Rev.	Modified Chapters	Modification Description	Issued Dept.	Issued by	Revised Date
1.00		First release	GRTD	Maico_Zhang	Jan.4.2018
1.01		Add new PCBA(YV09S2-A11)	GRTD	Maico_Zhang	Feb.7.2018

1.Objectives

Create test procedure.

2.Scope

Model: Mining-P104
PN: YV09S2(A01/A11)

Authorize by		**Review by**		**Originator By**		Maico

3.Test Item

3.1 Diagnostic test in Tiny Linux

4.Relevant Document

None.

5.Definition : 1. If the model name contains P, please test HDCP function.
Ex: EAH***/HTDP/512M/A
2. If you test HDMI already, it's unnecessary to test HDCP. The HDMI contains HDCP function.

6. Operation Procedures:

6.1 Attention

6.1.1 To avoid damaging devices or M/B, please turn off A/C power then unplug VGA card.

6.1.2 While unplugging the card, do it in upright direction to avoid damaging slot & golden finger.

6.1.3 If any problem happens, please inform test supervisor. Base on ATX power specification, +5V standby voltage is existed while AC power is connecting. For safety reason, please turn off main power during break time or idling test.

6.1.4 Some test items should be tested under Windows environment. (Please install windows 7 test environment by yourself).

6.2 Fixture connect

6.2.1 Install Intel P7 CPU & CPU Fan.
6.2.2 Install DDR3 Memory to DIMM1~4..
6.2.3 Plug USB Mouse and PS/2 Keyboard into MB.
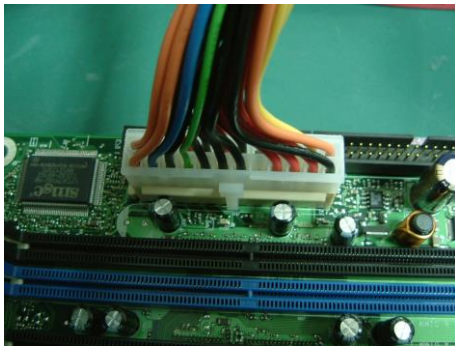6.2.4 Plug VGA Card P106 into PCIEX16.

6.2.5 Connect power con of VGA card & Power supply via bundled power cable.

6.2.6 Connect SATA HDD with SATA CON.

SATA1

6.2.7 Plug 4PIN 12V (1200W) power cable into CON12V.

6.2.8 Plug ATX Power (1200W) on Power Connector.

6.3 Diagnostic test in Tiny Linux.

6.3.1 Please connect LCD monitor to Mother board VGA\DVI port via a VGA\DVI Cable.

Dual link DVI cable

6.3.2 Press Power Switch then turn on power button.

6.3.3 Press "Del" to enter CMOS setup menu while boot screen is displaying.

EXIT -> Load Setup Defaults.

```
                    BIOS SETUP UTILITY
  Main    Advanced   Power    Boot    Exit

  Exit Options                              Exit system setup
  Exit & Save Changes                       after saving the
  Exit & Discard Changes                    changes.
  Discard Changes
                                            F10 key can be used
  Load Setup Defaults                       for this operation.




                                            ←      Select Screen
                                            ↑↓     Select Item
                                            Enter  Go to Sub-screen
                                            F1     General Help
                                            F10    Save and Exit
                                            ESC    Exit

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```

6.3.4 System will reboot, select Linux to run test program.
      Path:P104\ yv09s2a0.sh
      Path:P104\ yv09s2a1.sh

      Run the test program refer to the prompt.

6.3.5 BIOS flash
      If you want to check Vbios infor, Please run biosinfo
      Please use the following command to flash bios and notice the size of character.
      Path: Path: P106\
      Command: nvflash xxx.rom -6 -A or iromflsh xxx.rom
      Notice:
      If you can not flash bios because of the bios locked, please use nvflash.exe /r or
      nvflash.exe –r to unlock bios. And then, please use nvflash.exe /w or nvflash.exe –w
      to lock bios after updating latest bios.

6.4 Simulate mining test (For spec mining card)
   6.4.1 If you want to test mining card function in windows, please unpack ANGPU
   Miner_P106 v9.5 and run mining.bat for test.
   6.4.2 Wait for 65 seconds, it works out a hashrate to compare with the default value 19.
      If higher than the default value, it will show pass, or it will be fail.
   *Download site: SIP -> Public Folder -> GRMA -> Test program (Main program &
      Utilities) -> VGA -> MINING CARD TEST

6.5 Result upload to server (need connect to internet)

6.5.1 Download and copy RMA upload tool to diag folder by model (It don't need copy after 2018.5 uploaded model).

The tool of RMA upload tool include 3 files:

Check_SN   RMA_Config   RMAInfo
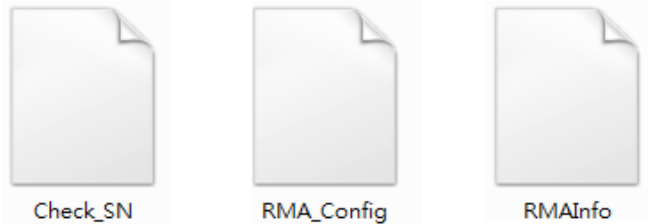
6.5.2 Edit **RMA_Config** file:

First line confirms the address of local sever, Second line is Tester ID.

The **RMA_Config** only need modify one time.


