



Date: December 29, 2023

Next Calibration Date: 2022-03-21

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Certificate Number: N21080387/D6.02c/C-06

## Calibration Certificate : DC Reference Standard

1. Calibrated for: LF, HF Impedance and DC Metrology Section,  
CSIR-NATIONAL PHYSICAL LABORATORY  
Dr K S Krishnan Marg  
New Delhi  
110012  
Customer Reference note dated 15-07-2021
2. Description and Identification of instrument: DC Reference Standard  
732B  
Serial no.9130702
3. Environmental Conditions: Temperature:  $(25 \pm 1)^{\circ}\text{C}$   
Humidity:  $(50 \pm 10)\%$
4. Standard(s) Used: Programmable Josephson Voltage Standard  
Associated Uncertainty: string-manufacturer-measuringEquipment-1
5. Traceability of standard(s) used: Programmable Josephson Voltage Standard  
(Primary Standard)
6. Principle/ Methodology of Calibration: The DC Reference Standard has been calibrated by comparison method with Programmable Josephson Voltage Standard as per calibration procedure no.

Head  
CFT:

Calibrated  
By:

Checked  
By:

Scientist in-  
charge:

(Dr Sushil  
Kumar)

(Sandhya  
M. Patel)

(Saood Ah-  
mad)

(Anurag  
Gupta)



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7. Measurements:

Nominal Value (in V)	Measured Value(in V)	Error(in V)
10.0	10.00003835	0.000000091
1.018	1.01815396	0.000000086

The report expanded uncertainty is at a coverage factor  $k + 2$  which corresponds approximately 95.0% for a normal distribution.

8. Dates of Calibration: 2021-09-21 to 2021-09-21

9. Remarks: (i) The DC Reference Standard has been calibrated  
(ii) The noise of the DC Reference Standard is inclusive

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