Ubuntu installation without VGA
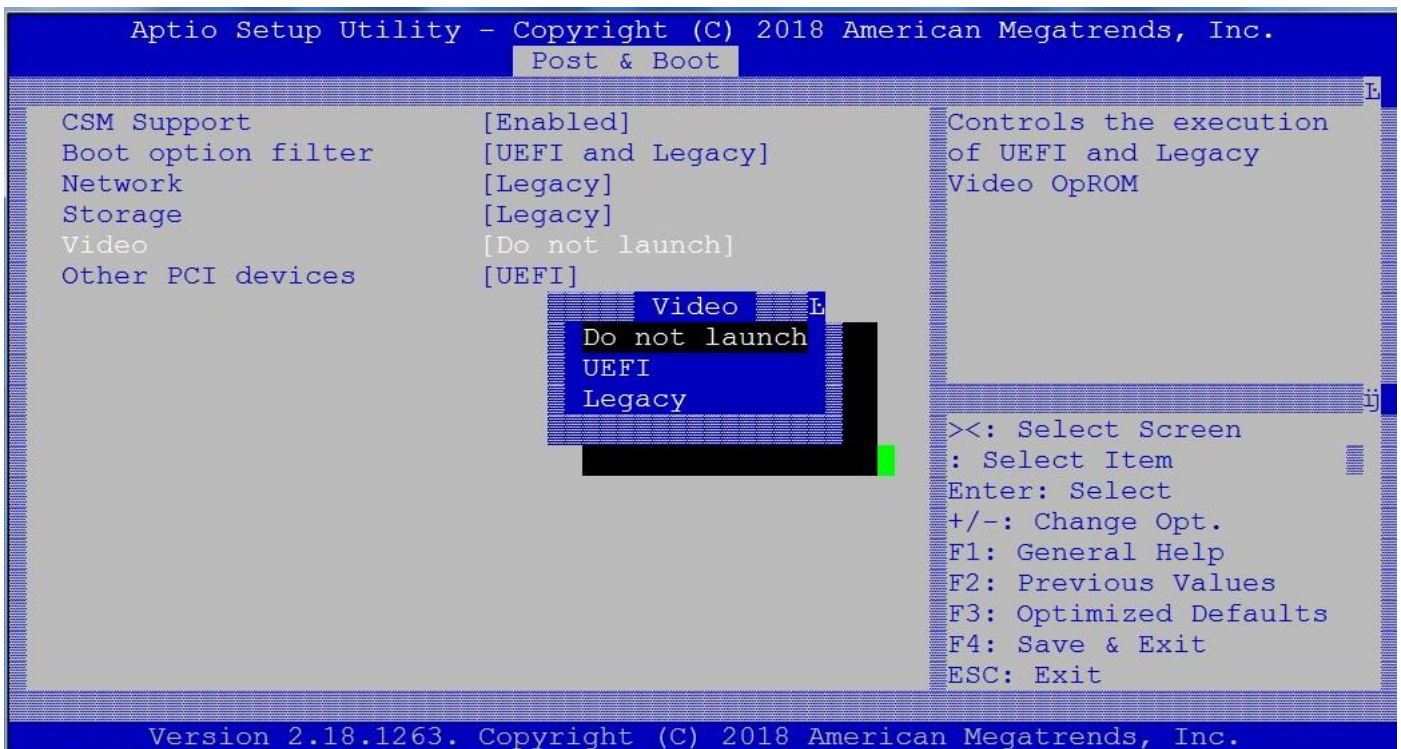
For Ubuntu 16.04 or new version

