



USB Disk Production Tool User Manual

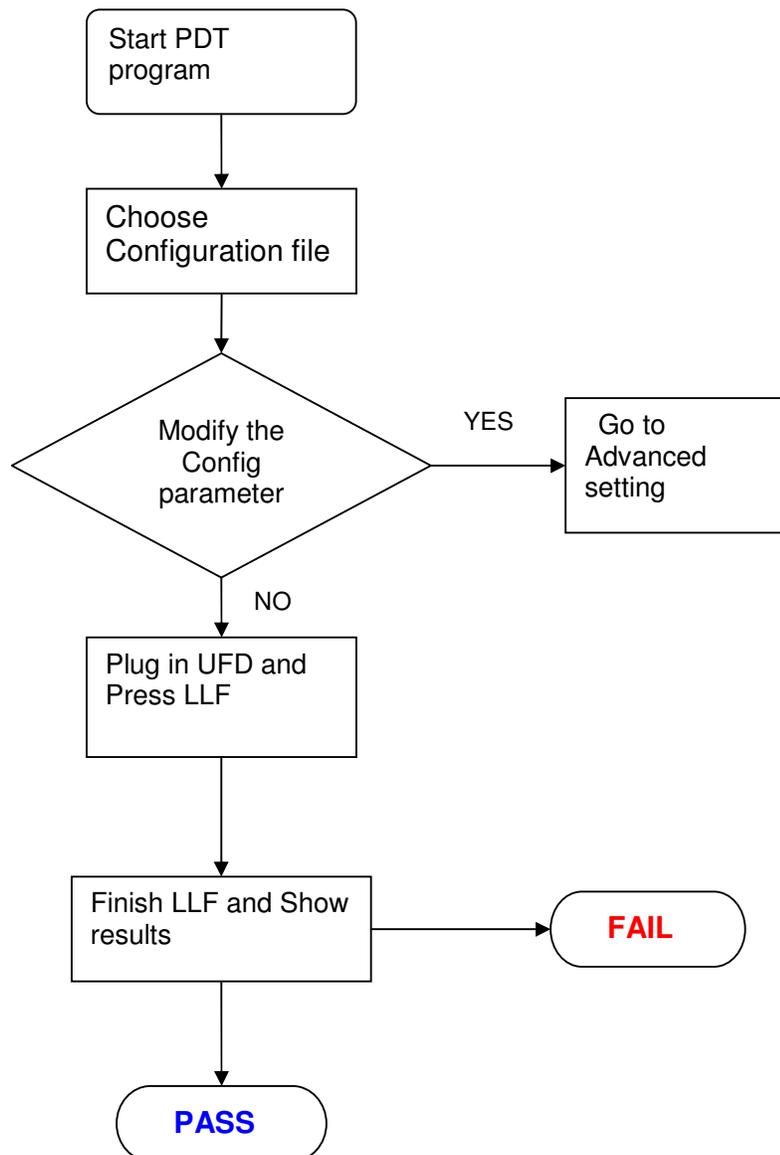
Rev: 1.0

Date:2008/01/09

1. Preface:

All UFD with SK62XX series , need to use PDT program to perform LLF before using to Device . PDT also provide FLASH basic testing & partition & CD Rom function .

