



Radiation Hardened Digital Output (SPI) Pressure Transducer



PRODUCT DESCRIPTION:

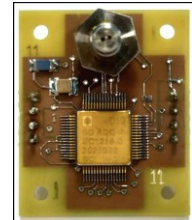
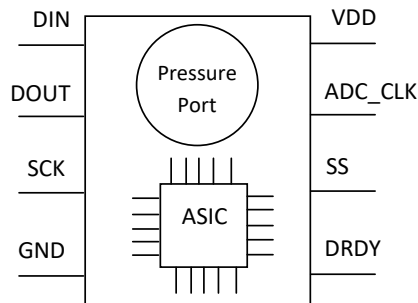
SCL developed MEMS based Pressure sensors are in the form of Bridge of four peizo-resistors to give differential output proportional to applied pressure. Absolute pressure sensor has an internal vacuum reference.

Pressure Transducer is calibrated and temperature compensated for sensor offset, sensitivity, temperature effects using in-house developed 24-bit sigma delta ADC. In-house developed PRT is used for temperature compensation.

Each transducer is temperature compensated & calibrated. Transducer comes with calibration coefficients.

FEATURES:

- Operating Voltage 3.3V ± 0.3V
- 24-Bit SPI Output
- Pressure Range 2.2, 5.0 Bar
- Operating Temperature: -40°C to 85°C
- Radiation hardened upto TID levels of 100 kRad
- Immune to SEL, SET upto 50 MeV-cm²/mg
- PCB mountable 8-Pin DIP Package



Product Specifications		
S.No.	Parameters	Specification
1	Operating Pressure Range ¹	2.2 Bar, 5.0 Bar
2	Pressure Reference ²	Absolute
3	Proof Pressure	> 1.5 Times Operating Pressure
4	Burst Pressure	>3 Times Operating Pressure
5	Operating Supply Voltage V _{DD}	3.3V
6	Supply Current	7 mA
7	Transducer Output	24 Bit SPI
8	Effective Resolution	12 Bits
9	Accuracy	0.25% FSS BFSL
10	Total Error Band (TEB) ³	< 0.5% Full Scale Range
11	Operating Temperature Range ⁴	-40°C to 85°C
12	Media Compatibility ⁵	Clean, dry gases only

¹ Higher pressure ranges are also available.

² Differential & Gauge measurement mode transducers are also available

³ Using calibration equation along with provided coefficients, TEB < 0.5% Full Scale.

⁴ Operating Range can be extended by custom package as per requirement

⁵ Media isolated (Oil Filled) transducers are also available.