Resolver to Digital 16bit Parallel/Serial (4-Wire, SPI) ±5arcmin Automotive 48-Pin LQFP Tray

Manufacturer:	Analog Devices, Inc
Package/Case:	LQFP48
Product Type:	Data Conversion ICs
RoHS:	RoHS Compliant/Lead free RoHS
Lifecycle:	Active

Images are for reference only

Inquiry

General Description

The converter accepts 3.15 V p-p ± 27% input signals, in the range of 2 kHz to 20 kHz on the sine and cosine inputs. A Type IIservo loop is employed to track the inputs and convert the inputsine and cosine information into a digital representation of theinput angle and velocity. The maximum tracking rate is 3125 rps.

The AD2S1210-EP supports defense and aerospace applications (AQEC)

Product Highlights
Ratiometric tracking conversion. The Type II tracking loop provides continuous output position data without conversion delay. It also provides noise immunity and tolerance of harmonic distortion on the reference and input signals.
System fault detection. A fault detection circuit can sense loss of resolver signals, out-of-range input signals, input signal mismatch, or loss of position tracking. The fault detection threshold levels can be individually programmed by the user for optimization within a particular application.
Input signal range. The sine and cosine inputs can accept differential input voltages of 3.15 V p-p ± 27%.
Programmable excitation frequency. Excitation frequency is easily programmable to a number of standard frequencies between 2 kHz and 20 kHz.
Triple format position data. Absolute 10-bit to 16-bit angular position data is accessed via either a 16-bit parallel port or a 4-wire serial interface. Incremental encoder emulation is in standard A-quad-B format with direction output available.
Digital velocity output. 10-bit to 16-bit signed digital velocityaccessed via either a 16-bit parallel port or a 4-wire serial interface.

Key Features

Complete monolithic resolver-to-digital converter

Parallel and serial 10-bit to 16-bit data ports

Absolute position and velocity outputs

System fault detection

Programmable fault detection thresholds

Differential inputs

Incremental encoder emulation

Programmable sinusoidal oscillator on board

Compatible with DSP and SPI interface standards

-40 to 125°C Temperature range

Application

DC and ac servo motor control

Encoder emulation

Electric power steering

Electric vehicles

Integrated starter generators/alternators

Automotive motion sensing and control

Recommended For You

AD7305BRZ	**AD9910BSVZ**	**AD9831ASTZ**
Analog Devices, Inc	Analog Devices, Inc	Analog Devices, Inc
SOP20	TQFP100	QFP

AD5447YRUZ	**AD5302BRMZ**	**AD5531BRUZ**
Analog Devices, Inc	Analog Devices, Inc	Analog Devices, Inc
TSSOP	MSOP10	TSSOP16

AD537JH	**AD652AQ**	**AD654JN**
Analog Devices, Inc	Analog Devices, Inc	Analog Devices, Inc
CAN10	DIP	DIP8

AD7740YRMZ	**AD9914BCPZ**	**AD73311ARSZ**
Analog Devices, Inc	Analog Devices, Inc	Analog Devices, Inc
MSOP8	LFCSP	SSOP20

AD7291BCPZ	**AD9954YSVZ**	**AD2S1205YSTZ**
Analog Devices, Inc	Analog Devices, Inc	Analog Devices, Inc
LFCSP20	QFP	LQFP44