Mg-5

TECHNICAL SPECIFICATION OF MULTI CHANNELPOTENTIOSTAT (DC AND AC TECHNIQUES) WITH 1 MHz FREQUENCY

The system should have Multichannel provisions which can incorporate up to 8 or more Potentiostat/Galvanostat modules, with independent software controls. Furthermore, each Potentiostat/Galvanostat module should be able to independently interface with single/multiple computers.

The individual potentiostat/galvanostat module should have the following technical specifications.

Number of Potentiostat/Galvanostat modules	:	**2 (Minimum)**
Maximum Compliance voltage	:	**± 20 V or better at maximum output current (± 400 mA)**
Maximum Output Current	:	**± 400 mA or better at ± 20 V (current at each channel should be expandable up to ±10 A based on requirement)**
Output Voltage Range	:	**± 10 V**
Current Ranges	:	**smallest current range ± 10 nA to current range ±100 mA**
Measured current resolution	:	**30 fA on 10 nA full scale range**
Potentiostat Rise/fall Time	:	**300 ns or lower**
Input bias current	:	**< 1 pA**
Input Impedance of electrometer	:	**>100 GΩ // 8 pF**
EIS option/module	:	**Potentiostatic & galvanostatic control**
Frequency range	:	**10 µHz to 1 MHz** (Should be capable of performing EIS measurements with potentiostatic and galvanostatic control, over complete frequency range of 10 µHz to 1 MHz) **(integrated and no addons)**
Optional Accessories		

The potentiostat should have the possibility to integrate a switchable bi-potentiostat module. The module should convert the system into a two channel potentiostat with two working electrodes sharing the same Auxiliary and Reference Electrode. **Specifications of Bipotentiostat model**	**:**	Potential Offset Range: ±10 V, Maximum Maximum Current: 50 mA or better Current Range: 10 nA to 10 mA or better (at least 7 decades)

Electrochemical Software:

Software should control both the units and acquire data from both the units simultaneously in real time. Import/export ASCII.

The software should support the following basic electrochemical measurements: Cyclic Voltammetry, Linear Sweep Voltammetry, Differential Pulse Voltammetry, Square Wave Voltammetry. Electrochemical methods like Chrono-Amperometry, Chrono-Coulometry & Chrono-Potentiometry etc.

EIS Data presentation: Nyquist, Bode, Admittance, Dielectric, Mott-Schottky, Data analysis: Fit and Simulation as well as Real-time Lissajous plot generation with other possibilities like Find circle, Element subtraction, Kramers-Kronig etc.

Conditions:

1. Quotes are requested **by two-bid system Technical bid separate cover & Financial bid separate cover combined in single big cover**.
2. A separate compliance **certificate/sheet should be attached** indicating whether or not the proposed system meets above said specifications. Do not use ambiguous terms like "yes", "complied" or "available". Specifically mention the matching specification of the product offered by you.

3. This system or system with similar specifications should have been supplied to at least customers in India and supported by service at least for 5 years.
4. Submit the list of places (In India) to which the system is supplied.
5. Minimum of **3 years** warranty

Other Terms: Only OEMs or their authorized agents can quote, and PO will be placed on OEMs only.

**- Optional accessories will not be considered for evaluation purpose for deciding the technical compliance*