```
CN ←          Server Select
1150231 ←          Test ID



----------------------------------------
# First  Line :  Server Select.
# Second Line :  Test ID


Server Select :

  1. AS  --> https://as.eservice.asus.com
  2. CN  --> https://cn.eservice.asus.com
  3. AM  --> https://am.eservice.asus.com
  4. AU  --> https://au.eservice.asus.com
  5. EU  --> https://eu.eservice.asus.com

Test ID : RMA Tester  ID
```
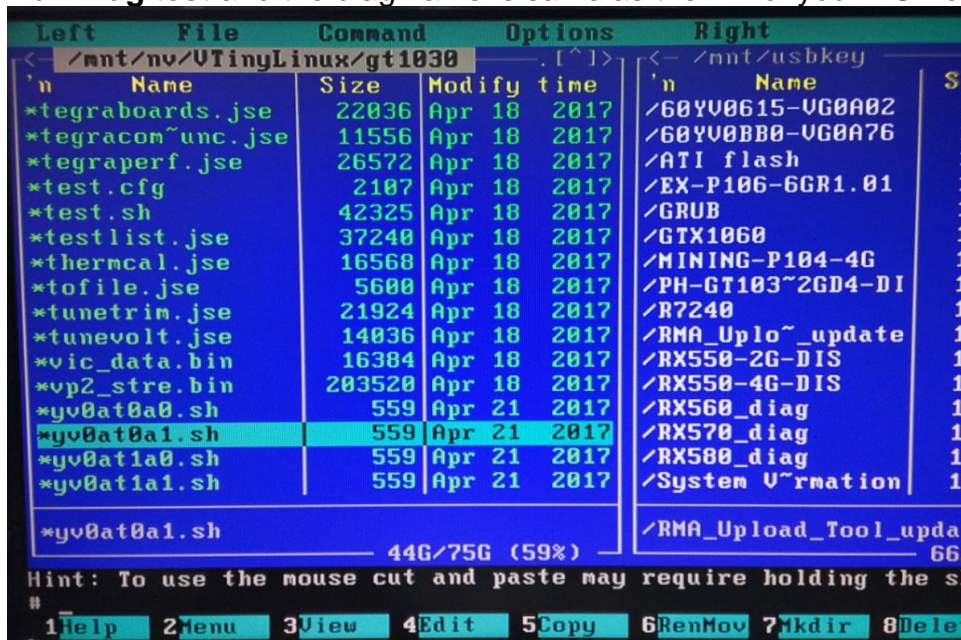
6.5.3 Run **Check_SN** and type in your VGA SN which need to be testing. The SN must be in repair status.

```
----- Check SN  V20180227 -----

erver Select : AM Server .

