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Apple Token Ring NB/c Card: Adapter Memory Map (3/95)

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TOPIC ----------

This article provides a complete address map of all adapter resources on the Apple Token Ring NB/c Card.

DISCUSSION ----------

The complete address map of all adapter resources is listed below. Note that there is a distinction between accessing Borg's registers as a byte versus a word. For example, a byte read of address C0004 clears the "NuBus slot interrupt", while a word read of the same location returns the high byte of the current timer value. This method of operation was used to decrease the number of address inputs required by the NuBus interface ASIC's, and is common to all boards based on these chips. Also note that some registers are at C0xxx, while others are at C8xxxx. Again, this was done to save address inputs.

Address	Function
FE000-FFFFF	Declaration ROM (8KB)
. F0000	Write - Place NuBus local bus in "latched reset"
E0000-EFFFF	Test ROM (off card, used by manufacturing)
D0000-EFFFF	NuBus access via second register set when enabled (Do not access)
. C800E	Read Byte - Set NMRQ master mode (Do not use)
. C800C	Read Byte - Clear NMRQ master mode (Do not use)
. C800A	Read Byte - Set Interrupt "Borg" request (Do not use)
. C8008	Read Byte - Clear Interrupt "Borg" request (Do not use)
. C0006	Read Byte - Set NuBus slot Interrupt request (Do not use)
. C0004	Read Byte - Clear NuBus slot Interrupt request (Do not use)
. C0002	Read Byte - Clear Timer Interrupt (Do not use)
. CXXXX	Read Byte - Clear "latched reset"
. C800F	R/W Byte - DTACK Control Register 1 (07)
. C800D	R/W Byte - DTACK Control Register 0

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.     C800B   R/W Byte - Programmable timer low byte
.     C8009   R/W Byte - Programmable timer high byte
.     C0007   R/W Byte - TMS chipset Addr.Ext.reg.D4-7->AD20-23  (Do not
.             use)
.     C0005   R/W Byte - TMS chipset Addr.Ext.reg.D0-7->AD24-31  (Do not
.             use)
.     C0003   R/W Byte - 68000 Addr. Ext. reg.  D4-7->AD20-23  (Do not
.             use)
.     C0001   R/W Byte - 68000 Addr. Ext. reg.  D0-7->AD24-31  (Do not
.             use)
.     C800E   Word - undefined  (Do not use)
.     C800C   Word - undefined  (Do not use)
.     C800A   Read Word - XDMA pins (D0-2) last TMx (D6-7)
.     C8008   R/W Word - XDMA/Address Decode control byte  (Set to 000A)
.     C0006   Read Word - Current low byte timer value in low byte
.     C0004   Read Word - Current high byte timer value in low byte
.     C0002   R/W Word - NuBus Interface Hardware Configuration reg.  (Set
.             to 0000)
.     C0000   Read Word - Interrupt and Slot ID register in low byte  (Do
.             not use)
A0000-BFFFF   NuBus (Unused, do not access)
93000-9FFFF   Reserved  (Do not use)
82000-92FFF   Shared RAM (64 KBytes)  (After writing "10" to RRR at 81E00)
81E80-81FFF   Reserved  (Do not use)
81E00-81E7F   Shared Memory Control Registers
60002-81DFF   Reserved  (Do not use)
.     60001   Borg's Control Register (LED, speed, module reset)
40040-5FFFF   Reserved  (Do not use)
40000-4003F   Burned-In Address PROM
00000-3FFFF   Unused
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