

KEYSIGHT TECHNOLOGIES (AGILENT HP)

11713C

The Keysight 11713C Attenuator/Switch Driver provides GPIB, USB, and LXI/LAN control for up to four programmable attenuators and four coaxial switches (or up to 20 SPDT switches). It is designed to simplify the integration of electromechanical switches and programmable attenuators into automated RF and microwave test systems, offering selectable drive voltages and backward compatibility with the legacy HP 11713A.

SPECIFICATIONS

General

Interfaces	GPIB (IEEE-488), LAN (10/100 Base-T, LXI Class C), USB 2.0 (Type-B)
Display	Monochrome alphanumeric LCD display
Cooling	Convection (fanless)
Number of Save/Recall Registers	10 (registers 0 to 9)
Non-Volatile State Storage	Yes (up to 10 instrument states)
Power Status Indicator LED	Amber (Standby) / Green (On)

Physical

Power Supply	100 to 240 VAC ($\pm 10\%$), 50 to 60 Hz, 100 VA maximum
Operating Temperature	0 °C to 50 °C °C
Dimensions (W×H×D)	212.6 mm × 88.0 mm × 348.3 mm mm
Weight	3.2 kg kg

Drive Capability & Control Specifications

Number of Attenuator Control Ports	2 independent drive ports (ATTEN X, Y)
Number of Switch Control Ports	2 independent drive ports (SWITCH A, B)
Maximum Number of SPDT Switches Driven	Up to 20 SPDT switches
Maximum Number of Programmable Attenuators Driven	Up to 4 programmable attenuators
Supported Drive Voltages	5 V, 15 V, 24 V, and OFF (user selectable per bank)
Maximum Continuous Total Current	1.7 A (total across all channels)
Drive Pulse Width Range	15 ms to 2.0 s (programmable in 1 ms steps)
Compatible Switch/Attenuator Technology	Electromechanical

Connectivity & Remote Control

GPIO Interface Standard	IEEE-488.2
LAN Interface Compliance	10/100 Base-T, LXI Class C compliant
USB Interface Type	USB 2.0 High Speed (Type-B)
Command Language Support	SCPI (Standard Commands for Programmable Instruments)
Legacy Code Emulation Mode	HP 11713A command set emulation
Web User Interface	Built-in web server for remote control and configuration via web browser

Front Panel Controls & Interfaces

Manual Channel Control	20-key front panel local keypad for manual state toggling
Local/Remote Operation Key	Dedicated 'Local' key to return instrument to manual control
Power Switch Type	Front panel standby/on button

Rear Panel Connectors & Interface Hardware

Drive Output Option 101 Connectors	Viking 12-pin (Qty 4)
Drive Output Option 201 Connectors	D-sub 15-pin (Qty 4)
Drive Output Option 301 Connectors	Viking 12-pin (Qty 2) and D-sub 15-pin (Qty 2)
Chassis Ground Terminal	Rear panel binding post

Power & Electrical Specifications

AC Line Voltage Input Range	100 to 240 VAC ($\pm 10\%$)
AC Line Frequency Range	50 to 60 Hz
Maximum Power Consumption	100 VA

Physical and Environmental Specifications

Rack Space Requirements	2U height, half-rack width
Dimensions with Bumpers (W×H×D)	261.3 mm × 103.5 mm × 378.3 mm
Dimensions without Bumpers (W×H×D)	212.6 mm × 88.0 mm × 348.3 mm
Net Weight	3.2 kg (7.1 lbs)
Shipping Weight	6.7 kg (14.8 lbs)
Storage Temperature Range	-40 °C to +70 °C
Operating Humidity Range	Up to 95% relative humidity (RH) at 40 °C (non-condensing)
Operating Altitude Range	Up to 4,600 meters (15,000 feet)
Storage Altitude Range	Up to 15,300 meters (50,000 feet)

Regulatory and Compliance

Product Safety Standards	IEC 61010-1:2001 / EN 61010-1:2001
EMC Emissions Standard	CISPR 11, Group 1, Class A / EN 55011
EMC Immunity Standard	IEC 61326-1 / EN 61326-1

Compatible Models & Accessories

Supported Attenuators (849x Series)	Keysight 8494G/H, 8495G/H, 8496G/H, 8497K
Supported Attenuators (8490x Series)	Keysight 84904K/L/M, 84906K/L/M, 84907K/L/M, 84908M
Supported Switches (N181x Series)	Keysight N1810TL, N1811TL, N1812UL
Supported Coaxial SPDT Switches (876x Series)	Keysight 8761A/B, 8762A/B/C/F, 8765A/B/C/D/F
Supported Transfer Switches	Keysight 8763A/B/C, 8764A/B/C
Supported Multiport Switches	Keysight 8766K, 8767K, 8768K, 8769K, U3020AS/AS02
Compatible Drive Cable Model (Viking to Viking)	25-pin D-sub to dual-Viking
Compatible Drive Cable Model (Viking to D-sub)	25-pin D-sub to dual 9-pin D-sub
Compatible Drive Cable Model (Viking to Bare Wire)	25-pin D-sub to 10-pair bare wire
Compatible Drive Cable Model (D-sub to D-sub)	Keysight 11713-60045
Compatible Drive Cable Model (D-sub to Viking)	Keysight 11713-60046
Compatible Drive Cable Model (D-sub to Bare Wire)	Keysight 11713-60047

Performance

Peak Drive Current	1.7 A (for ≤ 1 s)
Pulse Width Resolution	1 ms
Default Pulse Width	15 ms
Drive Voltage Tolerance	$\pm 10\%$
Command Processing Time (GPIB)	< 1.0 ms (typical)
Command Processing Time (USB)	< 1.5 ms (typical)
Command Processing Time (LAN)	< 2.0 ms (typical)

Protection Features

Overcurrent Protection	Electronic current limiting
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Connectivity & Control

LAN Interface Speed	10/100 Base-T
IP Address Configuration	DHCP, Auto-IP, Static IP
Software Drivers	IVI-COM, IVI-C, LabVIEW
LXI Compliance	LXI Class C

Regulatory & Compliance

Overvoltage Category	CAT II
Pollution Degree	Pollution Degree 2

Drive Outputs

Number of Control Banks	2 (Bank A and Bank B)
Total Drive Lines	20 (10 per bank)
Drive Voltage Selection Method	Rear-panel 3-position slide switch
Drive Voltage Configuration	Independent selection for each bank

Connectivity

USB Device Port Connector	Type-B (rear panel)
LAN Port Connector	RJ-45 (rear panel)
GPIB Port Connector	24-pin IEEE-488 (rear panel)
LXI Class	LXI Class C (LXI Core 2011)

TECHNOLOGY

Electromechanical Switch and Attenuator Driver

APPLICATIONS

RF and Microwave Automated Test Systems

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