lease Input SN :
```
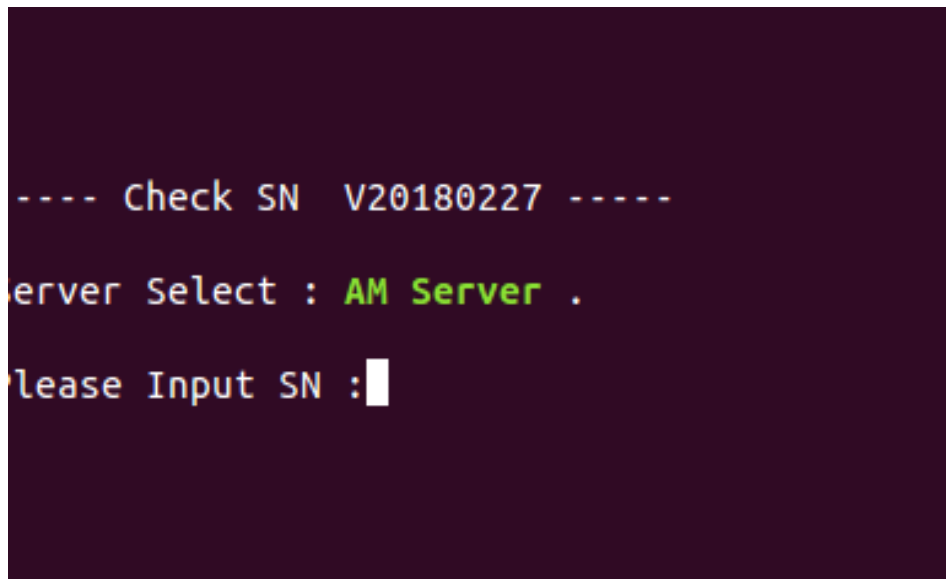
6.5.4 Run **Diag test** and the diag name is same as the PN of your VGA card.

```
  Left       File      Command      Options       Right
  /mnt/nv/VTinyLinux/gt1030       .[^]> <- /mnt/usbkey
 'n     Name        Size  Modify time   'n      Name       S
*tegraboards.jse   22036 Apr 18  2017 /60YV0615-VG0A02    1
*tegracom~unc.jse  11556 Apr 18  2017 /60YV0BB0-VG0A76    1
*tegraperf.jse     26572 Apr 18  2017 /ATI flash          1
*test.cfg           2107 Apr 18  2017 /EX-P106-6GR1.01     1
*test.sh           42325 Apr 18  2017 /GRUB               1
*testlist.jse      37240 Apr 18  2017 /GTX1060            1
*thermcal.jse      16568 Apr 18  2017 /MINING-P104-4G     1
*tofile.jse         5600 Apr 18  2017 /PH-GT103~2GD4-DI   1
*tunetrim.jse      21924 Apr 18  2017 /R7240              1
*tunevolt.jse      14036 Apr 18  2017 /RMA_Uplo~_update   1
*vic_data.bin      16384 Apr 18  2017 /RX550-2G-DIS       1
*vp2_stre.bin     203520 Apr 18  2017 /RX550-4G-DIS       1
*yv0at0a0.sh         559 Apr 21  2017 /RX560_diag         1
*yv0at0a1.sh         559 Apr 21  2017 /RX570_diag         1
*yv0at1a0.sh         559 Apr 21  2017 /RX580_diag         1
*yv0at1a1.sh         559 Apr 21  2017 /System V~rmation   1

*yv0at0a1.sh                          /RMA_Upload_Tool_upda
                  44G/75G (59%)                        66
Hint: To use the mouse cut and paste may require holding the s
#
 1Help   2Menu   3View   4Edit   5Copy   6RenMov 7Mkdir  8Dele
```

6.5.5 After Diag test is finished, run **RMAInfo** and the test result will be sent to server.

6.6 If test OK, please NTF test.

7. Appendix

NO#	Equipment Description	ASUS Part#	Supplier	Quantity	Remarks
1	**LCD Monitor with HDMI/Display Port 4096 x 2304 @ 60 Hz**		**local**	**1**	
2	**USB MOUSE**		**local**	**1**	
3	**KEYBOARD**		**local**	**1**	
4	**ATX POWER SUPPLY(a minimum power of 500W)**		**local**	**1**	
5	**Intel CPU Intel(R) I5 7500 CPU**		**local**	**1**	
6	**Heat sink + FAN**		**local**	**1**	
7	**DDR4 2400 4G**		**local**	**2**	
8	**TEST HDD**		**local**	**1**	

9	**SATA HDD Cable**		**local**	**1**		
10	**Dual link DVI cable** **(Buying a local DVI cable by yourself)**		**local**	**1**		
11	**HDMI extend cable** **(Buying a local HDMI cable by yourself)**			**1**		
12	**ASUS Prime B250-PLUS MB**			**1**		
13	**Display port cable** **(Buying a local Display port cable by yourself)**			**1**		