed Digitizer	High-Speed Arbitrary Waveform Generator
	PXI-2005	PXI-2006	PXI-2010	PXI-2204	PXI-2205	PXI-2206	PXI-2208	PXI-2501	PXI-2502	TE-6100	TE-5201
Analog Inputs	4 DI <sup>(1)</sup>	4 DI <sup>(1)</sup>	4 DI <sup>(1)</sup>	64 SE/32 DI	64 SE/32 DI	64 SE/32 DI	96 SE/48 DI	8 SE	4 SE	2 SE <sup>(1)</sup>	–
Sampling Rates (S/s)	500 k	250 k	2 M	3 M	500 k	250 k	3 M	40 k	400 k	100 M <sup>(2)</sup>	–
Input Resolution (bits)	16	16	14	12	16	16	12	14	14	8	–
Input Ranges (V)	±10 V 0 to 10 V	±10 V 0 to 10 V	±10 V 0 to 10 V	±10 V 0 to 10 V	±10 V 0 to 10 V	±10 V 0 to 10 V	±10 V 0 to 10 V	±10 V 0 to 10 V	±10 V 0 to 10 V	±40 V <sup>(3)</sup>	–
Input Gains	1, 2, 4, 8	1, 2, 4, 8	1, 2, 4, 8	1, 2, 4, 5, 8, 10, 20, 40, 50, 200	1, 2, 4, 8	1, 2, 4, 8	1, 2, 4, 5, 8, 10, 20, 40, 50, 200	1	1	1, 2, 5, 10, 20, 50, 100, 200, 400, auto-range	–
Analog Outputs <sup>(4)</sup>	2	2	2	2	2	2	–	4	8	–	1
Update Rate (S/s)	1 M	1 M	1 M	1 M	1 M	1 M	–	1 M	1 M	–	100 M
Output Resolution (bits)	12	12	12	12	12	12	–	12	12	–	14
Output Ranges (V) <sup>(5)</sup>	±10 V 0 to 10 V	±10 V 0 to 10 V	±10 V 0 to 10 V	±10 V 0 to 10 V	±10 V 0 to 10 V	±10 V 0 to 10 V	±10 V 0 to 10 V	±10 V 0 to 10 V	±10 V 0 to 10 V	–	±8 V <sup>(6)</sup>
Digital I/O	24	24	24	24	24	24	24	24	24	–	–
Timer/Counter	16-bit x 2	16-bit x 2	16-bit x 2	16-bit x 2	16-bit x 2	16-bit x 2	–	16-bit x 2	16-bit x 2	–	–
Analog Trigger	●	●	●	●	●	●	●	●	●	●	●
Digital Trigger	●	●	●	●	●	●	●	●	●	●	●
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**Legends:**

● Supported – Not available SE: Single-ended DI: Differential

**Notes:**

- (1) Simultaneous-sampling for analog inputs
- (2) 50 MS/s sampling rate per channel, cascaded to achieve 100 MS/s
- (3) Supports DC hardware offset from -80 to +80 V
- (4) Analog outputs with simultaneous-update and arbitrary waveform generation
- (5) Accepts user-defined external reference for different full scale ranges and/or modulation applications
- (6) 50-ohm output impedance with high impedance load; ±4 V for 50-ohm load