1. New Ubuntu installation UI seems to support graphic mode, it needs modifying "/isolinux/isolinux.cfg" to disable UI function, we suggest using a utility (ex: rufus) to flash ISO to   USB flash, and please look following segment to modify /isolinux/isolinux.cfg
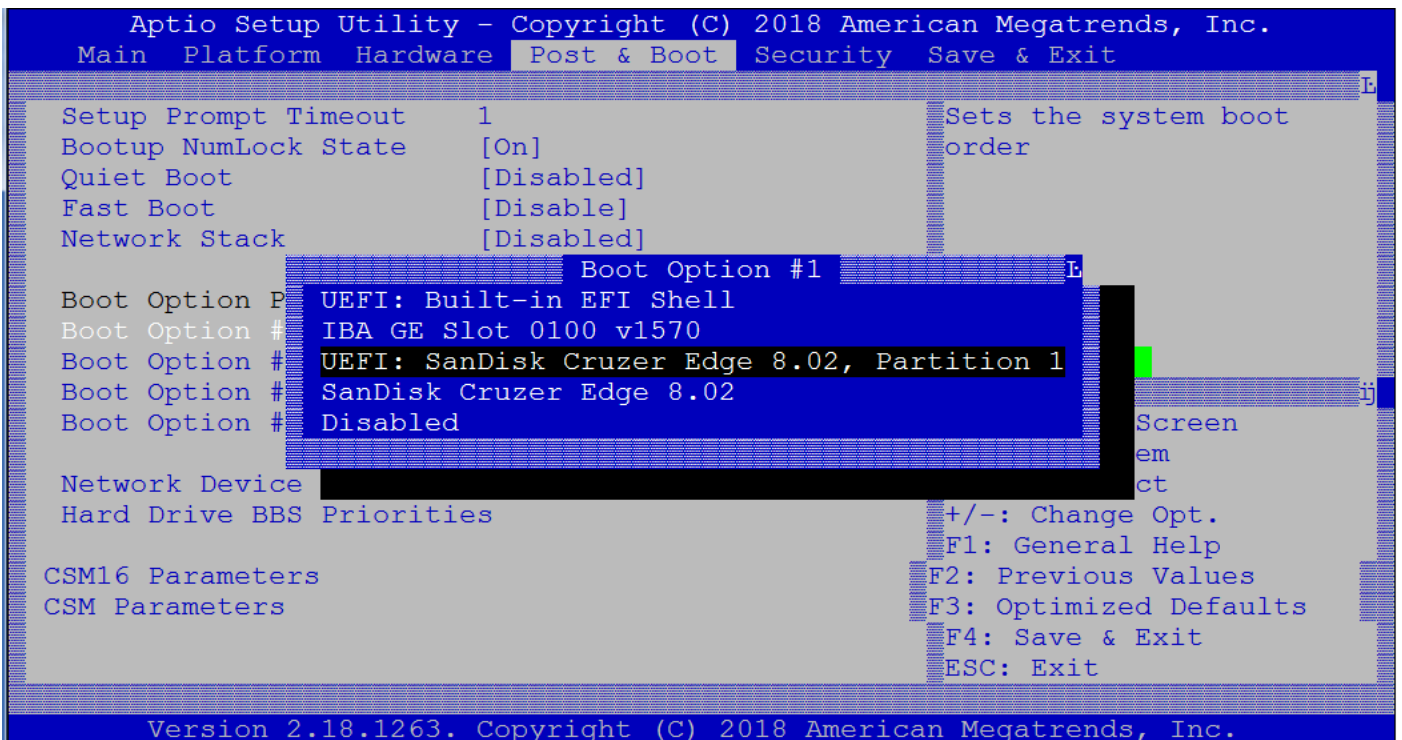
```
# D-I config version 2.0
# search path for the c32 support libraries (libcom32, libutil etc.)
path
include menu.cfg
default vesamenu.c32
prompt 0
timeout 0
#ui gfxboot bootlogo
```
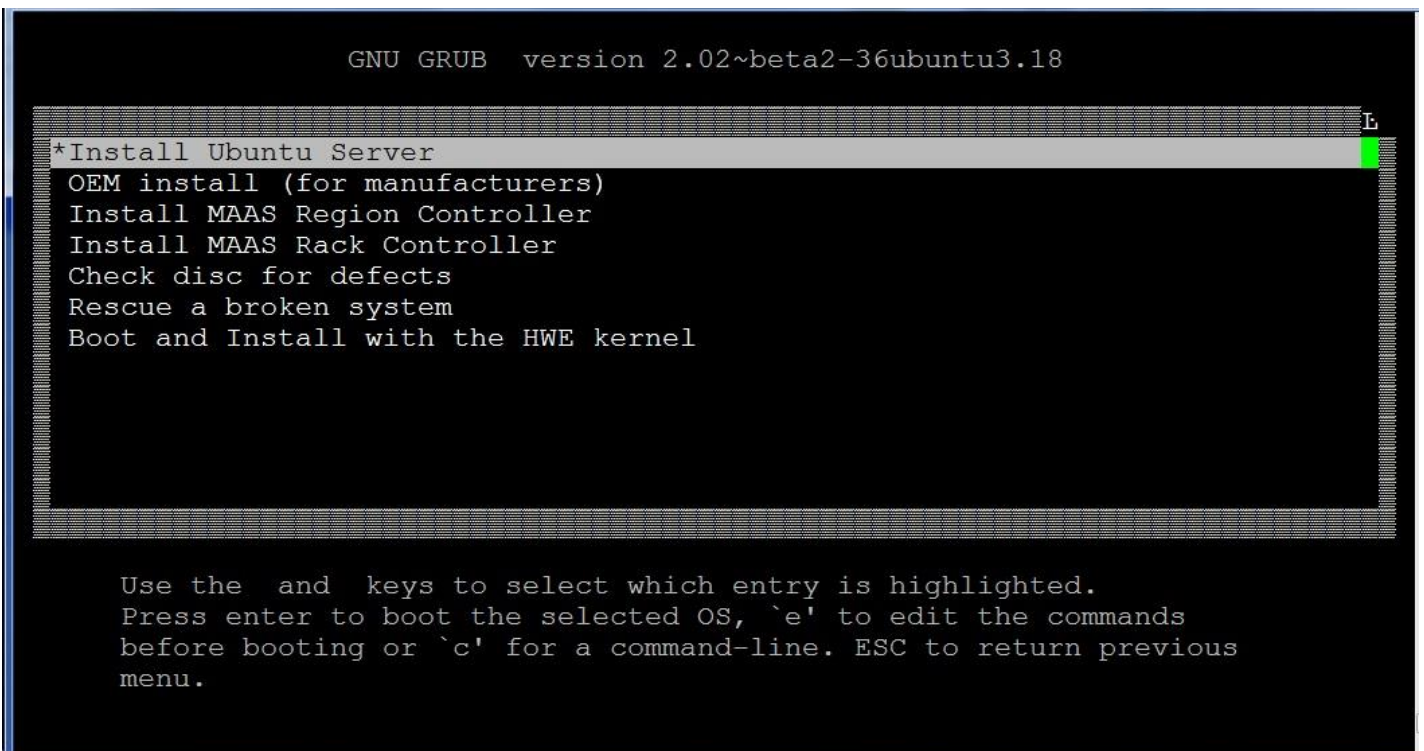
Rufus webpage :https://rufus.akeo.ie/?locale=e

