Tech Info Library

Token Ring NB/c Card: IBM Chipset Shared Memory Register (4/94)

Revised: 4/29/94
Security: Everyone

Token Ring NB/c Card: IBM Chipset Shared Memory Register (4/94)

==========

Article Created: 29 April 1994

TOPIC ----------

This article describes the IBM chipset shared memory register on the Apple Token Ring NB/c Card.

DISCUSSION ----------

The definitions and addresses of the Shared Memory Control Registers on the IBM module are shown below. Each register is 16 bits, with the upper byte being addressed by an even address (for example 81E00) and the lower byte being addressed by an odd address (for example 81E01). Either byte or word accesses may be used. Refer to section 6.6 of the "Token-Ring Mini-Card Technical Reference" for explanations of these registers. Chapter 7 of the "IBM Local Area Network Technical Reference" has additional information, though the Mini-Card specification supersedes it in the event of a discrepancy. Also note that the bit ordering is different between these two manuals; The former labels the most significant bit as bit "15", while the latter calls the same bit "0".

Address	Function
81E00	RRR - Shared RAM Relocation Register (set upper byte to "10")
81E02	WRBR - Write Region Base Address Register
81E04	WWOR - Write Window Open Register
81E06	WWCR - Write Window Close Register
81E08	UISR (ISRP) - User Interrupt Status Register (adapter-to-host)
81E0A	LISR (ISRA) - Adapter Interrupt Status Register (host-to-adapter)
81E0C	TCR - Timer Control Register
81E0E	TVR - Timer Value Register
81E10	UER - Reserved
81E12	SRR - Soft Reset Register
81E14	IVR - Interrupt Vector Register (not used)
81E16	JR - Jumper Register
81E18	SRPR - Shared RAM Page Register (set upper byte to "C0")

The above registers are duplicated 3 times, for a total of 4 banks of registers. The registers present in each bank are identical, however the operation performed changes based on the bank addressed. The following shows the address ranges of each bank, and the resulting operation.

Range	Operation
81E00-81E1F	Read or Write
81E20-81E3F	Read/Reset under mask (0)
81E40-81E5F	Read/Set under mask (1)
81E60-81E7F	Read only

Support Information Services

Tech Info Library Article Number:15247