

**Aumictech**

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Data Sheet

August 3, 2026

STANFORD RESEARCH

Stanford Research CG635 Clock Generator – 2 GHz

Stanford Research Systems CG635 Synthesized Clock Generator The CG635 provides a low-jitter synthesized clock generator from Stanford Research Systems covering DC and 1 μ Hz to 2.05 GHz. Front-panel complementary Q/-Q outputs support ECL, PECL, LVDS, and +7 dBm presets with 80 ps-class transitions; a CMOS output runs to 250 MHz. Rear RJ-45 delivers RS-485 (to 105 MHz) and LVDS (to 2.05 GHz). Optional OCXO, rubidium timebase, and PRBS (Opt. 01) support eye-pattern testing. ADC/DAC clocking; high-speed digital and SERDES test; communications timing; jitter/wander characterization; mixer drive with square-wave RF levels. The CG635 provides a low-jitter synthesized clock generator from Stanford Research Systems covering DC and 1 μ Hz to 2.05 GHz. Front-panel complementary Q/-Q outputs support ECL, PECL, LVDS, and +7 dBm presets with 80 ps-class transitions; a CMOS output runs to 250 MHz. Rear RJ-45 delivers RS-485 (to 105 MHz) and LVDS (to 2.05 GHz). Optional OCXO, rubidium timebase, and PRBS (Opt. 01) support eye-pattern testing. ADC/DAC clocking; high-speed digital and SERDES test; communications timing; jitter/wander characterization; mixer drive with square-wave RF levels.

No photo

MODEL

**Stanford Research
CG635**

CALIBRATION

**N/A — off-catalog
OEM datasheet**

CONDITION

**See OEM
documentation**

STATUS

**Not listed on
Aumictech
inventory**

RFQ / SKU

CG635

LISTING

**Off-catalog — OEM dat
asheet only**

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

Features & description

From manufacturer datasheet

Features

- Frequency: DC, 1 μ Hz to 2.05 GHz; 16-digit resolution ($f \geq 10$ kHz); 1 pHz ($f < 10$ kHz) • Accuracy: $\Delta f < \pm(2 \times 10^{-19} + \text{timebase error}) \times f$; settling < 30 ms • Jitter: < 1 ps rms (1 kHz–5 MHz BW); wander < 20 ps p-p (10 s) • Q/–Q: 200 mV–1.00 V amplitude; VHIG -2.00 to $+5.00$ V; transition < 100 ps (20–80%); 50Ω
- CMOS: 0.5–6.0 V amplitude to 250 MHz; transition < 1 ns • Phase set: $\pm 720^\circ$; edge resolution < 14 ps; time modulation ± 5 ns at 1 ns/V • Timebase: std < 5 ppm; Opt.02 OCXO < 0.01 ppm; Opt.03 Rb < 0.0001 ppm (20–30 °C) • Interfaces: GPIB and RS-232; 90–264 VAC; 8.5"×3.5"×13"; 9 lbs

CG635 Characteristics / Specifications

PARAMETER	VALUE
Model	CG635
Manufacturer	Stanford Research Systems (SRS)
Instrument Type	Synthesized Clock Generator
Alias	CG635 Frequency
Range	DC, 1 μ Hz to 2.05 GHz
Resolution	16 digits ($f \geq 10$ kHz); 1 pHz ($f < 10$ kHz)
Accuracy	$\Delta f < \pm(2 \times 10^{-19} + \text{timebase error}) \times f$; settling < 30 ms
Settling Time	< 30 ms Timebase (20–30 °C)
Stability	< 5 ppm (std); < 0.01 ppm (Opt. 02 OCXO); < 0.0001 ppm (Opt. 03 Rb)
Aging	< 5 ppm/yr (std); < 0.2 ppm/yr (OCXO); < 0.0005 ppm/yr (Rb)
External Ref In	10 MHz ± 10 ppm, sine > 0.5 Vpp, 1 k Ω
Ref Out	10 MHz, 1.41 Vpp sine into 50 Ω Phase Noise (at 622.08 MHz) 100 Hz: < -90 dBc/Hz; 1 kHz: < -100 ; 10 kHz: < -100 ; 100 kHz: < -110 dBc/Hz Qand $-\text{Q}$ Outputs
Frequency	DC, 1 μ Hz to 2.05 GHz; 16-digit resolution ($f \geq 10$ kHz); 1 pHz ($f < 10$ kHz)
Amplitude	$200 \text{ mV} \leq \text{VAMPL} \leq 1.00 \text{ V}$; level resolution 10 mV; error $< 1\% + 10 \text{ mV}$
Transition	< 100 ps (20% to 80%); symmetry < 100 ps from 50%
Presets	1.2 / 1.8 / 2.5 / 3.3 / 5.0 V RS-485 / LVDS (RJ-45)
LVDS	DC–2.05 GHz; VLOW +0.96 V / VHIGH +1.34 V; 100 Ω PRBS Opt. 01 DC to 1.55 GHz LVDS; polynomial $x^7 + x^6 + 1$ ($2^7 - 1$) Time Modulation Sensitivity 1 ns/V $\pm 5\%$; range ± 5 ns; BW DC to > 10 kHz General
Power	90–264 VAC, 47–63 Hz, 50 W
Dimensions	8.5" $\times$ 3.5" $\times$ 13" (W $\times$ H $\times$ D); Weight: 9 lbs
Memory	10 instrument configurations Standard Operating Conditions Timebase specs at 20–30 °C ambient. Drive 50 Ω loads on Q/ $-\text{Q}$ as specified. Operational Notes Optional line receivers CG640–CG649 convert RJ-45 differential clocks to SMA logic families. Use Opt. 02/03 for improved long-term stability and phase noise.

