AIoT4-CMU

Version 1.0

Motherboard

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ϰ1ϒ ϗ ¶¶¶

4.2 BIRV ֆ ¶¶¶

1

1.1

X — [1

X ب ˝ [1 ε ˈ ζ

X SATA X 1

⊗ SATA ž4ï X 1

1.2

	-
	- Intel 8

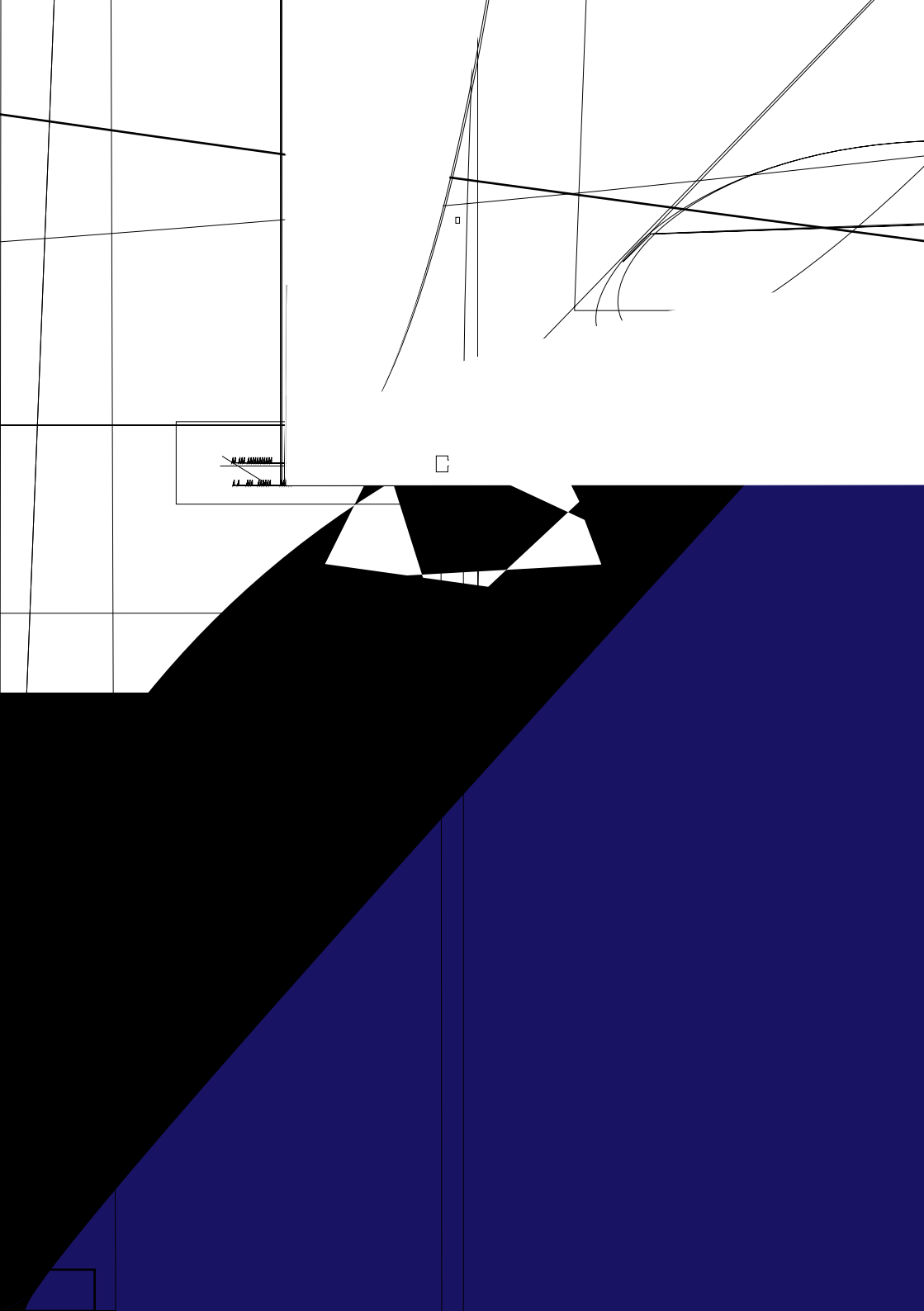
1.3

1.4 IO

( )

