



## Main Features

- 6th Generation Intel® Core™ i7/i5/i3 MAX 35W LGA1151 Socket Processor, PCH H110
- 2 x SO-DIMM DDR4 with non-ECC SO-DIMM 2133/1867MHZ up to 32GB.
- Support Multi Display VGA+HDMI.
- 4 x Intel® GbE LAN ports, 2 x USB3.0, 6 x USB2.0, 1x RS232/485/422, 1 x SATAIII, HD Audio.
- 1 x PCIe16, 1 x Mini PCIe,
- 12 x GPI, 4GPO, DC24V

## Product Overview

MARS100 is fan less box PC based on 6<sup>th</sup> Intel® Core I/Celeron processor (formerly codenamed “Skylake” ) to support 35W CPU, PCH H110 chipset. It comes with two DDR4 DIMM socket up to 32GB DDR4 2133/1867MHz with Non-ECC support and integrated HD Graphic controller. MARS100 operates temperature range from 0°C to 50°C. This fan less box is aimed at embedded applications for outdoor or semi-outdoor environment. Such as Kiosk, small smart equipment, outdoor systems installed in harsh environments, home automation and thin clients...etc..

## Specifications

### CPU / Chipset

- 6th Generation Intel® Core™ LGA1151 Processor, Max 35W. Intel® H110 Express Chipset

### Main Memory

- 2 x DDR4 SO-DIMM memory Socket with non-ECC support, up to 32 GB 2133/1876MHZ.

### BIOS

- AMI (UEFI)

### Display

- 1 x box header (resolution up to 1920x1080@60Hz).
- 1 x HDMI1.4 connector (resolution up to 4096x2304@24Hz).

### System

- 4 x Gbe LAN :  
2x I211AT GbE LAN on rear I/O  
2x I210AT GbE LAN on internal I/O, one port support PoE, IEEE 802.3af compliant (NISKPOE Board, optional)
- 2 x USB3.0, 6 x USB2.0
- 1 x RS232/485/422.  
1x DB9 for RS232/RS422/RS485 with auto flow control
- 12x GPI, 4 GPO, WDT
- 2 x Smart Fan connector.
- On-Board Isolated I/O : 8in(Source type), 8out(Sink type)

### Storage

- 1 x SATA III (6.0Gb/s) ports.