PARAMETER	VALUE
Jitter	<1 ps rms (1 kHz–5 MHz BW); wander <20 ps p-p (10 s)
Q/–Q	200 mV–1.00 V amplitude; VHIG H –2.00 to +5.00 V; transition <100 ps (20–80%); 50 Ω
CMOS	0.5–6.0 V amplitude to 250 MHz; transition <1 ns
Phase set	$\pm 720^\circ$; edge resolution <14 ps; time modulation ± 5 ns at 1 ns/V
Timebase	std <5 ppm; Opt.02 OCXO <0.01 ppm; Opt.03 Rb <0.0001 ppm (20–30 $^\circ\text{C}$)
Interfaces	GP IB and RS-232; 90–264 VAC; 8.5"×3.5"×13"; 9 lbs

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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PARAMETER	VALUE
Model	CG635
Manufacturer	Stanford Research Systems (SRS)
Instrument Type	Synthesized Clock Generator
Alias	CG635
Frequency	
Frequency	
PARAMETER	VALUE
Range	DC, 1 μ Hz to 2.05 GHz
Resolution	16 digits ($f \geq 10$ kHz); 1 pHz ($f < 10$ kHz)
Accuracy	$\Delta f < \pm(2 \times 10^{-19} + \text{timebase error}) \times f$
Settling Time	<30 ms
Timebase (20–30 °C)	
Specifications	
PARAMETER	VALUE
Stability	<5 ppm (std); <0.01 ppm (Opt. 02 OCXO); <0.0001 ppm (Opt. 03 Rb)
Aging	<5 ppm/yr (std); <0.2 ppm/yr (OCXO); <0.0005 ppm/yr (Rb)
External Ref In	10 MHz $\pm$ 10 ppm, sine >0.5 Vpp, 1 k Ω
Ref Out	10 MHz, 1.41 Vpp sine into 50 Ω
Specifications	
PARAMETER	VALUE
Phase Noise (at 622.08 MHz)	100 Hz: <–90 dBc/Hz; 1 kHz: <–100; 10 kHz: <–100; 100 kHz: <–110 dBc/Hz Qand –Q Outputs
Frequency	DC to 2.05 GHz
Amplitude	200 mV $\leq$ VAMPL $\leq$ 1.00 V; level resolution 10 mV; error <1% + 10 mV
Transition	<100 ps (20% to 80%); symmetry <100 ps from 50%

PARAMETER	VALUE
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Presets PECL, LVDS, +7 dBm, ECL

CMOS Output
Frequency: DC to 250 MHz; amplitude 500 mV–6.00 V; transition <1 ns
Presets: 1.2 / 1.8 / 2.5 / 3.3 / 5.0 V
RS-485 / LVDS (RJ-45)
RS-485: DC–105 MHz; VLOW +0.8 V / VHIGH +2.5 V; 100 Ω

Specifications

PARAMETER	VALUE
LVDS	DC–2.05 GHz; VLOW +0.96 V / VHIGH +1.34 V; 100 Ω
PRBS Opt. 01	DC to 1.55 GHz LVDS; polynomial x^7+x^6+1 (2^7-1)
Time Modulation	Sensitivity 1 ns/V $\pm 5\%$; range ± 5 ns; BW DC to >10 kHz

General

Specifications

PARAMETER	VALUE
Power	90–264 VAC, 47–63 Hz, 50 W
Dimensions	8.5" $\times$ 3.5" $\times$ 13" (W $\times$ H $\times$ D); Weight: 9 lbs
Memory	10 instrument configurations

Standard Operating Conditions
Timebase specs at 20–30 $^{\circ}$ C ambient. Drive 50 Ω loads on Q/–Q as specified.

Operational Notes
Optional line receivers CG640–CG649 convert RJ-45 differential clocks to SMA logic families. Use Opt. 02/03 for improved long-term stability and phase noise.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: N/A — off-catalog OEM datasheet. See OEM documentation · Not listed on Aumictech inventory.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
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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.