

KEYSIGHT TECHNOLOGIES (AGILENT HP)

8713C

The Keysight (Agilent HP) 8713C is an RF Economy Network Analyzer designed for transmission and reflection measurements over a frequency range of 300 kHz to 3 GHz. Featuring a synthesized source with 1 Hz resolution, 100 dB of system dynamic range, and a fast sweep speed of 50 ms/sweep, the 8713C is optimized for high-throughput manufacturing and testing of RF components. It includes an integrated 3.5-inch disk drive, a built-in monochrome CRT display, VGA output, and supports HP's Instrument BASIC (IBASIC) for automated testing. Optional features include 75-ohm port impedance, fault location (SRL), AM delay measurements, and TCP/IP LAN connectivity.

SPECIFICATIONS

General

Interfaces	GPIB, RS-232, Parallel (printer), VGA, optional LAN
Display	9-inch monochrome CRT
Warm-up Time	30 minutes

Physical

Power Supply	90 to 132 V AC / 198 to 264 V AC, 47 to 66 Hz
Operating Temperature	0 to 55 °C °C
Dimensions (W×H×D)	425 mm × 177 mm × 508 mm mm
Weight	20.5 kg

Source Specifications

Frequency Range	300 kHz to 3 GHz
Frequency Resolution	1 Hz
Frequency Accuracy	±5 ppm
Output Power Range	-60 to +10 dBm (50 Ω standard), -60 to +7 dBm (75 Ω option)
Output Power Resolution	0.1 dB
Output Power Accuracy	±1.0 dB
Test Port Impedance	50 Ω (standard) / 75 Ω (Option 1EC)

Receiver Specifications

Receiver Frequency Range	300 kHz to 3 GHz
System Dynamic Range (Narrowband)	100 dB
System Dynamic Range (Broadband)	66 dB
Maximum Input Level	+10 dBm

Measurement Characteristics

Measurement Formats	Log magnitude, linear magnitude, SWR
Sweep Types	Linear frequency, list frequency, power sweep
Number of Display Channels	2 channels
Sweep Time	50 ms/sweep
Number of Measurement Points per Sweep	3 to 1601
Internal Programming Language	Agilent Instrument BASIC (IBASIC)

Interfaces & Connectivity

Test Port Connectors	Type-N female
GPIB Interface	IEEE-488.2 (HP-IB)
Parallel Port	25-pin D-sub (Centronics) for printer
Serial Port	9-pin RS-232
VGA Video Output Port	15-pin D-sub (color output)
LAN Interface Option	RJ-45 (TCP/IP compliant)

System Features & Storage

Internal Disk Drive	3.5-inch floppy drive (LIF/DOS formats)
Limit Line Testing	Supported

Power & Environmental Specifications

Storage Temperature Range	-40 to 70 °C
---------------------------	--------------

Physical Characteristics

Form Factor	Benchtop
-------------	----------

Options & Accessories

Option 1EC	75 Ohm Port Impedance
Option 100	Fault Location / SRL
Option 101	AM Delay Measurement
Option 1F7	LAN Interface
Option 1CM	Rackmount flange kit without handles
Option 1CP	Rackmount flange kit with handles

Receiver

IF Bandwidths	250 Hz, 3.5 kHz, 15 kHz
---------------	-------------------------

Source

Harmonics	<-30 dBc (at +10 dBm output power)
Non-Harmonic Spurious	<-30 dBc

Markers

Number of Markers	8
-------------------	---

Options

Option 1E1 Attenuator Range	0 to 60 dB in 10 dB steps
Option 1C2	HP Instrument BASIC (IBASIC)

Rear Panel Connections

Auxiliary Input	BNC female, ± 10 V range
External Trigger Input	BNC female, TTL compatible
External Reference Input	BNC female, 1, 2, 5, or 10 MHz, -2 to +10 dBm
Reference Output	BNC female, 10 MHz, +0 dBm typical
Aux I/O Port	25-pin D-sub

Data Storage

Internal Non-Volatile Memory Capacity	512 KB
---------------------------------------	--------

Power

Maximum Power Consumption	280 VA
---------------------------	--------

Environmental

Operating Altitude	Up to 4,500 m (15,000 ft)
Non-operating Altitude	Up to 15,240 m (50,000 ft)
Operating Humidity Range	5% to 95% relative humidity (non-condensing)

Frequency Reference

Standard Reference Frequency Temperature Stability	± 5 ppm (0 °C to 55 °C)
Standard Reference Frequency Aging Rate	± 5 ppm/year

Storage

Disk Drive Storage Format	3.5-inch MS-DOS (FAT16) or LIF
---------------------------	--------------------------------

Connectivity

HP-IB Command Set	SCPI (Standard Commands for Programmable Instruments)
-------------------	---

Group Delay

Group Delay Aperture Range	0.25% to 20% of frequency span
----------------------------	--------------------------------

TECHNOLOGY

Vector Network Analyzer

APPLICATIONS

RF component testing, filter design, transmission/reflection measurement

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