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Data Sheet

August 13, 2026

STANFORD RESEARCH SYSTEMS

Stanford Research FS752 GPS/GNSS Time and Frequency Reference

Stanford Research Systems FS752 GNSS Time and Frequency Reference The SRS FS752 is a GNSS-disciplined time and frequency reference providing calibrated 10 MHz and 1 PPS distribution. A built-in u-blox NEO-M8T class receiver tracks GPS, GLONASS, BeiDou, or Galileo and disciplines a double-oven OCXO with phase noise less than -125 dBc/Hz at 10 Hz offset. Standard outputs are five buffered 10 MHz (1 Vrms into 50 ohm / about 13 dBm) and two buffered 1 PPS (10 us, 5 V CMOS, UTC-aligned). Optional rear distribution adds four more 10 MHz (Opt. A) and/or four more 1 PPS (Opt. B). USB virtual COM port control is standard. The SRS FS752 is a GNSS-disciplined time and frequency reference providing calibrated 10 MHz and 1 PPS distribution. A built-in u-blox NEO-M8T class receiver tracks GPS, GLONASS, BeiDou, or Galileo and disciplines a double-oven OCXO with phase noise less than -125 dBc/Hz at 10 Hz offset. Standard outputs are five buffered 10 MHz (1 Vrms into 50 ohm / about 13 dBm) and two buffered 1 PPS (10 us, 5 V CMOS, UTC-aligned). Optional rear distribution adds four more 10 MHz (Opt. A) and/or four more 1 PPS (Opt. B). USB virtual COM port control is standard. Laboratory 10 MHz frequency distribution; UTC-aligned 1 PPS timing; GNSS-disciplined frequency standard with holdover; multi-instrument reference racks with optional output expansion.



MODEL

**Stanford Research
Systems FS752**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

FS752

LISTING

<https://aumictechlabs.com/products/fs752-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Stanford Research Systems FS752 is a GPS/GNSS disciplined time and frequency reference engineered for precision synchronization in metrology labs, observatories, and critical infrastructure requiring sub-nanosecond timing accuracy. It tracks GPS, GLONASS, BEIDOU, and GALILEO constellations simultaneously, delivering stable 10 MHz and 1 PPS outputs locked to atomic clock accuracy. The instrument employs a double-oven controlled 3rd overtone SC-cut crystal oscillator with $<2 \times 10^{-9}$ temperature stability and phase noise below -125 dBc/Hz at 10 Hz offset. Satellite acquisition completes within one minute; almanac lock takes approximately 15 minutes under continuous power. If GNSS signal is lost, the holdover timebase maintains lock with aging less than ± 0.05 ppm/year.

Technical Specifications

Oscillator: Double-oven controlled, 3rd OT SC-cut crystal
Temperature stability: $<2 \times 10^{-9}$ (20–30 °C)
Aging: <0.2 ppm/year (undisciplined to GPS)
Phase noise: $\leftarrow -125$ dBc/Hz at 10 Hz offset

GNSS Receiver: Constellations: GPS, GLONASS, BEIDOU, GALILEO
Satellite acquisition: <1 minute typical
Almanac acquisition: ~ 15 minutes (continuous power)
Holdover aging: $<\pm 0.05$ ppm/year

10 MHz Outputs: Standard: Five buffered outputs (optional: up to 8 additional)
Amplitude: 1 Vrms into 50 Ω
Harmonics: $\leftarrow -40$ dBc
Spurious: $\leftarrow -90$ dBc (100 kHz bandwidth)
Output coupling: DC, 50 Ω ± 2 %
Reverse protection: ± 5 VDC

1 PPS Outputs: Standard: Two buffered outputs (optional: up to 8 additional)
Width: 10 μ s
Phase accuracy: <2 ns (to internal reference)
Jitter: <50 ps rms
Level: +5 V CMOS logic
Transition time: <2 ns
Source impedance: 50 Ω
Reverse protection: ± 5 VDC
Stability: TDEV between instruments: A few nanoseconds

Key Features

- Multi-constellation GNSS tracking eliminates single-system dependency
- Automatic position survey and fixing
- Configurable alarm relay for GNSS lock, timebase health, or holdover monitoring
- USB interface for full programmability and real-time status queries
- Holdover operation maintains frequency lock when GNSS signal drops

Typical Applications

Precision frequency distribution, laboratory timing synchronization, network timing infrastructure, frequency metrology, and applications requiring <2 ns phase accuracy.

Compatibility & Integration

USB control port supports command-driven operation. Standard 90–264 VAC input, 47–63 Hz. Power consumption <80 VA. No power switch; instrument activates on line cord insertion.

Features & description

From manufacturer datasheet

Features

- GNSS-disciplined double-oven OCXO

FS752 Characteristics / Specifications

PARAMETER	VALUE
Model	FS752
Manufacturer	Stanford Research Systems (SRS)
Instrument Type	GNSS time and frequency reference
Oscillator Type	Double-oven OCXO, 3rd overtone SC-cut crystal
Temperature Stability	less than 1e-9 (20 to 30 C)
Aging Undisciplined	less than 0.05 ppm/year
Phase Noise SSB	less than -125 dBc/Hz at 10 Hz offset
Stability 1 s	less than 5e-11
Holdover	less than 40 us / 24 hr
GNSS Receiver	u-blox NEO-M8T
Satellite Acquisition	less than 1 minute typical
Almanac Acquisition	about 15 minutes when continuously tracking
UTC Accuracy	less than 100 ns
Timing Wander Clear Sky	less than 20 ns rms
Antenna Delay Correction Range	+/-32.767 us (manual class) 10 MHz Outputs Standard: 5 buffered 10 MHz Amplitude: 1 Vrms into 50 ohm (about 13 dBm); +/-1 dB 10 MHz Harmonics: less than -40 dBc 10 MHz Spurious: less than -90 dBc (100 kHz BW) 1 PPS Outputs Standard: 2 buffered
AC Power	30 W, 90 to 264 VAC, 47 to 63 Hz with PFC
Dimensions	17 in x 2 in x 12 in (WxHxL)
Weight	10 lb
EMI	FCC Part 15 Class B; CISPR-22 ClassB Interface: USB virtual COM, 115.2 kbaud, RTS/CTS Notes Specs from SRS FS752 catalog and manual. Confirm installed Opt. A/B distribution and antenna kit before system integration.

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	
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Specifications	
PARAMETER	VALUE
UTC Accuracy	less than 100 ns
Timing Wander Clear Sky	less than 20 ns rms
Antenna Delay Correction Range	+/-32.767 us (manual class)

10 MHz Outputs Standard: 5 buffered

10 MHz Amplitude: 1 Vrms into 50 ohm (about 13 dBm); +/-1 dB

10 MHz Harmonics: less than -40 dBc

10 MHz Spurious: less than -90 dBc (100 kHz BW)

1 PPS Outputs Standard: 2 buffered

1 PPS Width: 10 us; Level +5 V CMOS; Jitter less than 50 ps rms

Optional Distribution: Opt. A four additional 10 MHz; Opt. B four additional 1 PPS

Specifications

PARAMETER	VALUE
AC Power	30 W, 90 to 264 VAC, 47 to 63 Hz with PFC
Dimensions	17 in x 2 in x 12 in (WxHxL)
Weight	10 lb

EMI: FCC Part 15 Class B; CISPR-22 ClassB Interface: USB virtual COM, 115.2 kbaud, RTS/CTS

Notes

Specs from SRS FS752 catalog and manual. Confirm installed Opt. A/B distribution and antenna kit before system integration.

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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<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
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.