

Annexure-IA: IEPE Accelerometer Technical Specifications: Tri-Axial – 3 Nos,
 Preferred Make: KISTLER, B&K, PCB Piezotronics, Dytran & Endevco only

SI. No	Performance Specifications	Criteria	Vendor's Compliance
1	Sensitivity (±15%)	100 mV/g or better	Essential
2	Measurement Range	± 50 G pk	Essential +/-25 G pk with higher sensitivity (≥200mv/g +/-10%) is also acceptable
3	Frequency Range (±5%)	0.5 to 6000 Hz or better	Essential
4	Frequency Range (±10%)	0.3 to 8000 Hz or better	Preferable Specify
5	Frequency Range (±3dB)	0.3 to 10000 Hz or better	Preferable Specify
6	Resonant Frequency	≥ 25 kHz	Essential Specify
7	Broadband Resolution	0.001 G RMS or better	Essential
8	Non-Linearity	≤ 2 % or +/-1% or better	Essential
9	Transverse Sensitivity	≤5 %	Essential ≤2 % Preferable
10	Phase Response (±5°)	2 to 6000 Hz or better	Preferable Specify
11	IEPE type	Ceramic/ Quartz Shear	Essential Specify
12	Excitation Voltage	20—30 v	Preferable Specify
13	Excitation Current range	2-20 ma	Essential Specify
14	Standrad DAQ Card compatibility	NI DAQ 9234 or Advantech 5801	Essential Specify
15	Mounting Type	Stud mount, 3 Nos/accelerometer to be provided	Essential Specify
16	Output connector type	Right angle connector preferred	Preferable

			Specify	
17	Mass of Accelerometer	≤ 35 grams	Essential Specify	
18	Case and shielding	Titanium - Preferable Hermetically shielded, Splashproof essential. IP68 certification Preferable	Essential Specify	
19	Isolation to ground	Yes	Specify	
20	Cable with BNC Connector	IEPE Transducer connecting cable 3 Output connector Cable 5 meter	Essential	
21	Operating temperature	- 20 to 100 Deg. Cent or better	Essential	
22	ISO 17025 accredited calibration	A certificate with frequency response plots to be provided. Traceability to PTB or NIIST or NPL	Essential	
23	IEEE P1451.4 TEDS capable	Yes	Specify	
24	Warranty	3 Years Replacement warranty	Essential Specify	
25	Payment terms	80% on delivery and 20% after inspection and acceptance	Essential	
26	Delivery schedule	Within 6-8 weeks	Essential Specify	
27	Percentage of Local content in items supplied A certificate to be provided	Should be more than 20%	Essential Specify	

Terms and Conditions:

- All the technical specifications are "Essential" unless otherwise mentioned "Specify".
- The vendor should meet all technical specifications to qualify the bid.
- According to terms and conditions, the bidder should submit all necessary technical information documents- Compliance Sheets as per the technical specifications.
- Certifications ISO standard certificates, as per the technical specifications, must be submitted at the time of bidding.
- If the vendor is not OEM, the OEM authorization certificate and Local Content percentage in the order value are also submitted along with bidding documents.

Annexure-IB: IEPE Accelerometer Technical Specifications: Single Axis – 10 Nos
 Preferred Make: KISTLER, B&K, PCB Piezotronics, Dytran & Endevco only

Sl. No	Performance Specifications	Criteria	Vendor's Compliance
1	Sensitivity ($\pm 10\%$)	100 mV/g or better	Essential
2	Measurement Range	± 50 G pk	Essential +/-25 G pk with higher sensitivity (≥ 200 mv/g +/-10%) is also acceptable
3	Frequency Range ($\pm 5\%$)	0.5 to 10000 Hz or better	Essential
4	Frequency Range ($\pm 10\%$)	0.3 to 12000 Hz or better	Preferable Specify
5	Frequency Range (± 3 dB)	0.2 to 20000 Hz or better	Preferable Specify
6	Resonant Frequency	≥ 25 kHz	Essential Specify
7	Broadband Resolution	0.001 G RMS or better	Essential
8	Non-Linearity	$\leq 2\%$ or +/-1% or better	Essential
9	Transverse Sensitivity	$\leq 5\%$	Essential $\leq 2\%$ Preferable
10	Phase Response ($\pm 5^\circ$)	2 to 6000 Hz or better 10kHz Preferable	Preferable Specify
11	IEPE type	Ceramic/ Quartz Shear	Essential Specify
12	Excitation Voltage	20—30 v	Preferable Specify
13	Excitation Current range	2-20 ma	Essential Specify
14	Standrad DAQ Card compatibility	NI DAQ 9234 or Advantech 5801	Essential Specify
15	Mounting Type	Stud mount, 3 Nos/accelerometer to be provided	Essential Specify
16	Output connector type	Right angle connector preferred	Preferable Specify

