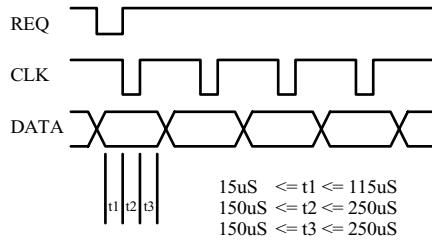


Starrett to Mitutoyo SPC Converter
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Mitutoyo Timing Diagram

Mitutoyo SPC data stream consists of 13, 4-bit digits.
 Digits are sent LSB (2^0) to the MSB (2^3).

d1 - d2 - d3 - d4 - d5 - d6 - d7 - d8 - d9 - d10 - d11 - d12 - d13

Where:

- d1 = 0xf (4 nybbles of preamble)
- d2 = 0xf
- d3 = 0xf
- d4 = 0xf
- d5 = Sign +:0:0000 / -:8:0001
- d6 - d11 = Digits
- d12 = Decimal Point Location 0x2:xxxx.xx, etc.
- d13 = Unit mm:0:0000 / inch:1:1000

Mitutoyo SPC Protocol Specification

Starrett SPC data stream consists of 25 ASCII characters. Characters are sent at 1200 baud, 8 bits (8bit must be masked as it's state is undefined), no parity, and 2 stop bits. The 25 character stream has the following format:

- 1-13 = ASCII Spaces (0x20)
- 14 = Space (0x20) if reading is positive, Minus Sign (-) (0x2d) if reading is negative.
- 15-21 = ASCII digits representing current reading including a floating decimal point (.) (0x2e).
- 22 = Space (0x20).
- 23-24 = Current unit in ASCII. Inches = "in", Millimeters = "mm"
- 25 = Carriage Return (0x0d)

Starrett SPC Protocol Specification