2

2.1



3 &

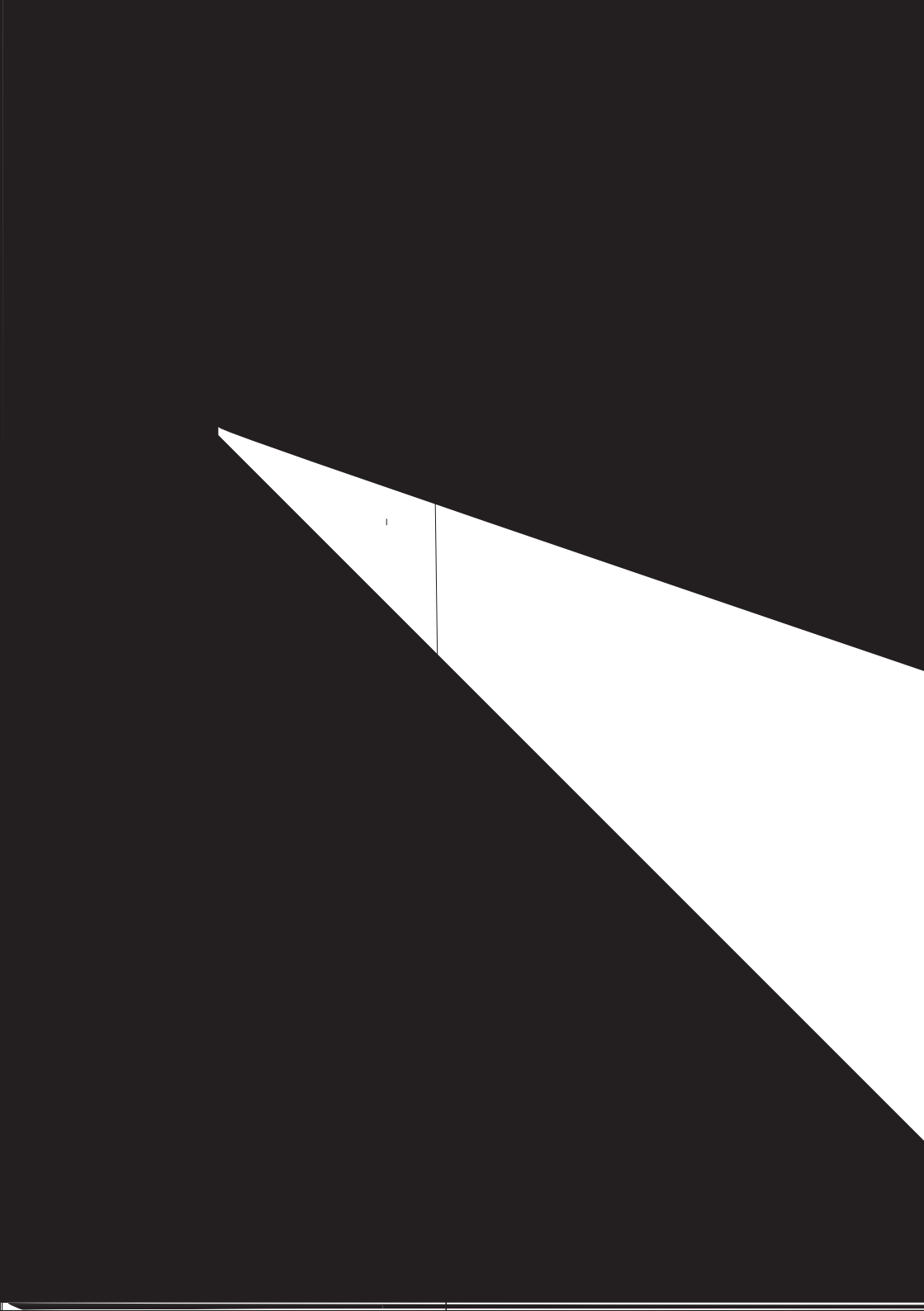
3.1

2

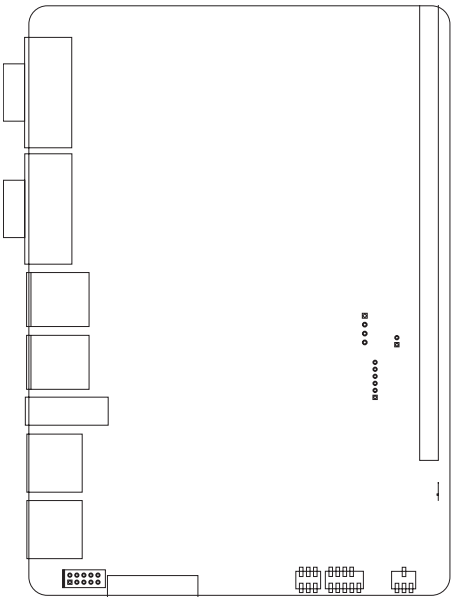
3 1 2 2 3

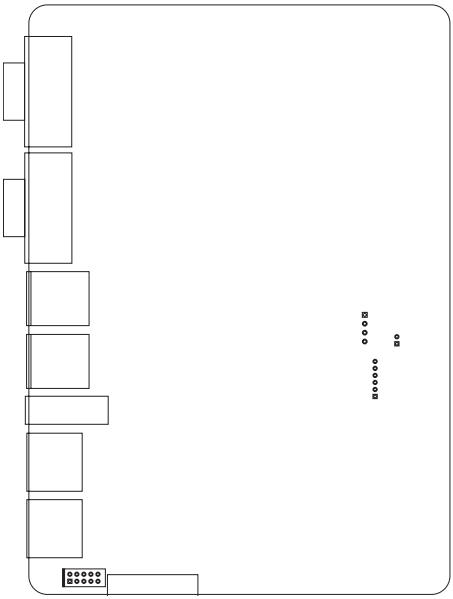
1

