

IO-LINK TRANSCEIVERS AND SENSOR OUTPUT DRIVERS

A COMPLETE ECOSYSTEM FOR IO-LINK DESIGN

Maxim's long-standing history with IO-Link® technology is the foundation for a proven portfolio of transceivers on both the master and device sides, featuring low power dissipation, small solution size, and robust communications. In addition to IO-Link, our tiny, flexible binary sensor drivers are optimized for use in industrial sensors.

A full ecosystem of IO-Link device and master reference designs and evaluation kits enables you to perform quick evaluation and development of IO-Link technology.

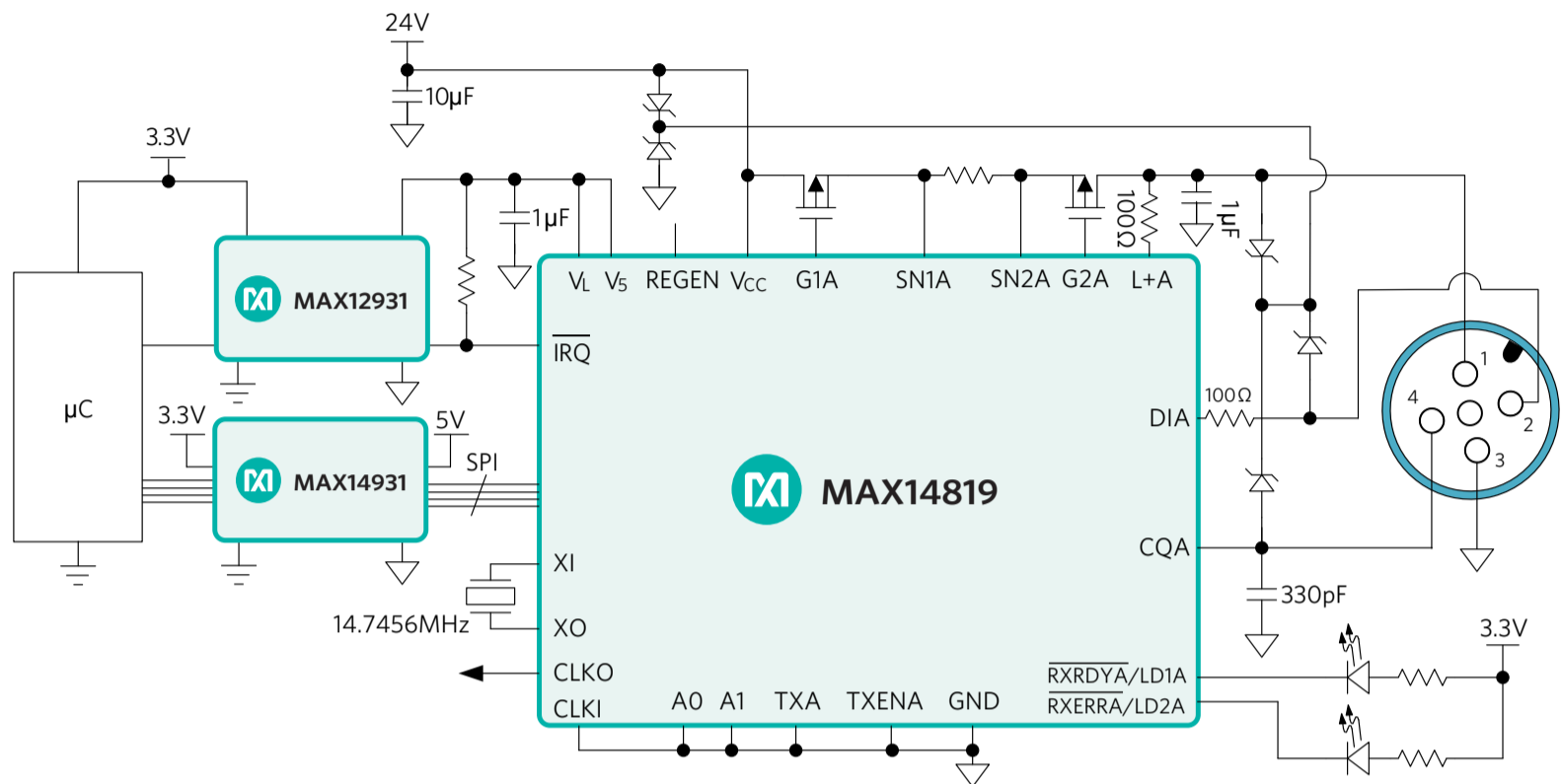


IO-LINK PRODUCT SELECTOR TABLE

Part Number	Function	Interface	Description
MAX14819	Master Transceiver	IO-Link	Low-Power, Dual-Channel, IO-Link Master Transceiver + Supply Controllers + UART Framer + DI
MAX14824	Master Transceiver	IO-Link	IO-Link Master Transceiver
MAX14828	Device Transceiver	IO-Link	Low-Power, Ultra-Small, IO-Link Device Transceiver + DI
MAX14827A	Device Transceiver	IO-Link	Tiny, Low-Power, Dual-Channel, IO-Link Device Transceiver
MAX14838/9	Sensor Driver	Binary	24V/100mA Tiny, Pin-Configurable, Industrial Sensor Output Driver + Protection
MAX14832	Sensor Driver	Binary	24V/100mA Tiny, One-Time-Programmable (OTP), Industrial Sensor Output Driver + Protection
MAX14836	Sensor Driver	Binary	24V Dual-Output Sensor Transceiver

PARAMETRIC SEARCH

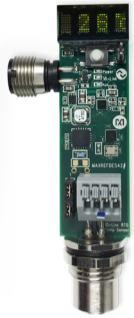
- 
[IO-Link Master Transceivers](#)
- 
[IO-Link Device Transceivers](#)
- 
[Binary Drivers](#)

MAX14819 Dual IO-Link Master Transceiver + 2DI


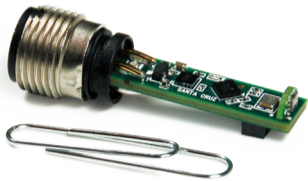
THE MAX14819 IS A DUAL-CHANNEL MASTER TRANSCEIVER.
ONLY ONE CHANNEL IS SHOWN HERE.
OPERATED WITH INTERNAL IO-LINK FRAMER.

