



2710M™

Concurrent Programming System

- Ultra fast programmer for Flash, Memory, and Microcontroller devices up to 84 pins
- Supports device densities up to 4 Gbits
- Uses USB 2.0 communications bus
- Supports over 16,000 devices with very low voltage devices down to 1.5V (Vdd)
- FX4™ socket modules include 3 separate LED's per socket and allows the 2710M to program up to 24 devices simultaneously on a 6-site model
- Compatible with all existing socket modules
- Patented solution to guard against passing blank parts
- 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, μBGA, TQFP and TSSOP
- Ideal for low to high-volume manual production
- Serialization support using standard, FX, FX2, and FX4 socket modules

*ST Microelectronics™ M28W640CB, program only.

Flash-specialized

With the increased demand for cost effective programming solutions, BPM Microsystems introduces its 2710M systems to program Memory and Microcontroller devices. By taking advantage of the proven 7th Generation technology, we have improved the site hardware to allow us the capability of programming devices with densities up to 4 Gbits. In addition we have incorporated the industry's widely accepted high-speed USB 2.0 standard bus for communications. The 2710M Concurrent Programming System® is the industry standard for programming speed, device support and high uptime. This powerful combination provides higher throughput, reduced cost per device, and faster turnarounds. What this means to you: Higher profits for your business.

Unmatched Technology

The 2710M uses BPM Micro's FX4™ socket modules that allows users to program up to four devices simultaneously per site. With 2, 4, or 6 programming sites, the 2710M can program up to 24 devices at the same time. Featuring the industry's fastest programming technology, it programs a 64Mb device in just 15s*. In conjunction with the high-speed FX4™ socket modules, the 2710M out performs traditional gang programmers in production facilities around the world. BPM Microsystems is unmatched when it comes to supporting your devices. The 2710M is versatile when programming NOR and NAND Flash memory devices as well as simple and complex Microcontrollers.



BPM MICROSYSTEMS

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GENERAL

Power: 90-260VAC, 47-63 Hz., .12 KVA per site, IEC inlet connector for worldwide use

Dimensions and Masses:



2-site model 21.55" (547mm) x 8.65" (220mm) x 4.68" (119mm), 12.2 lbs. (5.5 kg)

4-site model 21.55" (547mm) x 16.10" (409mm) x 4.68" (119mm), 21.5 lbs. (9.6 kg)

6-site model 31.35" (796mm) x 16.10" (409mm) x 4.68" (119mm), 31.5 lbs. (14.3 kg)

SOFTWARE

Required: BPWin

File Type: binary, Intel, JEDEC, Motorola, POF, RAM, straight hex, hex-space, Tekhex, Extended Tekhex, ASCII hex, Formatted Binary (.DIO), AFM, OMF, LOF, MER, and others

Device Commands: blank, check sum, compare, options, program, test, verify, erase

Features: data editor, revision history, session logging, on-line help, device and algorithm information

HARDWARE

Architecture: Concurrent Programming System

Sites: 2, 4, or 6 per chassis; multiple chassis may be linked

Calibration: annual, may be performed on site

Diagnostics: pin continuity test, RAM, ROM, CPU, pin drivers, power supply, communications, cables, calibration, timing, ADC, DAC, interconnects

Memory: 512MB per site

User Interface: 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

PC System Requirements: Microsoft Windows 2000 or above

Operational Temperature: 41° to 104° F (5° to 40° C)

STANDARD ACCESSORIES

Included: software on CD-ROM
user manual on CD-ROM
power cable
data cable
1-year hardware warranty
1-year software support

PIN DRIVERS

Quantity: 240-pins standard

Analog Slew rate: 0.3 to 25V/μs

Vpp Range: 0-25V in 25mV steps

Ipp Range: 0-70mA continuous, 250mA peak

Vcc Range: 0-12V

Icc Range: 0-1A, 12μA resolution

Very low voltage: to 1.5V (Vdd)

Rise Time: 800ps

Overshoot: none

Clocks: continuously variable 1 MHz to 30 MHz

Protection: overcurrent shutdown, power failure shutdown

Independence: pin drivers and waveform generators are fully independent and concurrent on each site

FEATURES

File Loading: 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

Device Selection: 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

Devices Supported: PROM, EPROM, EEPROM, Flash EEPROM, and Microcontrollers

Continuity Test: each pin, including Vcc, ground, and signal pins, may be tested before every programming operation

Protection: overcurrent shutdown; power failure shutdown; ESD protection, reverse insertion, banana jack for ESD wrist straps

Options: 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

Programming Yield: assured by independent universal pin drivers on each socket, short distance from pin drivers to device, and accuracy of waveforms

Algorithms: 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

Algorithm Updates: algorithm changes and updates are available, additional algorithms available by subscription after the first year

