

Industrial Sensor Network

RA2E1 IO-Link Pressure Sensor Solution

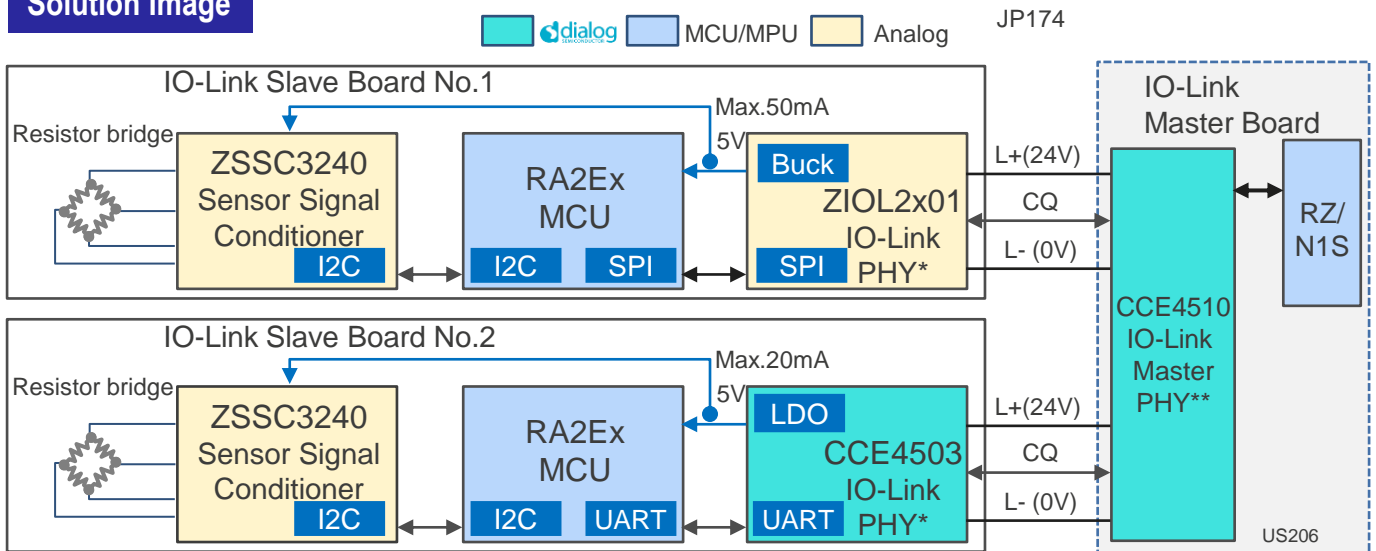
Overview

Combination of the ultra small and low power consumption 32-bit MCU [RA2E1](#) and [ZSSC3240](#) kit (Sensor Signal Conditioner) realize pressure measurement, signal processing through IO-Link communication. Enables to monitor device information, measurement data and parameter setting on user's PC through IO-Link master and fit for the system requiring high performance and low-energy consumption in space constrained applications.

Key Features

- 32bit MCU RA2E1 48MHz with Arm Cortex-M23 board supports ultra-small size and low power consumption. Scalable line-up for CSP (Chip Scale Package) realize space constrains and contribute to BOM cost reduction.
- ZSSC3240 achieves high accuracy of sensor correction with up to 24-bit A/D converter resolution.
- Proposal for total solution including Renesas IO-Link PHY([ZIOL2401](#), [CCE4503](#))
- Contains IO-Link stack** developed by TMG, which can be suitable for initial evaluation.

Solution Image



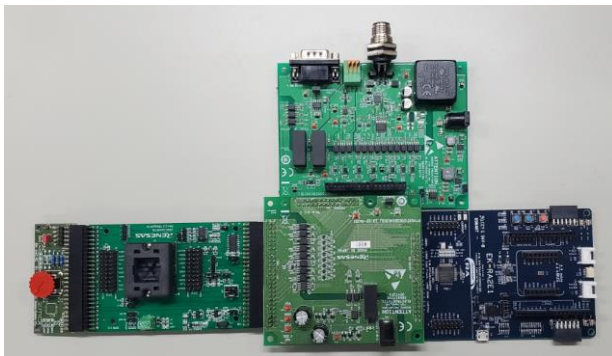
Target Markets and Applications

- Industrial Sensor
- Industrial Actuator
- Temperature Controller
- Pressure Indicator
- Load Cell

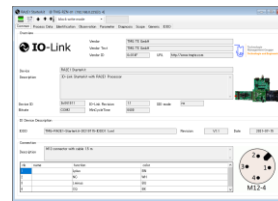
* TMG stack library : Valid for evaluation purpose only . A separate contract with stack vender is required for mass production.

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Providing to set the parameter, to get device information and measured data, enabling to easily evaluate IO-Link communication



About RA2E1

- ARM® Cortex® M23 CP core RA Entry line.
- Support 2.14mmx2.27mm size 25pin for Chip Scale Package (CSP).



Web / Documents

Category	Web
Solution Website	IO-Link Device Solutions Renesas
Application Note	RA2E1 Group Examples of IO-Link Industrial Sensor Solutions
Sample Code	RA2E1 Group Examples of IO-Link Industrial Sensor Solutions (My Renesas registration required)
Video	RA2E1 IO-Link Pressure Sensor Solution Renesas
Winning Combination	IO-Link Slave Sensor Solution Renesas
Product	RA2E1 - 48MHz Arm® Cortex®-M23 Entry Line General Purpose Microcontroller
	RA2E2 - 48MHz Arm® Cortex®-M23 Ultra-Low Power General Purpose Microcontroller
	ZIOL2401 - Dual Channel IO-Link HV Line Driver with Integrated DC/DC Converter
	CCE4503 - Mini IO-Link Device Phy with Cost-Optimized Feature Set
	ZSSC3240 - High-End 24-Bit Sensor Signal Conditioner with Analog and Digital Output
	RZ/N1S - Arm® Cortex®-A7 Microprocessor
	CCE4510 - IO-Link Master Phy with Integrated Frame Handler

Please contact us your request as we have a limited number for rent.