

HWE Industrial tablet Series parameters (Front screen)

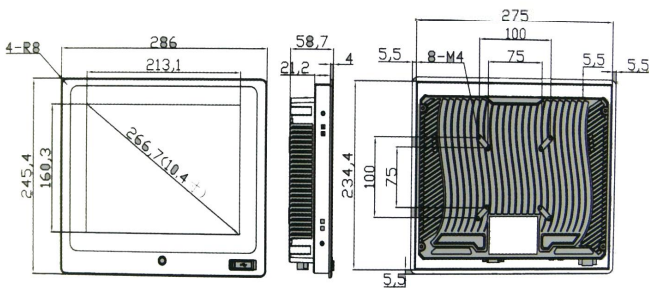
| model | HWE-104 | HWE-121 | HWE-15 | HWE-17 | HWE-19 | | |
|---|--|---|---|---|---|--|--|
| Screen size | 10.4 | 12.1 | 15 | 17 | 19 | | |
| resolution ratio | 1024*768 | 1024*768 | 1024*768 | 1280*1024 | 1280*1024 | | |
| Screen Scale | 4:3 | 4:3 | 4:3 | 4:3 | 4:3 | | |
| luminance | 350cd/m ² | 250cd/m ² | 300cd/m ² | 350cd/m ² | 330cd/m ² | | |
| contrast ratio | 800:1 | 250:1 | 1500:1 | 1000:1 | 1500:1 | | |
| Display color | 16.7M | 262K | 16.2M | 16.2M | 16.7M | | |
| reaction time | 30ms | 35ms | 20/15ms | 30ms | 35ms | | |
| life in a poor lightMTBF | 30000hrs | 30000hrs | 30000hrs | 30000hrs | 30000rs | | |
| viewing angle | 80/80/80/80 | 65/65/75/45 | 85/85/85/85 | 80/80/80/70 | 85/85/85/85 | | |
| Overall dimension | 285*245.4*75mm | 310*273.2*75.7mm | 360.5*306*62.3mm | 397*8*354*62.7mm | 439386.5*63.9mm | | |
| Recommended opening | 277*236.4mm(L*H) | 300*255.4mm(L*H) | 352*298mm(L*H) | 384*342mm(L*H) | 425.6373.3mm(L*H) | | |
| touch screen | electric capacity/resistance | | | | | | |
| work environment | 0°C~50°C | | | | | | |
| Storage environment | -20°C~60°C | | | | | | |
| Power input | Dc12V(Optional9-36VBroad pressure) | | | | | | |
| Structural materials | Aluminum panel, fanless flat design, front panel IP65 protection grade | | | | | | |
| face-plate | Front switch and USB | | | | | | |
| Border color | Boat color | | | | | | |
| Installation method | flushbonading/Wall-mounted/Desktop | | | | | | |
| Platform configuration (Common for all sizes) | | | | | | | |
| a main board | | | | | | | |
| CPU | CeleronJ1800 | CeleronJ1900 | Support for three generations of Intel® Celeron/Pen | Support for five generations of Intel® Celeron/Pentiu | Support for seven generations of Intel® Celeron/Pentium | Support eight-generation Intel® Celeron/Pentium/I3/15/17 | Support for ten generations of Intel® Celeron/Pentium/I3/15/17 |
| terrace | Based on the Bay Trail platform | | Intel based® Haswell - U/Broadwell - U SOC platform | Intel-based® Skylake-U platform | Intel based® Skylake/Kabylake-U platform | Intel based® Whiskey Lake-U platform | Intel-based® Comet Lake-U platform |
| internal storage | 1DDR3LSODIMM slot 1600/1333MH memory, up to 8GB | | 2* DDR3L SODIMM slot, 1600MHz, up to 32GB | 2* DDR4 SODIMM slot, 2133MHz, up to 32GB | 2* DDR4 SODIMM slot, 2400MHz, up to 32GB | 2DDR4 SODIMM slot, 2666MHz, up to 64GB | |
| storage | 1*SATA2.01MSATA | | 1*SATA3.0 1 MSATA | | 1*SATA3.0 1*MSATA 1*M.2 slot | | |
| Graphics card | Intel HD Graphics | | Intel HD Graphics 4400 | Intel® Iris™ Graphics 540/550/610 | Intel®HD Graphics 610 | Intel®UHD Graphics 620 | |
| operating system | sustain Win7/Win8/Win10/LINUX | | | | Win10/LINUX | | |
| Serial port | 2*RS232 | 2 * RS232 (up to 5 are supported, of which COM2 can choose 485) | | | | | |
| usb | | | | | | | |
| Ethernet port | 1* USB3.0, 3*USB2.0(single network supports 2* USB2.0) | 2USB3.0, 2 * USB2.0 (single network supports 2 * USB2.0) | | | | | |
| Display interface | 1VGA, 1HDMI | | | | | | |
| audio frequency | Integrated ALC6626 channel high fidelity audio controller, supporting MIC (red) and Line out (green) | | | | | | |
| Expansion bus | 1 *Mini-PCIE slot, supporting WIFI/4G module (optional) | | | | | | |

