

1 Compliance Metrics

Please provide complete details of vendor specifications against IPR requirements.

Sr. No.	IPR Specifications		Vendor Specifications (Don't write simply Yes/No)
2.1	Instrument Chassis		
1	AC power supply	230V +/- 10%, 50Hz	
2	Bus type	PXI Express	
3	Number of Slots	8 slots or more with minimum 2 hybrid slot	
4	Slot types	Must be able to accommodate minimum two 3U PXI hybrid modules, PXI Express modules as specs below and PXI express controller as specs below for this system configuration	
5	Minimum Per Slot Bandwidth	2GB/s dedicated bandwidth or higher	
6	Dimensions	3U 19 inch rack mountable	
7	Form Factor	Standard PXIe	
8	Cooling	Forced air cooling with inbuilt fan(s)	
9	Operating temperature	5 °C to 50 °C or better specification	
10	Standards and Compliance	The product should meet the international safety standard related to electrical equipment and EMI/EMC.	
11	System Reference Clock out	10 MHz reference clock out	
12	External Clock Source In	10 MHz external clock In	
13	Accessories:	Rack Mount kit and Power cord	
2.2	Embedded Controller		
1	Bus type	Fully compatible with PXI Express specification	
2	Processor	2.4 GHz quad core processor or better	
3	Operating system and Drivers	Supply of Windows 10 Professional or higher. Controller should also be capable of real time operating system deployment. Vendor must specify the RTOS support and the programming method for RTOS.	
4	Hard Drive	500 GB or larger Solid State Drive	
5	RAM	8GB or larger	
6	Ethernet interface	Two 10/100/1000 Base-T Port, RJ-45 connector	
7	Display port	1 Number	
8	GPIB (IEEE 488 controller)	1 Number	
9	Hi-Speed USB (3.0) Port	2 Numbers or more	
10	PXI Express Trigger Bus Input /Output	Required – with SMB interface or equivalent	

11	Accessories:	For controller: 20" LCD Monitor or higher, USB keyboard, Optical Mouse.	
12	Dimension	3U PXI express module to fit in PXIe chassis	
13	Operating Ambient temperature range	5 °C to 50 °C or better specification	
14	Relative Humidity range	10 % to 90 %, non-condensing	
2.3	Simultaneous sampling Digitizer Module type 1		
1	Total number of Analog In (AI) channels	48	
2	Number of AI channels per card	4 or 8 numbers of differential channels	
3	Bus Type	PXI Express	
4	ADC Resolution	16 bits	
5	Sampling rate	Simultaneous sampling at rate of 1.25 MS/sec/channel or higher	
6	Input Impedance	≥10 GΩ in parallel with input capacitance ≤100 pF	
7	Input coupling	DC	
8	Input Voltage range	± 10V, ± 5V selectable	
9	Over voltage Protection	±20 V or higher	
10	Input buffer	8k Samples or more	
11	Data transfers	DMA, Programmed IO	
12	External clock and External trigger	Provision for external clock and external trigger for synchronous operation	
13	Analog Out channel	2 Numbers with 16 bit resolution	
14	Digital In/Out channel	16 channel Individually programmable as In or Out	
15	Driver should be compatible with the Operating system	Windows 10 or higher	
16	Mandatory Accessories:	(1) Shielded connection box for connection of acquisition signals to DAQ Modules (2) Shielded cables for connection of modules to Connection box.	
2.4	Simultaneous sampling Digitizer Module type 2		
1	Total number of Analog In (AI) channels	16	
2	Number of AI channels per card	4 or 8 numbers of differential channels	
3	Bus Type	PXI Express	
4	ADC Resolution	16 bits	

5	Sampling rate	Simultaneous sampling at rate of 10 MS/sec/channel or higher	
6	Input Impedance	$\geq 10 \text{ G}\Omega$ in parallel with input capacitance $\leq 100 \text{ pF}$	
7	Input coupling	DC	
8	Input Voltage range	$\pm 10\text{V}, \pm 5\text{V}$ selectable	
9	Over voltage Protection	$\pm 20 \text{ V}$ or higher	
10	Input buffer	8k Samples or more	
11	Data transfers	DMA, Programmed IO	
12	External clock and External trigger	Provision for external clock and external trigger for synchronous operation	
13	Driver should be compatible with the Operating system	Windows 10 or higher	
14	Mandatory Accessories:	(1) Shielded connection box for connection of acquisition signals to DAQ Modules (2) Shielded cables for connection of modules to Connection box.	
3	Software Compatibility for above all DAQ hardware		
1	Embedded Controller shall be equipped with preinstalled operating system Windows 10 Professional 64 bit (English).		
2	DAQ System should provide programming language compatibility for LabVIEW based software development. The drivers of all the digitizers and controller should be compatible with LabVIEW 2015 or above with provided Windows 10 operating system.		

Date:

Bidder's Sign and Stamp