

気圧センサ SCP1000モジュール

VTIテクノロジー社製気圧(絶対圧)センサSCP1000 - D01のモジュールです。
扱いやすい8ピンDIP型になっております。

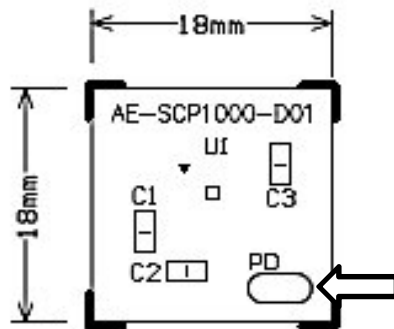
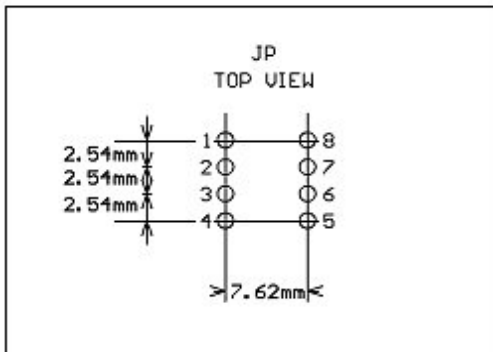
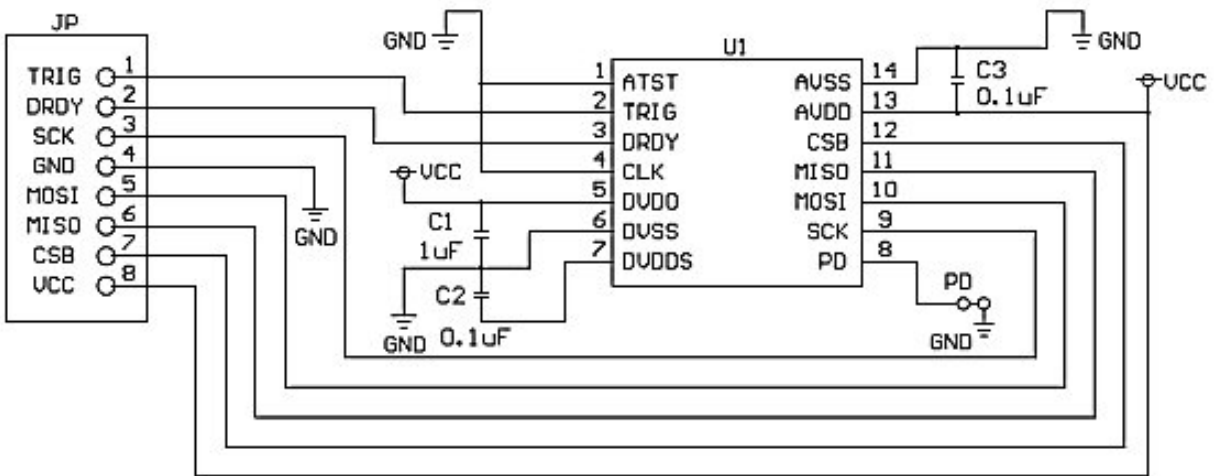
電源電圧: 2.4 ~ 3.3V インターフェース: SPI

測定範囲: 30kPa ~ 120kPa (300ヘクトパスカル ~ 1200ヘクトパスカル)

ご使用の際はVTIテクノロジー社または弊社H.P.よりデータシートを御参照下さい。
気圧計や高度計に最適です。

回路図

AE-SCP1000-D01



PDを御使用の場合はパターンを切断して下さい。
ご購入時はGNDに接続してあります。

SCP1000 - D01 スペック

Absolute Maximum Ratings

Parameter	Value	Unit
Supply voltage (Vdd)	-0.3 to +3.6	V
Voltage at input / output pins ⁽³⁾	-0.3 to (Vdd + 0.3)	V
FSD (Human Body Model)	+20	kV
ESD (Charged Device Mode)	±0.5	kV
Storage temperature	-30 ... +85	°C
Proof pressure	2.0	MPa

Electrical Characteristics

Vdd = 2.7 V and ambient temperature unless otherwise specified

Parameter	Condition	Min.	Typ	Max.	Units
Supply voltage Vdd		2.4		3.3	V
Current Consumption	High resolution mode		25		µA
	High speed mode		25		µA
	Ultra low power mode		3.5		µA
	Power down		200	500	nA
Output Load	@ 500 kHz			50	pF
Digital Pins Input Capacitance				1.6	pF
SPI Clock Frequency				500	kHz
I ² C Clock Frequency				400	kHz
Data Transfer Time	@ 500 kHz		120		µs

Performance Characteristics⁽⁴⁾

Parameter	Condition	Min.	Typ	Max.	Units
Operating Pressure Range	Nominal	30		120	kPa
Operating Temperature		-20		+70	°C
Resolution ⁽⁵⁾	High resolution mode		1.5	3	Pa
	High speed mode		3	6	Pa
Relative Pressure Accuracy ⁽⁵⁾	600 hPa...1200 hPa +10 °C ... +40 °C	-50		+50	Pa
Absolute Pressure Accuracy ⁽⁵⁾	600 hPa...1200 hPa +10 °C ... +40 °C	-150		+150	Pa
Absolute Pressure Accuracy ⁽⁵⁾	300 hPa...1200 hPa -20 °C ... +70 °C	-200		+200	Pa
Long-term Stability	12 months		+100		Pa
Digital pressure output data word length				19	bits
Digital temperature output data word length				14	bits
Pressure Data Output Refresh Rate	High resolution mode		1.8		Hz
	High speed mode		9		Hz
Temp. Resolution			0.2	0.5	°C
Temp. Accuracy		-2	±1	+2	°C

Note 4 Soldered components. Detailed information about the effect of soldering and mounting can be found in SCP1000 Pressure Sensor Assembly Instructions (Technical Note 51)

Note 5 Typical = Median, Min. /Max. = 95% of the components within the population