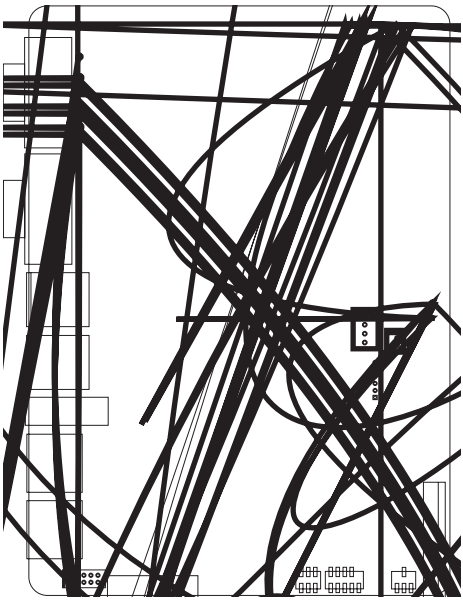
1. "1" 1
2.











4 BIOS

4.1 BIOS

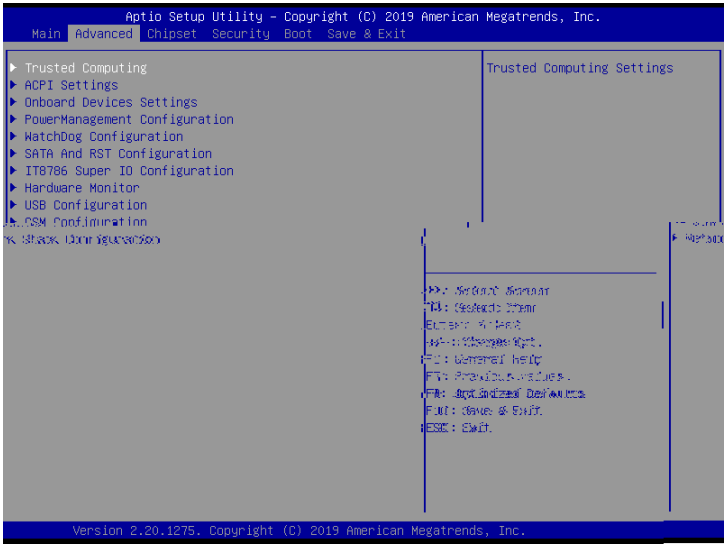
AMI BIOS BIOS Basic Input Output System (
ROM Read-Only Memory) BIOS