2. Operation Flow Chart:



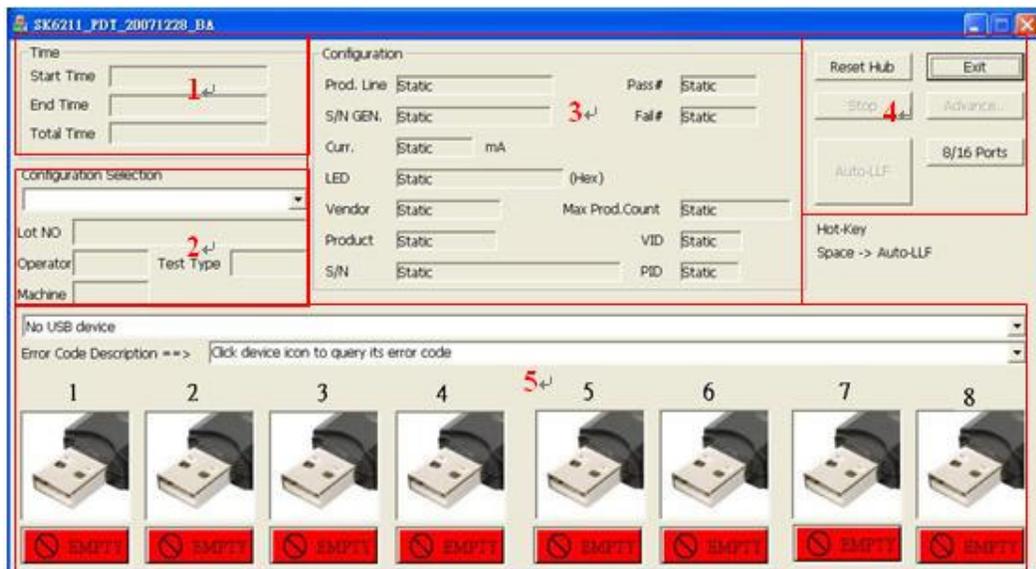
3. PDT Program:

Double Click the Icon to start Skymedi UFD PDT



3-1 Main Window

Following sections describe detail function of this operating window

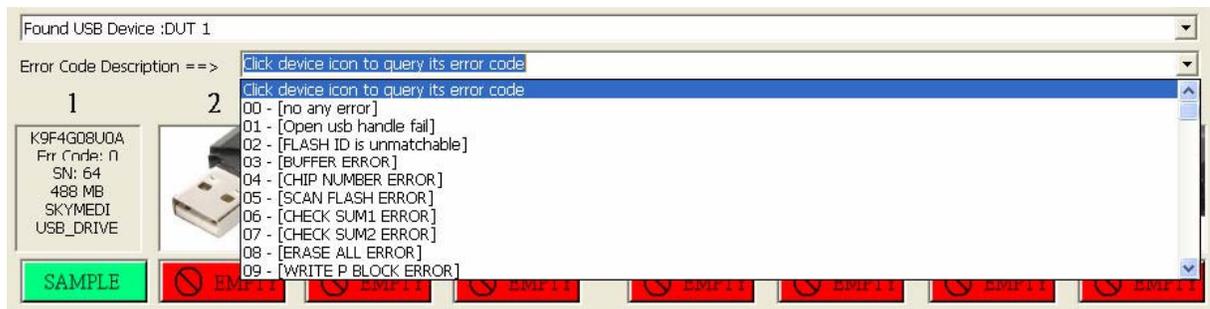


3-1-4. Function description of each Push Buttons



- (1). Reset Hub
- (2). Stop: Test Stop
- (3). Exit: Finish and exit the Production Tool
- (4). Advance: Advance setting , the Environment Setting window will pop up and user can edit config file on this window
- (5). Auto-LLF: Start test when this button is pressed then Tool start execute USB Disk Low Level Format function
- (6). 8/16 Ports: Show 8 or 16 port

3-1-5. Status and Error Description



USB Port Status Icon



- (1). Empty: Indicate there is no device in the USB port



(2). No Match: There is a UFD in DUT port but the device configuration is different to the selected config file. The device configuration means:

- Controller Part Number
- Flash Part Number
- Number of Flash



(3). Matched: There is a UFD in DUT port and its configuration is matched to the selected config file.



(4). Busy: If click Auto-LLF or press Space bar, the Matched DUT port start perform the card initialization activity



(5). Fail: Show this icon if initial Fail. The icon also indicates the Error Code. Engineer can press the "Error Code Description" pull-down bar to check the Error Code meaning



(6). Pass: Indicate the Card Initial Pass and show SN of device

3.2 Test Configuration File Setting:

Be note, user should key in correct password otherwise any editing function are not available. The default password is "123456". Engineer can change password in this window. Following section describe each editing function.

