

# M6310 USB Flash Drive Tester/Duplicator



***NEW... USB Production Tester/ Duplicator from the Industry Leader***

***Simple to Use    Fast    Reliable    Versatile***

## ***Features !!!***

- High Quality Production USB Tester/Duplicator for
  - USB Sticks**
  - USB Hard Drives**
  - MP3 Players**
- Separate Master Drive Slot & 10 Copy Drive Slots with 20, 30, 40 Slot Versions
- Program Speeds up to 700 MB/Min per Device for Fully Loaded Machine
- Automatic Sizing and Size Checking of the Master and Copy Cards
- All Copy Devices Verified in Parallel at up to 700MB/Min per Device for Fully Loaded Machine
- Stand Alone Operation or Computer Controlled
- High Volume 10, 20, 30, and 40 Copy Socket Configurations
- USB Testing Functions include R/W Speed, Standby and Active Current, Etc...



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# M6310 USB Flash Drive Tester/Duplicator



## *M6310 .... A Powerful Yet Simple to Use Production Duplicator*

The M6310 is a simple to use Full Featured Production Tester/Duplicator. The M6310 can be run completely from its front panel using a 4 key input and the LCD status screen. Alternatively, a GUI provides the means of using the large removable Hard Drive, LCD display, Keyboard and Mouse for defining simple or complex user defined jobs.

Multiple copy modes such as Binary Image Copy and File Copy along with production synchronous modes and auto detect kiosk modes allow either simple or complex control of the production process. Production statistics such as device serial numbers and error information are automatically stored for every job. Verify operations include binary bit by bit, checksum, crc, and md5 checks.

### **M6310-USB Specifications**

### **ROHS Compliant**

Copy Capacity:	1 Master Slot and 10 Copy Slots
Speed:	700MB/min per Device for fully loaded machine
Display:	24 x 2 LCD
Power Supply:	200W 115V/230V SPS
Dimensions:	17"x15.5"x3.5"
Computer Interface:	USB 2.0 Device Port
Weight:	18 lbs (7 Kg)
Removable Hard Drive	160GB Standard

### **System Part Number and Description**

M6310-USB	1x10 slot USB Duplicator
M6320-USB	2X10 slot USB Duplicator
M6330-USB	3X10 slot USB Duplicator
M6340-USB	4X10 slot USB Duplicator



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## Features

### ✓ **USB Drive Capacity: 10, 20, 30, 40 Device Slots**

Each 10 socket "slice" has Full Front Panel Controls for Sequential (Fast) Production. Each slice has an independent master slot and is a full Linux computer. Up to four M6310 slices can be networked together and placed in a single bench top rack creating one 40 slot Tester/Duplicator controlled by a single LCD, Keyboard, and Mouse.

### ✓ **Fast Duplication AND Fast Verify: Copy Devices connected directly to USB Host Controllers, NOT USB Hub's**

Almost all other USB duplicators on the market use USB Hubs to increase the number of available USB sockets that can be run from one embedded computer. IMI testers and duplicators do NOT use Hub's. Instead, all USB ports in IMI equipment are what is called "USB root Hub's" which means that the USB ports on IMI USB equipment such as the M6310 can run both fast programming (writes) to USB ports but also fast verifies (reads and compares). With the large number of suspect USB drives being shipped, it is very important for USB sticks to be verified before shipping.

### ✓ **Copy Speed for Fully Loaded Machine is 11 MB/sec for Each USB Device**

With eleven available USB ports on the M6310, the total available write/read bandwidth is over 1000 MB/sec. This is typically twice as much bandwidth as the M6310 competitors. This high data bandwidth translates into significantly faster copy and verify cycles for the M6310 compared to other comparable USB duplicators.

### ✓ **Stand Alone Operation with LCD Display**

The M6310 front panel has a keyboard and LCD display that allows the user to select and run predefined Jobs .

### ✓ **Insertion of USB devices is horizontal with desk top (not vertical ) with wide spacing between sockets for easy handling**

The M6310 ergonomics have been carefully considered to allow the operator to easily insert and extract USB drives without unnecessary effort or fatigue.

### ✓ **Front Panel Display of Job Status, Checksum, Progress & Master Data Size**

When a Job is executed on the M6310, the Front Panel LCD provides valuable information on the Percent of Job completion, Master data checksum, and Job Pass/Fail data to the user.

### ✓ **Bar Code Launch for Remote Control of Job Selection**

M6310 Jobs can be launched using a standard bar code reader.

### ✓ **GUI User Interface Supports both Operator Mode and Supervisor Mode**

In the production environment, it is often helpful for reliability reasons to create a division between the setup of a Job and the actual execution process of a Job. The M6310 GUI forces the user wishing to edit or create a Job to enter a password before any editing can take place.

### ✓ **Current Limit per Device of 1.5amps allows Copy of USB Portable Hard Drives**

USB ports are typically limited to 500ma of current. However, many USB devices such as USB hard drives have 5V power currents above 1 amp. The M6310 allows each USB port to draw over 1.5amps making the M6310 a great solution for testing and duplicating USB hard drives.

