



# Niagara 2320

eCommerce Processor Board &  
Two Gigabit Ethernet Copper Ports, 1000 Base – T

Niagara 2320 is a 64 bit, 66 MHz PCI add on board based on two Broadcom BCM5821 eCommerce processors and Intel dual Giga bit Ethernet controller

Niagara 2320 is designed for software applications that demand performance, solid reliability and small form.

Niagara 2320 is designed to fit in any 32-bit or 64 bit PCI slot.  
Small form factor to fit in ATX chassis or low profile PCs.

Niagara 2320 is designed for high volume production. Interface Masters can develop new hardware per customer requirement in a short time.

Ecommerce Features	
eCommerce Processors	Two Broadcom® BCM5821 eCommerce Processors.
Throughput <sup>1</sup>	<ul style="list-style-type: none"> <li>• 4000 1024-bit RSA transactions per second</li> <li>• 3000 Diffie-Hellman transactions per second</li> <li>• 470 Mbps Ipsec (3DES, HMAC-SHA-1)</li> <li>• 600 Mbps ARC4</li> </ul>
Secure Socket Layer (SSL) v 3.0	512-bit, 768-bit, 1024-bit, 1536-bit, and 2048-bit RSA public key and private key processing.
Transport Layer Security (TLS)	512-bit, 768-bit, 1024-bit, 1536-bit, and 2048-bit RSA public key and private key processing
IETF IPsec and FIPS Compliant Crypto	3DES CBC encryption / decryption and HMAC-MD5/SHA1 authentication.
IETF IKE	768-bit, 1024-bit, 1536-bit, and 2048-bit Dif-fie-Hellman key generations for IKE handshake. On-chip true random number generator for private key generation.
Ethernet Ports Features	
Ethernet Controller	Intel 82546
Number of Ethernet Ports	Two integrated PHYs for 10/100/1000 Mb/s full- and half-duplex operation
Ethernet Protocols	IEEE 802.3ab, 802.3u, 802.3x compliant
Host offloading options	TCP/IP/UDP checksum, TCP segmentation and advanced packet filtering
General Features	
PCI bus	64 bit, 66 MHz.
Bracket	Choice of two brackets for standard PCI and Low profile PCI
Board Physical Form Factor	64 bit Universal PCI, 2.5" x 6.5"
Software	Free BSD 4.2, Linux, Windows 2000, VxWorks

<sup>1</sup> Per eCommerce processor

<http://www.interfacemasters.com>  
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Information Subject to change without notice

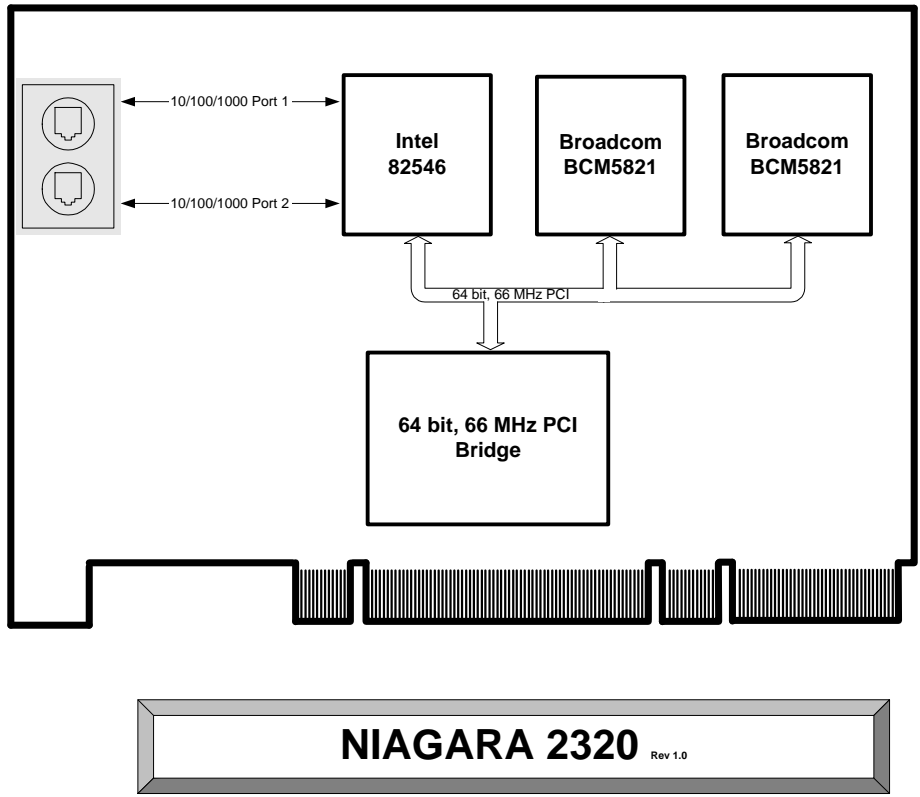


Figure 1 Block Diagram

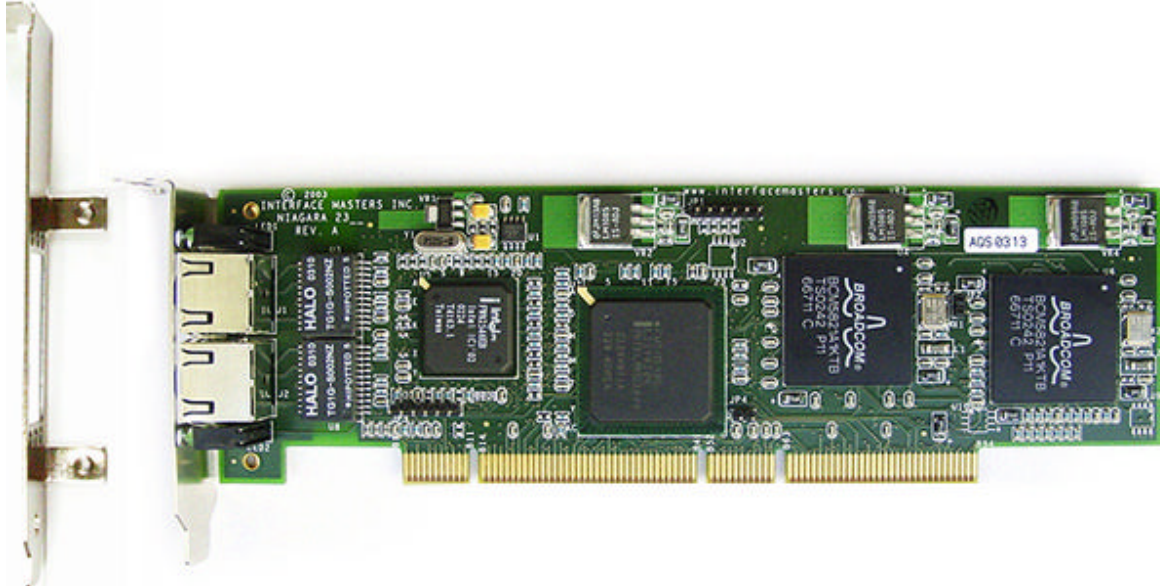


Figure 2 Picture