Environment setting

VID: 054C Hex(EX:023A)
PID: 0243 Hex(EX: 023A)
Vendor Name: SKY
Product Name: USB
Revision: 1.00 Disk Type: Removable
SN Setting: S/N: 001A4BB6113A5A89160B0001 Random S/N Gen.: (2) Increase

Max Passed Number: 9999999999
Config File: default
RESET PASS/FAIL RECORD
Multi-Partition
Password: [] Check
New: [] Change

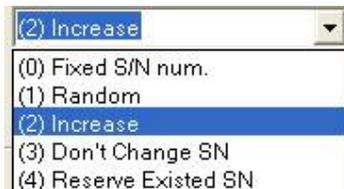
Flash Option
Reserved Spare Area (RSA): By Flash Spec. 50 % Code Bank Ver: C080917A_F080917A
Single 0.0 - 99.0
Dual 0.0 - 49.0
Controller: SK6211BA
Part Name in Config: K9G8G08U0A
Flash Selection: Part Name in Config
Channel Mode: Single
ExtInterleave in Config: None
External Interleave: None

Modify
LED Idle: (5) LED OFF on idle
LED Strength: 0
Curr.: 100 (0~500 mA is valid)
Format Label: LUN0 Format Type: Auto
Read/Write Test: Quick Test 0 % (0.0)
 Fixed Flash Size: 2048 MB Erase All
 Enable Pre-Copy File Sectors/Cluster: Auto
PreCopy Path: D:\testPreCopyFiles\For_Re. Browse
Hidden Area: 0 Sectors(Multiple of 8)

Card Size Option
Card Size: (0) Default Density
User Defined Card Size

3-2-1. UFD Information Setting:

- (1). Prod. Line: Production Line ID
- (2). VID: Vender ID
- (3). PID: Provider ID
- (4). Vender Name: USB device vender name
- (5). Product Name: USB device Product name
- (6). Revision: USB device reversion code
- (7). S/N: Serial Number
- (8). S/N GEN.: Serial number generator selection
There are 5 type of S/N generate function can be selected.



- Fixed S/N num.: The assigned S/N is fixed for every USB Disk
- Random: Randomly assign S/N for each USB Disk
- Increase: Incrementally assign S/N for each USB Disk
- Don't Change SN
- Reserve Existed SN

- (9). Version: Set the version number of USB Disk.

- (10). Disk Type
There are tow disk type can be select



- Removable
- Fixed

3-2-3. Change Password :

Provide the change password function of Environment Window.

- (1). Password:
- (2). Check:
- (3). New:
- (4). Change:

3-2-4. Flash Option:

- (1). Reserved Spare Area:

- **By Flash Spec:** Depend on the Flash memory, Tool will automatic set the reserved block number.
- **Manual Set:** Allow use define reserved block size. Be note, the larger reserved block size make smaller disk size. The available reserved range are depends on Bus channel.

Bus Channel	Spare Area Range (%)
Single	0 ~ 99
Dual	0 ~ 49

(2). Code Bank Ver :

(3). Controller

For controller part number select. If there is a USB disk on USB port, the tool will auto detect the controller part number and display on this field.

(4). Part Name in Config

Show the selected Flash part number of Config file.

(5). Flash Selection

For Flash Memory part number select. If there is a USB disk on USB port, the tool will auto detect the Flash Memory ID and display its part number this field. However, some Flash ID may map to more than two Flash PN. In this case toll will display all mapped Flash PN for use select. User has to select correct Flash PN here.

(6).ExtInterleave in Config

Show the selected Inter leave level of the selected Config file.

(7). External Interleave

Allow user set Inter Leave Level here. If there is a USB disk on USB port, tool will auto detect the data bus channel of controller and Flash and the number of Flash CE and shows all available interleave level for selection.

