



USB Disk Production Tool User Manual

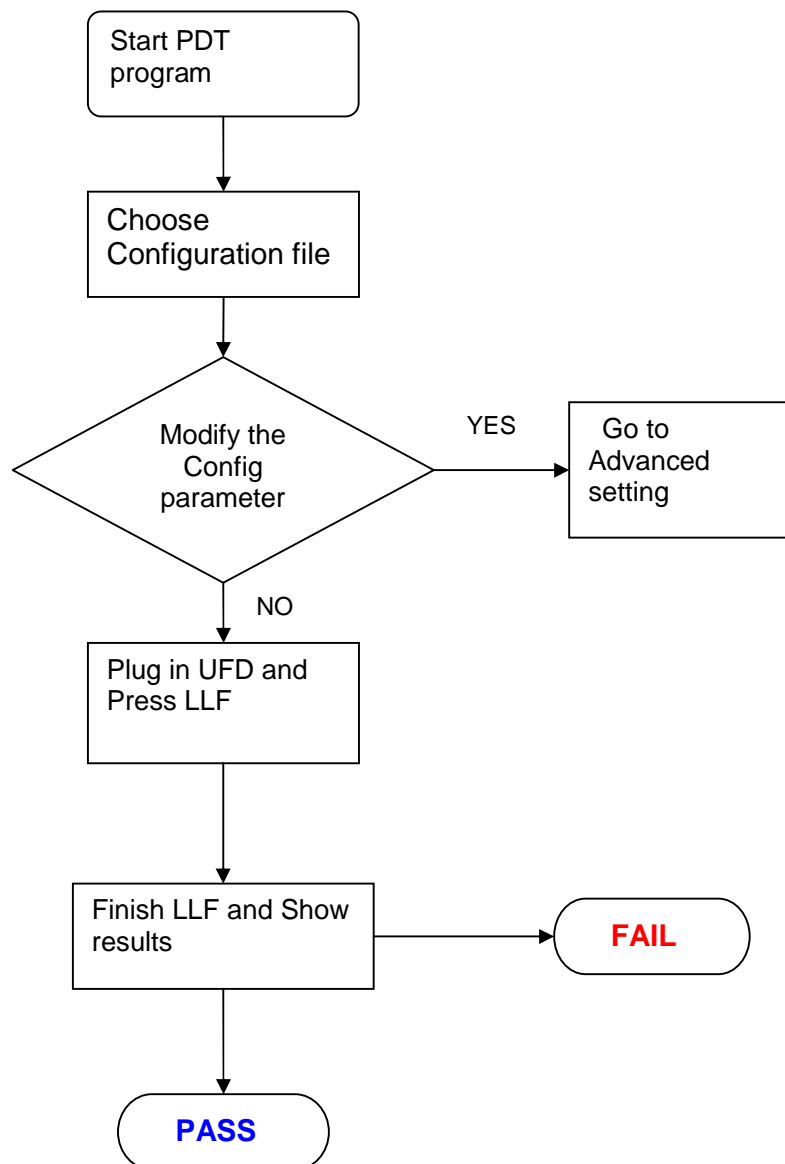
Rev: 3.0

Date:2007/10/01

1. Preface:

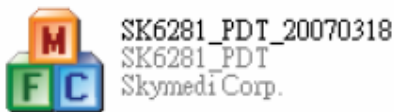
All UFD with SK62XX series , need to use PDT program to perform LLF before using to Device . PDT also provide FLASH basic testing & partition & CD Rom function .

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

SK6281_PDT_200701003

Time
Start Time
End Time
Total Time

Configuration Selection
Default

Lot NO
Operator
Machine
Test Type

Configuration
Prod. Line
S/N GEN.
Curr.
LED
Vendor
Product
S/N
Pass#
Fail#
Max Prod.Count
VID
PID

Reset Hub
Exit
Stop
Advance..
Auto-LLF
8/16 Ports
Hot-Key
Space -> Auto-LLF

No USB device
Error Code Description ==> Click device icon to query its error code

1 2 3 4 5 6 7 8

EMPTY EMPTY EMPTY EMPTY EMPTY EMPTY EMPTY EMPTY

To record the elapse time of start test to finished

Time	
Start Time	2006/01/24 14:59:46
End Time	2006/01/24 15:00:03
Total Time	17 Seconds

To select a configuration file

Configuration Selection

K9F4G08U0M_1_Byte

default_config

K9F4G08U0M_1_Byte

K9GAG08U0M_4_Byte

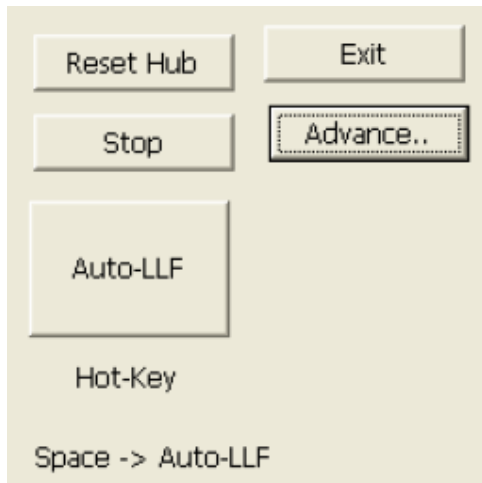
K9HAG08U0M_4_Byte

User can press Advanced Button to open environmentSetting window to edit the selected config file or create a new config file

Display the summary of the selected config file

Configuration					
Prod. Line	988	Pass#	249		
S/N GEN.	(2) Increase	Fail#	48		
Curr.	100 mA				
LED	18-04-64-32-07-07-00 (Hex)				
Vendor	SKY	Max Prod.Count	999		
Product	USB	VID	1516		
S/N	0000000000000000000013B36DB0	PID	1603		

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

LINE

899

0~999

VID

1516

Hex(EX: 023A)

PID

8628

Hex(EX: 023A)

Vendor Name

SKY

1

Product Name

USB

S/N

899000000000000000000000000011

Random

S/N Gen.

