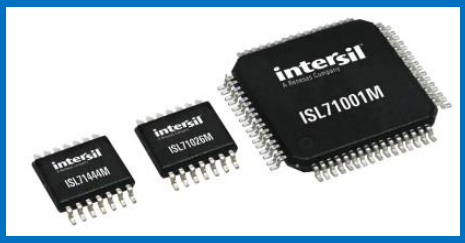
Protec GmbH
Vertrieb elektronischer Bauteile

intersil
A Renesas Company

SPACE COMPONENTS NEWSLETTER *NOVEMBER 2018*

Small Satellite Constellations With the New Intersil Plastic ICs



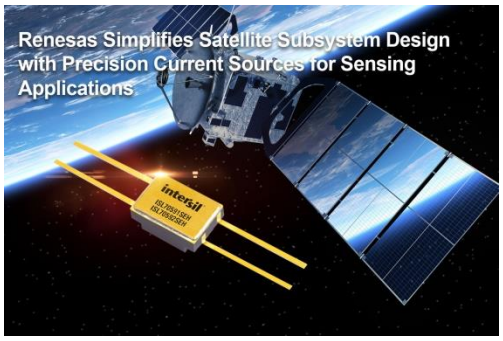
ISL71026M	3.3V CAN Transceiver
ISL71444M	Rail-to-Rail Op Amp
ISL71218M	Rail-to-Rail Op Amp
ISL71001M	POL Regulator
ISL71010B50	5V Precision V.Ref.
ISL71010B25	2.5V Precision V.Ref.

Protec GmbH
Rosenheimer Landstraße 117
85521 Ottobrunn-Riemerling

eMail: sales@protec-semi.de
Web: http://www.protec-semi.de

Renesas Electronics Simplifies Satellite Subsystem Design with Precision Current Sources for Sensing Applications

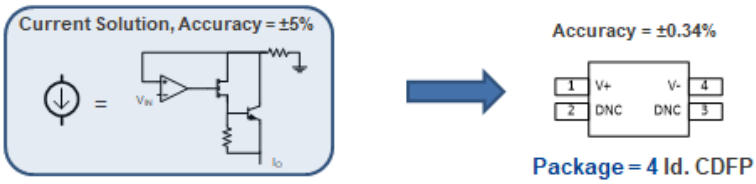
Rad-Hard **ISL70591SEH** and **ISL70592SEH** Deliver Ultra-High Spaceflight Performance in a Small Package



Renesas Electronics Corporation, a premier supplier of advanced semiconductor solutions, today announced the **ISL70591SEH** and **ISL70592SEH** radiation-hardened precision current sources designed to provide current excitation to the more than 300 resistive sensors that monitor the health of a satellite's subsystems. The two new Renesas devices are the first current source ICs in its line of space products, and are ideally suited for telemetry, tracking & command, attitude & orbital control, and electrical power subsystem applications.

The **ISL70591SEH** and **ISL70592SEH** come in 4-lead ceramic flatpack packages and provide 100µA and 1mA of output current, respectively. They offer a smaller footprint than competitive devices, and replace the discrete solutions that typically require three to five components. The smaller package size boosts reliability by placing the excitation source closer to the sensor. The Renesas current source ICs also reduces system errors by delivering ultra-low noise for higher accuracy over temperature and radiation. Their high output impedance rejects voltage variations on the supply line, and lets designers parallel multiple current sources if they need higher current.

The **ISL70591SEH** and **ISL70592SEH** deliver ultra-high performance in the most demanding environments by leveraging Renesas' proprietary silicon on insulator process, which provides single event latch-up (SEL) and single event burn-out (SEB) robustness in heavy ion environments. Both devices are radiation assurance tested to 100krad(Si) at high dose rate and 75krad(Si) at low dose rate. In addition, Renesas' innovative floating design lets users create a current source or sink with no ground connection.



"Our new precision current source devices give satellite customers the high performance, ease of use, and small footprint they need for their designs," said Philip Chesley, Vice President of Industrial Analog and Power Business Division, Renesas Electronics Corporation. "The **ISL70591SEH** and **ISL70592SEH** provide a scalable and highly reliable solution that simplifies the sensor health monitoring of critical spaceflight subsystems."