PRODUCT BRIEF
Intel® QuickAssist Adapter 8950
QuickAssist Technology

Intel® QuickAssist Adapter 8950

Intel® QuickAssist Adapter supporting Intel® QuickAssist Technology provides Crypto-Acceleration and Compression Acceleration

Key Features

- Intel® QuickAssist Technology Services supporting IPsec, SSL Acceleration and Compression services
- Intel® DH8955 controller for scalable performance
- Support for SR-IOV
- Low profile, PCIe compliant card
- PCI Express* Gen 3 (8GT/s)

Product Overview

The Intel® QuickAssist Adapter 8950 provides customers with a scalable, flexible and extendable way to offer QuickAssist crypto acceleration and Compression capabilities to their existing product lines. The Intel 8950 features the Intel® Communication Chipset 8955 controller supporting Intel QuickAssist Technology for improved cryptographic and compression performance. Intel® QuickAssist Technology provides hardware acceleration to assist with the performance demands of securing and routing Internet traffic and other workloads such as compression and wireless 3G/4G LTE algorithm offload, thereby reserving processor cycles for application and control processing.

The Intel® QuickAssist Adapter 8950 provides up to 50 Gbps for virtual private networks (VPNs) and helps storage and network optimization applications better handle compression and decompression tasks. Kasumi and Snow 3G functions within Intel QuickAssist Technology help with 3G and 4G LTE mobile gateway and infrastructure workloads.

The Intel® QuickAssist Adapter 8950 provides flexible performance based on the requirements of the platform—up to 50 Gbps of crypto acceleration or up to 24 Gbps of compression in a PCIe compliant, low-profile form factor.

Intel® QuickAssist Adapter 8950

Features	Benefits
Intel® QuickAssist Technology	▪ Provides hardware acceleration services for efficient cryptographic and compression performance. ▪ Symmetric cryptography functions include: Cipher operations (AES, DES, 3DES, ARC4); Wireless (Kasumi, Snow 3G); Hash/Authenticate operations (SHA-1, MD5, SHA-2 [SHA-224, SHA-256, SHA-384, SHA-512]; Authentication (HMAC, AES-XCBC, AES-CCM); Random number generation. ▪ Public Key functions include: RSA operation; Diffie-Hellman operation; Digital signature standard operation; Key derivation operation; Elliptic curve cryptography (ECDSA and ECDH) Random number generation and price number testing. ▪ Compression/Decompression include: DEFLATE (Lempel-Ziv 77); LZS (Lempel-Ziv-Stac).
Intel® QuickAssist Technology software support	▪ Provides support for multiple operating systems: Linux*, KVM, open source framework patches, Yocto Project* BSP's and WindRiver* Linux BSPs
PCI-SI SR-IOV Implementation (32 virtual functions) for Intel® QuickAssist Technology services	▪ Implementation of I/O Virtualization. The physical configuration of each device is divided into multiple virtual devices. Each virtual device is assigned to an individual virtual machine directly bypassing the virtual switch in the Hypervisor, resulting in near-native performance.
Compatible with x8 standard and low-profile PCI Express* slots	▪ Enables Intel® QuickAssist Technology in standard and low-profile systems without the need for proprietary form-factor solutions
RoHS	▪ Complies with the European Union directive 2002/95/EC to reduce the use of hazardous materials

Product Data	Intel® QuickAssist Adapter
Product Code	8950-SCCP
Order Code	IQA89501G1P5
Bulk Crypto	50 Gbps
RSA 1024	190K OPS (Operations per Second)
RSA 2048	35K (Operations per Second)
Compression	24 Gbps
Maximum Simultaneous Throughput	50 Gbps
SR-IOV Virtual Functions	1 Physical/32 Virtual
Connection	Low Profile PCIE Gen 3 X8
Operating Temperature (Ambient)	0° to 55° C (32° F to 131°F)
Storage Temperature (Ambient)	-40° to 70° C (-40°F to 158° F)
Power (Maximum)	~40W
Airflow	375 LFM
Storage Humidity	90% non-condensing relative humidity at 35° C
Dimensions (H x L)	2.7" x 6.6"
RoHS Compliant	Yes
Safety and Regulatory	FCC A, UL, CE, VCCI, BSMI, CTICK, KCC, CSA
Intel Backing	Limited Lifetime Warranty, 90-day, money-back guarantee (U.S. and Canada)

