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Data Sheet

August 12, 2026

KEYSIGHT

Keysight 85630A Scalar Transmission Reflection Test Set, 300 kHz to 2.9 GHz

Keysight / Agilent 85630A Scalar Transmission/Reflection Test Set Overview The HP/Agilent/Keysight 85630A scalar transmission/reflection test set adds scalar network analysis to compatible HP 8590-series spectrum analyzers with tracking generators. Covers 300 kHz to 2.9 GHz at 50 Ω with simultaneous transmission and reflection display capability. Applications - Filter and amplifier scalar characterization - Return loss and VSWR measurements - Transmission coefficient with SA + tracking generator - Automated reflection/transmission switching on compatible 859x analyzers Overview The HP/Agilent/Keysight 85630A scalar transmission/reflection test set adds scalar network analysis to compatible HP 8590-series spectrum analyzers with tracking generators. Covers 300 kHz to 2.9 GHz at 50 Ω with simultaneous transmission and reflection display capability. Applications - Filter and amplifier scalar characterization - Return loss and VSWR measurements - Transmission coefficient with SA + tracking generator - Automated reflection/transmission switching on compatible 859x analyzers



MODEL Keysight 85630A	CALIBRATION Available on request
CONDITION Used	STATUS In stock
RFQ / SKU 85630A	LISTING https://aumictechlabs.com/products/85630a-2/

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight 85630A Scalar Transmission/Reflection Test Set extends the measurement capabilities of compatible spectrum analyzers from 300 kHz to 2.9 GHz. This portable, rugged instrument enables simultaneous acquisition and display of transmission and reflection data, eliminating the need for reconfiguration between measurement modes. It delivers calibrated S-parameter characterization of RF components including filters, cables, and passive networks through a single test setup.

Technical Specifications
Frequency Range: 300 kHz to 2.9 GHz
Impedance: 50 Ohm
Connector Type (DUT): Type-N female
Interconnect Connector Type: Type-N female

Key Features
Simultaneous transmission and reflection data display for real-time device monitoring
Calibrated transmission and reflection measurements without intermediate recalibration
Reflection coefficient measurement marker for precise impedance characterization
VSWR markers for voltage standing wave ratio assessment
Return loss measurement functionality
Automatic mode switching between transmission and reflection configurations
Built-in source attenuation control
Limit line support for automated pass/fail testing
Auto-scaling display for measurement convenience
Shape factor measurement capability

Typical Applications
The 85630A addresses insertion loss, return loss, and VSWR characterization of RF components and assemblies across communications, aerospace, and component validation workflows.

Compatibility & Integration
The instrument integrates with HP/Agilent spectrum analyzers including the 8590 series (8590B, 8590D, 8590L), 8591 series (8591A, 8591C, 8591E/93E/94E/95E/96E), 8593 series, 8594 series, 8595 series, 8596 series, 8560 series, 8566A/B, and 71209A. Full functionality typically requires the HP 85714A Scalar Measurement Personality Card.

Features & description

From manufacturer datasheet

Features

- Frequency range: 300 kHz to 2.9 GHz - Impedance: 50 Ω - Interconnect connector: Type-N(f) - DUT connector: Type-N(f) - Simultaneous transmission and reflection on screen - Reflection coefficient measurement marker - VSWR markers - Return loss measurements - Automatic switching between reflection and transmission modes - Source attenuation - Auto-scaling - Limit lines • Shape-factor measurement class - Compatible SAs: 8590L, 8591E, 8593E, 8594E, 8595E, 8596E, 8591C - SA requirements: Opt 010 built-in tracking generator (50 Ω); 8590L needs Opt 003 memory card reader - Also requires: HP 85714A Scalar Measurement Personality Card (not included)

Applications

- Filter and amplifier scalar characterization - Return loss and VSWR measurements - Transmission coefficient with SA + tracking generator - Automated reflection/transmission switching on compatible 859x analyzers

