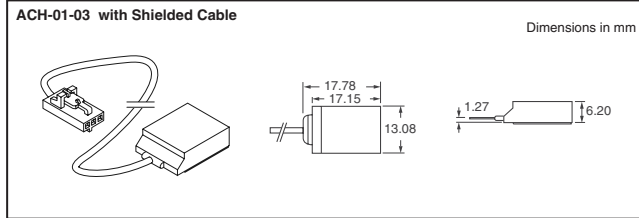


ACH-01 Accelerometers

The ACH-01 Accelerometer is a robust, general purpose, linear single axis accelerometer featuring buffered electronic output.

Specifications:

- Sensitivity: 10mV/g • Lower Frequency Limit (-3dB): 2Hz • Upper Frequency Limit (+3dB): 20kHz
- Dynamic Range: ±150g • Linearity: 0.1% • Resonant Frequency: 35kHz • Operating Temperature: -40°C ~ 85°C • Maximum Shock Level: 1000g



Description	Digi-Key Part No.	Price Each	Measurement Part No.
ACH-01-03 Sensor Accelerometer with 40" Single Coax Cable and Female Connector	MSP1001-ND	32.67 29.04 25.78	1-1001220-0
ACH-01-04 Sensor Accelerometer with Wires	MSP1002-ND	27.23 24.51 21.78	1-1001497-0

Amplifier Box

For use with ACH-01-03 and ACH-01-04

- Characteristics: • Gain: 10X • Power Supply: 9V Battery • Supply Current: 4.0mA • Input Interface: FET for ACH-01 • Output Impedance: 100Ω • Output Connector: BNC

Description	Digi-Key Part No.	Price Each	Measurement Part No.
IB-ACH-01 — Amplifier Box	MSP1003-ND	181.50 163.35 147.02	0-1003058-0

Basic Design Kit

This kit demonstrates the use of MSI piezo film sensors as microphones, speakers, switches and acoustic pickups. All components and film samples in the kit can be used for experimentation.

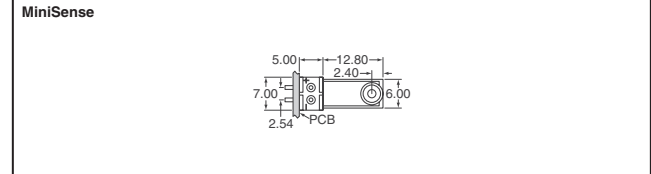
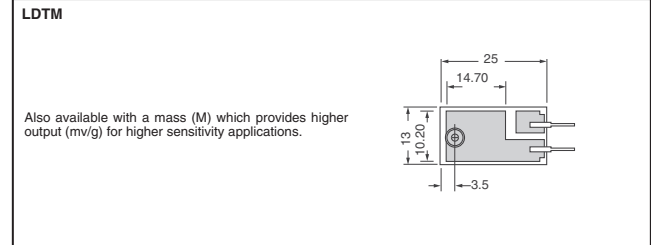
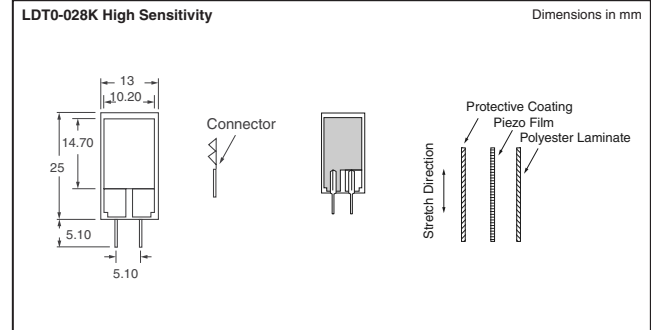
- Kit Includes: • Seven sensor elements • One piezo cable • One PCB for ACH-04-08 • Application/instruction specifications • Technical manual

Description	Digi-Key Part No.	Price Each	Measurement Part No.
Basic Design Kit	MSP1010-ND	145.20	0-1004308-0

LDT Vibration Sensors



Typically, a 0.005" (125µm) polyester layer is laminated to a 28µm piezo film element. When used in a "bending" mode, laminated film elements develop much higher voltage output when flexed than non-laminated elements. The piezo film is off the neutral axis in the laminate, and is strained more when flexed.



