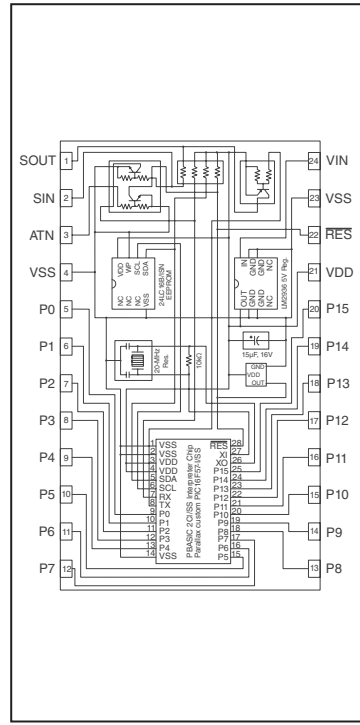


PARALLAX **BASIC Stamp® Microcontrollers**

Features:
A BASIC Stamp is a single-board computer that runs the Parallax PBASIC language interpreter in its microcontroller. The developer's code is stored in an EEPROM, which can also be used for data storage. The PBASIC language has easy-to-use commands for basic I/O, like turning devices on or off, interfacing with sensors, etc.

More advanced commands let the BASIC Stamp module interface with other integrated circuits, communicate with each other, and operate in networks. The BASIC Stamp microcontroller has prospered in hobby, lower-volume engineering projects and education due to ease of use and a wide support base of free application resources.

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 with 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" x 1.5" x 0.5" / 1.4" x 0.6" x 0.1"	1.2" x 0.6" x 0.4"	1.2" x 0.6" x 0.4"	1.2" x 0.6" x 0.4"	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"	1.24" x 0.6" x 0.45"
Environment†	0°C – 70°C (32°F – 158°F)‡	0°C – 70°C (32°F – 158°F)‡	0°C – 70°C (32°F – 158°F)‡	0°C – 70°C (32°F – 158°F)‡	0°C – 70°C (32°F – 158°F)‡	0°C – 70°C (32°F – 158°F)‡	0°C – 70°C (32°F – 158°F)‡	0°C – 70°C (32°F – 158°F)‡	0°C – 70°C (32°F – 158°F)‡
Microcontroller	Microchip PIC16C56a	Microchip PIC16C57c	Ubcicom SX28AC	Ubcicom SX28AC	Ubcicom SX48AC	Ubcicom SX48AC	Ubcicom SX48AC	Ubcicom SX48AC	Ubcicom SX48AC
Processor Speed	4 MHz	20 MHz	20 MHz	50 MHz	20MHz 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)	32,768 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, ~ 4,000 Instructions	8 x 2K Bytes, ~ 4,000 Instructions	8 x 2K Bytes, ~ 4,000 Instructions	8 x 2K Bytes, ~ 4,000 Instructions	8 x 2K Bytes, ~ 4,000 Instructions	16 x 2K Bytes, ~ 16K (for source)	8 x 2K Bytes, ~ 4,000 Instructions	32,768 Bytes
Number of I/O pins	8	16 + 2 Dedicated Serial	16 + 2 Dedicated Serial	16 + 2 Dedicated Serial	16 + 2 Dedicated Serial	16 + 2 Dedicated Serial	16 + 2 Dedicated Serial	16 + 2 Dedicated Serial	16
Voltage Requirements	5 – 15VDC	5 – 15VDC	5 – 12VDC	5 – 12VDC	5 – 12VDC	5 – 12VDC	5 – 12VDC	5 – 12VDC	5 – 24VDC
Current Draw @ 5V	1mA Run / 25µA Sleep	3mA Run / 50µA Sleep	20mA Run / 200µA Sleep	60mA Run / 500µA Sleep	40mA Run / 350µA Sleep	40mA Run / 350µA Sleep	15mA Run / 36µA Sleep	55mA Run / 450µA Sleep	80mA Run / No Sleep
Source / Sink Current per I/O	20mA / 25mA	20mA / 25mA	30mA / 30mA	30mA / 30mA	30mA / 30mA	30mA / 30mA	30mA / 30mA	30mA / 30mA	30mA / 30mA
Source / Sink Current per unit	40mA / 50mA	40mA / 50mA per 8 I/O pins	60mA / 60mA per 8 I/O pins	60mA / 60mA per 8 I/O pins	60mA / 60mA per 8 I/O pins	60mA / 60mA per 8 I/O pins	60mA / 60mA per 8 I/O pins	60mA / 60mA per 8 I/O pins	60mA / 60mA per 8 I/O pins
PBASIC Commands▲	32	42	45	45	61	61	61	63	0 (Java)
PC Programming Interface	Serial (with 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



† 70% Non-condensing Humidity ‡ Industrial Models Available, -40°C – 85°C (-40°F – 185°F) ▲ Using PBASIC 2.5 for BS2-type models.

