

## Stamp Specifications (revised 02/10)

| Released Products              | Rev.Dx / BS1-IC                       | BS2-IC                                | BS2e-IC                               | BS2sx-IC                              |
|--------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Package                        | PCB w/Proto / 14-pin SIP              | 24-pin DIP                            | 24-pin DIP                            | 24-pin DIP                            |
| Package Size (L x W x H)       | 2.5" x 1.5" x .5" / 1.4" x .6" x .1"  | 1.2" x 0.6" x 0.4"                    | 1.2" x 0.6" x 0.4"                    | 1.2" x 0.6" x 0.4"                    |
| Environment *                  | -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) ** |
| Microcontroller                | Microchip PIC <sup>®</sup> 56         | Microchip PIC <sup>®</sup> 57         | Parallax SX28                         | Parallax SX28                         |
| Processor Speed                | 4 MHz                                 | 20 MHz                                | 20 MHz                                | 50 MHz                                |
| Program Execution Speed        | ~2,000 instructions/sec.              | ~4,000 instructions/sec.              | ~4,000 instructions/sec.              | ~10,000 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)         |
| Scratch Pad RAM                | N/A                                   | N/A                                   | 64 Bytes                              | 64 Bytes                              |
| EEPROM (Program) Size          | 256 Bytes, ~80 instructions           | 2K Bytes, ~500 instructions           | 8 x 2K Bytes, ~4,000 inst.            | 8 x 2K Bytes, ~4,000 inst.            |
| Number of I/O pins             | 8                                     | 16 + 2 Dedicated Serial               | 16 + 2 Dedicated Serial               | 16 + 2 Dedicated Serial               |
| Voltage Requirements           | 5 - 15 vdc                            | 5 - 15 vdc                            | 5 - 12 vdc                            | 5 - 12 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              |
| Source / Sink Current per I/O  | 20 mA / 25 mA                         | 20 mA / 25 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          |
| PBASIC Commands***             | 32                                    | 42                                    | 45                                    | 45                                    |
| PC Programming Interface       | Serial (w/BS1 Serial Adapter)         | Serial (9600 baud)                    | Serial (9600 baud)                    | Serial (9600 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)            |

| Released Products              | BS2p24-IC                             | BS2p40-IC                      | BS2pe-IC                        | BS2px-IC                       |
|--------------------------------|---------------------------------------|--------------------------------|---------------------------------|--------------------------------|
| Package                        | 24-pin DIP                            | 40-pin DIP                     | 24-pin DIP                      | 24-pin DIP                     |
| Package Size (L x W x H)       | 1.2" x 0.6" x 0.4"                    | 2.1" x 0.6" x 0.4"             | 1.2" x 0.6" x 0.4"              | 1.2" x 0.6" x 0.4"             |
| Environment *                  | -40° to + 85° C (-40° to + 185° F) ** | 0° - 70° C (32° - 158° F) **   | 0° - 70° C (32° - 158° F) **    | 0° - 70° C (32° - 158° F) **   |
| Microcontroller                | Parallax SX48                         | Parallax SX48                  | Parallax SX48                   | Parallax SX48                  |
| Processor Speed                | 20 MHz Turbo                          | 20 MHz Turbo                   | 8 MHz Turbo                     | 32 MHz Turbo                   |
| Program Execution Speed        | ~12,000 instructions/sec.             | ~12,000 instructions/sec.      | ~6000/sec.                      | ~19,000 instructions/sec.      |
| RAM Size                       | 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) |
| Scratch Pad RAM                | 128 Bytes                             | 128 Bytes                      | 128 Bytes                       | 128 Bytes                      |
| EEPROM (Program) Size          | 8 x 2K Bytes, ~4,000 inst.            | 8 x 2K Bytes, ~4,000 inst.     | 16 x 2K Bytes (16 K for source) | 8 x 2K Bytes, ~4,000 inst.     |
| Number of I/O pins             | 16 + 2 Dedicated Serial               | 32 + 2 Dedicated Serial        | 16 + 2 Dedicated Serial         | 16 + 2 Dedicated Serial        |
| Voltage Requirements           | 5 - 12 vdc                            | 5 - 12 vdc                     | 5 - 12 vdc                      | 5 - 12 vdc                     |
| Current Draw @ 5V              | 40 mA Run / 350 µA Sleep              | 40 mA Run / 350 µA Sleep       | 15 mA Run / 150 µA Sleep        | 55 mA Run / 450 µA Sleep       |
| Source / Sink Current per I/O  | 30 mA / 30 mA                         | 30 mA / 30 mA                  | 30 mA / 30 mA                   | 30 mA / 30 mA                  |
| Source / Sink Current per unit | 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***             | 61                                    | 61                             | 61                              | 63                             |
| PC Programming Interface       | Serial (9600 baud)                    | Serial (9600 baud)             | Serial (9600 baud)              | Serial (19200 baud)            |
| Windows Text Editor            | Stampw.exe (v1.1 and up)              | Stampw.exe (v1.1 and up)       | Stampw.exe (v1.33 and up)       | Stampw.exe (v2.2 and up)       |

\* 70% Non-Condensing Humidity

\*\* Environment ratings may change with future hardware revisions; please contact support@parallax.com for more information.

\*\*\* Using PBASIC 2.5 for BS2-type models.

# AMEYA360

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