2. If system supports VGA function and user needs using console-redirection to install Ubuntu OS, Please set video as "Do not launch" to disable VGA function. Post & boot -> CSM Parameters -> video
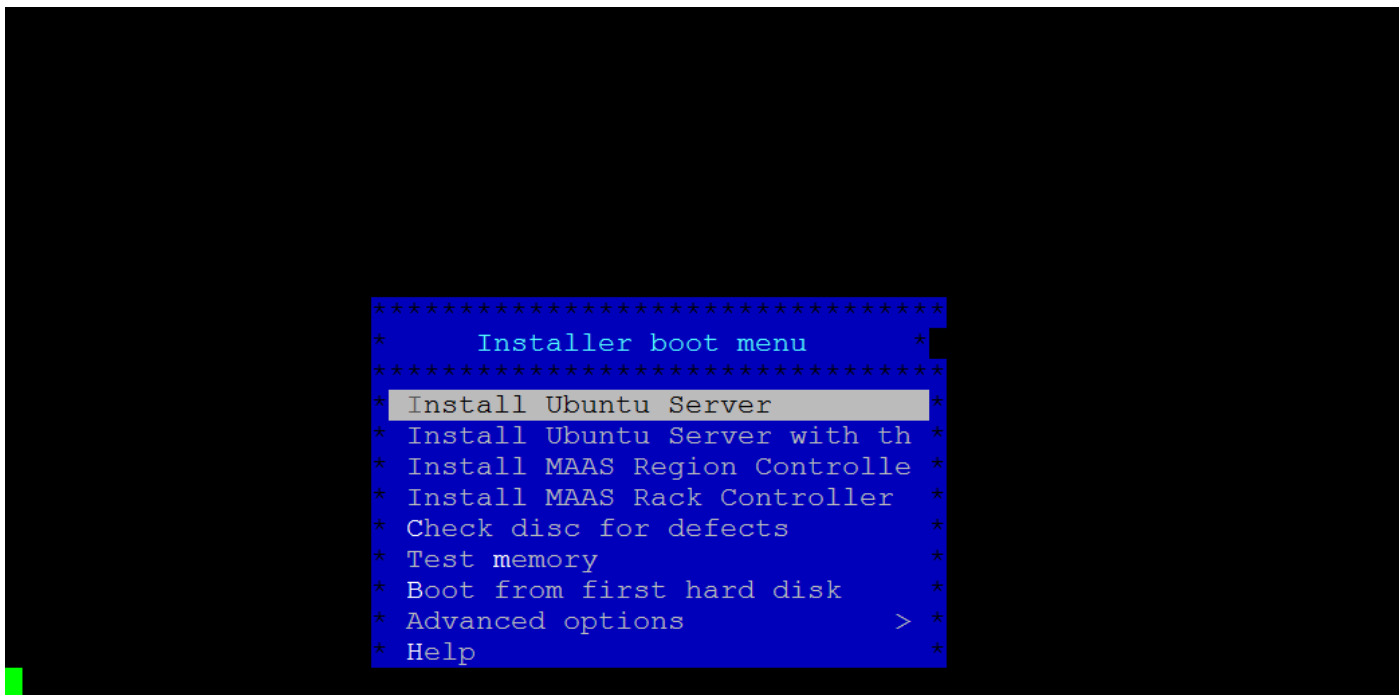
3. Please choose Boot Option #1 "UEFI: XXXXXXX" , XXXXX means Ubuntu installation USB flash.

```
     Aptio Setup Utility - Copyright (C) 2018 American Megatrends, Inc.
     Main   Platform   Hardware   Post & Boot   Security   Save & Exit

     Setup Prompt Timeout     1                         Sets the system boot
     Bootup NumLock State     [On]                      order
     Quiet Boot               [Disabled]
     Fast Boot                [Disable]
     Network Stack            [Disabled]
                          ┌──────────── Boot Option #1 ─────────────┐
     Boot Option P       │ UEFI: Built-in EFI Shell                 │
     Boot Option #       │ IBA GE Slot 0100 v1570                   │
     Boot Option #       │ UEFI: SanDisk Cruzer Edge 8.02, Partition 1│
     Boot Option #       │ SanDisk Cruzer Edge 8.02                 │
     Boot Option #       │ Disabled                                 │  Screen
                          └──────────────────────────────────────────┘  em
     Network Device                                              ct
     Hard Drive BBS Priorities                        +/-: Change Opt.
                                                      F1: General Help
     CSM16 Parameters                                 F2: Previous Values
     CSM Parameters                                   F3: Optimized Defaults
                                                      F4: Save & Exit
                                                      ESC: Exit

           Version 2.18.1263. Copyright (C) 2018 American Megatrends, Inc.
```
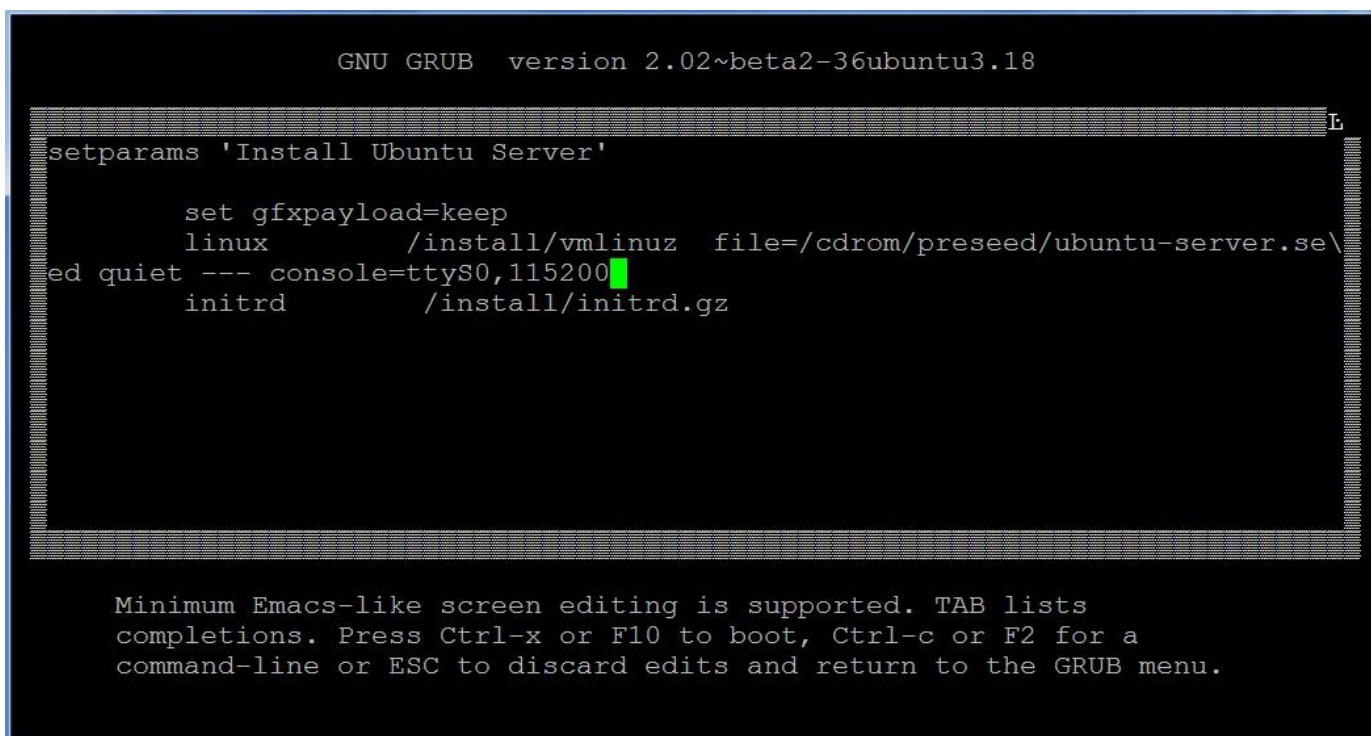
4. Please save BIOS, and system will boot from USB flash by UEFI mode.

