Detailed Specifications of Open Tender Notice No: 28/2013

S. N.	TENDER NO.	BRIEF DETAILS OF ITEM(S)	PAGE NOS.
1.	14-VI/AD(735)13-PB/T-114	Hall Effect Measurement System	2

Hall Effect Measurement system

Complete Hall Effect Measurement unit with all accessories including sample holders associated hardware and software for measurement of mobility, conductivity and carrier concentration in the temperature range of room temperature to 500^{0}C with the specifications mentioned below:

Magnetic field	: 1 Tesla or higher (4-inch pole diameter for an air gap of 50 mm) (Provision for Field reversal)
Temperature Range	: Room Temperature to 500°C or higher

Measurement Specifications

Carrier Mobility range	: 1 to 10^6 cm^2/Vs or better
Carrier concentration	: 1000 to 10^{23} cm^{-3} or better
Resistivity	: 10^{-4} to 10^5 ohm-cm or higher (with current reversal)
Measurement current range	: ±1 nA (or lower) to ± 0.1 A (or higher)

Computer: LCD Monitor 17" with latest i5 processor, DVD R/W drive, along with appropriate interface cables and complete software for measurements & calculations, latest windows based OS.

The software should provide quantitative measurement options and display for parameters such as Hall coefficient and conductivity, Mobility, carrier density and Mobility spectrum as a function of temperature.

Magnetic field calibration kit (Including Gauss meter and probe, etc)

Suitable sample probes with contact pins to accommodate samples of rectangular and circular geometry with size of 10 mm.

Two stage rotary vacuum pump to achieve a vacuum 10^{-2} Torr or better

Electrical Power requirement	: Single phase 230 V ± 10 %, 50 Hz ± 5 %
	Three phase 440 V ± 10 %, 50 Hz ± 5 %
Warranty	: Minimum Two years

Installation, Demonstration and Training to be provided by the supplier at CSIR- NPL.

User manuals in English

Optional Accessories:

AC Field Hall measurement option.

I/V Characteristics options

Auto sampler

Low temperature measurement with Closed cycle cryostat.

High Resistance option (50 GΩ or higher)

Turbo pumping system

Recirculating chillers compatible with the system

Consumables for trouble free operation for 5 years

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