

# Sierra 738

Cavium Octeon TX on COM Express

## Product Brief

### APPLICATIONS

- General-purpose embedded computing systems in industrial, military and aerospace markets
- Control-plane applications in networking, telecom/datacom and wireless infrastructure

### PRODUCT FEATURES

#### Form Factor

- COM Express Compact, Type 7  
95mm x 95 mm (3.74in x 3.74in)

#### CPU

- Cavium Octeon TX CN8120  
(2 Core at 1,200 / 1,500 / 1,800 / 2,000MHz)
- Cavium Octeon TX CN8130  
(4 Core at 1,200 / 1,500 / 1,800 / 2,000MHz)

#### DRAM

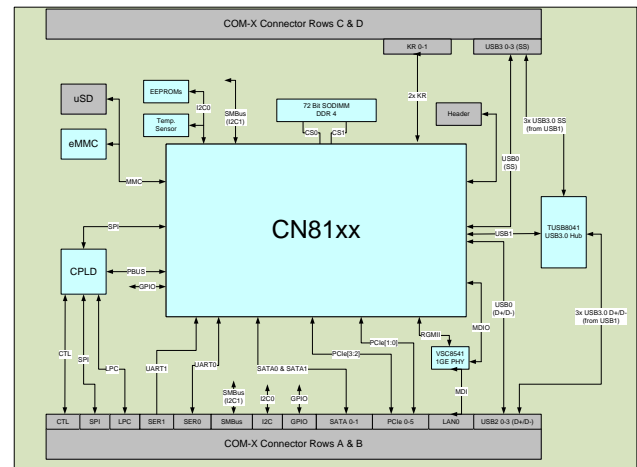
- 36 bit with ECC, up to 8 GB DDR III on board

#### None Volatile Memory

- SPI NOR EEPROM
- eMMC (32 GB)
- Micro SD

#### I/O Interfaces

- 4 x PCIe x1
- 1 x Ethernet 10/100/1000
- 2 x Ethernet 10G
- 4 x USB 3.0
- 2 x SATA III
- LPC bus
- SPI
- I<sup>2</sup>C bus
- SM bus
- 2x UART
- 8 x GPIO 8 x GPIO



Block Diagram of Sierra 738

#### Functions

- Real time clock
- Temperature sensor

#### Operating System

- Cavium SDK

#### Power Consumption

- See User's Guide for full details

ENVIRONMENTAL		
Temperature	Operating	0° to 45 °C
	Storage	-40° to +85° C
Humidity	Operating	10 to 90% relative humidity non-condensing
	Storage	5 to 95% relative humidity non-condensing

ACCESSORIES	
Part Number	Description
Sierra 13166	Carrier board for Sierra 738

## CUSTOMIZATION SERVICES

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



ORDERING INFORMATION	
Part Number	Description
Sierra 738-CN8120-1,200	Sierra 738 with Octeon TX CN8120 at 1,200 MHz
Sierra 738-CN8120-1,500	Sierra 738 with Octeon TX CN8120 at 1,500 MHz
Sierra 738-CN8120-1,800	Sierra 738 with Octeon TX CN8120 at 1,800 MHz
Sierra 738-CN8120-2,000	Sierra 738 with Octeon TX CN8120 at 2,000 MHz
Sierra 738-CN8130-1,200	Sierra 738 with Octeon TX CN8130 at 1,200 MHz
Sierra 738-CN8130-1,500	Sierra 738 with Octeon TX CN8130 at 1,500 MHz
Sierra 738-CN8130-1,800	Sierra 738 with Octeon TX CN8130 at 1,800 MHz
Sierra 738-CN8130-2,000	Sierra 738 with Octeon TX CN8130 at 2,000 MHz

## 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.