5. Please choose "Install Ubuntu Server. If user needs using console-redirection to install Ubuntu OS, please press "C" to modify grub setting, if not, please press "Enter" key to install Ubuntu OS

```
               GNU GRUB  version 2.02~beta2-36ubuntu3.18

     *Install Ubuntu Server
      OEM install (for manufacturers)
      Install MAAS Region Controller
      Install MAAS Rack Controller
      Check disc for defects
      Rescue a broken system
      Boot and Install with the HWE kernel




        Use the  and  keys to select which entry is highlighted.
        Press enter to boot the selected OS, `e' to edit the commands
        before booting or `c' for a command-line. ESC to return previous
        menu.
```

PS: the UEFI installation menu is "black-white" , and :Legacy installation menu is "blue-white" by console-redirection mode.

Please add "console=ttyS0, 115200" in grub setting If user needs using console-redirection to install Ubuntu OS, and press X to execute Ubuntu OS installation

Please follow Ubuntu installation instruction to install UEFI Ubuntu OS in FWA-T011.

```
lqqqqqqqqqqqqqqqqqqqqqu Loading additional components tqqqqqqqqqqqqqqqqqqqqk
x                                                                          x
x  [                    ]                      20%                         x
x                                                                          x
x Retrieving nic-firmware                                                  x
x                                                                          x
mqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqj
```

It recommends to choose "Force UEFI installation" as yes at "[!!] Partition disks" step.

```
 lqqqqqqqqqqqqqqqqqqqqqqqu [!!] Partition disks tqqqqqqqqqqqqqqqqqqqqqqqqqqk
 x                                                                         x
 x This machine's firmware has started the installer in UEFI mode but it   x
 x looks like there may be existing operating systems already installed    x
 x using "BIOS compatibility mode". If you continue to install Debian in   x
 x UEFI mode, it might be difficult to reboot the machine into any         x
lx BIOS-mode operating systems later.                                      x
xx                                                                         x
xx If you wish to install in UEFI mode and don't care about keeping the    x
xx ability to boot one of the existing systems, you have the option to     x
xx force that here. If you wish to keep the option to boot an existing      x
xx operating system, you should choose NOT to force UEFI installation      x
mx here.                                                                   x
 x                                                                         x
 x Force UEFI installation?                                               x
 x                                                                         x
 x     <Go Back>                                        <Yes>    <No>      x
 x                                                                         x
 mqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqj

<Tab> moves; <Space> selects; <Enter> activates buttons
```

