

Industrial Motherboards for OEM/ODM

ONYX EMB-BT2

Mini-ITX Embedded Motherboard with Intel® Celeron® J1900 Processor



Features

- Intel® Celeron® J1900 Processor
- Realtek 8111G, Gigabit Ethernet x 2
- Dual Displays: VGA + LVDS, Dual LVDS
- SATA 3.0 Gb/s x 2
- USB 2.0 x 10
- Full-size Mini-Card with mSATA x 1, PCI-E [x1] x 1
- ATX Power



Specifications

System

Processor	Intel® Celeron® J1900 Processor (4C @ 2.00 GHz CPU, 688/854 MHz GFX, 10W TDP)
Chipset	—
Memory	DDR3L 1333 MHz SODIMM x 1 up to 8 GB, Non-ECC, unbuffered memory
I/O Chipset	Fintech 81866D
Ethernet	Realtek PCIe Gb LAN 8111G x 2
Audio	Realtek® ALC887 (colay ALC892/886)
TPM	Infineon SLB9635 TT 1.2 (default : No)
Expansion Slots	Full-size Mini-Card (mSATA default PCIe+USB optional) x 1, PCIe [x1] x 1
BIOS	64 M bit Flash ROM, AMI BIOS
H/W Monitor	Temperature Monitor on CPU/System, Voltage Monitor on Vcore/5V/3.3V/12V, Fan Monitor on CPU/Chassis
WatchDog Timer	1~255 steps by software program
Smart Fan Control	Chassis Fan (Fanless)
Wake on LAN/ PXE	Yes (WOL/PXE)
Power State	S3, S4, S5

Graphics

Graphics Chipset	Intel® HD Graphics
Graphics Multi Display	VGA+LVDS, Dual LVDS
VGA	Up to 1920 x 1200 @ 60 Hz
DVI	—
HDMI	—
Display Port	—
LVDS	Dual LVDS, Up to 1920 x 1080 @60Hz, dual-channel 18/24-bit (via CH7511)
eDP	—
Backlight Control	Voltage/PWM

Environment / Power / ME

Battery	Lithium battery
Power Requirement	ATX
Operation Temp.	32°F ~ 140°F (0°C ~ 60°C)
Storage Temp.	-40°F ~ 185°F (-40°C ~ 85°C)
Operation Humidity	0% ~ 90% RH, non-condensing
Certificate	CE & FCC
Form Factor	Mini-ITX: 6.7" x 6.7" (170mm x 170mm)
Weight	1.1 lb (0.5 Kg)
MTBF (Hours)	290,990

Rear Panel I/O Ports

USB	USB 2.0 x 6
Display I/O	VGA x 1
Audio I/O	Mic-in x 1, Line-out x 1
LAN I/O	LAN (RJ-45) port x 2
Serial Port	COM (RS-232/422/485) x 1, COM (RS-232) x 2
PS/2 Port	PS/2 Keyboard Mouse combo x 1
Others	—

Internal I/O Connectors

Storage	SATA2 (3.0Gb/s) x 2 (1 colay with mSATA), Full Size Mini-Card slot (mSATA) x 1
USB	USB 2.0 (2 x 5-pin, 2.54mm) x 2 ports support additional 4 USB
Display I/O	LVDS connector x 2, LVDS 3V /5V jumper x 2, LCD DC / PWM mode jumper x 2, LCD backlight connector (inverter) x 2, LCD backlight 12V /5V jumper x 2, LCD push button for backlight control (2PIN) x 2
Audio I/O	AAFP x 1, Speaker x 1
Serial Port	Boxer header for COM (RS-232) x 3
PS/2 Port	—
Parallel Port	—
DIO	DIO (4in/4out) x 1
FAN	Chassis Fan connector x 1
Power	24PIN ATX power connector x 1, AT/ATX mode select jumper (default : No) x 1
Others	Front Panel connector x 1, CMOS jumper x 1
OS Support	Windows® 10 64-bit, Windows® 7 32/64-bit, Windows® 8.1 32/64-bit, Linux Fedora