*Continued....*



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# M6310 USB Flash Drive Tester/Duplicator

- ✓ ***Full Linux Operating System with Removable Hard Drive for Back Up and Reliability***

The M6310 utilizes a full featured version of the Linux operating system. This provides the user with a very reliable standard computer interface with many benefits including easy networking and powerful utilities.

- ✓ ***Gigabit Ethernet Network Connectivity and Remote Server Control***

High Speed Ethernet connectivity along with the Linux operating system provide a high speed data path for Master data storage and retrieval. Remote control of both Job Selection and Master Data Images is easily accomplished.

- ✓ ***Multiple Operational Modes: Stand Alone, Computer (Linux) GUI, TCL/TK Terminal, Network Control, Kiosk Mode***

There are many Flash memory applications which require special requirements of the tester/duplicator equipment. The M6310 has shown to be a very versatile platform for custom applications due to the wide number of standard operating modes.

- ✓ ***Kiosk Mode (Start on Insertion)***

One special application that can be used with the M6310 is the Kiosk mode. The Kiosk mode is used when the user wishes to have start a simple copy/verify operation as soon as a USB is inserted into the M6310. The software controlling the Kiosk mode sets up a specific path for the data for each M6310 USB port. An added feature unique to the M6310 is that in Kiosk Mode, each Copy USB device can have a different data image.

- ✓ ***File System formatting with Supported File Systems (FAT, FAT32, NTFS, EXT2, EXT3)***

Putting a File system on a USB drive is one way of initializing a USB the drive of all past data. The M6310 supports a wide variety of different file formats.

- ✓ ***Master Data as Master Device, Binary Images, Select Files, Or Defined Pattern***

The M6310 can copy individual files to USB drives which are formatted with Supported File Systems. It also supports Binary Image copy and User defined Pattern data which is useful for testing or blanking (Erasing) USB drives.

- ✓ ***Smart Master File Creation. Supported File Systems: (FAT,FAT32, NTFS, HFS+, EXT2, EXT3)***

IMI pioneered the user of "Smart Copy" functions. Smart Copy refers to a method of analyzing a formatted master drive so that the duplicator can use and copy only the useable area of the master drive when duplicating to copy drives or creation of a master file. Smart Copy can greatly increase the through put of the duplication process.

- ✓ ***One Button Master File Creation in GUI***

Often Job Creation requires the definition of a Master File which is to be stored on the M6310 hard disk from a given USB device. The M6310 M63W GUI program provides a simply launched dialog box for creation and storage of master files; both master binary image files and master FAT and master NTFS files.



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# M6310 USB Flash Drive Tester/Duplicator

## ✓ **GUI Allows Selection, Build and Edit of JOB Functions**

M6310 Jobs can be created, stored, and run from either a IMI Graphical User Interface, "GUI", program called "M63W" or a text based program. The standard TCL scripting Linux is the underlining language of the M6310 Job scripts whether created in the M63W or with a standard Linux text editor.

## ✓ **Basic Functions Include Copy, Copy with Verify, Create Master File; Test Functions Include Size, Speed, ICC, Checksum, & ID Value Tests**

M6310 GUI and TCL Jobs are powerful scripts that allow the user complete control of standard and "special" Tester and Duplicator jfunctions. The M63W GUI has a versatile editor for Job creation and editing.

## ✓ **Checksum Tag & Checking Supports 8 Digit Byte Checksum, CRC32, and MD5**

Keeping track of master data files is absolutely essential for reliable USB duplication. The M6310 provides a number of different methods to tag master files including Byte Checksum, CRC32, and MD5 which are all standard numerical tags used to check master file data.

## ✓ **Separate Power Sources and Current Limit for each Copy Device; Active and Standby Current Measurement**

For added reliability, each USB socket on the M6310 has a separate current limit switch and each device voltage is monitor for correct operation. In addition, the active and standby current of each USB device is measured and made available to the user.

## ✓ **Log File using a Standard Relational Data Base**

For companies which rely on accurate tracking of production information, the logging of test and duplication operations is a must. The M6310 uses a powerful standard relational data base to store and access test data.

## ✓ **Log Values include Vender/Product ID, Serial #, Capacity, & Parameter Tests**

USB drives include various identifying parameters which are recorded by the M6310 along with Pass/Fail and other test results. These values are readily available using a CSV ("Comma Separated Value") format which can then be input to programs such as Excel.

## ✓ **Parameter Tests Include R/W Sequential Speeds, Active ICC and Standby ICC**

The M6310 can be used to measure and sort USB drives for quality and performance. Test parameters and limits are easily set in the M63W GUI. Standby ICC tests are one of the best quality checks that can be performed to catch partially bad integrated circuits used in USB drives. Active ICC is a good measure of speed versus power consumption. Read and write speed tests are the single most important performance parameters used for rating Flash media. In addition to allowing the user to set minimum and maximum limits for these parametric values, the M6310 allows user devised loop testing for extended burning reliability testing.

## ✓ **Front Panel Power Up/Down Using Unique Dual Power Keys**

IMI equipment use a unique combination of two keys to power on IMI testers and duplicators that prevents accidental operator power cycles while still allowing easy access to the power on button.



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