UXGA Resolution Video MUX Simplifies RGB Signal Routing

MILPITAS, CA – May 17, 2005 – Linear Technology Corporation introduces the LT6555, the industry’s fastest 2:1 multiplexing triple video amplifier. Achieving beyond UXGA quality resolution, the LT6555 is ideal for use in high-resolution video with multiple inputs or outputs. The 2:1 input multiplexers simplify the selection of two video signals while the internal fixed gain of two amplifiers eliminates external gain setting resistors when driving 75Ohm back-terminated cables.

“The LT6555 has a wide bandwidth of 650MHz and a very high slew rate of 2200V/us, allowing it to process large input signals. This, coupled with a quick 6.5ns settling time, enhances the AC performance, resulting in sharper video images,” said applications manager Tim Regan. “Furthermore, the independent supply pins for each amplifier boost channel separation, ensuring excellent crosstalk specifications. This eliminates channel interaction in RGB muxing applications.”

Equally ideal for use as a front end receiver or an output cable driver, the LT6555 is an excellent candidate for switching RGB signals in UXGA LCD projectors and monitors or plasma displays, signal routing in professional video equipment and high fidelity multi-input video switching applications.

The LT6555 is capable of operation on dual or single supplies from 4.5V to 12V total. Offered in the space saving 4mm x 4mm QFN and 24-pin SSOP packages, the LT6555 is fully specified for operation over the industrial and commercial temperature ranges. Pricing starts at $2.75 each in 1,000-piece quantities.
Summary of Features: LT6555

- 650MHz -3dB Small Signal Bandwidth
- 450MHz -3dB 2Vp,p Large Signal Bandwidth
- 120MHz ±0.1dB Bandwidth
- High Slew Rate: 2200V/us
- 6.5ns 0.1% Settling Time for 2V Step
- Fixed Gain of 2: Requires No External Resistors
- -72dB Channel Separation at 10MHz
- -80dBc 2nd Harmonic Distortion at 10MHz, 2Vp,p
- Low Supply Current: 9mA/Amplifier
- Differential Gain of 0.033%, Differential Phase of 0.022°
- Wide Supply Range: ±2.25 (4.5V) to ±6 (12V)
- Available in SSOP-24 and QFN Packages

COMPANY BACKGROUND: Linear Technology Corporation was founded in 1981 as a manufacturer of high performance linear integrated circuits. Linear Technology products include high performance amplifiers, comparators, voltage references, monolithic filters, linear regulators, DC-DC converters, battery chargers, data converters, communications interface circuits, RF signal conditioning circuits, and many other analog functions. Applications for Linear Technology’s high performance circuits include telecommunications, cellular telephones, networking products such as optical switches, notebook and desktop computers, computer peripherals, video/multimedia, industrial instrumentation, security monitoring devices, high-end consumer products such as digital cameras and MP3 players, complex medical devices, automotive electronics, factory automation, process control, and military and space systems.

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