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Multigig Breaks 100 Femtosecond Jitter Barrier

QuietClock Family of Clock ICs Launched With 25 New Products

SCOTTS VALLEY, CALIF. – August 4, 2008 – Multigig Inc., today announced the industry's first clock synthesizer ICs to break the 100 femtosecond jitter barrier. These ICs, part of the Multigig QuietClock™ family, provide a three times (3x) performance improvement over existing competitive solutions. Simplifying component selection and lowering system cost, the QuietClock family includes 25 sole source and second source clock synthesizer products with single-ended and differential outputs. The QuietClock family covers the most popular frequencies used by PHY, MAC, SERDES, and memory subsystems used in the communication, telecom, networking, server and storage markets.

As high-speed communications protocols move to 10 Gbit/second, 40 Gbit/second and beyond, timing budgets increasingly get squeezed. Unlike Multigig QuietClock, existing clock and synthesizer solutions cannot achieve the low jitter necessary to minimize dropped packets, enable interoperability between computer systems, and ease performance bottlenecks. Jitter is a key parameter designers want to minimize to unlock higher system throughput and the new QuietClock family provides engineers with clock synthesizers that open constricted eye diagrams, enhance bit error rates (BER) and maximize precious timing margin. The QuietClock family of devices not only provides groundbreaking three to five times lower jitter and significantly lower phase noise but does so with 30 to 50 percent lower power consumption than competing solutions via patented RotaryWave™ technology.

"QuietClock synthesizers typically limit RMS jitter to 60 femtosecond. This is far better than any competing silicon solution and it offers performance comparable to the best can oscillators but with higher reliability (FIT), frequency programmability, flexibility, and the lower cost associated with silicon solutions," says Haris Basit, CEO of Multigig.

QuietClock synthesizers are programmable clock signal sources that provide an ultra-low jitter and phase noise reference clock signal to communication, computing, and networking interface devices. The product family provides 3.3 V and 2.5 V operation, 1 to 10 outputs from a mix of single ended (LVCMOS) and differential (LVPECL and LVDS) outputs, and supports the full industrial temperature range (-40 to 85 degrees Celsius).

The Multigig QuietClock portfolio includes second source, pin-for-pin replacements of industry standard products. These encompass the 840001/2/4/51, 9229/30, 12429/30, 843001/11/21/22, and 844001/21 products but with improved performance, lower power consumption, and lower cost. The MQC1A0110 1:10 buffer provides functional compatibility with the industry standard 3807 buffer but with twice the frequency (1-400 MHz) range. Common applications for QuietClock products include Gigabit Ethernet (GBE), serial Rapid I/O, SONET/SDH, Fibre Channel, Infiniband, and SATA.

Introduced in 2006 as the first major advance in semiconductor clock design in the last several decades, the underlying RotaryWave technology enables semiconductors to achieve their maximum performance by delivering extremely precise, high-resolution, low-noise timing signals with far less power than is associated with standard clock designs. RotaryWave is a fundamental technology that works on all existing manufacturing processes - zero manufacturing changes are required to implement RotaryWave clocks into a design. RotaryWave clocks also scale well with advanced processes. Furthermore, this technology has excellent signal integrity with very robust tolerance to substrate, power supply and radiated noise.

Selected QuietClock Family Devices:

Device	Application	Freq (MHz)	# Outs	Package
MQC9229	SDR/QDR MEM Buffer	25-400	1 LVPECL	32 pin TQFP
MQC9230	SDR/QDR MEM Buffer	50-800	1 LVPECL	32 pin TQFP
MQC840001	FC	106.2, 212.5	1 LVCMOS	8 pin TSSOP
MQC840002-01	GBE, sRIO, Infiniband	62.5,125,156.25	2 LVCMOS	16 pin TSSOP
MQC840004-11	10GBE,XAUI,sRIO	62.5,125	4 LVCMOS	20 pin TSSOP
MQC840021	10GBE/GBE	125	1 LVCMOS	8 pin TSSOP
MQC840051A	FC,SONET	77-81,152-162	1 LVCMOS	8 pin TSSOP
MQC843001-40	SAS,FC	50,100,106.25	2 LVCMOS/PECL	8 pin TSSOP
MQC843011	FC	100,106.25	1 LVPECL	8 pin TSSOP
MQC843021	10GBE,GBE	125	1 LVPECL	8 pin TSSOP
MQC843022	10GBE,GBE	62.5,125	1 LVPECL	8 pin TSSOP
MQC844001-xxx	FC,GBE,10GBE,SONET	106.25 - 187.5	1 LVDS	8 pin TSSOP
MQC844021-xxx	FC,GBE,10GBE,SONET	106.25 - 187.5	1 LVDS	8 pin TSSOP
MQC1A0110	All	1 – 400	10 LVCMOS	20 pin SOIC

Pricing and Availability

QuietClock™ samples are available now. Pricing starts at \$2.75 for 1,000 units. Contact Scott Gardner at scott.gardner@multigig.com for pricing information and read more details at www.multigig.com

About Multigig, Inc.

Multigig, Inc., is a fabless semiconductor company that provides advanced next generation clock and timing solutions for the wired and wireless communications markets. Over 30 issued patents protect Multigig's proprietary technology. Multigig's corporate headquarters are located at 100 Enterprise Way, Ste. A3 Scotts Valley, CA 95066. For more information on the company and products visit Multigig online at www.multigig.com

Abbreviations:

IC: Integrated Circuit

LVPECL: Low Voltage Positive Emitter-Coupled Logic

LVDS: Low Voltage Differential Signaling

LVC MOS: Low Voltage Complementary Metal Oxide Semiconductor

SERDES: Serializer/Deserializer

FC: Fibre Channel

GBE: Gigabit Ethernet

10GBE: 10 Gigabit Ethernet

SONET: Synchronous Optical Network

SAS: Serial Attached SCSI

sRIO: Serial Rapid IO

QDR: Quad Data Rate Memory

RMS: Root Mean Square