a. POST(Power On Self Test)
b.
c.
d. SETUP
BIOS CMOS RAM
BIOS CMOS
BIOS

4.2.3 Main

- **BIOS Information(BIOS**
- **System Language**(ﻯ ﺍ ¦ 2 ⌽ ﺩ)
-

4.2.4 Advanced



Trusted Computing ˜Y<Enter>ˆ ˜Ù o



Security Device Support

k ðˆ ˜Ù Φ ¦ BIOS ˜Ḥ'Y ˙ ° χ Disable,Enable.

SHA-1 PCR Bank

k ðˆ SHA-1 PCR Bank ˙ ° χ Disabled,Enabled.

SHA256 PCR Bank

ᵏ ǎˆ SHA256 PCR Bank ˡ ˚ χ Disabled,Enabled.

Pending operation

ṅ ъ ф ᵻ ˜Ḥ Ă ˡ ˚ χ None,TPM Clear.

Platform Hierarchy

ᵏ ǎˆ Ẉ ᴶ Ṗ ⅃ ⎯ ˡ ˚ χ Disabled,Enabled.

Storage Hierarchy

ᵏ ǎˆ Ч Ṗ ⅃ ⎯ ˡ ˚ χ Disabled,Enabled.

Endorsement Hierarchy

ᵏ ǎˆ ɲ ˡ Ṗ ⅃ ⎯ ˡ ˚ χ Disabled,Enabled.

TPM2.0 UEFI Spec Version

ф ⅃ TCG2 ѵ ˜Ḥ'Y ˡ ˚ χ TCG_1_2,TCG_2.

Physical Presence Spec Version

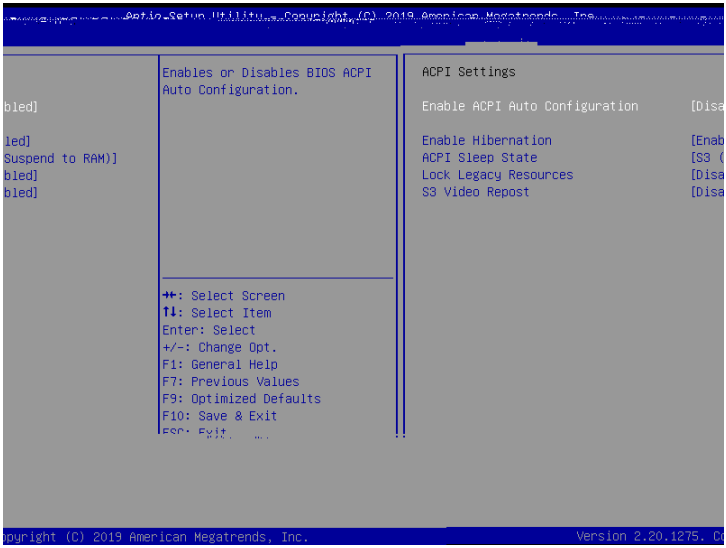
ф ⅃ PPI ѵ ˜Ḥ'Y ˡ ˚ χ 1.2,1.3.

Device Select

ф ⅃ TPM ѵ ˜Ḥ'Y ˡ ˚ χ TPM 1.2,TPM 2.0,Auto.

Press <Esc>key ᵻ “ Advanced ” ₌

▸ **ACPI Settings** ˜Y<Enter> ⇜ ъ Ḍ o



Enable ACPI Auto Con f guation

ᵏ ǎˆ BIOS ACPI ڀ ⅃ ˡ ˚ χ Disabled,Enabled.