(2) Increase

SN Setting

Revision

1.00

Disk Type

Removable

RESET PASS/FAIL RECORD

Exit

Max Passed Number

9999999999

2

Multi-Partition

Config File

default

Delete

Save

PassWord

Password

3

Check

New

Change

Flash Option

4

Code Bank Ver

C071002A_F071002A

Controller

SK6281

Part Name in Config

K9G8G08U0M

Flash Selection

Part Name in Config

ExtInterleave in Config

None

External Interleave

None

Modify

LED Idle

(0) FLASH VERY SLOWLY

LED Strength

0

5

Curr.

100

(0~500 mA is valid)

Format Label

LUN0

Format Type

Auto

Pattern Mode

Random Pattern

Read/Write Test

Quick Test

0

% (0-100)

Scan Defect Coverage

0

%

Fixed Flash Size

2048

MB

Erase All

Enable Pre-Copy File

PreCopy Path

D:\My Documents\My Music

Browse

Hidden Area

0

× 512 Bytes(Multiple of 8)

Card Size Option

Card Size

(1) User Defined Density

6

User Defined Card Size

0

0

0

0

0

0

0

0

Reserved Spare Area

By Flash Spec.

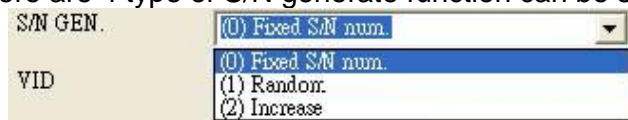
50

%

minimum size(MB)

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 4 type of S/N generate function can be selecte d.

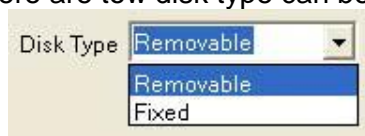


- Fixed S/N num.: The assigned S/N is fixed for every USB Disk
- Random: Randomly assign S/N for each USB Disk
- Increase: Incrementally assign S/N for each USB Disk
- Don't Change SN:

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

- (10). Disk Type

There are tow disk type can be select



- Removable
- Fixed

- To reset the Pass and Fail count. When this button is pressed, the main window Pass/Fail count will be reset.

Pass# 249
Fail# 49

- (5). Save: Press to save the Config File

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). Code Bank Ver :
- (2). 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.
- (3). Part Name in Config
Show the selected Flash part number of Config file.
- (4). 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 tool will display all mapped Flash PN for use select. User has to select correct Flash PN here.

(5).ExtInterleave in Config

Show the selected Interleave level of the selected Config file.

(6). 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.

	Byte Mode		Word Mode	
CE	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:

Modify

Format Label

Format Type

Allocation Unit Size of Format

Pattern Mode

Read/Write Test % (0-100)

Scan Defect Coverage %

☐ Fixed Flash Size MB

☐ Enable Pre-Copy File ☐ Erase All

PreCopy Path

Hidden Area x 512 Bytes(Multiple of 8)

Capacity Size Option

Capacity Size

☐ User Defined Capacity Size

Flash Option

Code Bank Ver

Controller

Part Name in Config

Flash Selection

ExtInterleave in config

External Interleave

LED Idle

LED Strength

Curr. (0~500 mA is valid)

Reserved Spare Area %

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

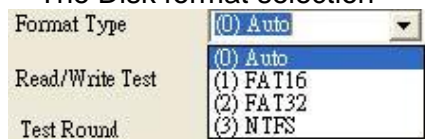


(2). LED Strength : LED brightness adjusting , there are 7 brightness levels can be selected. The higher level makes the higher brightness.

(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



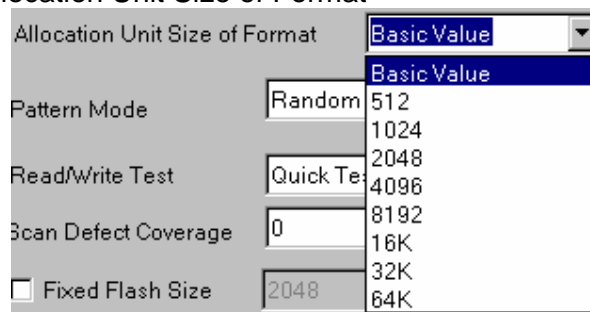
- Auto: Tool will automatic select format type depends on density of disk size.

- FAT16: FAT16 format

- FAT32: FAT32 format

- NTFS: NTFS format

(6). Allocation Unit Size of Format



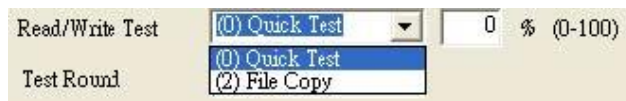
(7). Pattern Mode: 3 kinds test Pattern .

-Random Pattern .

- Fixed Pattern (0xFFFF)

-Fixed Pattern (0x0000)

(8). R/W Test: Write and Read Test when device is 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.
- File Copy: Full size test with file copy

(9). Scan Defect Coverage

(10). 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.

(11). Enable Pre-Copy File

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

(12). 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)

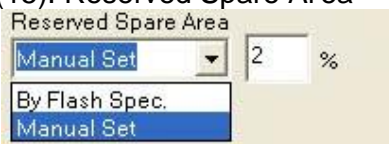
(13). PreCopy Path

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.

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

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

(15). Reserved Spare Area



The reserved block size setting. There are 2 reserve types for selection:

- **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

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: (second)

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)