*Specification Sheet*

# *MOBILE WORKSTATION 800 (MW 800) Series F5207 Central Processing Unit (CPU)*

MOTOROLA
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## *KEY FEATURES*

- Pentium-M or Celeron-M processors
- 256 MB, 512 MB or 1 GB DDRAM memory available
- Video capture provides digital video recording capability
- 3-D shock mounted removable hard drive or Flash Disk
- Dual display functionality
- Wide range of integrated communications configurations
- Versatile 3-piece design

Motorola continues its successful legacy of rugged, high-performance, well-connected computers with the Mobile Workstation 800 (MW 800). Ideally suited for the public safety, homeland security, military, transportation, utility, distribution, courier and manufacturing markets, the MW 800 combines Motorola's vast experience in technical innovation and wireless data communications.

The MW 800 is Motorola's most advanced mobile workstation, loaded with high-level computing and data communications capabilities. Feature-rich, with all the easy functionality of a PC, its 3-piece design of separated Central Processing Unit (CPU), display and keyboard allows for versatility and ease of in-vehicle installation.

The CPU can be configured with either a Pentium-M 1.8 GHz, Pentium-M 1.5 GHz or a Celeron-M 1.3 GHz processor. The standard 256 MB RAM can be upgraded to 512 MB or 1 GB.

A single CPU can support dual displays and keyboards. The wide variety of integrated radio configurations provides flexibility and performance for critical data communications needs. The innovative hard drive shock mount is specifically designed for the rigors of the mobile environment.

The MW 800 also offers digital video recording capabilities allowing users to download/upload videos to a server. From mug shots and maps to Hazmat, the MW 800 is designed to meet your technological and environmental requirements. It provides the mission-critical muscle you need to get the job done, wherever your mobile workforce goes.

*For information on the MW 800 displays and keyboards please refer to Specification Sheet R3-14-2030.*

Additional information about the MW 800 can be found at *http://www.motorola.com/*

## GENERAL SPECIFICATIONS

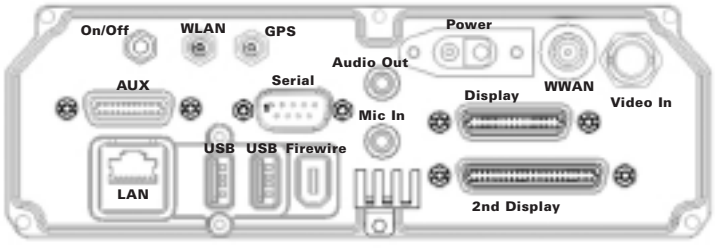
| | |
|---|---|
| **CPU Physical Size (H x W x D)** | 2.74″ x 7.75″ x 9.45″<br>(6.95 x 19.7 x 24.0 cm) |
| **CPU Weight** | 7.7 pounds (3.5 kg) |

## COMMUNICATIONS/EXPANSION PORTS

| | |
|---|---|
| **USB 2.0** | 2x on CPU |
| **Serial** | 3x RS-232 ports: 1 external, 2 internal for WAN and GPS support |
| **Ethernet** | 1x 100 BaseT both 10 & 100 Mb/s |
| **PC card Slots** | External Type II |
| **PCI** | Internal Mini PCI (used for WLAN radio) |
| **Video Input** | 1x standard Composite video input (CVBS) port (PAL or NTSC) |
| **Audio** | Line out (non-amplified) for external speaker<br>External mic in |
| **Primary Display Interface** | RGB, USB, 2-line audio out (balanced, non-amplified) |
| **Secondary Display Interface** | RGB or DVI, USB, 2-line audio out (balanced, non-amplified) |
| **FireWire 400** | 1x IEEE 1394 |
| **Aux Port** | 2x general purpose inputs; 2x general purpose outputs; ignition sense; 12V battery voltage out (1A) and 5V DC out (1A); USB 2.0; Audio In/Out |

## COMPUTER

| | |
|---|---|
| **Processor** | Intel Pentium-M processor 745; 1.8 GHz, 2 MB cache<br>Intel Pentium-M processor 715; 1.5 GHz, 2 MB cache<br>Intel Celeron-M processor 320; 1.3 GHz |
| **VGA Controller** | 32 MB internal video RAM |
| **Video Capture** | Conexant BT878A |
| **Power Management** | Embedded controller supports intelligent thermal and power management. |
| **Mass Storage** | Removable Hard Disk: 40 GB (60 GB optional) with 3 dimensional shock absorber, with heater<br>4 GB Flash Disk available as an alternate to the Hard Drive |
| **Internal Memory** | 256 MB, 512 MB or 1 GB DDRAM |
| **Operating System** | Supports Microsoft Windows 2000 and XP Pro |