Environmental	
Operating temperature	0°C to 50°C (32°F to 131°F)

Operating System (OS) Software Support

▪ Fedora 16 Linux (Linux Porting Guide Available)* ▪ KVM* ▪ Yocto Project* ▪ WindRiver* Linux

Companion Products

Consider these Intel® products in your server and network planning:

- Intel® Ethernet Server Adapter X520 Series
  - —10 GbE SFP+ PCIe v2.0 (5 GT/s) performance
  - —Copper or fiber-optic network connectivity; up to two ports per card
- Intel® Xeon® Processors
- Intel® Server Boards

Intel Backing

- Limited lifetime warranty
- 90-day, money-back guarantee (U.S. and Canada)

For Product Information

To see the full line of Intel Network Adapters for PCI Express*, visit *www.intel.com/go/ethernet*.

To speak to a customer service representative regarding Intel products, please call 1-800-538-3373 (U.S. and Canada) or visit *support.intel.com/support/go/network/contact.htm* for the telephone number in your area.

Customer Support

Intel® Customer Support Services offers a broad selection of programs including phone support and warranty service. For more information, contact us at *support.intel.com/support/go/network/adapter/home.htm*. Service and availability may vary by country.

INFORMATION IN THIS DOCUMENT IS PROVIDED IN CONNECTION WITH INTEL PRODUCTS. NO LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE, TO ANY INTELLECTUAL PROPERTY RIGHTS IS GRANTED BY THIS DOCUMENT. EXCEPT AS PROVIDED IN INTEL'S TERMS AND CONDITIONS OF SALE FOR SUCH PRODUCTS, INTEL ASSUMES NO LIABILITY WHATSOEVER AND INTEL DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY, RELATING TO SALE AND/OR USE OF INTEL PRODUCTS INCLUDING LIABILITY OR WARRANTIES RELATING TO FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT.

A "Mission Critical Application" is any application in which failure of the Intel Product could result, directly or indirectly, in personal injury or death. SHOULD YOU PURCHASE OR USE INTEL'S PRODUCTS FOR ANY SUCH MIS- SION CRITICAL APPLICATION, YOU SHALL INDEMNIFY AND HOLD INTEL AND ITS SUBSIDIARIES, SUBCONTRACTORS AND AFFILIATES, AND THE DIRECTORS, OFFICERS, AND EMPLOYEES OF EACH, HARMLESS AGAINST ALL CLAIMS COSTS, DAMAGES, AND EXPENSES AND REASONABLE ATTORNEYS' FEES ARISING OUT OF, DIRECTLY OR INDIRECTLY, ANY CLAIM OF PRODUCT LIABILITY, PERSONAL INJURY, OR DEATH ARISING IN ANY WAY OUT OF SUCH MISSION CRITICAL APPLICATION, WHETHER OR NOT INTEL OR ITS SUBCONTRACTOR WAS NEGLIGENT IN THE DESIGN, MANUFACTURE, OR WARNING OF THE INTEL PRODUCT OR ANY OF ITS PARTS.

Intel may make changes to specifications and product descriptions at any time, without notice. Designers must not rely on the absence or characteristics of any features or instructions marked "reserved" or "undefined". Intel reserves these for future definition and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to them. The information here is subject to change without notice. Do not finalize a design with this information.

The products described in this document may contain design defects or errors known as errata which may cause the product to deviate from published specifications. Current characterized errata are available on request.

Contact your local Intel sales office or your distributor to obtain the latest specifications and before placing your product order.

Copies of documents which have an order number and are referenced in this document, or other Intel literature, may be obtained by calling 1-800-548-4725, or go to: *http://www.intel.com/design/literature.htm*

*Intel, the Intel logo, and Xeon are trademarks of Intel Corporation in the U.S. and other countries. Other names and brands may be claimed as the property of others. Copyright ©2015 Intel Corporation. All rights reserved.

Printed in USA PDF/CEW/DVA Please Recycle ♻ 330743-004US

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Intel:
IQA89501G1P5