VT6102 and VT8231/VT8233/VT8235/VT8237 Integrated LAN

EEPROM Layout

Revision 1.03
Aug 27, 2003

VIA Networking Technologies, INC.

Copyright Notice:

VT6102, VT8231, VT8233, VT8235, VT8237 may only be used to identify a product of VIA Networking Technologies.

 is a registered trademark of VIA Technologies, Incorporated.

All trademarks are the properties of their respective owners.

Disclaimer Notice:

No license is granted, implied or otherwise, under any patent or patent rights of VIA Networking Technologies Inc. VIA Networking Technologies Inc. makes no warranties, implied or otherwise, in regard to this document and to the products described in this document. The information provided by this document is believed to be accurate and reliable as of the publication date of this document. However, VIA Networking Technologies Inc. assumes no responsibility for any errors in this document. Furthermore, VIA Networking Technologies Inc. assumes no responsibility for the use or misuse of the information in this document and for any patent infringements that may arise from the use of this document. The information and product specifications within this document are subject to change at any time, without notice and without obligation to notify any person of such change.

Offices:

USA Office:
940 Mission Court
Fremont, CA 94539
USA
Tel: (510) 683-3300
Fax: (510) 683-3301 -or- (510) 687-4654
Web: http://www.viatech.com

Taipei Office:
8th Floor, No. 533
Chung-Cheng Road, Hsin-Tien
Taipei, Taiwan ROC
Tel: (886-2) 2218-5452
Fax: (886-2) 2218-5453
Web: http://www.via.com.tw

Revision History

Document Release	Date	Revision	Initials
1.00	6/27/03	First draft for internal review.	Ryan
1.01	6/30/03	Use new document format.	Ryan
1.02	8/26/03	Update document template	Ryan
1.03	8/27/03	Modify EEPROM MII_PHY_AD default value to 1	Ryan

TABLE OF CONTENTS

1. EEPROM Layout for VT6102 and VT8231/VT8233/VT8235/VT8237 Integrated LAN

b15 b8	b7 b0	
ETHER_ID1	ETHER_ID0	00h
ETHER_ID3	ETHER_ID2	01h
ETHER_ID5	ETHER_ID4	02h
Reserved	MII_PHY_AD	03h
SUB_SID1	SUB_SID0	04h
SUB_VID1	SUB_VID0	05h
Reserved	Reserved	06h
Reserved	Reserved	07h
Data_SEL	PMCC	08h
AuxCurr	PMU_DATA_REG	09h
Reserved	Reserved	0Ah
Max_LAT	Min_GNT	0Bh
BCR1	BCR0	0Ch
CFG_B	CFG_A	0Dh
CFG_D	CFG_C	0Eh
CHKSUM	73h	0Fh

2. EEPROM Content

Word Offset	Bit	Default Value by EEPROM Utility	Name	Description
00h ~02h	[47:0]	000000000001h	ETHER_ID	Ethernet address. Default is an invalid value. Customers SHOULD replace it with a valid Ethernet address.
03h	[7:0]	01h	MII_PHY_AD	PHY address. Default is an invalid value. Customers SHOULD replace it with a correct PHY address according to PCB layout.
	[15:8]	00h	Reserved	Reserved. Recommend using the default value.
04h	[15:0]	0102h	SUB_SID	Subsystem ID. Default is an invalid value. Customers SHOULD replace it with their own Subsystem ID. Subsystem IDs are vendor specific.
05h	[15:0]	1106h	SUB_VID	Subsystem Vendor ID. Default is an invalid value. Customers SHOULD replace it with their own Subsystem Vendor ID. Subsystem Vendor IDs can be obtained from the PCI SIG.
06h	[15:0]	3065h	Reserved	Reserved. Recommend using the default value.
07h	[15:0]	1106h	Reserved	Reserved. Recommend using the default value.
08h	[7:0]	1Fh	PMCC	Power Management Capabilities Control Register.
	[15:8]	10h	Data_SEL	PM data select register.
09h	[7:0]	00h	PMU_DATA_REG	PM data register.
	[15:8]	00h	AuxCurr	3.3Vaux auxiliary current.
0Ah	[15:0]	0000h	Reserved	Reserved. Recommend using the default value.
0Bh	[7:0]	03h	Min_GNT	Minimum grant.
	[15:8]	08h	Max_LAT	Maximum latency.
0Ch	[7:0]	09h	BCR0	Bus Control Register 0.
	[15:8]	0Eh	BCR1	Bus Control Register 1.
0Dh	[7:0]	03h	CFG_A	Configuration register A.
	[15:8]	00h	CFG_B	Configuration re gister B.
0Eh	[7:0]	40h	CFG_C	Configuration register C.
	[15:8]	82h	CFG_D	Configuration register D.
0Fh	[7:0]	73h	PROG_STATUS	EEPROM programmed status.

				The value 73h means this EEPROM had been programmed.
	[15:8]	73h	CHKSUM	EEPROM checksum. Default value is 73h. The checksum is not used at current stage, any value here will be OK.

• BootROM size

CFG_C: Word Offset 0Eh[7:0] (for VT6102 only)

Bit	Default Value	Name	Description
[2:0]	0,0,0	BootROM_Size selected	0,0,0 = No BootROM 0,0,1 = 8K 0,1,0 = 16K 0,1,1 = 32K 1,X,X = 64K/FlashROM 8K,16K,32K are for legacy use. For VT6102, always use 1,X,X if there is a BootROM.

• Boot option

CFG_A: Word Offset 0Dh[7:0]

Bit	Default Value	Name	Description
[4:3]	0,0	Boot_Option	**When CFG_D[5] = 0:** 0,0 = Hook int 0x19 0,1 = Hook int 0x18 1,0 = Boot from Local Disk 1,1 = BEV (Boot Entry Vector) **When CFG_D[5] = 1:** 0,0 = Boot from Network Server 0,1 = Reserved 1,0 = Boot from Local Disk 1,1 = Reserved

• PXE/RPL boot select option

CFG_D: Word Offset 0Eh[15:8]

Bit	Default Value	Name	Description
[5]	0	PXERPL_Option	0 = PXE boot 1 = RPL boot

NOTE: Devices can work well by using most of the recommended default value. But the values from word offset 00h~05h should be taken care very much, or the device will NOT function.