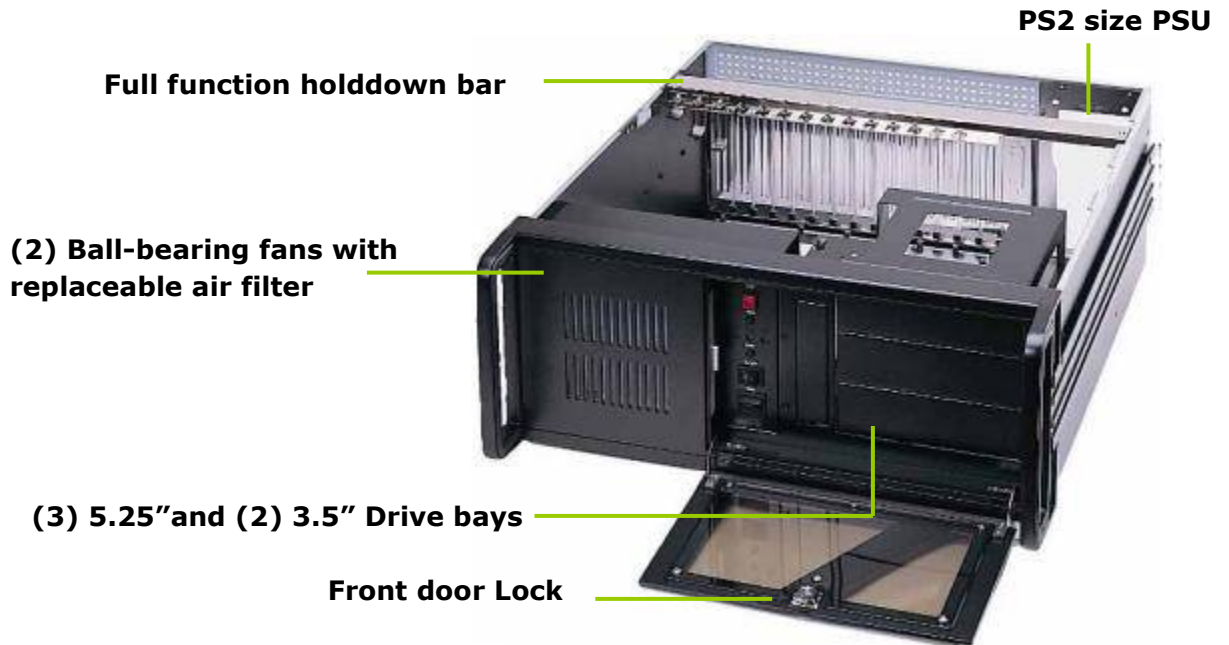


LBRCK4U-37405M2-376513

**4U Rackmount Chassis with 5 drive bays,
for ATX/EATX motherboard or 14-slot backplane,
supports PS2 Power supply**



Introduction

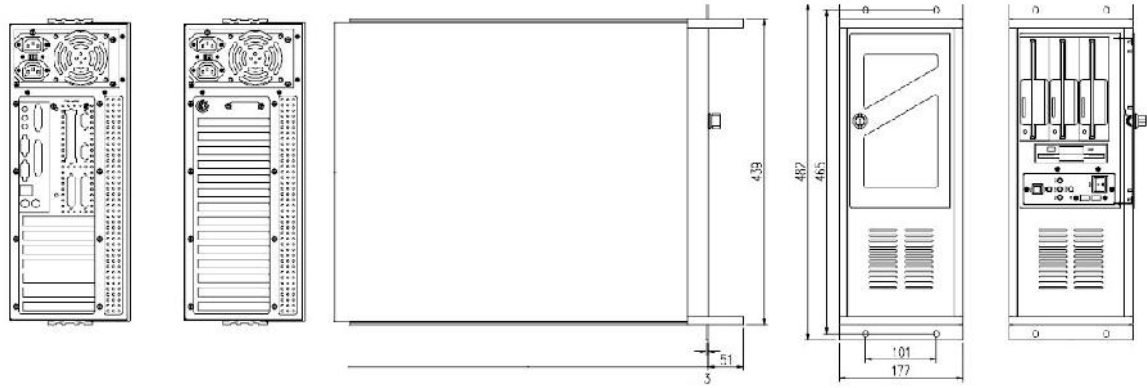
The 4U Rackmount Chassis provides a cost effective solution for a variety of Industrial applications. It is easily configurable to support either an ATX Motherboard or a 14-slot PICMG backplane by simply changing the rear panel. Can support up to five shock resistant drives (3-5.25"/1-FDD/1-HDD) and a retaining bar is included to hold expansion cards in place for those applications which encounter a high level of vibration. Both PS2 Single or Mini-redundant Power Supplies are supported for any applications with unique power requirements.