Description	Cap (nF)	Digi-Key Part No.	Price Each	Measurement Part No.
LDT0-028K, with Solder Tabs	.500	MSP1006-ND	1.74 1.46 1.31	1002794-0
LDTM-028K, with Mass and Solder Tabs	.420	MSP1007-ND	2.07 1.73 1.56	0-1005447-1
MiniSense 100 (Horizontal)	—	MSP6914-ND	2.90 2.46 2.00	1005939-1
MiniSense 100 (Vertical)	—	MSP6915-ND	2.90 2.46 2.00	1005940-1

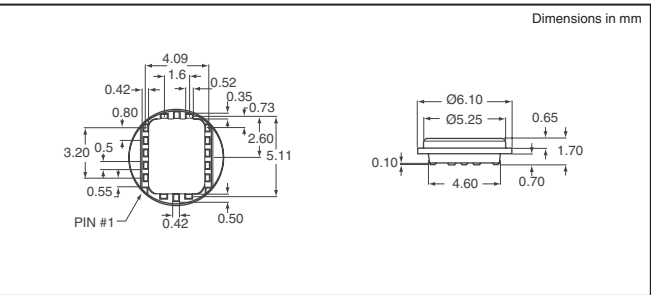
Pressure Sensors



The SCP1000 performs almost complete data processing on-chip. The communication between the SCP1000 and its host micro-controller (µC) is based on a serial interface, an interrupt line and specialized pins used to trigger special functions. Two different serial interfaces are available: SPI and TWI (TWI is very similar to I2C bus). The appropriate communication interface is pre-programmed in the factory.

The SCP1000 pressure demonstrator is designed to give a quick access and understanding on the performance and capabilities of the SCP1000 pressure component. The demo kit supports SCP1000-D01 and SCP1000-D11 sensors.

- SCP1000 Demo Kit Includes: SCP1000-D01 sensor soldered on chip carrier PCB, USB interface card inside the demo box, USB cable, CD-ROM with documentation, drivers and GUI software running on PC



Description	Supply Voltage	Average Supply Current (µA)	Measuring Range (kPa)	Temperature Range	Package	Digi-Key Part No.	Cut Tape Price Each			Digi-Key Part No.	Tape and Reel		VTI Part No.
							1	10	25		Qty.	Pricing	
Absolute Pressure Sensor	2.4 ~ 3.3V	25	30 ~ 120	-20°C ~ 70°C	SPI Interface	551-1046-1-ND	21.58	20.56	19.58	551-1046-2-ND	100	1775.94	SCP1000-D01
Absolute Pressure Sensor	2.4 ~ 3.3V	25	30 ~ 120	-20°C ~ 70°C	I ² C Interface	551-1043-1-ND	21.58	20.56	19.58	551-1043-2-ND	100	1775.94	SCP1000-D11
SCP1000-D01 on PCB	2.4 ~ 3.3V	25	30 ~ 120	-20°C ~ 70°C	SPI Interface	551-1042-ND†	41.44	40.70	39.96	—	—	—	SCP1000 PCB1
SCP1000-D11 on PCB	2.4 ~ 3.3V	25	30 ~ 120	-20°C ~ 70°C	I ² C Interface	551-1044-ND†	41.44	40.70	39.96	—	—	—	SCP1000 PCB3
Sealing Gasket for SCP1000 Series Sensors						551-1049-ND	.29	.17	.14	—	—	—	SCP1000 GA/1K
Demo Kit for SCP1000						551-1045-ND	295.99	—	—	—	—	—	SCP1000-D01 DEMO

† Bulk

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Accelerometers and Inclinometers

VTI Technologies is a forerunner in motion and pressure sensors and the world's leading designer and producer of acceleration sensors. VTI develops and produces silicon based capacitive sensors with unique 3D-MEMS (MicroElectroMechanical System) technology, with application areas in acceleration, inclination, shock, vibration and pressure measurement.

