

Quad Port 10G SFP+

Smart NIC Based on Freescale's T4240

## Interface Masters

TECHNOLOGIES

Innovative Network Solutions

### OVERVIEW

Sierra 732 is a quad port, 10G SFP+ smart NIC based on Freescale's T4240 flexible technology. It comes in PCI-e, Gen 2.0 form factor. This sophisticated NIC enables main CPU offload for essential network packet processing. The system comes with a comprehensive Linux development environment.

Sierra 732 incorporates hardware and software building blocks for developing intelligent networking platforms that support the growing demand for TCP offload, packet classification, Deep Packet Inspection (DPI), security: SSL offload, and IPsec offload, time stamping, protocol classification, and virtualization.



Block Diagram of Sierra 732



Sierra 732 ISO View

### PRODUCT FEATURES

- Freescale T4240, 12 core, 24 threads CPU based on PPC architecture
- Up to 12GB of DDR3 memory
- Network interface quad 10Gb SFP+ (SR, LR)
- Support NOR and NAND Flash, SATA and SD Memory
- RJ45 Management and console port
- Offload C293 encryption acceleration
- Linux BSP/SDK + PCI-e driver support
- Provided with Linux SDK and drivers
- Targeting CPU offload for:
  - Packet classification and load balancing
  - Protocol classification
  - TCP/IP offload and termination
  - SSL offload and termination
  - Time stamping
  - Packet slicing
  - IO virtualization

### The Freescale T4240 provides support for:

- 3 x 64-bit DDR3 SDRAM controllers
- NOR/NAND boot flash interface
- 2 x DUART
- 2 x MDIO port
- 4 x I2C
- 2 x USB 2.0 port (with PHY)
- 32 x SERDES (SGMII, PCI-e, XFI, SATA)
- SDHC
- JTAG
- EEPROM
- Strapping pins

ENVIRONMENTAL	
Operating Temperature	0° to 45 °C
Operating Humidity	5 to 85%, non-condensing
Maximum Power Consumption	71.76 Watts

ORDERING INFORMATION	
Part Number	Description
Sierra 732	Quad port 10G SFP+ smart NIC based on Freescale's T4240

DIMENSIONS		
	Inches	Millimeter
Length	12.28	311.91
Height	4.38	111.25

## CUSTOMIZATION SERVICES

Hardware, Firmware, Linux O/S and application code development services available.



## ABOUT INTERFACE MASTERS TECHNOLOGIES, INC.

Interface Masters Technologies is a long term Cavium partner and leading provider of high speed networking solutions focused on Gigabit, 10 Gigabit, 40 Gigabit and 100 Gigabit Ethernet networking solutions. For over 20 years, Interface Masters Technologies has been providing innovative networking solutions with customization services to OEMs, large enterprises and sophisticated end users. Interface Masters Technologies provides Ethernet switches, appliances, server adapter cards with high port density, networking offload and bypass functionality. Company headquarters are located in San Jose, CA with satellite offices in Hong Kong and Europe.