Tech Info Library

Centris 610 & 650: SCSI Chip/Datapath Questions (3/95)

Article Created: 18 October 1993
Article Reviewed/Updated: 7 March 1995

TOPIC --

I'm looking for information regarding SCSI support in the Centris 610 and 650.

1) What is the maximum throughput of the SCSI chip?

2) Will SCSI Manager 4.3 have any impact?

3) What is the width of the SCSI datapath?

The information in this article relative to the Centris 610 and Centris 650 is
also relevant to the Quadra 610 and Quadra 650.

DISCUSSION ---

Answer #1

The Centris 610 and Centris 650 systems use the 53C96 SCSI chip which can
transfer data up to 5+MB/second (SCSI-Fast). However, internal HDA's from Apple
(the 230MB, 500MB, and 1GB drives) do not support SCSI-Fast but are all capable
of transferring data up to 3+MB/second. Apple does NOT market our complete
systems as SCSI-Fast and we only support standard SCSI.

Using a 230MB, 500MB or 1GB drive in a Centris 610 or Centris 650 will give you
a 3+MB/second transfer, however, the overall rate is also dependant on the
driver software and any applications being used.

- Scenario 1: if the Centris SCSI chip supports a 5MB/sec transfer rate, and the
Apple drive does not, the overall configuration will run at the slowest variable
speed, which in this case is the drive, 3+MB/second.

- Scenario 2: if the Centris is running at 5MB/sec with a 3rd Party hard drive
installed (which supports SCSI-Fast), the transfer rate will be that of the
slowest variable. In this case it is both the CPU and the hard drive, which are
both rated at 5MB/second.

Answer #2

It is important to understand that any Centris 610 and 650 running with SCSI
Manager 4.3 will work the same, from a user's perspective, as the Centris 610
and 650 with the older version of the SCSI Manager. Both these Centris systems
do not have true DMA that SCSI Manager 4.3 takes advantage of, like in the
Centris 660AV.

Answer #3

The Centris 610 and Centris 650 SCSI Bus datapath is 8 bits. In addition,
SCSI-Fast is also 8 bits but at a higher transfer rate. SCSI-wide, however, can
transfer 16 bits. Both SCSI-Fast and SCSI-Wide are defined within the SCSI-2
specification.

Article Change History:
07 Mar 1995 - Changed answer #2 to make it more accurate.
28 Jul 1994 - Added reference to Quadra 610 and 650 to aid in searching.

Support Information Services
Copyright 1993-95, Apple Computer, Inc.

Keywords: <None>

===

This information is from the Apple Technical Information Library.

19960215 11:05:19.00

Tech Info Library Article Number: 13654