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12 Inch PC Compatibility Card: Video RAM Explanation (6/96)

TOPIC -----

In reading the PC Compatibility Card User's Manual (for 12-inch card), it is explained on page XIII that 1 MB of video DRAM can be added to the card. Yet on page 195, the DRAM chip is described as being "256K \times 16". Further, the silk screening on the card and the part number of the chips that are soldered down suggest that the chips are indeed 256K.

How is it that we are getting the first 1 MB of video DRAM by using two chips that are 256K each? And how can 1 MB of video DRAM be added by using two 256K chips?

DISCUSSION -----

The DRAM used is 256K \times 16, this multiplies out to 4,096,000 bits. Each byte is made up of 8 bits, so 4,096,000 bits divided by 8 bits equals 512,000 bytes. Using two of these 256K \times 16 video DRAM chips adds up to 1,024,000 bytes (or 1 MB).

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