APPLICATION GUIDE



AMI Aptio BIOS: Administrator and User Passwords



Products:

VPX6600 VPX7600 VPX6860 XVME-6500A XVME-6700A

Bulletin # 8401092



Overview

The purpose of this technical bulletin is to describe the levels of password protection and access levels available in the AMI Aptio BIOS used on Acromag's line of Single Board Computers (SBC). Detailed instructions on setting up the passwords are shown in the applicable manuals.

There are two levels of password protection available in the AMI Aptio BIOS:

- **User Password:** This option allows the user to set a user level password for the BIOS. There is no Default password. If ONLY the User's password is set, then this is a power-on password and must be entered to boot or enter Setup. In Setup, the User will have Administrator access rights.
- Administrator Password: This option allows the user to set an administrative level password for the BIOS. There is no Default password. If
 ONLY the Administrator's password is set, this only limits access to BIOS Setup and is only asked for when entering BIOS Setup.

There are two access levels of BIOS administration:

- User Mode: Most functions are not accessible (they will be greyed out).
- Administrator Mode: Full access to BIOS. The user can freely change any setting.

The password setting can be found by navigating to the Security tab once in BIOS setup. The minimum password length is 3 characters, and the maximum password length is 20 characters. Note that these length restrictions can be modified by the user. Passwords can include symbols such as @, #, %, \$, etc.

Copyright (C) 2016 American Megatrends, Inc. Boot Save & Exit Acromag Aptio Setup Utility -Advanced Chipset Security Boot Password Description Set Administrator Password If ONLY the Administrator's password is set, then this only limits access to Setup and is only asked for when entering Setup. If ONLY the User's password is set, then this is a power on password and must be entered to boot or enter Setup. In Setup the User will have Administrator rights. The password length must be in the following range: in the following range: Minimum length Maximum length 3 20 →+: Select Screen †↓: Select Item Administrator Password User Password Enter: Select +/-: Change Opt. F1: General Help HDD Security Configuration: P3:Samsung SSD 850 EVO 120GB F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit Secure Boot menu

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Setting password for Administrator account:

If only the administrator's password is set, this only restricts access to the BIOS setup and requires a password only when entering the BIOS setup. If you do not press the unit will boot normally without a password prompt.

IMPORTANT: If you press "Enter" without entering a password during the password prompt, you will enter BIOS setup in "USER mode", not Administrator mode. Upon entering the BIOS menu in USER mode, you will see that the Access Level on the Main page shows "User":

Aptio Setup Utility - Copyright (C) 2016 American Megatrends, Inc. Main Advanced Chipset Security Boot Save & Exit Acromag					
BIOS Information BIOS Vendor Core Version Compliancy Project Version Build Date and Time Access Level	American Megatrends 5.11 UEFI 2.4; PI 1.3 1ASOI 0.38 x64 12/17/2016 13:00:51 User	Choose the system default language			
Processor Information Name Brand String	SkyLake DT				
Frequency Processor ID	Intel(R) Xeon(R) CPU E3-1505M v5 @ 2.80GHz 2700 MHz 506E3				
Stepping Number of Processors Microcode Revision	RO/SO/NO 4Core(s) / 8Thread(s) A6				

Most functions are not accessible (they will be greyed out) when entering in USER mode (pressing enter only during the password prompt). USER mode can only access the following functions:

- RTC Timer (System Date and System Time settings in Main tab)
- COM port settings (Super IO Configuration in **Advanced** tab)
- USB configuration (in **Advanced** tab)
- Boot options (in Boot and Save & Exit tabs)

Setting password for USER account:

If only the user's password is set, the user will be prompted to enter the password when booting, and the password must be entered in order to boot or enter the BIOS setup.

Note: if ONLY the USER password is set, and there is no Administrator password, USER will have Administrator level access in the BIOS.

Setting password for both Administrator & User account:

The user will be prompted for a password when booting, because the user password has been set. The user can use both Administrator and User password to pass password checking when booting. And the BIOS access level will depend on what password the user enters.



Following is a summary of the behavior of Administrator and User accounts:

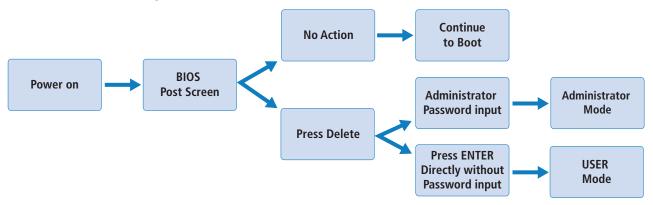
Password Type	Boot Requirement	Entry to BIOS	Changing BIOS Parameters	Bypassing Password Prompt (Pressing 'enter')
None	NO	NO	NO	N/A
Administrator Only	NO	Requires Administrator Password	YES	Enter BIOS in USER mode
User Only	YES	YES	YES (Administrator mode)	Unable to enter BIOS / OS
Administrator + User	Requires entering Administrator or USER Password	See Note 1	See Note 1	Unable to enter BIOS and OS

Note 1: Depends on which password is entered:

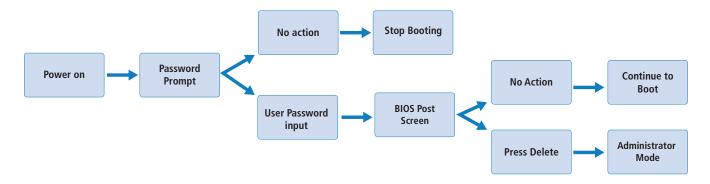
-Administrator password >> Administrator mode

-User password >> User mode

Administrator Password Only

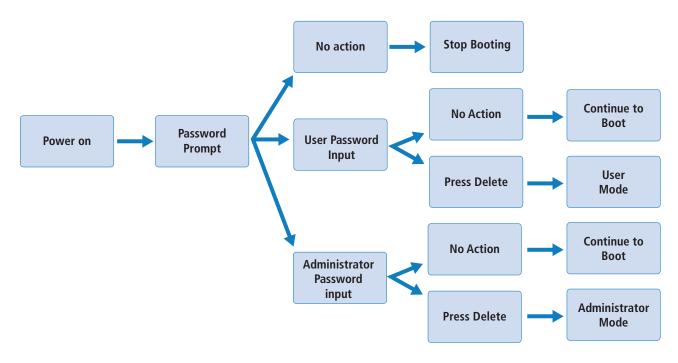


User Password Only





Both Administrator & User password



Summary

Only Administrator password is set: Only affects entry to the BIOS menu. Password required to enter BIOS.

Only User password is set: You need to enter the password when the system is powered on. Setting user password does not affect BIOS access.

Administrator password and user password are set at the same time:

You need to enter the password as soon as the system is powered on. The password can be Administrator or User. The password entered will affect the access level in the BIOS.