Dimensions in mm

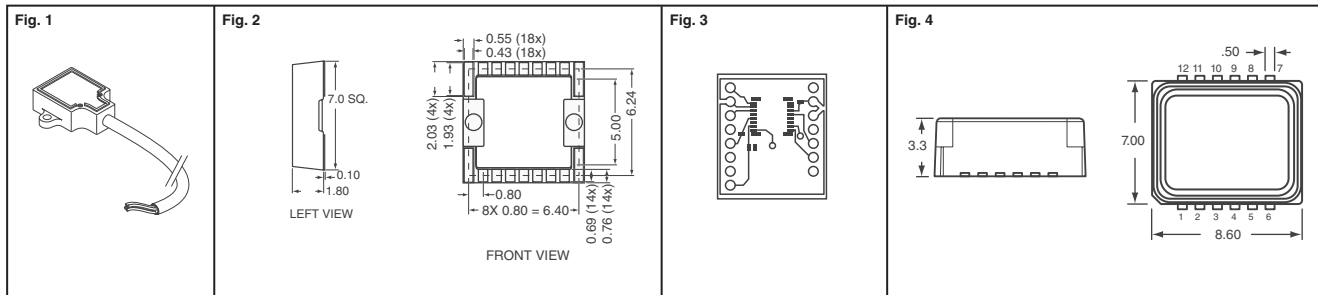


Fig.	Description	Supply Voltage (V)	Current Consumption	Measuring Range	Sensitivity	Frequency Response (Hz)	Temperature Range (°C)	Package	Digi-Key Part No.	Price Each			Tape and Reel		VTI Part No.	
										1	10	25	Qty.	Pricing		
Inclinometers — RoHS Compliant																
—	Single Output, 1g	4.75 - 5.25	2.5mA	±90°	2V/g	8 - 28	-55 - 125	8-DIL SMD	551-1005-1-ND	35.69	33.99	32.38	100	2936.38	SCA61T-FA1H1G	
	Single Output, 0.5g	4.75 - 5.25	2.5mA	±30°	4V/g	8 - 28	-55 - 125	8-DIL SMD	551-1004-1-ND	35.69	33.99	32.38	100	2936.38	SCA61T-FAHH1G	
	Dual Output, 0.5g	4.75 - 5.25	4mA	±30°	4V/g	8 - 28	-55 - 125	12-DIL SMD	551-1002-1-ND	46.91	44.69	42.56	100	3860.00	SCA100T-D01	
	Dual Output, 1g	4.75 - 5.25	4mA	±90°	2V/g	8 - 28	-55 - 125	12-DIL SMD	551-1003-1-ND	46.91	44.69	42.56	100	3860.00	SCA100T-D02	
	Single Output, 0.26g	4.75 - 5.25	4mA	±15°	16V/g	8 - 28	-55 - 125	12-DIL SMD	551-1000-1-ND	46.91	44.69	42.56	100	3860.00	SCA103T-D04	
	Single Output, 0.5g	4.75 - 5.25	4mA	±30°	8V/g	8 - 28	-55 - 125	12-DIL SMD	551-1001-1-ND	46.91	44.69	42.56	100	3860.00	SCA103T-D05	
Accelerometers — RoHS Compliant																
—	Dual Output	4.75 - 5.25	5mA	±1.7g	1.2V/g	50±30	-55 - 125	12-DIL SMD	551-1007-1-ND	37.99	36.19	34.47	—	—	SCA1000-D01	
	Dual Output	4.75 - 5.25	5mA	±1.7g	1.2V/g	50±30	-55 - 125	12-DIL SMD	551-1008-1-ND	40.16	38.24	36.43	100	3303.30	SCA1020-D02	
	Dual Output	4.75 - 5.25	4.5mA	±4g	.55V/g	115±55	-55 - 125	12-DIL SMD	551-1025-1-ND	64.77	61.69	58.75	100	5328.62	SCA1000-N1000070	
	Single Output	4.75 - 5.25	2mA	±0.5g	4V/g	18±10	-55 - 125	8-DIL SMD	551-1009-1-ND	32.93	31.29	29.73	600	13068.87	SCA610-CAHH1G	
	Single Output	4.75 - 5.25	2mA	±1g	2V/g	18±10	-55 - 125	8-DIL SMD	551-1010-1-ND	35.69	33.99	32.38	600	13068.87	SCA610-CA1H1G	
	Single Output	4.75 - 5.25	2mA	±1.5g	1.33V/g	400±150	-55 - 125	8-DIL SMD	551-1026-1-ND	27.44	24.70	23.47	—	—	SCA610-C13H1A	
	Single Output	4.75 - 5.25	2mA	±1g	2V/g	50±30	-55 - 125	8-DIL SMD	551-1027-1-ND	27.44	24.70	23.47	—	—	SCA610-C21H1A	