Features

- 19" 4U Industrial rackmount chassis
- Heavy-duty steel, Black
- Support ATX motherboard, or 14-slot backplane
- Support for Extended ATX motherboard with extended chassis depth of 515mm
- (3) 5.25" and (1) external drive bays, (1) 3.5" internal drive bay
- (1) 120mm and (1) 80mm ball-bearing fans
- Lockable front door
- Anti vibration card retention
- Supports PS2 single output, or Mini redundant PSU
- Optional 20-inch ball-bearing slide rail

LBRCK4U-37405M2-376513

Mechanical Drawing



Construction

- Heavy-duty steel, SECC 1.2t

Color

- Black / Beige

Board support

- ATX motherboard or backplane
- Extended ATX motherboard with extended chassis depth

Drive bays

- (3) 5.25" & (1) 3.5" ext. drive bays, and (1) 3.5" internal drive bay

Expansion

- (7) expansion slots for LBRCK4U-37405M
- (14) expansion slots for LBRCK4U-37405B

Power Supply

- PS2 or Mini redundant Power supply

Cooling System

- (1) 12cm and (1) 8cm ball-bearing fans with replaceable Air filter

I/O Port

- (2) USB 2.0
- Optional (1) AT Keyboard in front panel

Switch

- Power On/Off, Reset and K/B Lock switch

Indicator

- Power On/Off LED and HDD LED

Operating Temperature

- 0~55°C

Weight (NW / GW)

- 10.8kg / 14kg

Dimension (W x D x H)

- 439 x 450 x 177mm

LBRCK4U-37405M2-376513

ATX Industrial Motherboard with LGA1151 Socket 6th/7th Gen. Intel® Core™ i7/i5/i3, Pentium® & Celeron® Processor, Intel® Q170, DDR4, USB 3.0, SATA 3.0, Dual LANs, VGA/DP/HDMI and mSATA



Features

- Supports Intel 6th/7th Gen. Core i3/i5/i7 CPU
- Dual Gigabit Ethernet supported
- (5) SATA-600 with RAID 0, 1, 5, 10
- Watchdog & Hardware Monitor function
- HDMI/Display Port/VGA multiple outputs

CPU

- LGA1151 socket supports 6th/7th Gen. Intel® Core™ i7/i5/i3, Pentium® & Celeron® processor

Chipset

- Intel® Q170 PCH

System Memory

- (4) 288-pin DIMM DDR4-2133 up to 64 GB

Display Interface

- Intel® HD Graphics 530/510
- (1) HDMI, (1) VGA and (1) DisplayPort

Ethernet

- LAN1 with 10/100/1000 Mbps supports Wake-on-LAN, PXE Boot ROM, iAMT with Intel® i219LM
- LAN2 with 10/100/1000 Mbps supports Wake-on-LAN, PXE Boot ROM with Intel® i210

Audio

- Built-in HD Audio Codec with Realtek ALC662

I/O Interface

- (4) RS232 & (2) RS232/422/485 serial ports
- (4) USB 3.0 and (8) USB 2.0 ports
- (1) 8-bit digital I/O interface
- (5) SATA-600 support RAID 0/1/5/10
- (1) mSATA socket
- (1) SMBus

Onboard Expansion

- (1) PCIe x16
- (2) PCIe x4
- (4) PCI slots
- (1) PCIe Mini Card
- (1) SIM socket

Environment Spec

- 0 ~ 60°C operation temperature
- Operation humidity under 10% ~ 95%

Dimension

- 305mm x 244mm

LBRCK4U-37405M2-376513

General Specification	
Form Factor	ATX Motherboard
CPU	Intel® 6 th Gen. i3/i5/i7/Pentium® processor Package type: FCLGA 1151
Memory	(4) DDR4 2133/1866 DIMM up to 64GB Unbuffered, none-ECC memory supported only
Chipset	Intel® Q170 Express Chipset
BIOS	AMI BIOS via SPI interface with socket
Watchdog Timer	System reset programmable watchdog timer with 1~255min.
Serial ATA	Intel® Q170 PCH built-in (5) Serial ATAIII interface up to 600MB/s Support RAID 0, 1, 5, 10 and Intel Rapid Storage Technology. (1) mSATA socket.

