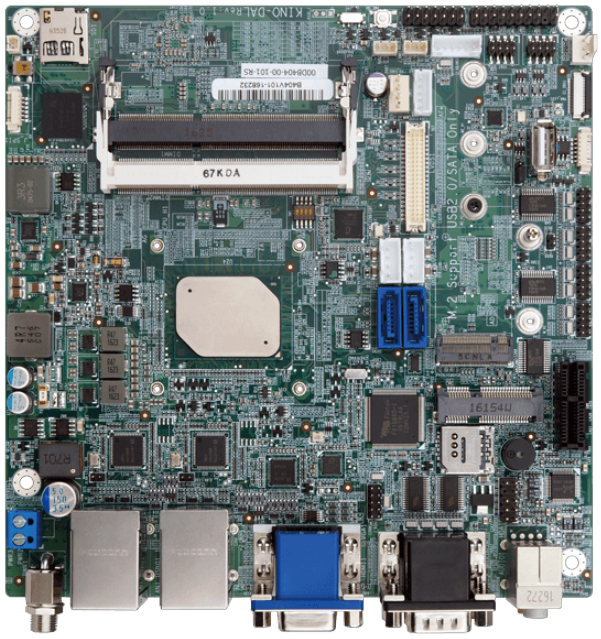
KINO-DAL

Mini-ITX SBC supports Intel® 14nm Atom™, Pentium® or Celeron® on-board SoC with HDMI™/LVDS/VGA, Dual PCIe GbE, USB 3.0, PCIe Mini, M.2, SATA 6Gb/s, COM, Audio and RoHS



Features

» Mini-ITX SBC supports Intel® 14nm Atom™, Pentium® or Celeron® on-board SoC supports dual-channel DDR3L SO-DIMMs

» Triple independent display support

» Optional wide range 9V~30V DC input design

» Full size PCIe Mini slot with SIM sockets for 3G/LTE expansion

» COM, USB 3.0, SATA 6Gb/s, M.2, eMMC 5.0 and audio support

Specifications

System	
CPU	Intel® Atom® x7-E3950 on-board SoC (up to 2.0GHz, quad-core, 2M Cache, TDP=12W)
	Intel® Atom® x5-E3940 on-board SoC (up to 1.8GHz, quad-core, 2M Cache, TDP=9W)
	Intel® Atom® x5-E3930 on-board SoC (up to 1.8GHz, dual-core, 2M Cache, TDP=6W)
	Intel® Pentium® N4200 on-board SoC (up to 2.5GHz, quad-core, 2M Cache, TDP=6W)
	Intel® Celeron® N3350 on-board SoC (up to 2.4GHz, dual-core, 2M Cache, TDP=6W)
Memory	Two 204-pin 1866/1600MHz Dual-channel DDR3L SO-DIMMs
Memory Max.	8GB
Physical Characteristics	
Dimensions (LxWxH) (mm)	170 X 170
Net Weight	700g
Storage	
Storage	2 x SATA :6Gb/s with 5V SATA power connector
	1 x SD/MicroSD card optional
	1 x eMMC :5.0(optional, up to 32GB)
I/O Interface	
Display Output	1 x VGA :up to 1920x1200@60Hz
	1 x HDMI™ :up to 3840x2160@30Hz
	1 x LVDS :18/24-bit dual-channel (up to 1920x1200@60Hz)
Ethernet	2 x LAN :PCIe GbE LAN Intel® i211 AT controller
Audio	Description: Realtek ALC662 HD codec
	1 x Line out :on rear IO
	1 x Mic :on rear IO
	Front Audio :2x5 pin
I/O Interface	2 x External RS-232/422/485
	4 x Internal RS-232 :2x5 pin, P=2.0
	5 x Internal USB 2.0 :1 x A type, 4 X 2x4 pin, p=2.0
	4 x Internal USB 3.2 Gen1x1

	1 x PS/2 :1x6 pin
Expansion	1 x PCIe x1
	1 x PCIe mini Card Slot :Full/Half-size PCIe Mini slot
	1 x M.2(NGFF) :B key(2242/2260/2280, USB 2.0 & colay SATA2)
Other Features	
TPM	2x10 pin
Power	
Power Consumption	12V@3.64A (Intel® Pentium® N4200 CPU with two 8GB 1600MHz DDR3L memory)
Power Supply	12V only DC input as Default/ 9V~30V DC input (optional)
	1 x Internal power connector (2x2 pin)
	1 x External DC power Jackc (Ø5.5mm)
	Support AT/ATX mode
Environment	
Operating Temperature	-20°C ~ 70°C / -40°C ~ 85°C (KINO-DAL-ExW2)
Storage Temperature	-40°C ~ 85°C
Humidity	5% ~ 95%, non-condensing
Certifications	
Safety & EMC	CE/FCC compliant

Ordering Information

KINO-DAL-N1-R10	Mini-ITX SBC supports Intel® 14nm dual-core Celeron® N3350 2.3GHz on-board SoC with HDMI™/LVDS/VGA, Dual PCIe GbE, USB 3.0, PCIe Mini, M.2, SATA 6Gb/s, COM, Audio and RoHS
KINO-DAL-J2-R10	Mini-ITX SBC supports Intel® 14nm quad-core Celeron® J3455 2.3GHz on-board SoC with HDMI™/LVDS/VGA, Dual PCIe GbE, USB 3.0, PCIe Mini, M.2, SATA 6Gb/s, COM, Audio and RoHS

Packing List

1 x KINO-DAL single board computer with heatsink	1 x I/O Shielding
1 x SATA with power cable kit	1 x QIG