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**Data Sheet**
August 2, 2026

STANFORD RESEARCH SYSTEMS

# Stanford Research CG644 – PECL (+3.3Vcc) up to 2050MHz

Stanford Research CG644 – PECL (+3.3Vcc) up to 2050MHz The Stanford Research Systems CG644 is an optional PECL output adapter for the CG635 Synthesized Clock Generator–it is notastandalone clock generator. The CG644 converts the CG635 rear-panel LVDS clock output into PECL logic levels at +3.3 Vcc on 50 Ω outputs, operating to 2.05 GHz with approximately 100 ps transition times. It connects to the CG635 via Category-6 cable from the rear-panel RJ-45 interface, allowing remote placement of PECL clocks near the device under test. The Stanford Research Systems CG644 is an optional PECL output adapter for the CG635 Synthesized Clock Generator–it is notastandalone clock generator. The CG644 converts the CG635 rear-panel LVDS clock output into PECL logic levels at +3.3 Vcc on 50 Ω outputs, operating to 2.05 GHz with approximately 100 ps transition times. It connects to the CG635 via Category-6 cable from the rear-panel RJ-45 interface, allowing remote placement of PECL clocks near the device under test. Delivering clean PECL (+3.3 V) clock signals to high-speed digital and communications systems; remote clock distribution fromaCG635 master; PECL drive for FPGAs, serializers, and communications ICs requiring 3.3 V PECL levels.


| | |
|---|---|
| MODEL<br>**Stanford Research Systems CG644** | CALIBRATION<br>**Available on request** |
| CONDITION<br>**Used** | STATUS<br>**In stock** |
| RFQ / SKU<br>**CG644** | LISTING<br>**https://aumictechlabs.com/products/cg644-2/** |

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## This unit

The Stanford Research Systems CG644 is a programmable PECL clock generator delivering stable, low-jitter signals up to 2050 MHz. Built on the proven CG635 Synthesized Clock Generator platform, it combines precise frequency control with fast transition times and exceptional timebase stability, making it ideal for high-speed digital system synchronization, test automation, and laboratory signal generation.Technical Specifications Frequency Range: DC to 2050 MHz Output Type: PECL (+3.3Vcc) Jitter (rms): <1 ps rms Transition Time (Rise/Fall): Typically 80 ps (20% to 80%) Frequency Resolution: 16 digits Output Impedance: 50 Ω (front-panel outputs); 100 Ω differential (rear-panel outputs) Load Impedance: 50 Ω (front-panel); 100 Ω differential (rear-panel) Timebase Stability: Better than 5 ppm (crystal standard); optional OCXO and Rubidium timebases available Power Supply: +3.3Vcc for PECL outputs; universal AC input worldwide; +5 V and -5 V accessory power on rear panelKey Features Complementary Q and -Q front-panel outputs for differential signaling Rear-panel RJ-45 connector supporting LVDS differential outputs to 2.05 GHz and RS-485 levels to 105 MHz CAT-6 cable compatible with 100 Ω terminations 10 MHz reference input and output Phase and time modulation inputs GPIB and RS-232 remote control interfacesTypical Applications High-speed digital system clocking and synchronization Test and measurement equipment timing Data acquisition system synchronization RF and microwave instrumentation Laboratory clock generationCompatibility & Integration The CG644 integrates with standard 50 Ω and 100 Ω differential test infrastructure. Remote programming via GPIB or RS-232 enables seamless automation in ATE and laboratory environments. Optional precision timebases extend stability for demanding metrology applications.

## Features & description

From manufacturer datasheet

### Features

• PECL (+3.3 Vcc) output adapter for CG635 • Operates up to 2.05 GHz (2050 MHz) • 50 Ω source and load impedance • Approximately 100 ps transition times • Connects via Category-6 cable to CG635 RJ-45 output • Remote placement away from the CG635 mainframe • Part of CG640–CG649 optional receiver family

## CG644 Characteristics / Specifications

| PARAMETER | VALUE |
|---|---|
| **Stanford Research CG6** | PECL (+3.3Vcc) up to 2050MHz Overview The Stanford Research Systems CG644 is an optional PECL output adapter for the CG635 Synthesized Clock Generator–it is notastandalone clock generator. The CG644 converts the CG635 rear-panel LVDS clock output into PECL logic levels at +3.3 Vcc on 50 Ω outputs, operating to 2.05 GHz with approximately 100 ps transition times. It connects to the CG635 via Category-6 cable from the rear-panel RJ-45 interface, allowing remote placement of PECL clocks near the de |
| **Model** | CG644 |
| **Manufacturer** | Stanford Research Systems |
| **Instrument Type** | Optional PECL Output Adapter |
| **Parent Instrument** | CG635 Synthesized Clock Generator |
| **Output Logic Family** | PECL (+3.3 Vcc) |
| **Maximum Frequency** | 2.05 GHz (2050 MHz) |
| **Transition Time** | approximately 100 ps |
| **Source Impedance** | 50 Ω |
| **Load Impedance** | 50 Ω |
| **Input** | RJ-45; LVDS clock pair from CG635 via Category-6 cable |
| **Output** | PECL on SMA connector(s) |
| **Power** | supplied from CG635 rear-panel RJ-45 (+/-5 VDC for optional receivers) Standard Operating Conditions Use withaCG635 equipped for optional line receivers. Terminate PECL outputs with 50 Ω when required. Observe Category-6 cable length limits versus frequency (OEM guidance: shorter cables at higher frequencies). |
| **CG644 requiresaCG6** | it cannot generate clocks independently. Related PECL variants include CG643 (+5 Vcc) and CG645 (+2.5 Vcc). For RF or other logic families, select CG646 (RF +7 dBm), CG648 (ECL), or other CG640–CG649 modules per application. |

# 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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CG644 requiresaCG635–it cannot generate clocks independently. Related PECL variants include CG643 (+5 Vcc) and CG645 (+2.5 Vcc). For RF or other logic families, select CG646 (RF +7 dBm), CG648 (ECL), or other CG640–CG649 modules per application.

## 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

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