

# WAFER-ULT-i1

3.5" SBC supports Intel® 22nm 4th/ 14nm 5th Generation Mobile Core™ i7/i5/i3 and Celeron® on-board Processor (ULT), VGA/LVDS/iDP, Dual GbE, PCIe Mini, USB 3.0, SATA 6Gb/s Audio, iRIS-1010 and RoHS



## Features

- » 3.5 form factor with 4th/5th generation Intel® ULT SoC supports dual-channel DDR3L DIMMs
- » 12V only single voltage design with AT/ATX mode support
- » 18/24-bit dual-channel LVDS support
- » Support triple independent display via LVDS, VGA and iDP
- » Support PCIe Mini card slot for mSATA, 3G card, wireless card and DOM

## Specifications

System	
CPU	4th generation Intel® mobile ULT on-board SoC
	Intel® Core™ i7-4650U (1.7GHz, dual-core, 4MB cache, TDP=15W)
	Intel® Core™ i5-4300U (1.9GHz, dual-core, 3MB cache, TDP=15W)
	Intel® Core™ i3-4010U (1.7GHz, dual-core, 3MB cache, TDP=15W)
	Intel® Celeron® processor 2980U (1.6GHz, dual-core, 2MB cache, TDP=15W)
Memory	Two 204-pin 1600/1333 MHz dual-channel DDR3L SDRAM SO-DIMM
Memory Max.	16GB
Physical Characteristics	
Dimensions (LxWxH) (mm)	146 X 102
Net Weight	250
Storage	
Storage	2 x SATA :6Gb/s
	1 x mSATA
I/O Interface	
Display Output	1 x VGA :up to 2560x1600@60Hz
	1 x LVDS :18/24-bit dual-channel (up to 1920x1200@60Hz)
	1 x iDP :for HDMI, LVDS, VGA, DVI, DP (up to 3840x2160@60Hz)
Ethernet	LAN :1 x Intel® I218LM PHY with Intel® AMT 9.0 support, 1 x Intel® I210-AT PCIe controller with NCSI support
Audio	Description: Realtek ALC662 HD Audio codec
	1 x audio (2x5 pin)
I/O Interface	1 x External RS-232
	2 x Internal RS-232 :2x5 pin, P=2.0
	1 x Internal RS-422/485 :1x4 pin, P=2.0
	2 x External USB 3.2 Gen1x1
	2 x Internal USB 2.0 :2x4 pin, P=2.0
	1 x PS/2 :1x6 pin
Expansion	1 x PCIe mini Card Slot :mSATA support
Power	
Power Consumption	12V@2.72A (Intel® Core™ i5-4300U CPU with two 8 GB 1600 MHz DDR3 memory)

Power Supply	12V only DC Input, 1 x internal power connector(2 x 2 pin), support AT/ATX mode
Environment	
Operating Temperature	-10°C ~ 60°C
Storage Temperature	-20°C ~ 70°C
Humidity	5% ~ 95%, non-condensing
Certifications	
Safety & EMC	CE/FCC compliant

## Ordering Information

WAFER-ULT-i1-i7-R11	3.5" SBC with Intel 22nm 4th Gen ULT Mobile Core i7-4650U processor(ULT), VGA/LVDS/iDP, Dual GbE, USB 3.0, PCIe Mini, SATA 6Gb/s Audio, iRIS-1010 and RoHS
WAFER-ULT-i1-i5-R11	3.5" SBC with Intel 22nm 4th Gen ULT Mobile Core i5-4300U processor(ULT), VGA/LVDS/iDP, Dual GbE, USB 3.0, PCIe Mini, SATA 6Gb/s Audio, iRIS-1010 and RoHS
WAFER-ULT-i1-i3-R11	3.5" SBC with Intel 22nm 4th Gen ULT Mobile Core i3-4010U processor(ULT), VGA/LVDS/iDP, Dual GbE, USB 3.0, PCIe Mini, SATA 6Gb/s Audio, iRIS-1010 and RoHS
WAFER-ULT-i1-C-R11	3.5" SBC with Intel 22nm 4th Gen ULT Mobile Celeron 2980U processor(ULT), VGA/LVDS/iDP, Dual GbE, USB 3.0, PCIe Mini, SATA 6Gb/s Audio, iRIS-1010 and RoHS

## Packing List

1 x WAFER-ULT single board computer with heatsink enclosure	1 x Audio cable
1 x Dual-port USB 2.0 cable	1 x Power cable
1 x QIG	2 x SATA with 5V output cable kit