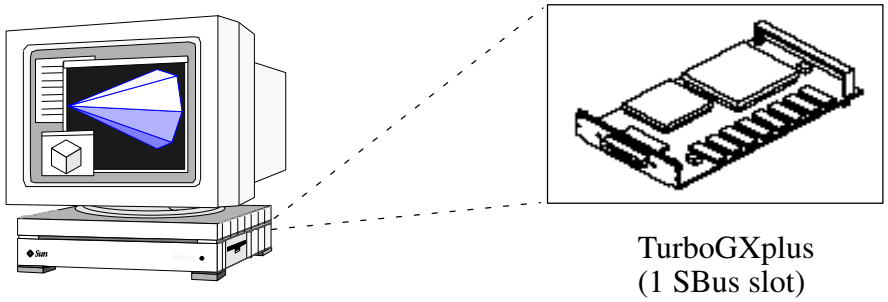

SPARCstation 10

TurboGXplus
(1 SBus slot)

SPARCstation™ 10TurboGXplus

Product Description

The SPARCstation™ 10TurboGXplus delivers the fastest 2-D vector performance in its class, more than 1 million 2-D vectors/sec. Using the new TurboGXplus graphics SBus frame buffer, the SPARCstation 10TurboGXplus accelerates 2-D/3-D vector rendering and windows. The SPARCstation 10TurboGXplus is ideal for ECAD, mid- to low-end MCAD, financial, CASE, and GIS applications.

Standard graphics features include 8-bit color frame buffer, hardware double buffering, support for a wide range of monitor resolutions (from 1024 x 768 to 1600 x 1280), and a small form factor. The TurboGXplus SBus card is a single-wide SBus card, leaving three slots available for other I/O cards.

The SPARCstation 10GX system continues to be the primary graphics workstation for cost-sensitive applications. Available standard on the SPARCstation 10 and SPARCstation LX systems, GX graphics is an economical solution for applications that do not require high graphics performance.

Those customers seeking faster vector rendering, faster windowing, double buffering, or support for high-resolution monitors should choose the SPARCstation 10TurboGXplus.

New Technology

The TurboGXplus SBus card uses an improved version of the popular GX ASIC. The new ASIC has a 100 MFLOPS graphics RISC processor and frame buffer controller that accelerates Blit, FONT, and DRAW commands, allowing the main CPU to perform other functions.

The TurboGXplus ASIC features designed to improve graphics and windows performance include, a multivector mode that renders two vectors simultaneously, an 8-stage font FIFO that accelerates text performance, and a new BLT algorithm that improves windowing performance. The TurboGXplus ASIC uses state-of-the-art 0.6 micron technology.

Target Applications

Applications in the EDA and GIS markets run well on a SPARCstation 10TurboGXplus because of its exceptional 2-D vector performance. Accelerated 3-D vectors and double buffering allow the SPARCstation 10TurboGXplus to provide fast, smooth animation of wireframe objects in MCAD applications. Any application that requires fast windowing performance will benefit from SPARCstation 10TurboGXplus, including financial, EPubs, and CASE. And the federal requirement for 1280 x 1024 monitor resolutions is also supported with SPARCstation 10TurboGXplus's ability to work with high-resolution monitors.

Features	Benefits
Accelerated wireframe graphics	Renders wireframe objects quickly
Accelerated copy, text, and scrolling	Fast window performance is standard on SPARCstation 10TurboGXplus
8-bit color/grayscale frame buffer	Supports 256 colors
Double buffer	Smoothly animates wireframe objects
Support for multiple resolutions	Handles a wide range of monitor resolutions
Single-wide SBus card	Leaves three SBus slots available in SPARCstation 10 for other I/O cards Supports up to four monitors in SPARCstation 10
Hardware and software compatible with GX/GXplus Solaris® 1.x and 2.x compatible	Works with all applications that currently run on GX/GXplus

Specifications for SPARCstation 10TurboGXplus

Performance

2-D vectors/sec.	1,160,000
3–D vectors/sec.	440,000
GPC: pc_board	35.6 (optimal) 31.1 (literal)
GPC: sys_chassis	29.7 (optimal) 17.6 (literal)

Memory

Total memory	4 MB
Buffering	8-bit double buffer

SBus

Number of slots	1
Address bus	24 bits
Data bus	32 bits

Standards compliance

DOC Class B
VCCI Class 2
VDE Class B
FCC Part 15, Subpart B, Class B
BS6527, Class B
AS 3548, Class B
EN 55022, Class B
CISPR, Class B

Software

Operating system	Solaris 1.x or 2.x
APIs	XGL™, XIL™, Xlib, Direct Xlib™, PEX, PEXlib, SunPHIGS™

Monitor resolutions supported

1024 x 768 @ 60 Hz, 70Hz, 76 Hz
1152 x 900 @ 66 Hz or 76 Hz
1280 x 1024 @ 67 Hz or 76 Hz
1600 x 1280 @ 76 Hz

Monitor connector

13W3

Physical dimensions

5.77 in. x 3.3 in.
83.3mm x 146.7mm

Power requirements

Typical	800 mA, +5 volts, 4 watts
Maximum	2 Amps, +5.25 volts, 10 watts

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