

Microbridge June eNewsletter

Microbridge Technologies Announces Availability of New Electrically Adjustable Resistor Family

Low Power, Low TC re-adjustable resistors (Rejustors™) Provide Integrated Calibration Compensation Systems for Analog Circuit Designs and Production

Microbridge Technologies, Inc., the leader in passive, analog precision calibration products (Rejustors), announced the availability of a new family of low power, Low TC re-adjustable resistors designed to compensate and calibrate precision analog circuits. Microbridge demonstrated how to calibrate Rejustors in high volume applications at the Sensors Expo & Conference, in Rosemont, IL last week.

Microbridge has previously shown its capability to calibrate individual electronic devices such as voltage references, sensors or circuits needing adjustments with passive, electrically adjustable resistors. Today's demonstration will emphasize how to calibrate devices and circuits for mass production. The new Rejustors can be used with off-the-shelf National Instruments hardware (NI-cDAQ 9172) to calibrate a wide range of circuits in parallel.

“There are numerous solutions on the market to improve accuracy and precision of analog circuits,” said Bob Frosthalm, vice president, Marketing and Strategic Alliances at Microbridge. “Each existing solution has some set of drawbacks that Rejustors can alleviate such as limited temperature range, limited maximum frequency of operation, requiring power, requiring a laser, and more. Rejustors offer high temperature operation to 125°C or higher, high frequency operation in excess of 2GHz, requires no power to operate in circuit, has no wiper resistance, and is adjustable to precision levels 0.1% or better.”

Applications

Microbridge Rejustors have a wide variety of applications. They are suitable for precision analog compensation in military, aerospace and satellite applications. Automotive applications range from optical systems to engine sensors and tire-pressure monitor. As a sealed device, the Rejustor is well suited for operation in harsh and demanding environments. Industrial applications range from simple calibration of power supplies to calibration of sensors of many kinds including photo transistors, pressure sensors and magnetic proximity sensors. Consumer applications include LCD screen adjustments and timing devices. In medical & science, Microbridge calibration techniques are ideal for use in catheter applications. In Semiconductors, Microbridge's CMOS based technology enables integration of Rejustor calibration and compensation devices for designs that require better precision than fuses, digital potentiometers or laser trimming can achieve.

Pricing & Availability

The new devices are available off the shelf through Microbridge's worldwide distributor, Future Electronics. All members of the Low Power family are priced at \$0.99 at 1,000 piece quantities. Each QFN package contains two Rejistor elements (R1, R2) making it easier to implement divider networks where the TC of the two resistors must be equally matched. For sales enquire, contact Microbridge at sales@mbridgetech.com <mailto:sales@mbridgetech.com>.

About Rejutors

Rejutors are passive resistors made from the same Polysilicon materials used in high volume CMOS IC processing. They are easily set to their desired resistance value using the same simple calibration hardware and software algorithms as Microbridge's Low TC Rejutors to provide easy calibration of analog circuits.

A perfect application for Rejutors is in Wheatstone Bridges. These bridge elements are prone to being unbalanced by factors other than the desired sensor response. Having the ability to calibrate each resistor to a very precise ohmic value makes it easy to match the divider midpoints. And if the TCRs of the four resistances are matched as well, as is the case of Rejutors, there can be a substantial improvement in accuracy over temperature variation.

The devices are also well suited for replacing manual trim-pots, digital pots, and hand selected precision resistors in precision applications. Unlike digital pots, Rejutors offer further advantages in applications requiring high temperature and high frequency operations. Digital pots are typically specified to only 70°C or 85°C. Rejutors operate easily to 125°C and beyond, allowing applications in mil/aero designs. Digital pots are often limited to applications where operating frequencies are well under 1MHz. Due to the inherent physical design of the Rejistor, they are well suited for high frequency operations that can easily exceed 1GHz.

For more information on Rejutors, please click on <http://www.mbridgetech.com/resistor-technology/resistor-white-papers.php> for a Microbridge technical whitepaper on Rejutors.

ABOUT MICROBRIDGE

Microbridge is the leading manufacturer and licensor of next step electronic calibration products and solutions in the consumer, automotive, medical and other industries that need to improve manufacturing yields and productivity, and enter new markets. Microbridge's resistor calibration products (Rejistor) and enabling technology are the first integrated calibration and temperature compensation systems for analog electronics design and production. The firm enables manufacturers to: cut scrap up to 50%; reduce in-line manufacturing process steps; eliminate binning, work-arounds, laser trimming, hand-sorting and trim-pots; decrease calibration costs by a factor of 10 without sacrificing performance; and return millions of dollars in production savings.

Microbridge's technology enables product designers to achieve one-step calibration and passive adjustment, is adaptive and adjustable in circuit, and it allows calibration in the analog domain to improve the design of current and future products.

For more information, visit www.mbridgetech.com. Companies with product inquiries can contact Microbridge at sales@mbridgetech.com and licensing inquiries can be answered at license@mbridgetech.com <<http://www.mbridgetech.com>>

Contact us:

Phone: 1-888-735-8786

email: info@mbridgetech.com

Bob Frosthalm

Vice President

Marketing, Strategic Alliances & Business Development

Microbridge Technologies

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