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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight Z3805A

Agilent Keysight Z3805A GPS Time and Frequency Receiver The HP Z3805A isaGPS-disciplined time and frequency reference receiver in the same product family as the HP 58503A. OEM 58503A/Z3805A literature lists C/A code L1 GPS, 6-channel parallel tracking, 10 MHz outputs, 1 PPS, 50 ohm, RS-232, HP SmartClock/enhanced GPS, and 1.5e-12 per year time-base stability class on the 58503A specification table used with Z3805A listings. House 10 MHz and 1 PPS reference for communications, calibration labs, and frequency counters. The HP Z3805A isaGPS-disciplined time and frequency reference receiver in the same product family as the HP 58503A. OEM 58503A/Z3805A literature lists C/A code L1 GPS, 6-channel parallel tracking, 10 MHz outputs, 1 PPS, 50 ohm, RS-232, HP SmartClock/enhanced GPS, and 1.5e-12 per year time-base stability class on the 58503A specification table used with Z3805A listings. House 10 MHz and 1 PPS reference for communications, calibration labs, and frequency counters. Instrument Type: GPS time and frequency reference receiver



MODEL

**Agilent / Keysight
Z3805A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

Z3805A

LISTING

<https://aumictechlabs.com/products/z3805a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight Z3805A is a GPS time and frequency reference receiver that delivers traceable synchronization and frequency stability for precision-critical applications. It combines an 8-channel GPS receiver with a double oven ultra-precision oscillator to achieve frequency

accuracy better than 1×10^{-12} when locked to GPS, with annual time base stability of 1.5×10^{-12} per year. The instrument maintains system synchronization for up to 24 hours in holdover mode when satellite signals are unavailable.

Technical Specifications

GPS Receiver: 8-channel receive, 6-channel parallel tracking; C/A code, L1 carrier

Frequency Accuracy: Better than 1×10^{-12} (GPS locked)

Time Base Stability: 1.5×10^{-12} per year

Holdover Duration: 24 hours maximum with reduced accuracy

Internal Oscillator: HP 10811-60165 double oven ultra-precision high stability oscillator

Output Signals: Two 10 MHz outputs; two 1 PPS outputs

Power Input: 19.5 – 30 V DC; approximately 1.09 A at 24 V DC (GPS locked)

Connectors: Type-N female antenna (with +5 V supply for amplified antennas); DB-25 female data interface; XLR audio connector for powerKey

Features

Dual 10 MHz and PPS outputs for multi-system synchronization

RS-232 and SCPI command interface via dual DB-25 ports (Port 1: SCPI control; Port 2: Time of Day output)

Active antenna support with integral bias voltage

Low power consumption enables integration into battery-backed or remote installations

Typical Applications

Telecommunications network synchronization

Frequency calibration laboratories and metrology

Precision timing systems requiring holdover capability

Compatibility & Integration

Responds to SCPI (Standard Commands for Programmable Instruments) protocol. Compatible with software platforms including Lady Heather, SatStat, and GPScon. Accepts DC power supplies within the 19.5 – 30 V DC range.

Z3805A Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	GPS time and frequency reference receiver
Series Family	HP Z3805A / 58503A
Gnss Code	C/A code, L1 carrier
Tracking	6-channel parallel tracking
Frequency Outputs	two 10 MHz outputs (58503A/Z3805A listing)
Time Output	1 PPS
Output Impedance	50 ohm
Time Base Stability Class	1.5e-12 per year (58503A table used with Z3805A listings)
Remote Interface	RS-232
Features	HP SmartClock / HP Enhanced GPS
Form Factor	GPS-disciplined frequency reference receiver
Application	laboratory frequency and time standard
Documentation	HP 58503A GPS Time and Frequency Reference Receiver literature (Z3805A sibling listing)
Holdover	SmartClock quartz holdover when GPS is lost
Antenna	external GPS antenna input
Calibration Type	10 MHz reference calibration
Operating Environment	laboratory ambient per 58503A/Z3805A manual
Power	AC mains operated receiver
Successor Class	later GPS/GNSS disciplined oscillators
Verification	confirm Z3805A vs 58503A option label for output count
Phase Noise	see 58503A/Z3805A specification table (do not invent dBc/Hz)
Allan Deviation	see 58503A specification table

Z3805A Specifications

PARAMETER	VALUE
Agilent Keysight Z3805A GPS Time and Frequency Receiver	Overview
Applications	House 10 MHz and 1 PPS reference for communications, calibration labs, and frequency counters.
Technical Specifications	Instrument Type: GPS time and frequency reference receiver

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	
Specifications	
PARAMETER	VALUE
Instrument Type	GPS time and frequency reference receiver
Series Family	HP Z3805A / 58503A
Gnss Code	C/A code, L1 carrier
Tracking	6-channel parallel tracking
Frequency Outputs	two 10 MHz outputs (58503A/Z3805A listing)
Time Output	1 PPS
Output Impedance	50 ohm
Time Base Stability Class	1.5e-12 per year (58503A table used with Z3805A listings)
Remote Interface	RS-232
Features	HP SmartClock / HP Enhanced GPS
Form Factor	GPS-disciplined frequency reference receiver
Application	laboratory frequency and time standard
Documentation	HP 58503A GPS Time and Frequency Reference Receiver literature (Z3805A sibling listing)
Holdover	SmartClock quartz holdover when GPS is lost
Antenna	external GPS antenna input
Calibration Type	10 MHz reference calibration
Operating Environment	laboratory ambient per 58503A/Z3805A manual
Power	AC mains operated receiver
Successor Class	later GPS/GNSS disciplined oscillators
Verification	confirm Z3805A vs 58503A option label for output count
Phase Noise	see 58503A/Z3805A specification table (do not invent dBc/Hz)
Allan Deviation	see 58503A specification table
Notes On Sibling: Z3805A is listed together with 58503A in HP/Agilent GPS reference catalogs	
Notes	
GPS L1 C/A, 6-channel, 10 MHz, 1 PPS, 50 ohm, RS-232, and 1.5e-12/year from HP 58503A specification summaries used in Z3805A/58503A paired listings. Confirm Z3805A-specific output count on the unit label.	

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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30-day returns
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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.