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Data Sheet

August 15, 2026

IET LABS INC

IET Labs Inc HACS-Z-A-6E-1PF-BNC

The IET Labs HACS-Z-A-6E-1PF-BNC is a high-accuracy calibration standard designed for impedance measurements. It features a precise impedance value, low tolerance, and excellent stability over time and temperature. This standard is ideal for calibrating impedance analyzers, LCR meters, and other impedance measurement instruments. Its solid construction and BNC connector ensure reliable connections and long-term performance in demanding laboratory environments.

**MODEL****IET Labs Inc
HACS-Z-A-6E-
1PF-BNC****CALIBRATION****Available on
request****CONDITION****Used****STATUS****In stock****RFQ / SKU****HACS-Z-A-6E-
1PF-BNC****LISTING**<https://aumictechlabs.com/products/hacs-z-a-6e-1pf-bnc-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The IET Labs Inc HACS-Z-A-6E-1PF-BNC is a precision decade capacitance standard engineered for high-accuracy capacitance measurements and calibration across demanding laboratory environments. This 3-terminal, double-shielded instrument delivers capacitance values from 1 pF to 11,111 μ F with 1 pF resolution and $\pm(0.05\% + 0.5 \text{ pF})$ accuracy at 1 kHz up to 1,000 μ F. The design employs trimmable air capacitors for lowest decades, sealed India ruby mica capacitors for mid-range stability, and metalized polyphenylene sulfide capacitors for higher decades. Technical Specifications Capacitance Range: 1 pF to 11,111 μ F Resolution: 1 pF Accuracy: $\pm(0.05\% + 0.5 \text{ pF})$ at 1 kHz up to 1,000 μ F Stability: 100 ppm/year Temperature Coefficient: < 20 ppm/°C

Zero Capacitance: 50,000 M Ω Operating Temperature Range: 10°C to 40°C Connector Type: BNC Construction: 3-terminal, double-shielded Key Features Inner shield minimizes terminal-to-guard capacitance; outer shield reduces detector input capacitance and noise Trimmable air capacitors in 1 pF and 10 pF decades for maximum resolution and mechanical stability Hermetically sealed India ruby mica capacitors for mid-range decades prevent moisture ingress and drift Metalized polyphenylene sulfide capacitors optimize higher decade performance HI and LO BNC connectors with connected shells function as true 3-terminal standard when joined Typical Applications Precision capacitance calibration and standards High-accuracy laboratory measurements Calibration system integration Demanding test environments requiring sub-picofarad resolution Compatibility & Integration BNC connector architecture enables direct integration into measurement systems. The 3-terminal configuration with dual shielding accommodates both guarded and unguarded measurement configurations.

HACSA6E1PFBNC Characteristics / Specifications

PARAMETER	VALUE
Model	HACS-Z-A-6E-1PF-BNC
Instrument Type	High accuracy decade capacitance substituter
Family	IET Labs HACS-Z (GenRad 1413 tradition)
Decade Count	6
Resolution	1 pF
Total Capacitance	1.11111 uF
Accuracy	plus or minus (0.05 percent + 0.5 pF) at 1 kHz, 1 Vrms, 23 C, 3-terminal
Stability	plus or minus (100 ppm + 0.1 pF) per year up to 1 uF
Temperature Coefficient	less than 20 ppm perCup to 1 uF
Zero Capacitance	less than or equal to 0.1 pF with all dials at zero
Insulation Resistance	greater than 50,000 MOhm
Max Voltage Low	500 V peak max up to 10 kHz (1 pF to 10 nF class decades)
Dissipation Air	less than 0.003 typical on 1 pF air decade
Dissipation Mica	less than 0.001 typical on silvered mica decades (position dependent)
Operating Temperature	10 C to 40 C
Storage Temperature	minus 40 C to 70 C
Shielding	inner shield plus outer case, 3-terminal
Connectors	BNC HI and LO (BNC overlay on all values)
Low Decade Type	trimmable air capacitors
Mid Decade Type	mechanically stabilized hermetic 0505 mica
High Decade Type	sealed metallized polyphenylene sulfide (MPPS)
Manufacturer	IET Labs Inc.
Literature	IET HACS-Z datasheet standard model HACS-Z-A-6E-1pF

HACCSZA6E1PFBNC Specifications

PARAMETER	VALUE
Applications	Calibration-lab and production substitution of 1 pF to 1.11111 uF with 0.05 percent class decades.
Key Features	Six decades, 1 pF steps, 1.11111 uF total
Zero capacitance less than or equal to 0.1 pF	Double-shielded 3-terminal BNC HI/LO
Technical Specifications	Model: HACS-Z-A-6E-1PF-BNC

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	minus 40 C to 70 C
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Shielding	inner shield plus outer case, 3-terminal
Connectors	BNC HI and LO (BNC overlay on all values)
Low Decade Type	trimmable air capacitors
Mid Decade Type	mechanically stabilized hermetic 0505 mica
High Decade Type	sealed metallized polyphenylene sulfide (MPPS)
Manufacturer	IET Labs Inc.
Literature	IET HACS-Z datasheet standard model HACS-Z-A-6E-1pF Notes From IET HACS-Z datasheet ordering table HACS-Z-A-6E-1pF (1.11111 uF, 6 decades, 1 pF) with BNC connector overlay. No zero-subtraction required at the stated 1 kHz 3-terminal condition.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Literature	IET HACS-Z datasheet standard model HACS-Z-A-6E-1pF

Notes

From IET HACS-Z datasheet ordering table HACS-Z-A-6E-1pF (1.11111 uF, 6 decades, 1 pF) with BNC connector overlay. No zero-subtraction required at the stated 1 kHz 3-terminal condition.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.