	Single Output	4.75 - 5.25	2mA	±1.5g	1.333V/g	50±30	-55 - 125	8-DIL SMD	551-1011-1-ND	27.44	24.70	23.47	—	—	SCA610-C23H1A	
	Single Output	4.75 - 5.25	2mA	±3g	.75V/g	115±55	-55 - 125	8-DIL SMD	551-1028-1-ND	27.44	24.70	23.47	—	—	SCA610-CC5H1A	
	Single Output	4.75 - 5.25	2mA	±1.7g	1.2V/g	50±30	-55 - 125	8-DIL SMD	551-1012-1-ND	28.76	27.40	26.09	100	2367.05	SCA610-C28H1A	
	Single Output	4.75 - 5.25	2mA	±1.7g	1.2V/g	50±30	-55 - 125	8-DIL SMD	551-1013-1-ND	34.54	32.90	31.33	600	12786.60	SCA620-CF8H1A	
	Stand Alone Inclinometers and Accelerometers															
	1	Dual Axis	7 - 35	5mA	±90°	2V/g, 70mV/≥4V/g	18	-40 - 85	Module	551-1017-ND◆	116.03	94.72	80.51	—	—	SCA121T-D03
		Dual Axis	4.75 - 5.25	5mA	±90°	2V/g, 70mV/≥4V/g	18	-40 - 85	Module	551-1029-ND◆	116.03	94.72	80.51	—	—	SCA121T-D05
Dual Axis		7 - 35	5mA	±30°	2V/g, 70mV/≥4V/g	18	-40 - 85	Module	551-1018-ND◆	116.03	94.72	80.51	—	—	SCA121T-D07	
Dual Axis		7 - 35	20mA	±30°	0.035°/LSB	10 - 28	—	Module	551-1015-ND	156.82	133.30	117.62	—	—	SCA125T-D08-A	
2	Triple Axis Digital	2.35 - 3.6	480µA	±2g	1333/g	45	-40 - 85	SPI Interface	551-1033-1-ND◆	21.58	20.56	19.58	1,000	8637.22	SCA3000-D01	
	Triple Axis Digital	2.35 - 3.6	650µA	±2g	1333/g	45	-40 - 85	I ² C Interface	551-1035-1-ND◆	21.58	20.56	19.58	1,000	7966.40	SCA3000-D02	
	Triple Axis Digital	2.35 - 3.6	120µA	±3g	1000/g	35	-40 - 85	SPI Interface	551-1037-1-ND◆	21.58	20.56	19.58	1,000	8637.22	SCA3000-E01	
	Triple Axis Digital	2.35 - 3.6	200µA	±3g	1000/g	40	-40 - 85	I ² C Interface	551-1039-1-ND◆	21.58	20.56	19.58	1,000	8637.22	SCA3000-E02	
	Triple Axis Digital	2.35 - 3.6	120µA	±6g	500/g	38	-40 - 85	SPI Interface	551-1047-1-ND◆	21.58	20.56	19.58	1,000	8637.22	SCA3000-E04	
	Triple Axis Digital	2.35 - 3.6	120µA	±18g	160/g	Selectable	-40 - 85	SPI Interface	551-1048-1-ND◆	16.94	15.76	14.57	100	1185.56	SCA3000-E05	
—	Dual Axis Subassembly	7 - 35	4.5mA	±10°	200mV/°	3	-40 - 85	PC Board	551-1020-ND◆	76.74	68.67	59.20	—	—	SCL1700-D01	
	Dual Axis Subassembly	4.75 - 5.25	4.5mA	±15°	150mV/°	3	-40 - 85	PC Board	551-1032-ND◆	76.74	68.67	59.20	—	—	SCL1700-D31	
3	SCA3000 Demo w/D01 on PWB	—	—	±1.7g	1.2V/g	20	—	Demo Kit	551-1041-ND◆	295.99	—	—	—	—	SCA3000-D01DEMO	