Please follow user requirement to choose an item of "Partitioning method:"

```
 lqqqqqqqqqqqqqqqqqqqqqqqqqu [!!] Partition disks tqqqqqqqqqqqqqqqqqqqqqqqqqqk
 x                                                                          x
 x The installer can guide you through partitioning a disk (using          x
 x different standard schemes) or, if you prefer, you can do it            x
 x manually. With guided partitioning you will still have a chance later   x
 x to review and customise the results.                                    x
 x                                                                          x
 x If you choose guided partitioning for an entire disk, you will next     x
 x be asked which disk should be used.                                     x
 x                                                                          x
 x Partitioning method:                                                    x
 x                                                                          x
 x  Guided - resize SCSI2 (0,0,0), partition #2 (sda) and use freed s      x
 x  Guided - use entire disk                                        a      x
 x  Guided - use the largest continuous free space                        x
 x  Guided - use entire disk and set up LVM                         a      x
 x  Guided - use entire disk and set up encrypted LVM                      x
 x                                                                          x
 x      <Go Back>                                                          x
 x                                                                          x
 mqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqj

<Tab> moves; <Space> selects; <Enter> activates buttons
```

Please follow user requirement to choose an item of "[!] Configuring tasksel"

```
 lqqqqqqqqqqqqqqqqqqqqqqqqqu [!] Configuring tasksel tqqqqqqqqqqqqqqqqqqqqqqqqk
 x                                                                          x
 x Applying updates on a frequent basis is an important part of keeping     x
 x your system secure.                                                      x
 x                                                                          x
 x By default, updates need to be applied manually using package           x
 x management tools. Alternatively, you can choose to have this system     x
 x automatically download and install security updates, or you can        x
 x choose to manage this system over the web as part of a group of         x
 x systems using Canonical's Landscape service.                            x
 x                                                                          x
 x How do you want to manage upgrades on this system?                      x
 x                                                                          x
 x              No automatic updates                                       x
 x              Install security updates automatically                     x
 x              Manage system with Landscape                               x
 x                                                                          x
 mqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqj

<Tab> moves; <Space> selects; <Enter> activates buttons
```

