

Basic Stamp Product Comparison

| Released Products | Rev.D / BS1-IC | BS2-IC | BS2e-IC | BS2sx-IC | BS2p24-IC | BS2p40-IC | BS2pe-IC | BS2px-IC | Javelin Stamp™ module |
|--------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|---------------------------------|---------------------------------|---------------------------------|------------------------------|
| Package | PCB w/Proto / 14-pin SIP | 24-pin DIP | 24-pin DIP | 24-pin DIP | 24-pin DIP | 40-pin DIP | 24-pin DIP | 24-pin DIP | 24-pin DIP |
| Package Size (L x W x H) | 2.5"x1.5"x.5 / 1.4"x.6"x.1" | 1.2"x0.6"x0.4" | 1.2"x0.6"x0.4" | 1.2"x0.6"x0.4" | 1.2"x0.6"x0.4" | 2.1"x0.6"x0.4" | 1.2"x0.6"x0.4" | 1.2"x0.60"x0.4" | 1.24"x0.60"x0.45" |
| Environment | -40 to +185 °F (-40 to +85 °C) ** | -40 to +185 °F (-40 to +85 °C) ** | -40 to +185 °F (-40 to +85 °C) ** | -40 to +185 °F (-40 to +85 °C) ** | -40 to +185 °F (-40 to +85 °C) ** | +32 to +158 °F (0 to +70 °C) ** | +32 to +158 °F (0 to +70 °C) ** | +32 to +158 °F (0 to +70 °C) ** | 0 to 70 °C (32 to 158 °F) ** |
| Processor Speed | 4 MHz | 20 MHz | 20 MHz | 50 MHz | 20 MHz Turbo | 20 MHz Turbo | 8 MHz Turbo | 32 MHz Turbo | 25 MHz Turbo |
| Program Execution Speed | ~2,000 instructions/sec. | ~4,000 instructions/sec. | ~4,000 instructions/sec. | ~10,000 instructions/sec. | ~12,000 instructions/sec. | ~12,000 instructions/sec. | ~6,000 instructions/sec. | ~19,000 instructions/sec. | ~8,500 instructions/sec. |
| RAM Size | 16 Bytes (2 I/O, 14 Variable) | 32 Bytes (6 I/O, 26 Variable) | 32 Bytes (6 I/O, 26 Variable) | 32 Bytes (6 I/O, 26 Variable) | 38 Bytes (12 I/O, 26 Variable) | 38 Bytes (12 I/O, 26 Variable) | 38 Bytes (12 I/O, 26 Variable) | 38 Bytes (12 I/O, 26 Variable) | 32768 Bytes |
| Scratch Pad RAM | N/A | N/A | 64 Bytes | 64 Bytes | 128 Bytes | 128 Bytes | 128 Bytes | 128 Bytes | N/A |
| EEPROM (Program) Size | 256 Bytes, ~80 instructions | 2K Bytes, ~500 instructions | 8x2K Bytes, ~4,000 instructions | 8x2K Bytes, ~4,000 instructions | 8x2K Bytes, ~4,000 instructions | 8x2K Bytes, ~4,000 instructions | 16x2K Bytes (16K for source) | 8 x 2k Bytes, ~4000 inst. | 32768 Bytes |
| Number of I/O pins | 8 | 16 +2 Dedicated Serial | 16 +2 Dedicated Serial | 16 +2 Dedicated Serial | 16 +2 Dedicated Serial | 32 +2 Dedicated Serial | 16 +2 Dedicated Serial | 16+2 Dedicated Serial | 16 |
| Voltage Requirements | 5 - 15 vdc | 5 - 15 vdc | 5 - 12 vdc | 5 - 12 vdc | 5 - 12 vdc | 5 - 12 vdc | 5 - 12 vdc | 5 - 12 vdc | 5 - 24 vdc |
| Current Draw @ 5V | 1 mA Run / 25 µA Sleep | 3 mA Run / 50 µA Sleep | 25 mA Run / 200 µA Sleep | 60 mA Run / 500 µA Sleep | 40 mA Run / 350 µA Sleep | 40 mA Run / 350 µA Sleep | 15 mA Run / 36 µA Sleep | 55 mA Run / 450 µA Sleep | 80 mA Run / No Sleep |
| Source / Sink Current per I/O | 20 mA / 25 mA | 20 mA / 25 mA | 30 mA / 30 mA | 30 mA / 30 mA | 30 mA / 30 mA | 30 mA / 30 mA | 30 mA / 30 mA | 30 mA / 30 mA | 30 mA / 30 mA |
| Source / Sink Current per unit | 40 mA / 50 mA | 40 mA / 50 mA per 8 I/O pins | 60 mA / 60 mA per 8 I/O pins | 60 mA / 60 mA per 8 I/O pins | 60 mA / 60 mA per 8 I/O pins | 60 mA / 60 mA per 8 I/O pins | 60 mA / 60 mA per 8 I/O pins | 60 mA / 60 mA per 8 I/O pins | 60 mA / 60 mA per 8 I/O pins |
| PBASIC Commands | 32 | 42 | 45 | 45 | 61 | 61 | 61 | 63 | 0 (Java) |
| PC Programming Interface | Serial (w/BS1 Serial Adapter) | Serial Port (9600 baud) | Serial Port (9600 baud) | Serial Port (9600 baud) | Serial Port (9600 baud) | Serial Port (9600 baud) | Serial Port (9600 baud) | Serial Port (19200 baud) | Serial Port (28800 baud) |
| Windows Text Editor | Stampw.exe (v2.1 and up) | Stampw.exe (v1.04 and up) | Stampw.exe (v1.096 and up) | Stampw.exe (v1.091 and up) | Stampw.exe (v1.1 and up) | Stampw.exe (v1.1 and up) | Stampw.exe (v1.33 and up) | Stampw.exe (v2.2 and up) | Javelin Stamp IDE |