	SCA3000-D01 on PWB	2.35 - 3.6	480µA	±2g	1333/g	45	-40 - 85	SPI Interface	551-1034-ND◆	41.44	40.70	39.96	—	—	SCA3000-D01 PWB	
	SCA3000-D02 on PWB	2.35 - 3.6	650µA	±2g	1333/g	45	-40 - 85	I ² C Interface	551-1036-ND◆	41.44	40.70	39.96	—	—	SCA3000-D02 PWB	
	SCA3000-E01 on PWB	2.35 - 3.6	120µA	±3g	1000/g	35	-40 - 85	SPI Interface	551-1038-ND◆	41.44	40.70	39.96	—	—	SCA3000-E01 PWB	
	SCA3000-E02 on PWB	2.35 - 3.6	200µA	±3g	1000/g	40	-40 - 85	I ² C Interface	551-1040-ND◆	41.44	40.70	39.96	—	—	SCA3000-E02 PWB	
	SCA3000-E04 on PWB	2.35 - 3.6	120µA	±6g	500/g	38	-40 - 85	SPI Interface	551-1047-ND◆	41.44	40.70	39.96	—	—	SCA3000-E04 PWB	
4	Single Z-Axis Digital	3.3	5mA	±2g	900/g	80	-40 - 125	SPI Interface	551-1051-1-ND◆	28.51	26.14	23.76	100	1900.45	SCA820-D04	
	Single Y-Axis Digital	3.3	5mA	±2g	900/g	80	-40 - 125	SPI Interface	551-1052-1-ND◆	27.27	25.00	22.73	100	1818.12	SCA830-D06	
	Single Y-Axis Digital	3.3	5mA	±1g	32000/g	6.25	-40 - 125	SPI Interface	551-1053-1-ND◆	38.62	35.41	32.19	100	2574.83	SCA830-D07	
	Dual XY-Axis Digital	3.3	3mA	±2g	900/g	55	-40 - 125	SPI Interface	551-1054-1-ND◆	36.17	33.16	30.15	100	2411.34	SCA2100-D02	
	Triple XYZ-Axis Digital	3.3	3mA	±2g	900/g	55	-40 - 125	SPI Interface	551-1055-1-ND◆	44.45	40.75	37.04	100	2963.10	SCA3100-D04	
—	SCA820-D04 on PCB	3.3	—	±2g	900/g	80	-40 - 125	SPI Interface	551-1057-ND◆	62.16	56.98	53.88	—	—	SCA820-D04 PCB	
	SCA830-D06 on PCB	3.3	—	±2g	900/g	80	-40 - 125	SPI Interface	551-1058-ND◆	62.16	56.98	53.88	—	—	SCA830-D06 PCB	
	SCA830-D07 on PCB	3.3	—	±1g	32000/g	6.25	-40 - 125	SPI Interface	551-1059-ND◆	62.16	56.98	53.88	—	—	SCA830-D07 PCB	
	SCA2100-D02 on PCB	3.3	—	±2g	900/g	55	-40 - 125	SPI Interface	551-1060-ND◆	62.16	56.98	53.88	—	—	SCA2100-D02 PCB	
	SCA3100-D04 on PCB	3.3	—	±2g	900/g	55	-40 - 125	SPI Interface	551-1061-ND◆	62.16	56.98	53.88	—	—	SCA3100-D04 PCB	
	SCA3100 Demo w/D04 on PCB	—	—	—	—	—	—	Demo Kit	551-1056-ND◆	414.39	—	—	—	—	SCA3100 Demo Kit	

† For Tape and Reel part number, change 1-ND to 2-ND. ◆ RoHS Compliant

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