



## 2610™ Concurrent Programming System

- Supports over 25,000 devices with voltages down to 1.5V (Vdd) including, but not limited to, EPROM, EEPROM, Flash EPROM, Microcontrollers, PLD, CPLD, FPGA, and antifuse FGAs
- Proven 6th Generation Technology
- Compatible with FX, standard manual and automated socket modules
- Uses USB 2.0 communications bus
- Patented solution to guard against passing blank parts-available only from BPM Micro
- Supports all device packages, including, but not limited to, DIP, SDIP, PLCC, TSOP, SSOP, PCMCIA, QFN, MLF, LAP, SOIC, LCC, QFP, PQFP, PGA, SIMM, CSP, BGA,  $\mu$ BGA, TQFP and TSSOP
- Ideal for low to mid-volume production

*\*ST Microelectronics™ M28W640CB, program only.*

### Flexible, High-speed Programming

The 2610 Concurrent Programming System is the industry standard for flexibility, device support and speed. With BPM Microsystems' Sixth Generation Technology, the 2610 is a universal production programmer that can program a 64Mb device in an incredibly fast 15s\* and is ideal for today's highest density devices. It also supports virtually all device technologies from 5V all the way down to 1.5V. The 2610 is designed with the USB 2.0 standard bus to provide faster communication speeds and greater reliability. With over 2,500 socket modules available, this programmer supports virtually all package types from the largest QFP to the smallest  $\mu$ BGA.



#### BPM MICROSYSTEMS

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### GENERAL

<b>2-Site Model Operating Voltage:</b>	100-240 VAC
<b>Frequency:</b>	50-60 Hz
<b>Current Rating:</b>	8-4 A (Fuse 250V 6A SB)
<b>Dimensions and Mass:</b>	21.55" (547mm) x 8.65" (220mm) x 4.68" (119mm), 12.2 lbs. (5.5 kg)
<b>4-Site Model Operating Voltage:</b>	100-240 VAC
<b>Frequency:</b>	50-60 Hz
<b>Current Rating:</b>	10-5 A (Fuse 250V 6A SB)
<b>Dimensions and Mass:</b>	21.55", (547mm) x 16.10" (409mm) x 4.68" (119mm), 21.5 lbs. (9.6 kg)
<b>6-Site Model Operating Voltage:</b>	100-240 VAC
<b>Frequency:</b>	50-60 Hz
<b>Current Rating:</b>	12-6 A (Fuse 250V 6A SB)
<b>Dimensions and Mass:</b>	31.35", (796mm) x 16.10" (409mm) x 4.68" (119mm), 31.5 lbs. (14.3 kg)

### SOFTWARE

<b>Required:</b>	BPWin
<b>File Type:</b>	binary, Intel, JEDEC, Motorola, POF, RAM, straight hex, hex-space, Tekhex, Extended Tekhex, ASCII hex, Formatted Binary (.DIO), AFM, OMF, LOF, MER, and others
<b>Device Commands:</b>	blank, check sum, compare, options, program, test, verify, erase
<b>Features:</b>	data editor, revision history, session logging, on-line help, device and algorithm information

### HARDWARE

<b>Architecture:</b>	Concurrent Programming System
<b>Sites:</b>	2, 4, or 6 per chassis; multiple chassis may be linked
<b>Calibration:</b>	annual, may be performed on site
<b>Diagnostics:</b>	pin continuity test, RAM, ROM, CPU, pin drivers, power supply, communications, cables, calibration, timing, ADC, DAC, interconnects
<b>Memory:</b>	64MB per site standard
<b>User Interface:</b>	Pass, Fail, Active, Start LEDs and Start switch on each site; PC display shows systems status at a glance; auto-start mode automatically begins programming when device is inserted
<b>PC System Requirements:</b>	Microsoft Windows 2000 or above
<b>Operational Temperature:</b>	41° to 104° F (5° to 40° C)

### STANDARD ACCESSORIES

<b>Included:</b>	software on CD-ROM user manual on CD-ROM power cable data cable 1-year hardware warranty 1-year software support
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### PIN DRIVERS

<b>Quantity:</b>	240-pins standard
<b>Analog Slew rate:</b>	0.3 to 25V/μs
<b>Vpp Range:</b>	0-25V
<b>Ipp Range:</b>	0-70mA continuous, 250mA peak
<b>Vcc Range:</b>	0-12V
<b>Icc Range:</b>	0-1A
<b>Very low voltage:</b>	to 1.5V (Vdd)
<b>Rise Time:</b>	4ns
<b>Overshoot:</b>	none
<b>Clocks:</b>	continuously variable 1 MHz to 30 MHz
<b>Protection:</b>	overcurrent shutdown, power failure shutdown
<b>Independence:</b>	pin drivers and waveform generators are fully independent and concurrent on each site

### FEATURES

<b>File Loading:</b>	automatic file type identification; no download time because programmer is PC controlled; supports Intel, JEDEC, Motorola S-record, POF, straight hex, hex-space, Tekhex, and other file formats
<b>Device Selection:</b>	intelligent device selector allows you to type as little or as much of the part number as you like then choose from a list of devices matching your description
<b>Devices Supported:</b>	including, but not limited to, Antifuse, Low Voltage, PROM, EPROM, EEPROM, Flash EEPROM, Microcontrollers, SPLD, CPLD, FPGA
<b>Continuity Test:</b>	each pin, including Vcc, ground, and signal pins, may be tested before every programming operation
<b>Protection:</b>	overcurrent shutdown; power failure shutdown; ESD protection, reverse insertion, banana jack for ESD wrist straps
<b>Options:</b>	available Socket Modules including, but not limited to, Universal PLCC, standard PLCC, PGA, CSP, BGA, μBGA, SOIC, QFP, TSOP, LCC, SDIP, PCMCIA, QFN, MLF, LAP, SIMM—JobMaster™ software, Advanced Feature Software, simple and complex serialization
<b>Programming Yield:</b>	assured by independent universal pin drivers on each socket, short distance from pin drivers to device, and accuracy of waveforms
<b>Algorithms:</b>	all algorithms are manufacturer approved or certified (if required)—BPM Microsystems has an excellent record of being first to provide certified algorithms for new devices
<b>Algorithm Updates:</b>	algorithm changes and updates are available, additional algorithms available by subscription after the first year

