

Technical Specification for FPGA BASED CONTROL CARD

| S.NO | ITEM | SPECIFICATION(S) | COMPLIED/ NOT COMPLIED | CATALOGUE PAGE NO |
|------|---|---|------------------------------|----------------------|
| 1. | FPGA Type | Reconfigurable FPGA Kintex-7 160T with Embedded Block RAM 11,700 kbits Number of DSP48 slices 600 | | |
| 2. | Time base | 200 MHz | | |
| 3. | Analog Inputs | 8 Channels (16 Bits) Sampling rate 500 kS/s per channel, Conversion time 2 μ s Input signal range (software-selectable) ± 1 V, ± 2 V, ± 5 V, ± 10 V Input impedance Powered on 1.25 G Ω 2 pF Powered off/overload 4 k Ω minimum | | |
| 4. | Analog Outputs | Number of channels 8 Output type Single-ended, voltage output Resolution 16 bits Update time 1 μ s Maximum update rate 1 MS/s Type of DAC Enhanced R-2R Range ± 10 V Output impedance 0.5 Ω Current drive ± 2.5 mA | | |
| 5. | Digital I/O (PWM pins) | 48 channels Minimum input -0.3 V Maximum input 3.6 V Input leakage current ± 15 μ A maximum | | |
| 6. | Digital I/O update rate Or Switching frequency range for PWM operation | 5 ns Or up to 200 MHz | | |
| 7. | Bus Interface | Form factor x4 PXI Express, specification v1.0 compliant Slot compatibility x4, x8, and x16 PXI Express or PXI Express hybrid slots Data transfers DMA, interrupts, programmed I/O Number of DMA channels 16 | | |

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|-----|----------------------------|---|--|--|
| 8. | Software and Compatibility | LabVIEW Development, LabVIEW Real-Time, LabVIEW FPGA, LabVIEW Signal Processing | | |
| 9. | Others | Necessary accessories price (like cables, connectors, software, etc. to use the card) to be provided. | | |
| 10. | Warranty | Product should be supplied with a warranty, minimum of 5 years from the date of installation. | | |

(Note: It is mandatory for the bidders to provide the compliance statement in tabular column format along with catalogue page number (comply/not comply) for the Above points with document proof as required. Failing which bidders will be technical disqualified)