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Data Sheet

August 13, 2026

RIGOL

Rigol CK106E Economical Network Analysis Calibration Kit

Rigol CK106E Economical Type-N Calibration Kit DC to 1.5 GHz The CK106E is Rigol's economical Type-N mechanical calibration kit for vector network measurements on RSA3000N and RSA5000N realtime spectrum analyzers with VNA. The kit is specified DC to 1.5 GHz at 50 ohm and includes N male load (CK106E-LOAD), N male open (CK106E-OPEN), N male short (CK106E-SHORT), and N female to N female thru (CK106E-THRU). It characterizes systematic errors for S11, S21, and distance-to-fault. CK106A is the high performance sibling to 6.5 GHz. The CK106E is Rigol's economical Type-N mechanical calibration kit for vector network measurements on RSA3000N and RSA5000N realtime spectrum analyzers with VNA. The kit is specified DC to 1.5 GHz at 50 ohm and includes N male load (CK106E-LOAD), N male open (CK106E-OPEN), N male short (CK106E-SHORT), and N female to N female thru (CK106E-THRU). It characterizes systematic errors for S11, S21, and distance-to-fault. CK106A is the high performance sibling to 6.5 GHz. S11, S21, and distance-to-fault correction



MODEL

Rigol CK106E

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

CK106E

LISTING

<https://aumictechlabs.com/products/ck106e-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Rigol CK106E is an economical calibration kit purpose-built for VNA calibration on Rigol RSA3000N and RSA5000N series network analyzers. It supplies Open, Short, Load, and Thru

standards - all essential for accurate S-parameter measurements from DC to 1.5 GHz. Type-N male connectors and 50 Ohm impedance ensure direct compatibility with standard test ports. The kit enables precise calibration across gain, phase, and distance-to-fault analysis with minimal insertion loss and repeatable return loss characteristics.

Technical Specifications

Frequency Range: DC to 1.5 GHz

Connector Type: Type-N Male (Load, Open, Short); Type-N Female-Female Adaptor (Thru)

Impedance: 50 Ohms

Return Loss / VSWR Performance: Load: 1.3 Open: 0.3 Short: 0.3 Thru Adaptor: 1.25

Insertion Loss: Thru Adaptor: $0.1 \times \sqrt{\text{frequency in GHz}}$

Operating Temperature Ranges: Load: -40°C to $+85^{\circ}\text{C}$ Open: -40°C to $+165^{\circ}\text{C}$ Short: -40°C to $+165^{\circ}\text{C}$

Material Composition: Load standards feature CuBe gold-plated center contacts with brass nickel-plated outer contacts and PTFE dielectric. Open and Short standards use brass gold-plated center contacts with nickel-plated brass bodies. Thru adaptor employs CuBe gold-plated center and nickel-plated brass outer contacts.

Key Features

- Includes four calibration standards: Open, Short, Load, and Thru
- Low VSWR values ensure high-accuracy VNA calibration across the 1.5 GHz band
- Wide temperature operating range supports field deployment and laboratory use
- RoHS compliant construction
- Vibration and temperature shock performance per GJB150-16 and GJB150-05

Typical Applications

Ideal for S11 and S21 measurements, distance-to-fault analysis, and general-purpose network characterization on Rigol spectrum and network analyzers.

Compatibility & Integration

Designed exclusively for Rigol RSA3000N and RSA5000N series instruments with integrated VNA functionality.

