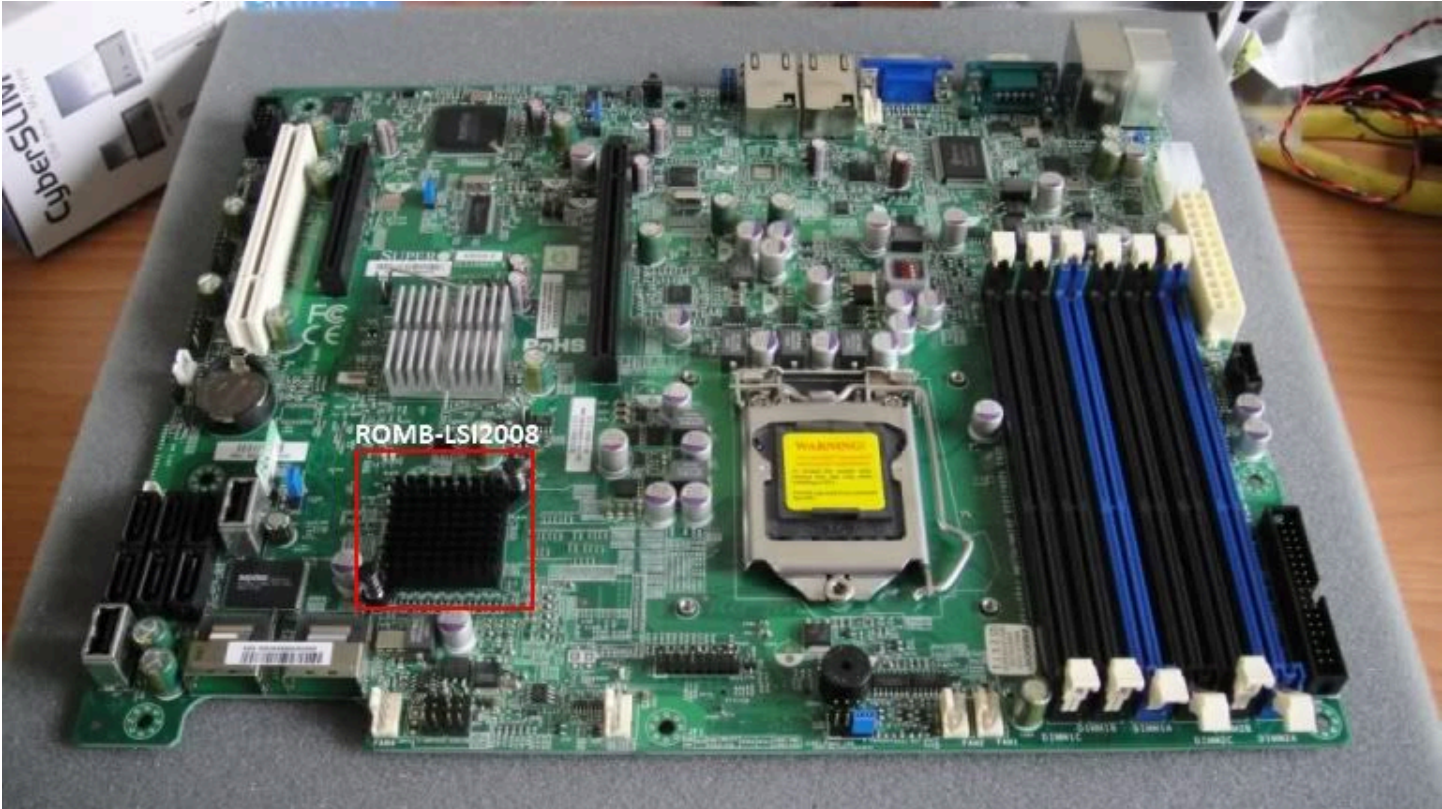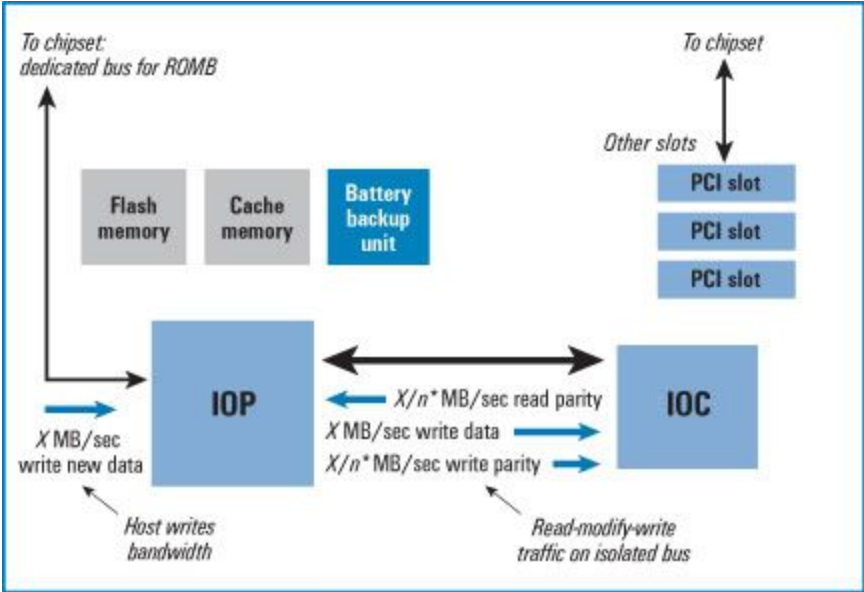**?RAID HBA/ZCR???????**