Description	Digi-Key Part No.	1	5	10	25
BASIC Stamp Modules					
BS1-IC BASIC Stamp Module	STAMP1-ND	32.54	30.92	29.29	27.67
BS2-IC BASIC Stamp Module	STAMP2-ND◆	54.99	52.24	49.49	46.74
BASIC Stamp 2e Module	BS2E-IC-ND	60.60	57.57	54.54	51.51
BASIC Stamp 2sx Module	BS2SX-IC-ND	66.21	62.90	59.59	56.28
BASIC Stamp 2p24 pin Module	BS2P24-IC-ND	88.65	84.22	79.79	75.36
BASIC Stamp 2p40 pin Module	BS2P40-IC-ND	99.87	94.88	89.89	84.90
BASIC Stamp 2pe Module	BS2PE-IC-ND◆ NEW!	84.16	79.96	75.75	71.54
BASIC Stamp 2px Module	BS2PX24-ND◆ NEW!	88.65	84.22	79.79	75.36
BASIC Stamp Javelin Module	JS1-IC-ND	100.98	95.94	90.89	85.84
BASIC Stamp Starter Kits					
BASIC Stamp 1 Starter Kit	27205-ND	67.32	63.96	60.59	57.23
BASIC Stamp 20EM Module Kit	27291-ND	34.78	33.04	31.30	—
BASIC Stamp Discovery Kit	27207-ND◆ NEW!	179.53	170.56	161.59	152.61
Professional Development Board	28138-ND◆ NEW!	179.53	170.56	161.59	152.61
Prototype and Development Boards					
BASIC Stamp Super Carrier Board	27130-ND	22.43	21.31	20.19	19.07
Board of Education	28150-ND	78.54	74.62	70.69	66.76
BS1-IC Carrier Board	STAMP1C-ND	5.60	5.32	5.19	4.90
BS2-IC Carrier Board	STAMP2C-ND	17.94	17.05	16.15	15.26
BASIC Stamp Accessory Modules					
BASIC Stamp 1 Serial Adapter	27111-ND	5.73	—	—	—
Motor Mind B	27961-ND	33.65	—	—	—
PWMPAL 4 Output Channels	28020-ND	33.65	—	—	—
DS2760 Thermocouple Kit	28022-ND	39.26	—	—	—
Application Kits					
Parallax Standard Servo Motor	900-00005-ND	14.58	—	—	—
Little Step U-Stepper Motor Controller	27938-ND	78.54	74.62	70.69	68.72
Books					
BASIC Stamp Manual Version 2.0	27218-ND	29.16	27.71	26.25	24.80
Parallax CD-ROM	27000-ND	2.23	2.12	2.01	1.90

Description	Digi-Key Part No.	1	5	10	25
Stamps in Class Educational Kits†					
Understanding Signals Kit	28119-ND	179.53	170.56	161.59	157.09
"What's a Microcontroller?" Parts Kit and Text	28152-ND	78.54	74.62	70.69	66.76
"Robotics!" Parts Kit and Text	28154-ND	100.98	95.94	90.89	85.84
Boe-Bot Full Kit	28132-ND	179.53	170.56	161.59	152.61
Boe-Bot Robot Kit, USB Version	28832-ND NEW!	179.53	170.56	161.59	152.61
"Basic Analog and Digital" Parts Kit and Text	28155-ND	56.10	53.30	50.49	47.69
Parallax USB Oscilloscope	28014-ND◆ NEW!	157.09	149.24	141.39	133.53
Board of Education (USB), Full Kit; (No power supply is included)	28803-ND◆ NEW!	112.20	106.60	100.99	95.38
NEW! Sensors and Accessories NEW!					
Serial LCD, 2 Rows X 16 Characters Backlit	27977-ND◆	33.65	31.97	30.29	29.45
Serial LCD, 4 Rows X 20 Characters Backlit	27979-ND◆	44.88	42.54	40.39	39.27
PING)))™ Ultrasonic Distance Sensor	28015-ND◆	33.65	31.97	30.29	28.61
Sensirion Temperature/Humidity Sensor	28018-ND◆	40.39	38.37	37.86	—
RFID Reader Module	28140-ND◆	44.88	—	—	—
RFID 54mm X 85mm Rectangle Tag	28141-ND◆	1.11	1.06	1.00	.95
Hitachi® HM55B Compass Module	29123-ND	33.65	31.97	30.29	28.61
FlexiForce Sensor Kit, 25lbs.	30056-ND◆	29.16	—	—	—
PIR (Passive Infra-Red) Sensor	555-28027-ND◆	11.21	10.65	10.09	9.53
PING)))™ Bracket Kit	570-28015-ND	22.43	—	—	—
2X16 Parallel LCD	603-00006-ND	33.65	31.97	30.29	29.45
Piezo Film Vibra Tab Mass	605-00004-ND	2.26	—	—	—
Solderless Breadboard	700-00012-ND	4.48	4.26	4.03	3.92
9VDC 300mA Power Supply	750-00008-ND	6.72	6.39	6.30	—
7.5V 1A Power Supply	750-00009-ND◆	12.33	11.72	11.56	—
USB A to Mini B Retractable Cable	805-00010-ND◆	5.96	5.67	5.37	5.07
14 inch LCD Extension Cable	805-00012-ND◆	3.33	3.17	3.00	2.92
Continuous Rotation Servo	900-00008-ND	14.58	13.85	13.12	12.76
NEW! Programmable Logic Controller — RoHS Compliant NEW!					
BASIC Stamp PLC Package	30064-ND	224.42	—	—	—

◆ RoHS Compliant † Requires the Board of Education Full Kit or BASIC Stamp II Starter Kit

Free shipping on orders over \$200 CAD! All prices in Canadian dollars and include duty and brokerage fees.

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