CK106E Characteristics / Specifications

PARAMETER	VALUE
Model	CK106E
Manufacturer	Rigol
Instrument Type	Economical TypeNVNA calibration kit
Alias	CK 106E; RIGOL CK106E
Frequency Range	DC to 1.5 GHz
Characteristic Impedance	50 ohm
Host Instruments	RSA3000N and RSA5000N VNA
Kit Contents	N male load, N male open, N male short, N female toNfemale thru
Load Part	CK106E LOAD
Open Part	CK106E OPEN
Short Part	CK106E SHORT
Thru Part	CK106E THRU
Load VSWR	1.3
Load Insertion Loss	N/A (termination)
Load Center Contact	CuBe gold plated
Load Outer Contact	brass nickel plated
Load Body	brass nickel plated
Load Dielectric	PTFE
Load Temperature Range	minus 40 C to +85 C
Load Vibration	GJB150-16
Load Temperature Shock	GJB150-05
Open Return Loss	0.3
Open Outer Contact	brass gold plated
Open Body	brass nickel plated
Open Temperature Range	minus 40 C to +165 C

PARAMETER	VALUE
Short Return Loss	0.3
Short Center Contact	brass gold plated
Short Outer Contact	brass nickel plated
Short Temperature Range	minus 40 C to +165 C
Thru Insertion Loss	0.1 times square root of frequency in GHz
Thru VSWR	1.25
Thru Center Contact	CuBe gold plated
Thru Dielectric	PTFE
Thru Temperature Range	minus 40 C to +165 C
RoHS	2002/95/EC compliant
Sibling CK106A Range	DC to 6.5 GHz Notes Specs from the Rigol CK106E Economical Network Analysis Calibration Kit datasheet. Confirm Nmale polarity and RSA N-model VNA firmware. Do not use above 1.5 GHz; use CK106A to 6.5 GHz.
Return loss	0.3 class

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.

performance sibling to 6.5 GHz.

Applications

RSA3000N / RSA5000N VNA calibration

S11, S21, and distance-to-fault correction

Economical SOLT calibration to 1.5 GHz

Field and production VNA setup

ReplacementNmale load/open/short/thru set

Key Features

50 ohm Type-N standards

Load VSWR 1.3; open/short return loss 0.3 class

Thru insertion loss 0.1 times square root offin GHz; VSWR 1.25

CuBe gold plated load center; PTFE dielectric

RoHS 2002/95/EC; GJB150 vibration and temperature shock on load

Load temperature minus 40 C to +85 C; other parts to +165 C

Technical Specifications

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PARAMETER	VALUE
Model	CK106E
Manufacturer	Rigol
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Alias	CK 106E; RIGOL CK106E
Frequency Range	DC to 1.5 GHz
Characteristic Impedance	50 ohm
Host Instruments	RSA3000N and RSA5000N VNA
Kit Contents	N male load, N male open, N male short, N female toNfemale thru
Load Part	CK106E LOAD
Open Part	CK106E OPEN
Short Part	CK106E SHORT
Thru Part	CK106E THRU
Load VSWR	1.3
Load Insertion Loss	N/A (termination)
Load Center Contact	CuBe gold plated
Load Outer Contact	brass nickel plated
Load Body	brass nickel plated
Load Dielectric	PTFE

PARAMETER	VALUE
Load Temperature Range	minus 40 C to +85 C
Load Vibration	GJB150-16
Load Temperature Shock	GJB150-05
Open Return Loss	0.3
Open Outer Contact	brass gold plated
Open Body	brass nickel plated
Open Temperature Range	minus 40 C to +165 C
Short Return Loss	0.3
Short Center Contact	brass gold plated
Short Outer Contact	brass nickel plated
Short Temperature Range	minus 40 C to +165 C
Thru Insertion Loss	0.1 times square root of frequency in GHz
Thru VSWR	1.25
Thru Center Contact	CuBe gold plated
Thru Dielectric	PTFE
Thru Temperature Range	minus 40 C to +165 C
RoHS	2002/95/EC compliant
Sibling CK106A Range	DC to 6.5 GHz

Notes

Specs from the Rigol CK106E Economical Network Analysis Calibration Kit datasheet. Confirm male polarity and RSA N-model VNA firmware. Do not use above 1.5 GHz; use CK106A to 6.5 GHz.

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

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<https://aumictechlabs.com>

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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.