*Back view of the F5207 showing Input/Output connectivity*

## COMMUNICATION PROTOCOLS – INTERNAL RADIOS (OPTIONAL)

| | | |
|---|---|---|
| **Private DataTAC** | | |
| **Frequency** | 806-824 MHz Tx, 851-869 MHz Rx | |
| **Protocol** | RD-LAP 19.2, RD-LAP 9.6 | |
| **RF Power Output** | 1.8 Watt into 50-ohm load | |
| **GPRS on GSM/DCS/PCS** | | |
| **Frequency** | 900 MHz, 1800 MHz, 1900 MHz | |
| **Protocol** | GPRS packet data | |
| **RF Power Output** | 1.8 Watts at 900 MHz<br>1 Watt at 1800 MHz and 1900 MHz | |
| **iDEN Packet Data** | | |
| **Frequency** | 806-821 MHz Tx, 851-869 MHz Rx | |
| **Protocol** | iDEN (25 kHz spacing) | |
| **RF Power Output** | 0.6 Watts (variable in 6 steps) into 50-Ohm load | |
| **GPS** | Internal Trimble Lassen SQ | |
| **WLAN** | IEEE 802.11b/g, 11/54 Mb/s, Intel 2200BG, WiFi certified | |

## ENVIRONMENTAL

| | |
|---|---|
| **Operating Temperature** | –22 to 158°F (–30 to +70˚C) |
| **Storage Temperature** | –40 to 158°F (–40 to +70˚C) |
| **Humidity** | 90 to 95% Relative humidity at 50˚C after 8 hours |

## DURABILITY

| | |
|---|---|
| **Shock** | 20g peak 1/2 sine wave @ 11ms, 30 impacts |
| **Vibration** | Per TIA/EIA 603 Paragraph 3.3.4 and MIL-STD-810F method 514.5, Fig. 514.5C-1 |
| **Drip** | Per MIL-STD-810F method 506.4 Procedure III |
| **Dust Blowing** | 5 hours in dust (140 mesh silica flour) laden atmosphere, dust agitation time is for 2 seconds every 15 minutes |
| **Salt Fog** | 8 hours, 5% Sodium Chloride at 35˚C, MIL-STD-810F method 509.4 |
| **Flammability** | Per UL94 |
| **Solar Radiation** | 7 cycles of 24 hours with no functional degradation per MIL-STD-810F, method 505.4, Procedure I |
| **Shock Crash Hazard** | 75g, 6 ms per MIL-STD-810F method 516.5, Procedure V |

## ELECTRICAL ENVIRONMENT

| | | |
|---|---|---|
| **Power Source** | Vehicle Battery<br>(12V, negative ground) | |
| **Power Instability** | 13.8V DC ±20%, with no loss of functionality | |
| **Electrical Transients** | Meets ISO7637-1 | |
| **Power Consumption (at 13.8VDC, CPU only)** | Off (main switch ON) | 30mA |
| | Suspend Mode | 0.4A (fans off) |
| | Typical | 1.5A |
| | Max | 5A |

## REGULATORY

| FCC Information | Acceptance Number |
|---|---|
| **GPRS Radio** | IHDT6AC1 |
| **iDEN Packet Data Radio** | AZ489FT5796 |
| **Private DataTAC** | PQS-BM28001 |
| **WLAN** | PD9WM3B2200BG |
| **United States** | |
| **Radiated Emission** | FCC Part 15, Class B |
| **Radio Acceptance** | FCC Part 90, Part 22, Part 24 |
| **Safety** | C-UL-US UL 60950-1 |
| **Canada** | |
| **Radiated Emission** | ICES003 (equivalent to FCC Part 15, Class B) |
| **Radio Acceptance** | DOC RSS119 |
| **Safety** | C-UL-US UL 60950-1 |
| **Europe** | |
| **Radiated Emission** | EN55022 Class B |
| **Safety** | EN60950-1 |
| **EMC Immunity** | EN55024 |
| **R&TTE** | EN301489 |
| **eMark** | Directive 72/245EC (95/54EC) |
| **Australia** | |
| **Radiated Emission** | AS/NZS 3548 (1995)<br>Amendment 2--1997<br>CISPR 22 |
| **Safety** | AS/NZS 60950 |
| **EMC Immunity** | AS/NZS CISPR22 |

## ACCESSORIES

| | |
|---|---|
| **Displays** | SVGA or XGA; DVI |
| | Standard or High-brightness |
| **USB Floppy Disk Drive** | |
| **USB Backlit Keyboard** | |
| **USB-Serial Port Expander** | |
| **External Microphone** | |
| **USB CD / DVD-ROM Drive** | |
| **External 5W speaker with built-in amplifier** | |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Specifications subject to change without notice.

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