Key Benefits	Applications
<ul style="list-style-type: none"> • Low Power Architecture Dissipates 50% Less Heat <ul style="list-style-type: none"> • 1Ω (typ) Driver On-Resistance • 1.9mA (typ) Total Supply Current for 2 Channels • Current Limiters with 15mV Sense Voltage • Integrated IO-Link Framer Eliminates Need for External UARTS • High Configurability and Integration Reduce SKUs <ul style="list-style-type: none"> • Two Auxiliary Type 1/Type 3 Digital Inputs • Supports NPN Sensors • C/Q Driver $R_{ON} = 2\Omega$ (max) at $T_A = +125^\circ\text{C}$ • Integrated Protection Enables Robust Systems <ul style="list-style-type: none"> • Reverse-Polarity Protection on All Interface Pins • Fully Compliant with IO-Link 1.1.2 and SIO IEC 61131-2/IEC61131-9 • Reverse-Current Blocking on L+ and C/Q • 65V Absolute Maximum Ratings for TVS Flexibility • Operating Temperature -40°C to $+125^\circ\text{C}$ • TQFN-48 (7mm x 7mm) Package 	<ul style="list-style-type: none"> • IO-Link Master Systems • IO-Link Gateways

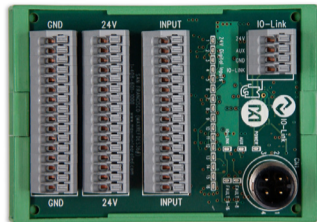
IO-LINK REFERENCE DESIGNS



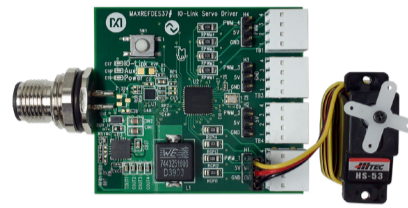
Temp
Sensor



Proximity









16 Digital Input



Motion Control



8-Port
IO-Link Master

Product Line	Description	Order
Master		
MAXREFDES145	8-Port IO-Link Master	
MAXREFDES79	4-Port IO-Link Master	
Sensor		
MAXREFDES27	Optical Proximity Sensor with IO-Link Interface	
MAXREFDES36	16-Channel Digital Input with IO-Link Interface	
MAXREFDES37	IO-Link Quad Servo Driver	
MAXREFDES42	RTD Temp Sensor with IO-Link Interface	

RELATED RESOURCES



Video: Dual IO-Link Master Transceiver: MAX14819 Demo



MAX14819EVKIT: Evaluation Kit for the MAX14819



IO-Link Handbook



Video: What is IO-Link?