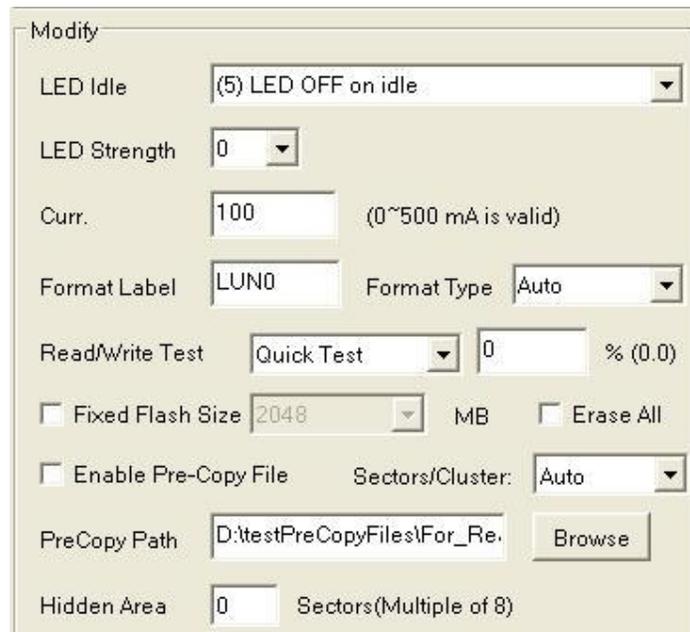
There are 4 possible Interleave Level for selection.

- None (or Disable), disable interleave function.
- 2-Way, 2 Level interleave.
- 4-Way, 4 Level interleave.

Following table shows all possible interleave level for different Bus channel and FCE number.

CE	Byte Mode		Word Mode	
	Interleave 2	Interleave 4	Interleave 2	Interleave 4
1	X	X	X	X
2	O	X	O	X
4	X	O	O	X

3-2-5. UFD Property Setting:



- (1). LED Idle: LED flash frequency setting, there are 5 different flash frequency are allowed to be set for USB Disk LED.



- (2). LED Strength : LED brightness adjusting , there are 7 brightness levels can be selected. The higher level makes the higher brightness.

- (3). Current (0~500mA) : The max. current consumption setting.

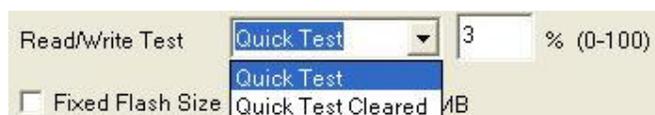
- (4). Format Label: Disk Label of FAT format

- (5). Format Type: FAT Type
The Disk format selection



- Auto: Tool will automatic select format type depends on density of disk size.
- FAT16: FAT16 format
- FAT32: FAT32 format
- None : won't do any format after LowLevelFormat

- (6). R/W Test: Write and Read Test before device has been formatted



- Quick Test: Partial size test
When Quick Test is selected, user should set how many percentage of card size would expect to be tested.
- Quick Test Cleared:
When Quick Test has done, clear data written in the device (not suggest, cause more time when MP)

(7). Fixed Flash Size

When this function is enabled, tool will fix the disk size as the defined value. If a disk that size not matched to the defined size, the tool will show error when test done.

(8). Enable Pre-Copy File

When this function is enabled, tool will copy the data(files) that user wanted after UFD completed the LFF procedures.

(9). Erase All

When this function is enabled, all of the data of flashes will be erased.

Including the ODBT or the original data of flash maker (Warning : It's not recommends to enable the function for formal use)

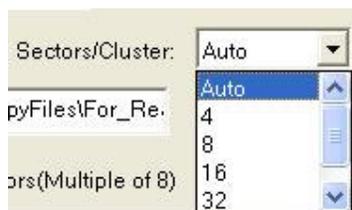
(10). PreCopy Path

The PreCopy Path is reference to the items “(11) Enable Pre-Copy File “,if user enable Pre-Copy File , user should provide the data or file path.

(11). Hidden Area: (Max 4KB)

When user make a hidden area, user should use AES AP to check the content of the hidden area.

