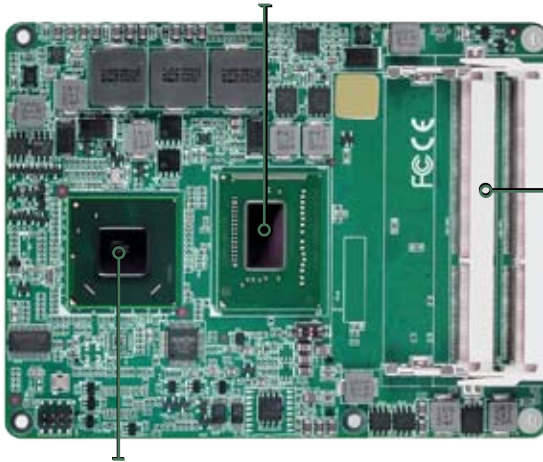


# VES-270

## COM Express® R2.0 Type 6 Module with Intel® Core™ i7 / i3 CPU and QM77 Chipset

Intel Core i7 / i3 (FCBGA 1023) Processors



Two 204-pin DDR3 SODIMM Up to 16GB DDR3 1333 / 1600 DRAM

Intel QM77 Chipset

## Overview

The VES-270 is a COM Express® computer-on-module featuring high performance high-performance Intel® Core™ i7/i3 processor with QM77 chipset. Based on COM Express R2.0 Type 6 specification, this CPU module is designed as a flexible evaluation board to reduce development time, minimize cost and protect core competency.

## Features

- **Intel® Core™ i7 / i3 (FCBGA1023) Processors**
- **Intel® QM77 Chipset**
- **Two 204-pin DDR3 SODIMM Up to 16GB DDR3 1333 / 1600 SDRAM**
- **Support CRT, LVDS, Display Port, HDMI, DVI**
- **Intel® High Definition Audio**
- **Intel® 82579LM (PHY) Gigabit Ethernet**
- **4 SATA (6.0GB/s x 2 & 3.0GB/s x 2), 8 USB 2.0, 4 USB 3.0, 8-bit GPIO**
- **+9 ~ +19 V Wide Range Power Input**
- **Type 6 Pin-out**
- **Optional TPM support**

**Lanner**



# Preliminary Specifications

System	
CPU	Intel® Core™ i7 / i3 (FCBGA 1023) Processors
BIOS	AMI 64Mbit SPI BIOS
System Chipset	Intel® QM77 Express Chipset
System Memory	Two 204-pin DDR3 SODIMM Sockets, Supports Up to 16GB DDR3 1333/ 1600 SDRAM
Expansion	7 PCIe x1, 1 PCIe x16
I/O	
MIO	4 SATA ports, SMBus
USB	8 x USB 2.0, 4 x USB 3.0
DIO	4-bit GPI and 4-bit GPO
Display	
Chipset	Intel® QM77 Chipset Integrated
Memory	DVMT 5.0 Up to 512 MB
Resolution	CRT Mode: 2048 x 1536 LCD / Simultaneous Mode: 1920 x 1200
Display Supported	HDMI, DVI, Display Port
LVDS Interface	Dual-channel 18/ 24-bit LVDS
Audio Interface	
Chipset	Intel® QM77 Integrated
Interface	Intel® High Definition Audio
Ethernet	
LAN Chip	Intel® 82579LM (PHY) Gigabit Ethernet
Ethernet Interface	10/ 100/ 1000 Base-Tx Gigabit Ethernet Compatible
Mechanical & Environmental	
Power Requirement	+9 ~ +19 V
ACPI	Single Power ATX Support S0, S3, S4, S5, ACPI 3.0 Compliant
Power Type	AT / ATX
Operating Temperature	0 ~ 60°C (32 ~ 140°F)
Storage Temperature	-40 ~ 75°C (-40 ~ 167°F)
Operating Humidity	0% ~ 90% Relative Humidity, Non-condensing
Size (L x W)	125 mm x 95 mm (5" x 3.7")
Weight	0.2 kg (0.44 lbs)

## Ordering Information

<b>VES-270-7A</b>	COM Express® R2.0 Type 6 Module with Intel® Core™ i7-3517UE CPU and QM77 Chipset
<b>VES-270-3A</b>	COM Express® R2.0 Type 6 Module with Intel® Core™ i3-3120ME CPU and QM77 Chipset