KEYSIGHT TECHNOLOGIES (AGILENT HP)

11759C

The Agilent Keysight 11759C is an RF channel simulator designed for testing digital cellular mobile radios under realistic multipath fading conditions. It supports cellular standards such as GSM, NADC, DCS1800, and PDC by accurately simulating fast and slow fading, time dispersion, and Doppler shifts.

SPECIFICATIONS

General

Interfaces	GPIB (HP-IB)
Display	2-line by 40-character liquid crystal display (LCD)

Physical

Power Supply	100 / 120 / 220 / 240 V AC (+10% / -15%), 48 to 440 Hz (100/120 V), 48 to 66 Hz (220/240 V)
Operating Temperature	0 to 55 °C °C
Dimensions (W×H×D)	426 mm × 177 mm × 518 mm mm
Weight	20 kg kg
Rack Height	4U

Simulation & Output Specifications

RF Input/Output Frequency Range	40 MHz to 2700 MHz
Doppler Frequency Range	to ±425 Hz
Doppler Velocity Reference	>500 km/h at 900 MHz
Fading Statistics	Rayleigh, Rice
Delay Interval Range	to 186 µs
Delay Resolution	1 ns
Independent RF Channels	2
Paths per Channel	3
RF Bandwidth (1 dB)	>6 MHz typical
Path Insertion Loss	Typically 24 dB ±3 dB
LO Input Frequency Range	RF input frequency less 6 MHz
Nominal RF Impedance	50 Ω

Connectivity & Control Interfaces

RF Connectors	Type-N female

Environmental

Storage Temperature	-40 to +75 °C
Operating Humidity	Up to 95% RH at 40 °C
Operating Altitude	Up to 4,570 m (15,000 ft)

Power

Power Consumption	150 VA maximum

Control & Programming

Command Set	SCPI (Standard Commands for Programmable Instruments)

Inputs & Outputs

External Reference Input	10 MHz

TECHNOLOGY

RF Multipath Fading Simulation

APPLICATIONS

Digital Cellular Radio Testing

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.