(12) Sectors/Cluster :

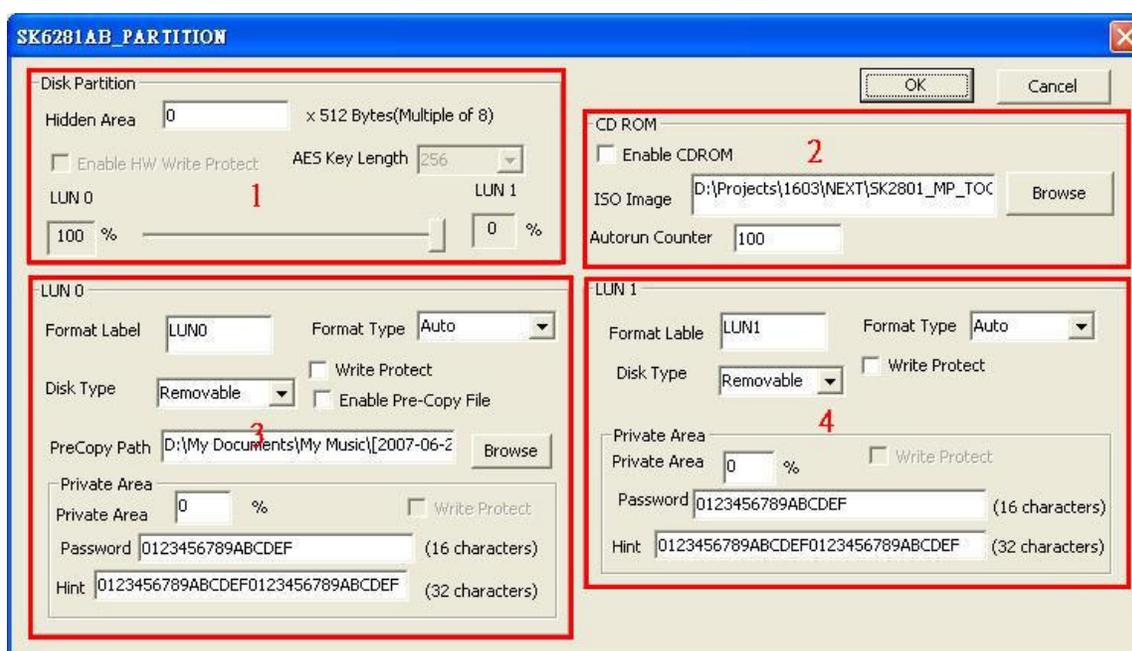


Default configuration as below :

File System	Density	Cluster size	# of Sector
FAT32	260MB	0.5K	1
	8GB	4K	8
	16GB	8K	16
	32GB	16K	32
	64GB+	32K	64

File System	Density	Cluster size	# of Sector
FAT16	16MB	1K	2
	128MB	2K	4
	256MB	4K	8
	512MB	8K	16
	1GB	16K	32
	2GB	32K	64

4. Multi-Partition: ◦ (For SK6281AB only)



4-1. Disk Partition:

- (1). Hidden Area: (Max 8KB)
- (2). Enable HW Write Protect:
- (3). AES Key Length:
- (4). LUN0/1:

4-2. CD ROM:

- (1). Enable CDROM:
- (2). ISO Image path:
- (3). Autorun Counter: (the number of times)
Value : 255 (no limite)

4-3. LUN0:

- (1). Format Label: Set label name
- (2). Format Type:

- Auto: Base on Flash density
- FAT16: Format FAT16
- FAT32: Format FAT32

(3). Disk Type

- Removable:
- Fixed:

(4). Write Protect:

(5). Enable Pre-Copy File:

(6). PreCopy Path:

(7). Private Area:

- Write Protect:

(8). Password:

(Max 16 digi)

(9). Hint:

(Max 32 digi)

4-4. LUN1:

(1). Format Label: Set label name

(2). Format Type:

- Auto: Base on Flash density
- FAT16: Format FAT16
- FAT32: Format FAT32

(3). Disk Type

- Removable:
- Fixed:

(4). Write Protect:

(5). Enable Pre-Copy File:

(6). PreCopy Path:

(7). Private Area:

- Write Protect:

(8). Password:

(Max 16 digi)

(9). Hint:

(Max 32 digi)