Multiple I/O Ports	
Chipset	Intel® Q170 with I/O Controller
Serial Port	(4) RS-232 and (2) RS232/422/485 serial ports
GPIO	One 10-pin Digital I/O connector with 8-bit programmable I/O Interface
Keyboard/Mouse	External PS/2 keyboard and mouse ports on rear I/O panel
USB	(8) USB 2.0 & (4) USB 3.0 ports
Smart Fan	One CPU fan and one chassis fan connectors for fan speed controllable

LBRCK4U-37405M2-376513

Display	
Graphic Engine	Intel® Core™ integrated HD Graphics Technology
Frame Buffer	Up to 1.7GB shared with system memory
Display Type	VGA, HDMI, Display Port
Resolution	DisplayPort: Resolution max. up to 4096x2304 @ 60Hz HDMI: Resolution max. up to 4096x2160 @ 24Hz VGA: Resolution max. up to 1920x1200 @ 60Hz

Ethernet	
Controller	Intel® I210AT Gigabit LAN Intel® I219-LM Gigabit LAN
Type	Triple speed 10/100/1000Base-T Auto-switching Fast Ethernet Full duplex, IEEE802.3U compliant
Connector	Two External RJ45 connectors on rear I/O panel

Audio	
Codec	Intel® integrated Q170 with Realtek ALC662 Intel High Definition Audio compliance
Interface	5.1 channels sound output
Connector	External 2 phone jack for 2 channel audio on rear I/O panel Internal 10-pin header for line-out, MIC-in

