



SM6431-BCE-S-025-000 Asymmetric, Dual Vertical, 16-Bit I²C Pressure Sensor

The SM6431-BCE-S-025-000 is a 16-bit digital, low pressure MEMS sensor offering state-of-the-art pressure transducer technology and CMOS mixed signal processing technology to produce an asymmetric, fully conditioned, multi-order pressure and temperature compensated sensor in JEDEC standard SOIC-16 package with dual vertical ports. The complete datasheet (40DS6860) and I2C Application Note (40AN7000) will be also available by contacting SMI Sales at (408) 577-0100 or sales@si-micro.com.

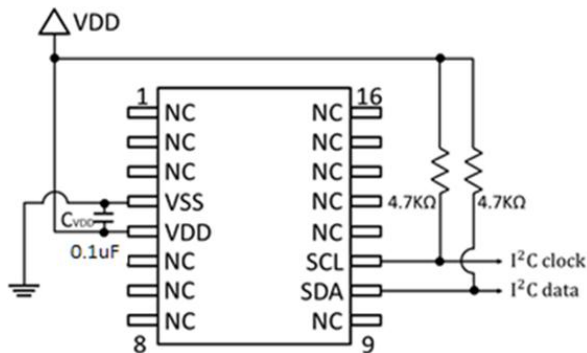
Part number SM6431-BCE-S-025-000 is shipped in sticks and part number SM6431-BCE-T-025-000 is shipped in Tape and Reel.

Sensor Specification

All parameters are specified at VDD = 3.3 V DC supply voltage at 25°C, unless otherwise noted.

No.	Characteristic	Symbol	Minimum	Typical	Maximum	Units
1	Supply Voltage	VDD	3.0	3.3	3.6	V
2	Supply Current	IDD		3.0		mA
3	Calibration Pressure	P _{MIN} / P _{MAX}	-5		25	cmH ₂ O
4	Compensated Temperature	T _{COMP}	-20		85	°C
5	Digital Pressure Output @ P _{MIN}	DOU _{MIN}		-26214		Counts
6	Digital Pressure Output @ P _{MAX}	DOU _{MAX}		26214		Counts
7	Digital Full Scale Span	DFS		52428		Counts
8	Resolution (Digital Output)			16		Bits
9	Update Rate			2000		S/sec
10	Bandwidth	BW		125		Hz
11	Digital Output Accuracy	DACC	-1		+1	%FS

Connection Circuit



Pinout table

Pin No.	Pin function	Pin No.	Pin function
1	NC	9	NC
2	NC	10	SDA
3	NC	11	SCL
4	VSS	12	NC
5	VDD	13	NC
6	NC	14	NC
7	NC	15	NC
8	NC	16	NC

*For package dimension information, please refer to the complete datasheet.