### Expansion Slot

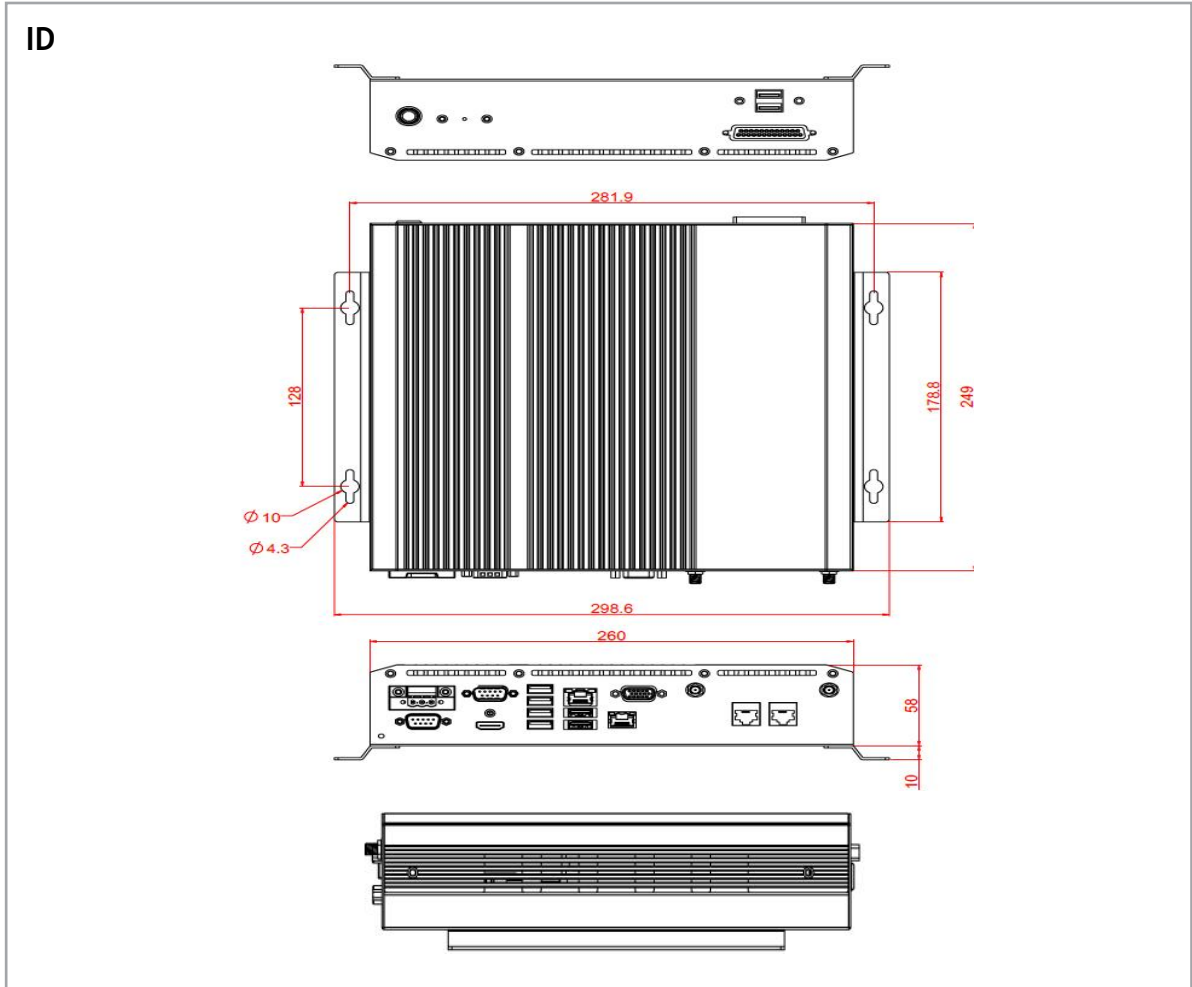
- 1 x PCIe16, 1 x Mini PCIe.

### Rear I/O

- 1 x DB9 for RS232/422/485
- 1 x HDMI
- 1 x 4 deck USB2.0
- 1 x DB15 for VGA
- 4 x LAN port
- 1x 3pin Terminal block for DC24V in, pin define: +24V, GND, NC

### Front I/O

- 1 x Power switch
- 1 x Reset switch
- 2 x USB2.0 Double deck
- 1 x DB25 for GPIO



### Power Requirement

- 1x 3-pin terminal block for DC power input
- DC24 input  $\pm 10\%$
- AT/ATX power mode (by jumper setting, default AT)

### Dimensions

- 298.6 mm(W) x 249mm (D) x 68mm (H)  
without wall mount bracket (260 mm(W) x 249mm (D) x 58mm (H))

### Environment

- Board level operation temperature : 0°C to 50°C
- Storage temperature : -20°C to 80°C
- Relative humidity:  
10% to 90% (operating, non-condensing)  
5% to 90% (non-operating, non-condensing)

### Certifications

- Meet CE / FCC Class A

### Shock

50g peak acceleration (11 msec. duration) ...  
SE:HDD IRT: SSD (non-operation)

### Vibration

- Non-operation (X-Y-Z): Sine vibration (SE : SSD / IRT : SSD)
- 1 Sine wave vibration test : Acceleration: 2g rms  
Frequency: 5 – 500 Hz
- Operation (X-Y-Z): Random vibration (IRT: SSD)
- 2 Random vibration test (Operating) : Accelerate: 2g rms  
Frequency: 5 – 500 Hz

## Ordering Information

### Barebone

- **MARS100** (P/N: 6879MR100000F )  
Fanless BOX PC, 6th Generation Intel® Core™ LGA1151 Processor, H110, LGA1151, DDR4 x2 up to 32GB, 1 x HDMI, 1 x VGA, 2 x USB3.0, 6 x USB2.0, 4 x GbE , 1 x SATAIII, 1 x RS232/422/485, 1x PCIe16, 1 x Mini PCIe.