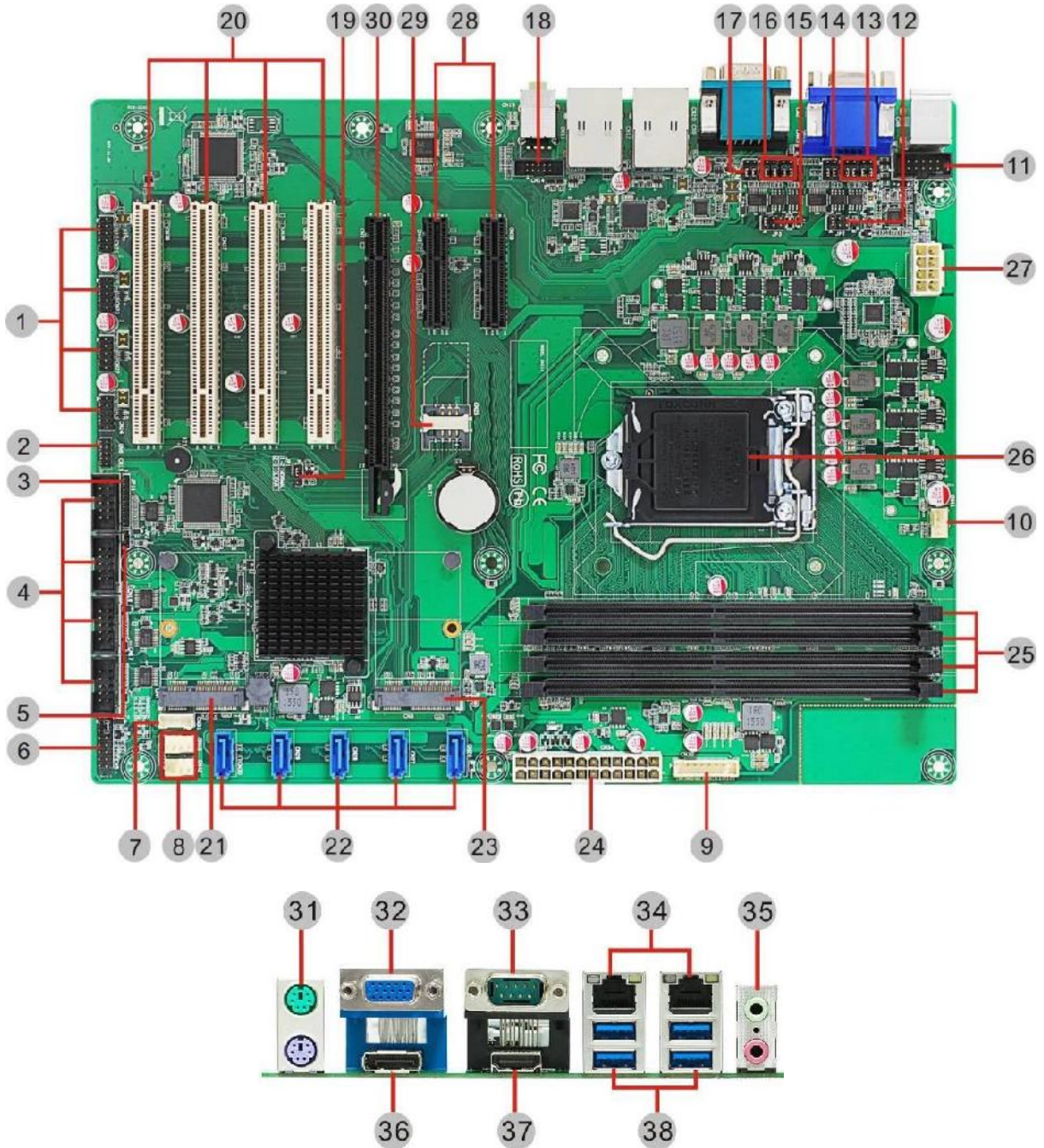
LBRCK4U-37405M2-376513

Expansion	
PCI	(4) 32-bit PCI slots
PCI Express	One PCIe x16 and two PCIe x4 slots One Mini PCIe mini card socket
Storage	One mSATA socket

Power & Environment	
Power Requirement	Standard 24-pin ATX power supply
Dimension	305 (L) x 244 (H) mm
Temperature	Operating within 0° ~ 60°C (32° ~ 140°F) Storage within -20° ~ 85°C (-4° ~ 185°F)

LBRCK4U-37405M2-376513

Board Layout



LBRCK4U-37405M2-376513

Connector		Function
1	CN21~CN24	Internal USB Headers
2	CN6	GPIO Header
3		Debug Header
4	CN15~CN18	COM3~COM6 Headers
5	JP2	AT/ATX Mode Select Jumper
6	CN5	Front Panel Header
7	CN31	SMBus Header
8	CN42, CN43	System Fan Connectors
9	CN32	Voltage Monitor Header
10	CN41	CPU Fan Connector
11	CN44	COM2 Header
12	JP7	COM2 Mode Select Jumper-1
13	JP9, JP10	COM2 Mode Select Jumpers-2
14	JP8	COM2 Data/Power Select Jumper
15	JP3	COM1 Mode Select Jumper-1
16	JP5, JP6	COM1 Mode Select Jumpers-2
17	JP4	COM1 Data/Power Select Jumper
18	CN14	Front Audio Header
19	JP1	Clear CMOS Jumper
20	CN35~CN38	PCI Slots
21	CN4	mSATA Slot
22	CN26~CN30	SATA 3.0 Connectors
23	CN3	PCI-Express Mini Card Connector
24	CN34	ATX1 Power Input Connector
25	DIMM1~DIMM4	DIMM Sockets

LBRCK4U-37405M2-376513

26		CPU Socket
27	CN33	ATX2 CPU Power Input Connector
28	CN39, CN40	PCI-Express x4 Slots
29	CN25	SIM Card Slot
30	CN1	PCI-Express x16 Slot
31	CN8	PS/2 Keyboard and Mouse Connector
32	CN45	VGA Connector
33	CN9	COM Connector
34	CN11, CN12	LAN1 and LAN2 Connectors
35	CN13	Audio Jack
36	CN2	DisplayPort Connector
37	CN20	HDMI Connector
38	CN11, CN12	USB 3.0 Connectors