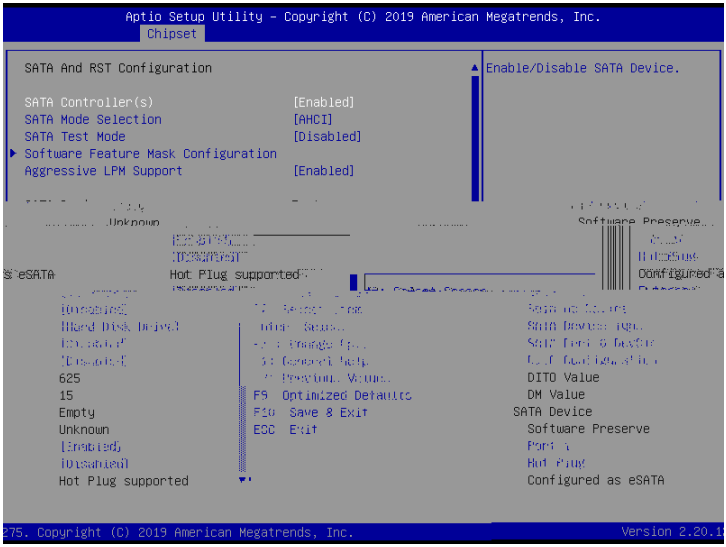
Enable Hibernation

ᵏ ǎˆ ᵡ ⁄ Ч ^ ˡ ˚ χ Disabled,Enabled.

▸ **PowerManagement Con f guration** ˜Y<Enter> ˛ ˘U D o

USB power enable in S5

SATA And RST Con f guration ˜Y<Enter>ﻍ ϑ Ḍ o



SATA Controller(s)

ᵏ ǎˆ SATA ϕ ᵗ ˡ ° χ Disabled,Enabled.

SATA Mode Selection

ϕ ɹ SATA í ˙ ʜ Φ Ã ˡ ° χ AHCI.

SATA Test Mode

ᵏ ǎˆ ⅄ ː Ã ˡ ° χ Disabled,Enabled.

Aggressive LPM Support

ϕ ɹ ҁ ì ◊ ㄱ ㅍ ˡ ° χ Disabled,Enabled.

Port 0

ᵏ ǎˆ SATA ㄱ Æ 0 ˡ ° χ Disabled,Enabled.

Hot Plug

Ṅ % ㄱ Æ ″Y Hot Pluggable ˡ ° χ Disabled,Enabled.

External

Ṅ % ㄱ Æ ‰ ʟ ᵘ ᵯ ˡ ° χ Disabled,Enabled.

Spin Up Device

ᒥ ù ' ҁ ˡ ° χ Disabled,Enabled.

SATA Device Type

ϕ ɹ SATA ㄱ Æ ì ˙ ɋ õ ɨ ʜ ǎ ɨ ʜ ˡ ° χ Hard Disk Driver,Solid State Driver.

SATA Port 0 Devslp

ᵏ ǎˆ SATA ㄱ Æ 0 DevSlp ˡ ° χ Disabled,Enabled.

DITO Con f guration

ᵏ ǎˆ DITO ب ɹ ˡ ° χ Disabled,Enabled.

▸ **Software Feature Mask Con f guration** ˜Y<Enter> ¸ ˜ Ọ o

HDD Unlock

ᵏ ğ˜ ¨Ḥ Ă ˬ ˊ HDD . J ¸ ˡ ° χ Disabled,Enabled.

LED Locate

Ф ˩ ʁ ¨Y˜ ♂ ↑ õ ˡ ° χ Enabled,Disabled.

▸ **IT8786 Super IO Configuration** ˜Y<Eqwhu>ˆ ˆ ƲD o

▸ **Serial Port 1 / 2 Con f guration** ˜Y<Enter>ˆ ˆ ƲD o

Serial Port

~PA Đ,PIBV00 P ²0»à0 ◦

Change Settings

Φ ⅃ IO Φ ᵻ °

Ⓤ # ¾ χ **Auto,**

IO=3F8h; IRQ=4;

IO=3F8h; IRQ=3,4,5,6,7,9,10,11,12;

IO=2F8h; IRQ=3,4,5,6,7,9,10,11,12;

IO=3E8h; IRQ=3,4,5,6,7,9,10,11,12;

IO=2E8h; IRQ=3,4,5,6,7,9,10,11,12; ε ├ χ % ° ɲ ĸ ĕ ν ă ı ت Ꝍ ڳ ɲ

ˊ ή ζ

▸ **Serial Port 3 / 4 / 5 / 6 Con f guration** ˜Y<Enter> ⇜ ϽЏ o

Serial Port

Hardware Monitor ˜Y<Enter>ˆ ˇ‰ D̰ o

Serial Port
Ф ɹ CPU ŭ l ˜A ı ˚ χ

HDD Connection Order

ì ˚ ẑ ֆ ɹ ˙ ˚ χ Adjust,Keep.