Please follow user requirement to choose software item of "[!] Software selectionl"

```
lqqqqqqqqqqqqqqqqqqqqqqqqu [!] Software selection tqqqqqqqqqqqqqqqqqqqqqqqqk
x                                                                          x
x At the moment, only the core of the system is installed. To tune the     x
x system to your needs, you can choose to install one or more of the       x
x following predefined collections of software.                           x
x                                                                          x
x Choose software to install:                                             x
x                                                                          x
x                    [ ] Manual package selection                         x
x                    [ ] DNS server                                       x
x                    [ ] LAMP server                                      x
x                    [ ] Mail server                                      x
x                    [ ] PostgreSQL database                              x
x                    [ ] Samba file server                               x
x                    [*] Standard system utilities                        x
x                    [ ] Virtual Machine host                             x
x                    [ ] OpenSSH server                                   x
x                                                                          x
x                         <Continue>                                       x
x                                                                          x
mqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqj
```
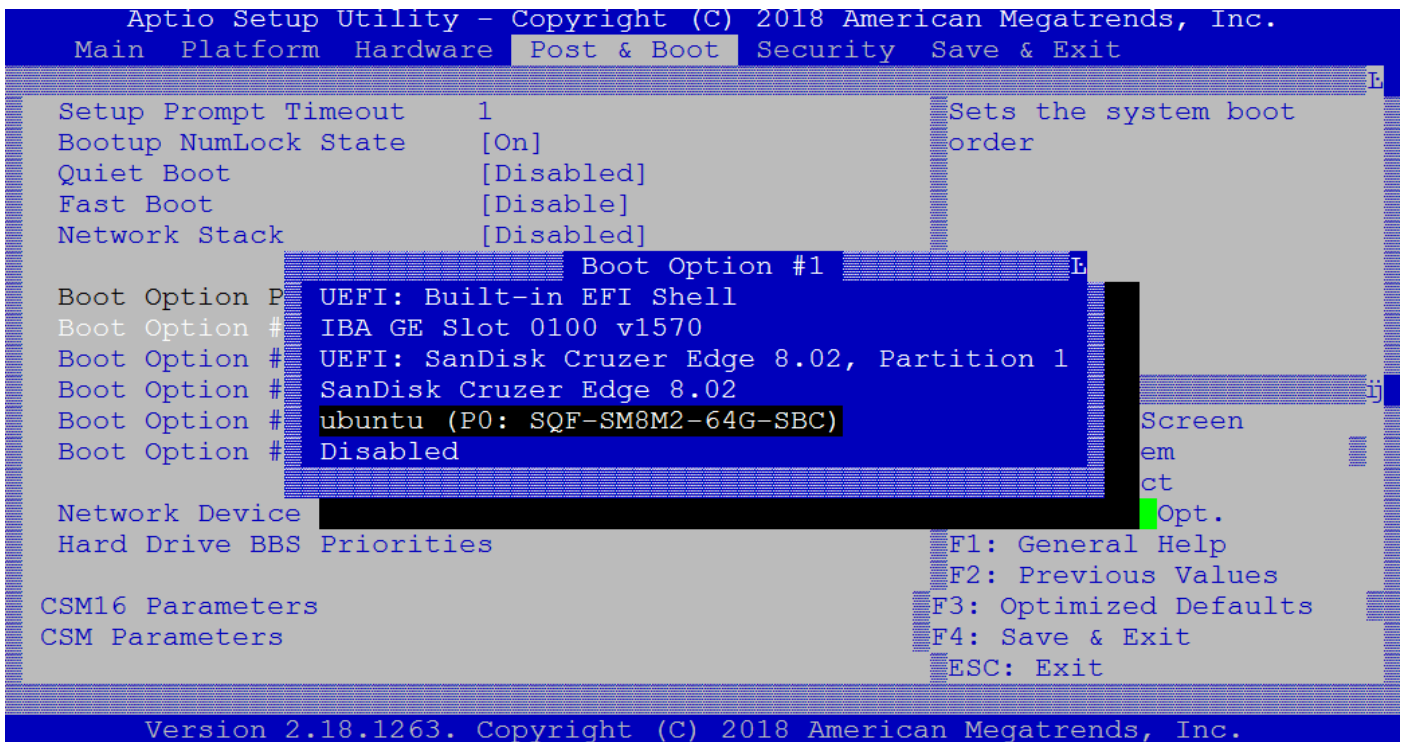
Please choose <Continue> at "[!!] Finish the installation"

```
 lqqqqqqqqqqqqqqqqqqqu [!!] Finish the installation tqqqqqqqqqqqqqqqqqqqqqqk
 x                                                                         x
lx                     Installation complete                              x
xx Installation is complete, so it is time to boot into your new system.  x
xx Make sure to remove the installation media (CD-ROM, floppies), so      x
