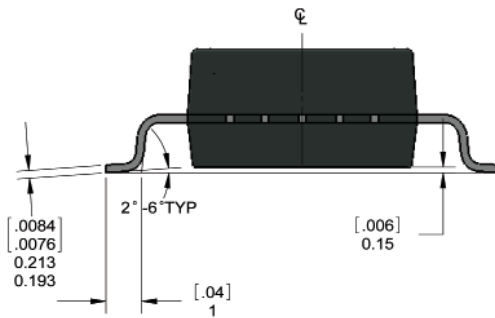
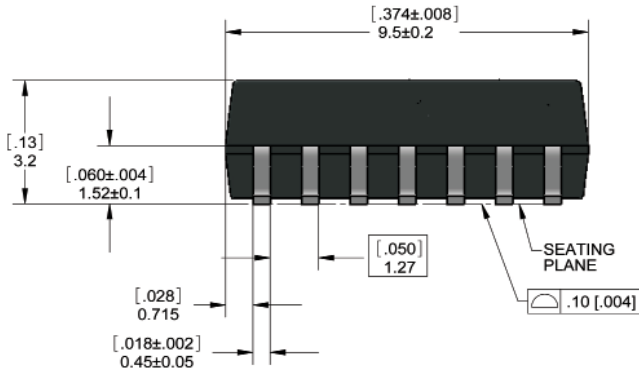
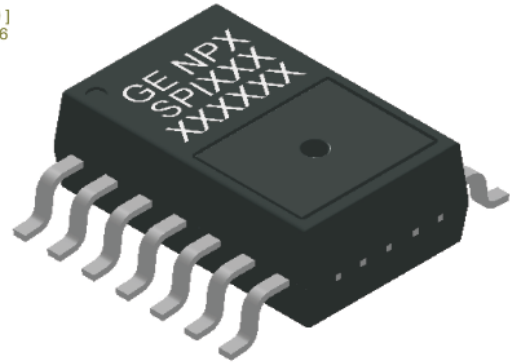
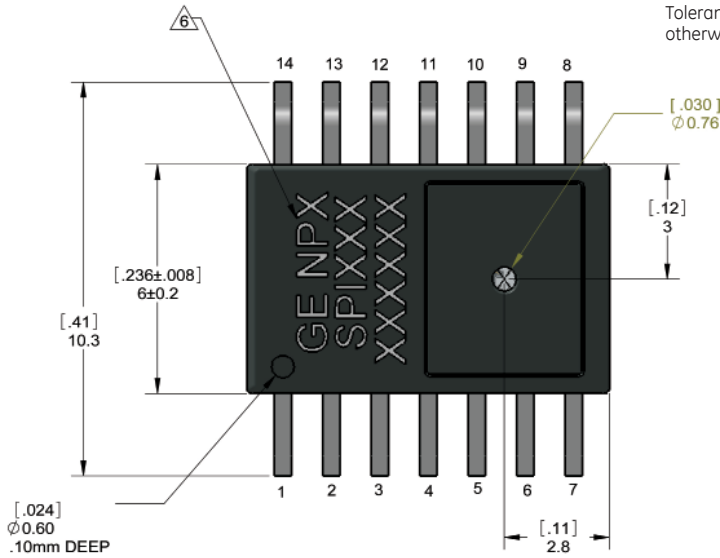


NPX Package Outline

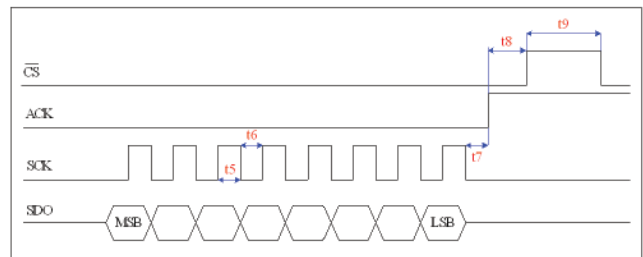
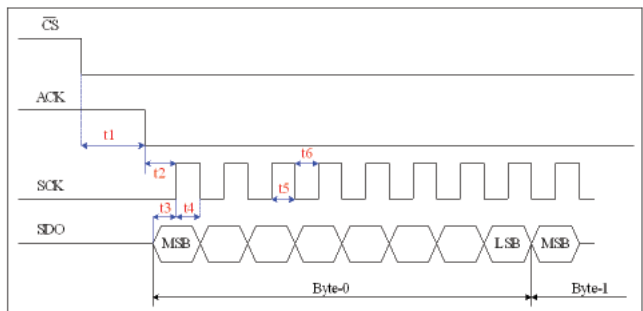
All dimensions in mm [inches]

Tolerance $0.X \pm 0.25$, $0.XX \pm 0.13$, unless otherwise specified



NPX-SPI Package Outline

	Timing Delays			Units	Condition	Note
	Min	Typical	Max			
T1	27	32	37	ms	CS low to ACK low	
T2	17			μ s	ACK low to first SCK rising edge	1
T3	17			μ s	Data valid to SCK rising edge setup	1, 2, 3
T4	12			μ s	Data valid after SCK rising edge hold	1, 3
T5	12			μ s	Minimal SCK High/Low pulse width	1, 3
T6	5			μ s	Minimal SCK High/Low pulse width	1, 3
T7	0	4	10	μ s	Byte sent/received to ACK high	
T8		7		μ s	ACK high to CS high	1
T9	10	1		μ s	CS high	



The system could control the speed of communication with controlling the period of SCK. It's better to read back the data as soon as possible in case the current pressure or temperature would vary too much from the measured values.

Note:

1. The maximum interval of T2, T3, T4, T5, T6 and T8 is determined by host's responding time.
2. Actually, the NPX device would make the first bit be available before dropping ACK to low.
3. Usually here T3 equals to T6, and T4 equals to T5.

Product Characteristics

Product Characteristics		
Parameter	Value	Unit
Operating supply voltage ¹	2.1 – 3.6	V
Supply current (2 MHz, instruction clock)	400	µA

Product Characteristics							
Parameter	Specification			Unit	Ambient Conditions		Comments
	Min	Typ	Max		Temp [°C]	Supply Voltage [V]	
Pressure Ranges	100 100 0		450 700 1402.5	KPa KPa KPa	-40 to 125	2.1 to 3.6	1.37 KPa/LSB 2.35 KPa/LSB 5.49 KPa/LSB
Pressure Accuracy	-8		8	LSB	-40 to 125	2.1 to 3.6	
Temperature Resolution		1.0		°C/LSB			-50 to 205°C
Temperature Accuracy	-6		8	LSB	-40 to 125	2.1 to 3.6	10 bit sampling
Battery voltage resolution		10.8		mv/LSB			1.246 to 4.0 volts
Battery voltage Accuracy	-6		6	LSB	-40 to 125	2.1 to 3.6	12 bit sampling
Over Pressure		10X					

Ordering Information		
Part No.	Pressure Range	Marking
NPX-SPI-451	100-450-KPaA	SPI451
NPX-SPI-701	100-700-KPaA	SPI701
NPX-SPI-142	0-1400-KPaA	SPI142



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