Boot option fIter

% ˚ í Legacy/UEFI ROMs Ч Ж ∧ ˙ ˚ χ UEFI and Legacy,Legacy only,UEFI only.

PXE Function

PXE Ã ʜ ˙ ˚ χ Disabled,Legacy.

Launch Storage OpRom policy

ɜ Ч ROM Ѡ ˙ ˚ χ Disabled,UEFI,Legacy.

Launch Video OpRom policy

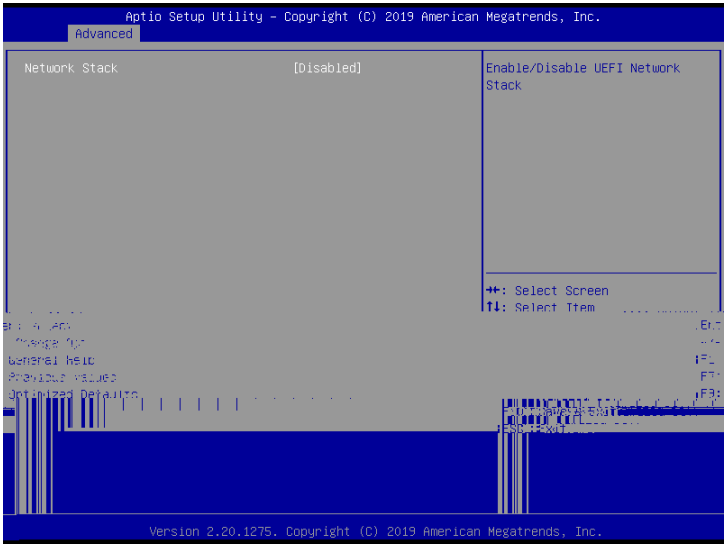
VBIOS ɜ Ѡ ˙ ˚ χ Disabled,UEFI,Legacy.

Other PCI device Oprom priority

ɜ PCI ROM Ѡ ˙ ˚ χ Disabled,UEFI,Legacy.

Press <**Esc**>key ɨ “**Advanced**” ₌

▸ **Network Stack Con f guration** ˜Y<Enter>ᖘ ᖜ Ḍ o

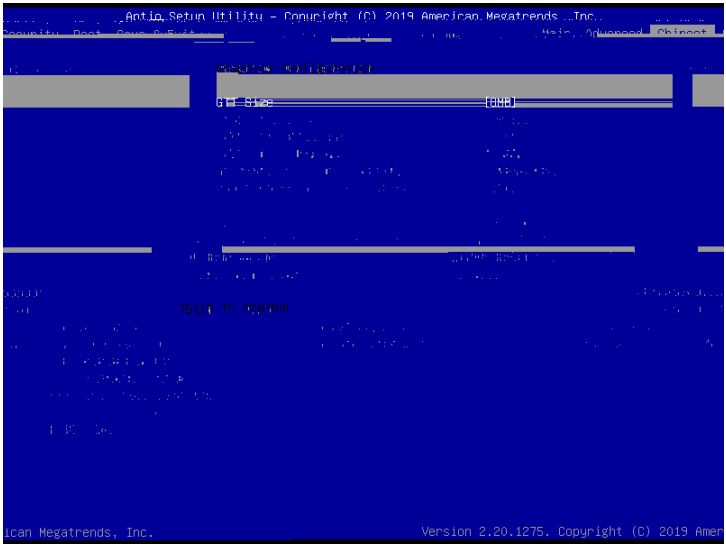


Network Stack

ᵏ ᾶ˜ UEFI ɹ ∧ ⁱ ˊ ˙ ˚ χ Disabled,Enabled.