85630A Characteristics / Specifications

PARAMETER	VALUE
Technical Specifications Model	85630A Manufacturer: Keysight (Agilent / HP) Instrument Type: Scalar Transmission/Reflection Test Set Alias: 85630A; HP 85630A; Agilent 85630A
Frequency min	300 kHz Frequency max: 2.9 GHz Impedance: 50 Ω Interconnect connector: Type-N(f) DUT connector: Type-N(f) Measurements: transmission, reflection, return loss, VSWR Markers: reflection coefficient, VSWR Modes: auto reflection/transmission switching Features: source attenuation, auto-scaling, limit lines Compatible analyzers: HP 8590L / 8591E / 8593E / 8594E / 8595E / 8596E / 8591C Required SA option: Opt 010 tracking generator 50 Ω
Required personality	85714A scalar measurement card Notes Specs from Keysight/Agilent 85630A product literature. Confirm matching SA options and 85714A personality separately.
Shape-factor measurement class - Compatible SAs	8590L, 8591E, 8593E, 8594E, 8595E, 8596E, 8591C - SA requirements: Opt 010 built-in tracking generator (50 Ω); 8590L needs Opt 003 memory card reader - Also requires: HP 85714A Scalar Measurement Personality Card (not included)
Attenuation	Auto-scaling - Limit lines - Shape-factor measurement class - Compatible SAs: 8590L, 8591E, 8593E, 8594E, 8595E, 8596E, 8591C - SA requirements: Opt 010 built-in tracking generator (50 Ω); 8590L needs Opt 003 memory card reader - Also requires: HP 85
Return loss	and VSWR measurements - Transmission coefficient with SA + tracking generator - Automated reflection/transmission switching on compatible 859x analyzers

85630A Specifications

PARAMETER	VALUE
Key Features	- Frequency range: 300 kHz to 2.9 GHz
Technical Specifications	Model: 85630A
Notes	Specs from Keysight/Agilent 85630A product literature. Confirm matching SA options and 85714A personality separately.

Specifications

PARAMETER	VALUE
Frequency min	300 kHz
Frequency max	2.9 GHz
Impedance	50 Ω
Interconnect connector	Type-N(f)
DUT connector	Type-N(f)
Measurements	transmission, reflection, return loss, VSWR
Markers	reflection coefficient, VSWR
Modes	auto reflection/transmission switching
Features	source attenuation, auto-scaling, limit lines
Compatible analyzers	HP 8590L / 8591E / 8593E / 8594E / 8595E / 8596E / 8591C
Required SA option	Opt 010 tracking generator 50 Ω
Required personality	85714A scalar measurement card

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 Model: 85630A Manufacturer: Keysight (Agilent / HP) Instrument Type: Scalar Transmission/Reflection Test Set Alias: 85630A; HP 85630A; Agilent 85630A

Frequency min: 300 kHz Frequency max: 2.9 GHz Impedance: 50 Ω Interconnect connector: Type-N(f) DUT connector: Type-N(f) Measurements: transmission, reflection, return loss, VSWR Markers: reflection coefficient, VSWR Modes: auto reflection/transmission switching Features: source attenuation, auto-scaling, limit lines Compatible analyzers: HP 8590L / 8591E / 8593E / 8594E / 8595E / 8596E / 8591C Required SA option: Opt 010 tracking generator 50 Ω Required personality: 85714A scalar measurement card

Notes Specs from Keysight/Agilent 85630A product literature. Confirm matching SA options and 85714A personality separately.

Specifications

PARAMETER	VALUE
Frequency min	300 kHz
Frequency max	2.9 GHz
Impedance	50 Ω
Interconnect connector	Type-N(f)
DUT connector	Type-N(f)
Measurements	transmission, reflection, return loss, VSWR
Markers	reflection coefficient, VSWR
Modes	auto reflection/transmission switching
Features	source attenuation, auto-scaling, limit lines
Compatible analyzers	HP 8590L / 8591E / 8593E / 8594E / 8595E / 8596E / 8591C
Required SA option	Opt 010 tracking generator 50 Ω
Required personality	85714A scalar measurement card

Technical Specifications

PARAMETER	VALUE
Model	85630A
Manufacturer	Keysight (Agilent / HP)
Instrument Type	Scalar Transmission/Reflection Test Set
Alias	85630A; HP 85630A; Agilent 85630A

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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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.