xx that you boot into the new system rather than restarting the           x
xx installation.                                                          x
xx                                                                        x
mx     <Go Back>                                        <Continue>        x
 x                                                                        x
 mqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqj




<Tab> moves; <Space> selects; <Enter> activates buttons
```
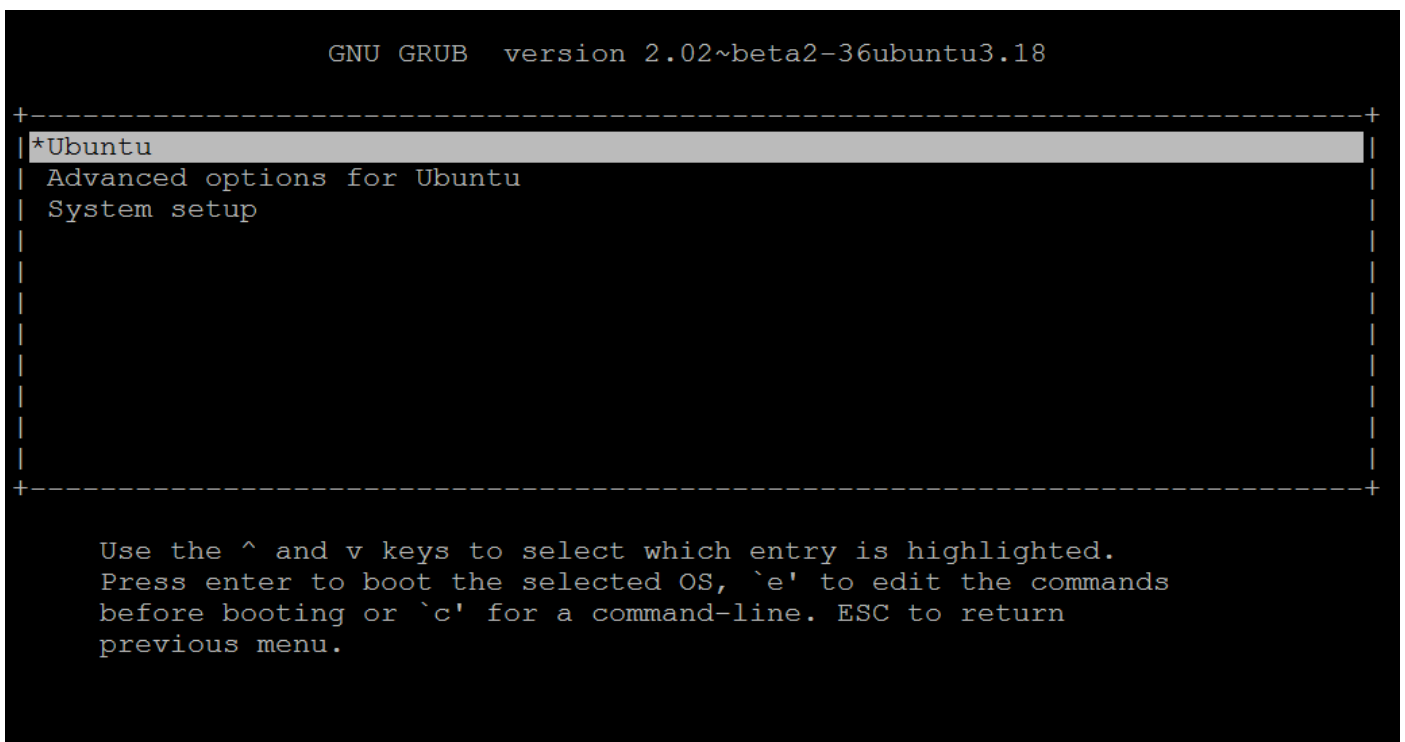
BIOS will shows "Ubuntu (XXXXX)" boot item after UEFI OS installation finish", and please choose this item as "Boot Option #1"

```
         Aptio Setup Utility - Copyright (C) 2018 American Megatrends, Inc.
    Main   Platform   Hardware   Post & Boot   Security   Save & Exit

   Setup Prompt Timeout        1                         Sets the system boot
   Bootup NumLock State        [On]                      order
   Quiet Boot                  [Disabled]
   Fast Boot                   [Disable]
   Network Stack               [Disabled]
                          ┌──────── Boot Option #1 ────────┐
   Boot Option P          │ UEFI: Built-in EFI Shell       │
   Boot Option #          │ IBA GE Slot 0100 v1570         │
   Boot Option #          │ UEFI: SanDisk Cruzer Edge 8.02, Partition 1 │
   Boot Option #          │ SanDisk Cruzer Edge 8.02       │                ij
   Boot Option #          │ ubuntu (P0: SQF-SM8M2-64G-SBC) │         Screen
   Boot Option #          │ Disabled                       │         em
                          └────────────────────────────────┘         ct
   Network Device                                           █        Opt.
   Hard Drive BBS Priorities                               F1: General Help
                                                           F2: Previous Values
   CSM16 Parameters                                        F3: Optimized Defaults
   CSM Parameters                                          F4: Save & Exit
                                                           ESC: Exit

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```

And It will show following GRUB boot-loader menu.