Press <**Esc**>key ɨ “**Advanced**” ₌

4.2.5 Chipset



GTT Size

ф ⅃ GTT ᶻ ṇ ı ° χ 2MB,4MB,8MB.

Aperture Size

% ° Ĭ ′ ª ı ɔ ɲ ᶻ ṇ ф ⅃ ı ° χ 128MB,256MB,512MB,1024MB,2048MB.

DVMT Pre-Allocated

ф ⅃ ɲ մ h g, ė ф ᵻ Æ DVMT 5.0 Ĺ ‘ ب g, ė ɲ ᶻ ṇ ı ° χ 0M,32M,64M,4M,8M, 12M,16M,20M,24M,28M,32M/F7,36M,40M,44M,48M,52M,56M,60M.

DVMT Total Gfx Mem

ф ⅃ ɲ մ h g, ė ф ᵻ Æ DVMT5.0 Ở g, ė ɲ ᶻ ṇ ı ° χ 128M,256M,MAX.

Primary IGFX Boot Display

Ṅ ƥ ∧ ų Ọ ƀ ☼ ╗ ð ļ ф ᵻ ı ° χ VBIOS Default,HDMI,eDP/LVDS,CRT.

Secondary IGFX Boot Display

ɔ Ĭ ~ ф ᵻ ı ° χ Disabled,HDMI,CRT.

Active LFP

LFP ب ⅃ ı ° χ No eDP,eDP Port-A.

Backlight Control

ф ⅃ ⁎ í ˙ ı ° χ PWM Inverted,PWM Normal.

LCD Panel Type

ɲ մ h g, ė ф ᵻ Æ LCD ˏ — ı ° χ VBIOS Default,640 x 480 LVDS,800 x 600 LVDS,1024 x 768 LVDS,1280 x 1024 LVDS,1400 x 1050 LVDS1,1400 x 1050 LVDS2,1600 x 1200 LVDS,1280 x 768 LVDS, 1680 x 1050 LVDS,1920 x 1200 LVDS,1600 x 900 LVDS,1280 x 800 LVDS,1280 x 600 LVDS ı 2048 x 1536 LVDS,1366 x 768 LVDS.

Panel Color Depth

LFP ₂ — ɾ ■ ỷ ˡ ˚ χ 18 Bit,24 Bit.

LVDS Support

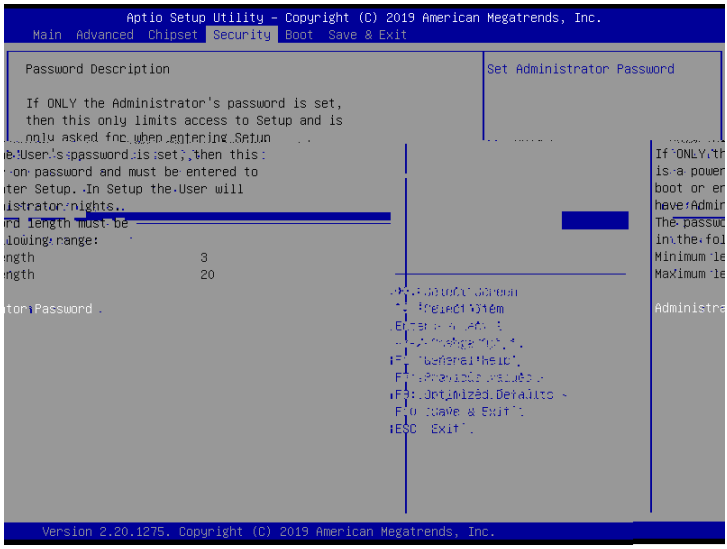
ֆ ɹ ʔḢ'Y LVDS ₂ — ˡ ˚ χ Disabled,Enabled.