17	Mass of Accelerometer	≤ 15 grams	Essential Specify	
18	Case and shielding	Titanium - Preferable Hermetically shielded, Splashproof essential. IP68 certification Preferable	Essential Specify	
19	Isolation to ground	Yes	Specify	
20	Cable with BNC Connector	IEPE Transducer connecting cable 5-meter length	Essential	
21	Operating temperature	- 20 to 100 Deg. Cent or better	Essential	
22	ISO 17025 accredited calibration	A certificate with frequency response plots to be provided. Traceability to PTB or NIST or NPL	Essential	
23	IEEE P1451.4 TEDS capable	Yes	Specify	
24	Warranty	3 Years Replacement warranty	Essential Specify	
25	Payment terms	80% on delivery and 20% after inspection and acceptance	Essential	
26	Delivery schedule	Within 6-8 weeks	Essential Specify	
27	Percentage of Local content in items supplied A certificate to be provided	Should be more than 20%	Essential Specify	

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Annexure II: ICP/IEPE Top Connection Single Axis Miniature Accelerometer – 5 Nos

Preferred Make: PCB Piezotronics, KISTLER, B&K only

Sl. No	Performance Specifications		Criteria	Vendor's Compliance
1	Type	Piezoelectric	Essential	
2	Model	ICP/IEPE	Essential	
3	Axis	Single-Axis	Essential Specify	
4	Sensitivity ($\pm 10\%$)	100 mV/g	Essential Specify	
5	IEEE P1451.4 TEDS capable	Yes	Specify	
6	Measurement Range	$\pm 50g$	Essential	
7	Frequency Range ($\pm 5\%$)	0.5 to 10000 Hz	Essential Specify and also enclose datasheet	
8	Operational Shock	$\pm 5000 g$	Essential Specify	
9	Temperature Range	-10 to 100° C	Essential Specify	
10	Resonant Frequency	≥ 25 kHz	Essential Specify	
11	Non-Linearity	$\leq 1 \%$	Essential	
12	Transverse Sensitivity	$\leq 5 \%$	Essential Specify	
13	Phase Response ($\pm 5^\circ$)	0.5 to 10000 Hz	Preferable Specify	
14	Excitation Voltage	18—30v	Essential Specify	
15	Excitation Current range	2-20ma	Essential Specify	
16	Standard DAQ Card compatibility	NI DAQ 9234 or Advantech 5801	Essential Specify	
17	Mounting Type	Stud mount	Essential	

org. Name

			Specify	
18	Mounting Studs	3 Nos./device	Essential Specify	
19	Height of the Accelerometer	<25 mm	Essential Specify	
20	Accelerometer Output Connector	Top Connector	Essential Specify	
21	Accelerometer cable Output Connector type	BNC	Essential Specify	
22	Mass of Accelerometer	≤ 10grams	Essential Specify	
23	Case and shielding	Titanium - Hermetically shielded	Essential Specify	
24	Isolation to ground	Yes	Specify	
25	Cable	ICP/IEPE Transducer connecting cable 5-meter length	Essential	
26	Base Strain Sensitivity	≤0.005 g/μ€	Essential	
27	Accelerometer Compliance to CE Certification	Required	Essential Specify	
28	Calibration Certificate with traceability to NIST or PTB or NPL-UK	Required	Essential Specify	
29	Frequency Response Plot	Required	Essential Specify	
30	Warranty	3 Years Replacement warranty	Essential Specify	
31	Payment terms	80% on delivery and 20% after inspection and acceptance	Essential	
32	Delivery schedule	Within 6-8 weeks	Essential Specify	
33	Percentage of Local content in items supplied	Should be more than 20%	Essential Specify	

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	A certificate to be provided			
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