ROMB???RAID on Motherboard????????(Motherboard)????RAID????????RAID HBA?????????????????????
layout?????????????????????????RAID HBA????????Supermicro X8SIE-F??LSI MegaRAID 9240-8i???????????
Supermicro X8SI6-F?Supermicro AOC-SAS2-RAID5-KEY?????????????ROMB??????????????????????????UP
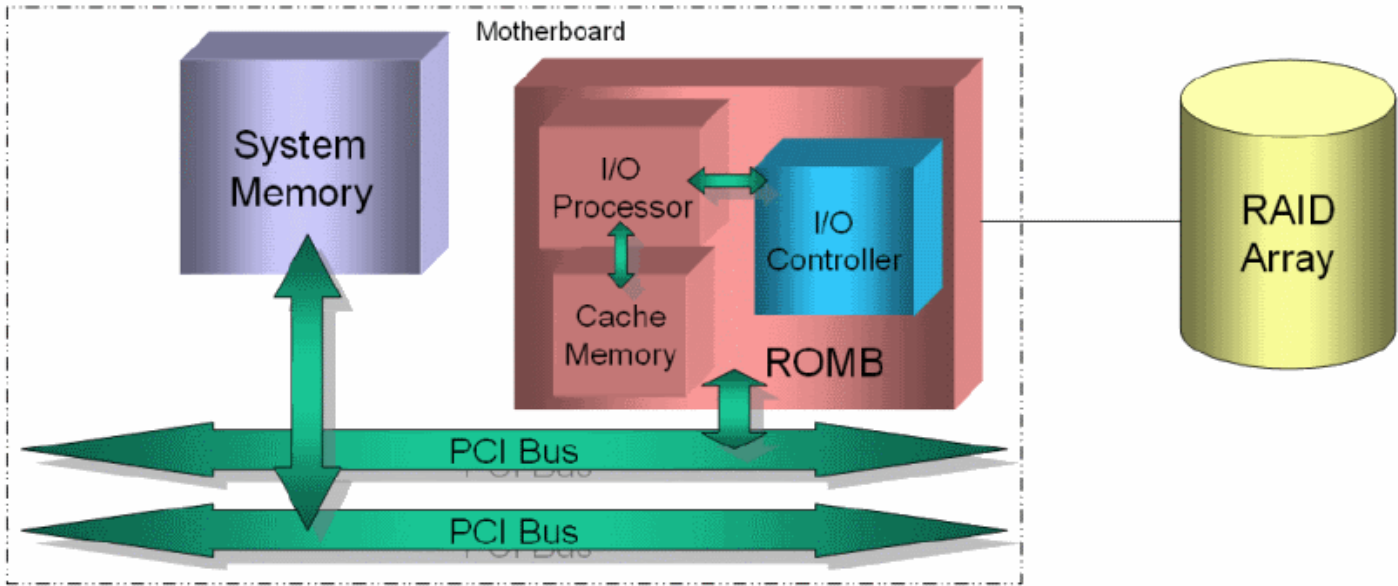Xeon????-X8SI6-F??????

?????????????????????????????????RAID????????????????????????(Firmware)???????????????????(The primary disadvantage of ROMB is the lack of hardware upgradeability, although features and performance can generally be upgraded in firmware.)????ROMB???????????????????????????????????????ROMB??????

To chipset: dedicated bus for ROMB

To chipset

Other slots

PCI slot
PCI slot
PCI slot

Flash memory | Cache memory | Battery backup unit

IOP

IOC

X/n^* MB/sec read parity
X MB/sec write data
X/n^* MB/sec write parity

X MB/sec write new data

Host writes bandwidth

Read-modify-write traffic on isolated bus

Motherboard top view
(several motherboard components not shown)

$^*n$ = number of disks in RAID array

????????????????????????RAID(RAID implementation)???????????????????????????????Broadcom?ROMB????????
??

Motherboard

System Memory

I/O Processor

I/O Controller

Cache Memory

ROMB

RAID Array

PCI Bus

PCI Bus

?????????????(South Bridge)??IOC???RAID Option ROM???NVRAM?BIOS??RAID??????Intel?ICHxR????
-Hardware-Assisted Software RAID???????ROMB??????ROMB?????????Hardware RAID??????????????RAID?
???????ROMB?