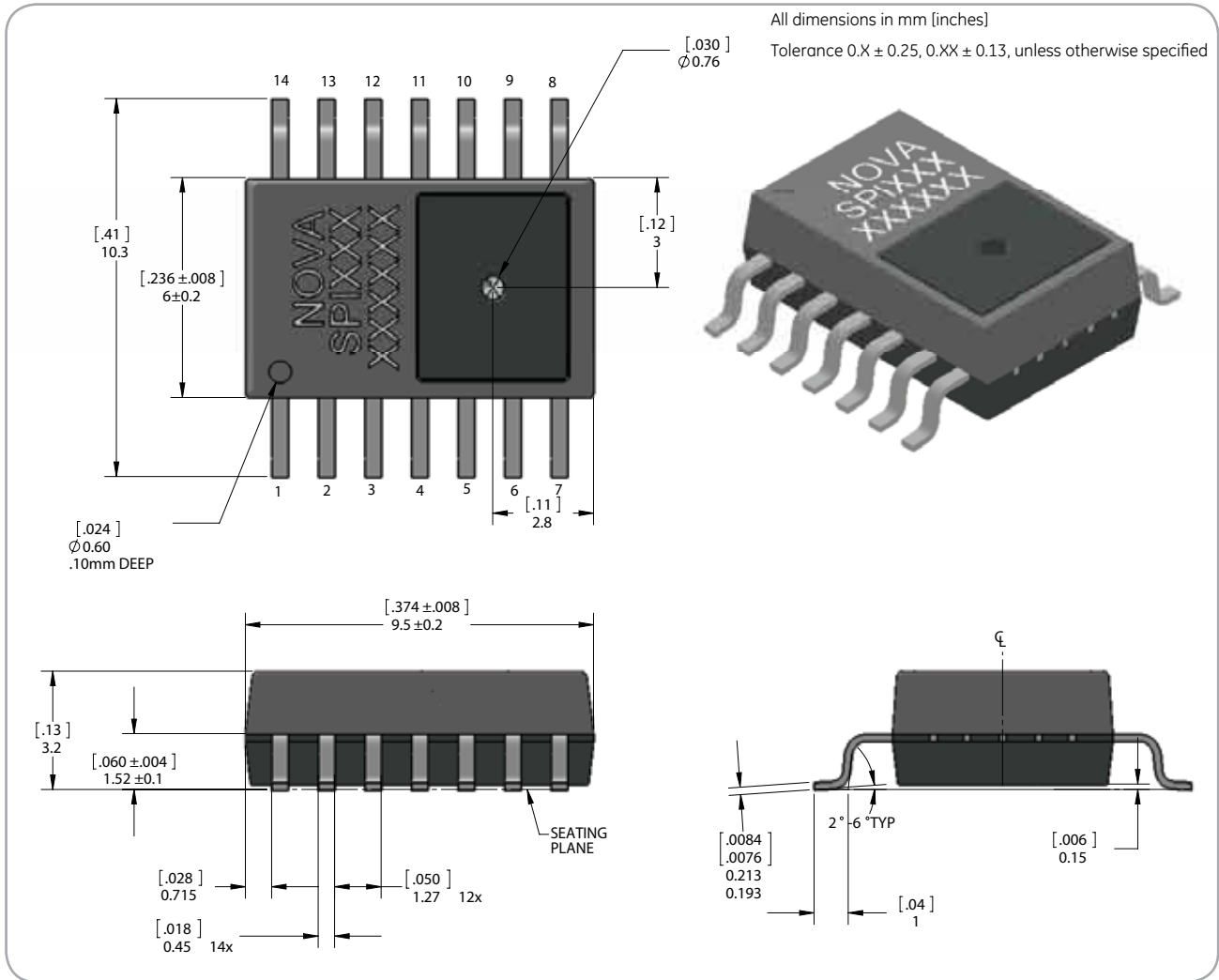


NPX-SPI Package Outline



NPX-SPI Package Outline

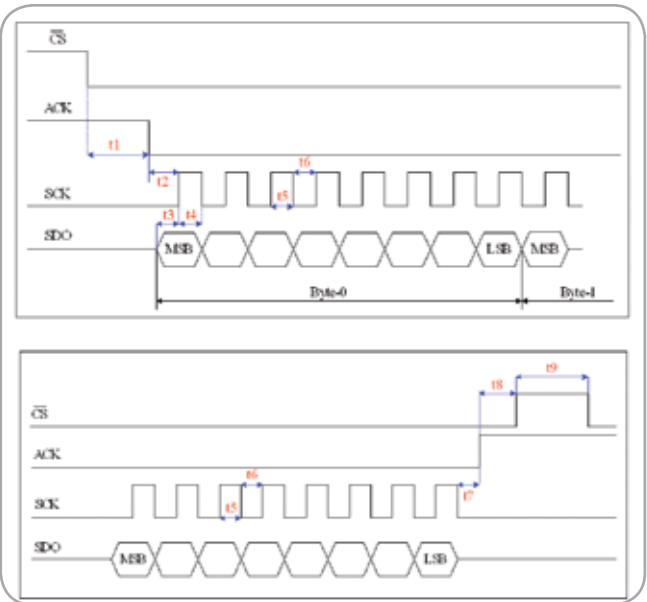
Timing Delays

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

The speed of communication is controlled by the system SCK

Note:

1. The maximum interval of T2, T3, T4, T5, T6 and T8 is determined by host's responding time.
2. The first bit will be available before dropping \overline{ACK} to low.



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 | | | | Ambient Conditions | | Comments |
| | Min | Typ | Max | Unit | 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 | Shipping |
| NPX-SPI-451T | 100-450-kPaA | SPI451 | Tape and reel |
| NPX-SPI-701T | 100-700-kPaA | SPI701 | Tape and reel |
| NPX-SPI-142T | 0-1400-kPaA | SPI142 | Tape and reel |



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