```
                GNU GRUB   version 2.02~beta2-36ubuntu3.18

 +--------------------------------------------------------------------+
 |*Ubuntu                                                             |
 | Advanced options for Ubuntu                                        |
 | System setup                                                       |
 |                                                                    |
 |                                                                    |
 |                                                                    |
 |                                                                    |
 |                                                                    |
 |                                                                    |
 |                                                                    |
 |                                                                    |
 +--------------------------------------------------------------------+

      Use the ^ and v keys to select which entry is highlighted.
      Press enter to boot the selected OS, `e' to edit the commands
      before booting or `c' for a command-line. ESC to return
      previous menu.
```

Following segment is a list of UEFI HDD partition, it has an item for "EFI System Partition"

```
ae@ubuntu:~$ sudo parted -l
[sudo] password for ae:
Sorry, try again.
[sudo] password for ae:
Model: ATA SQF-SM8M2-64G-SB (scsi)
Disk /dev/sda: 64.0GB
Sector size (logical/physical): 512B/512B
Partition Table: gpt
Disk Flags:


Number  Start   End     Size    File system    Name                    Flags
 1      1049kB  538MB   537MB   fat32          EFI System Partition  boot, esp
 2      538MB   63.0GB  62.5GB  ext4
 3      63.0GB  64.0GB  1024MB  linux-swap(v1)
```