LVDS Panel Type

Ẹ ֆ ɹ ˚ ɲ մ h ġ ė ֆ ɨ Æ LCD ₂ — ˡ ˚ χ 800 x 600 LVDS,1024 x 600 LVDS,1024 x 768 18 Bit LVDS,1024 x 768 24 Bit LVDS,1280 x 768 LVDS,1280 x 800 LVDS,1920 x 1080 18Bit LVDS,1280 x 1024 LVDS, 1366 x 768 18 Bit LVDS,1366 x 768 24 Bit LVDS,1440 x 900 LVDS,1400 x 1050 LVDS,1600 x 900 LVDS,1600 x 1200 LVDS,1920 x 1080 LVDS,1920 x 1200 LVDS.

Press <**Esc**>key ɨ “**Chipset**” ₂

4.2.6 Security



Administrator Password

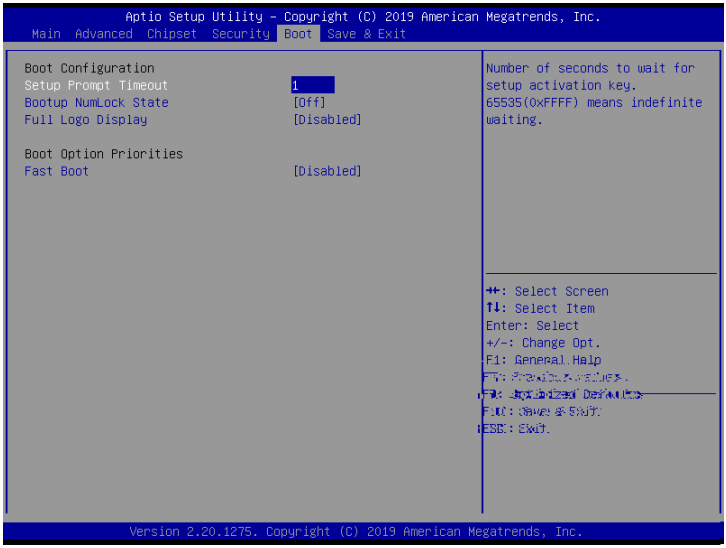
ֆ Ỉ ˚ ɋ ˥ ֆ ɹ ɻ ɻ ɿ ת ˆ . ɪ ω Ɋ P ℓ ƨ χ

1. Administrator Password ֆ ɹ ˚ ɪ ʔY<Enter> ₹

2. ɡ “Create New Password” ʕ ژ ϑ 3~20 ɥ ɻ ֆ ɻ ă Ỹ Ɋ . ɪ ژ ϑ ă ʔY <Enter> ₹ ª ɪ ¸ ″ א on rm sswȍr ﬕ ɪ W ژ ϑ . Ɋ n . * . ↓ ώ ˜ “Invalid Password!” ɪ ´ ˜ ژ ϑ . ب ɪ ت ↓ Ȁ W ژ ϑ ↓ ɻ ▌ ن ɻ ɻ ɿ ת ˆ . ɪ ت “Administrator Password” ɪ ¸ א “Enter Current Password” ʕ Ḥ ɪ ژ ϑ ñ . ª ¸ א “Create New Password”<Enter> . ▌ ن

Press <**Esc**>key ɨ “**Security**” ₂

4.2.7 Boot



Setup Prompt Timeout

Φ ɹ Ã ₌ ȳ ˋH ڑ

Bootup NumLock State

Φ ɹ ৸ ৶ ᵏ ª ı Numlock ↑ õ Ẹ Φ On ˋH ı ৸ ৶ ᵏ ª Ṅ ĕ Ã NumLock ı ṇ ⇂ Ṻ ⇂ ω̃ ω̌ Ẹ Φ ff ˋH ö ı ৸ ৶ ᵏ ª Numlock ʁ ڑ ı ṇ ⇂ Á ᵇ ⇂ ω̃ ω̌ ı ° χ On ı ff

Full Logo Display

ᵏ ğ̂ g‰ ı ° χ Disabled,Enabled.

Fast Boot

Φ ɹ. Ḋ ᵏ ╗ Â ° ¨A ₁ ѡ ṇ Φ ᵵ ı ° χ D isabled,Enabled.

Press <**Esc**>key ᵻ “**Security**” ₌

4.2.8 Save & Exit



Save Changes and Reset

Discard Changes and Reset

Restore Defaults

Press <**Esc**>key “**Save & Exit**”