 HWE Industrial tablet Front screen series

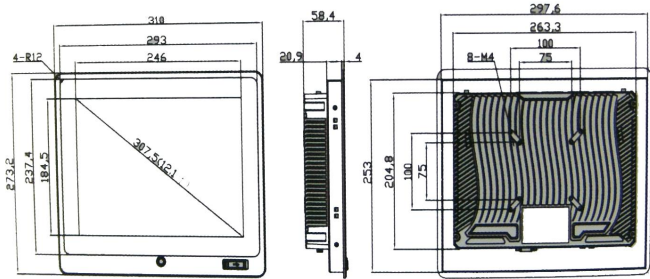


HWE Series dimension drawing (Front screen)

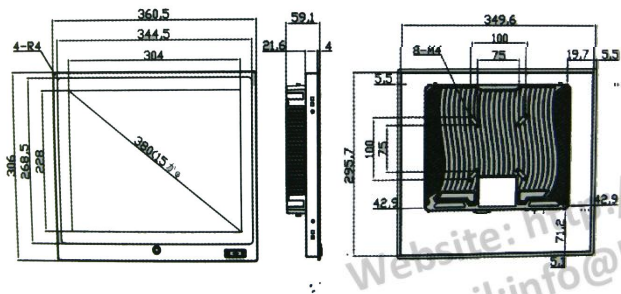
1 HWE104



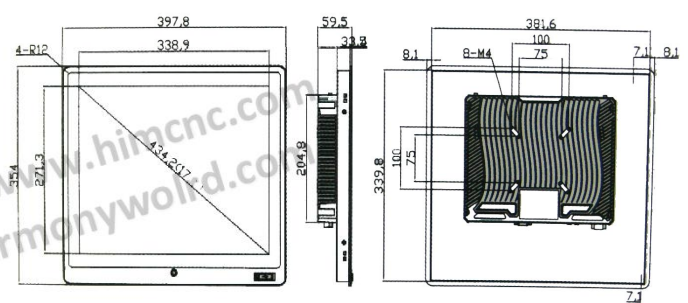
2 HWE121



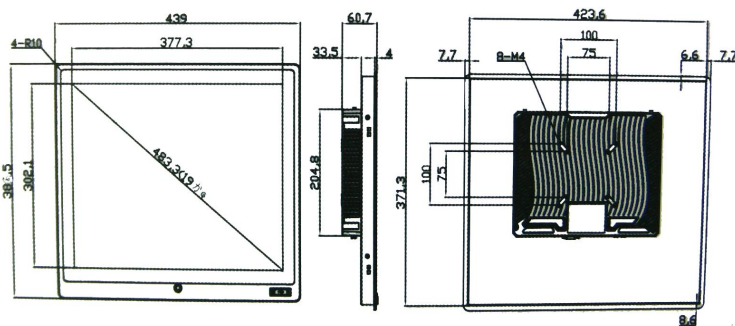
3 HWE15




4 HWE17



5 HWE19




HWC Industrial tablet Series parameters (widescreen)

| model | HWE-156 | | HWE-173 | | HWE-185 | FWE-215 | |
|---|--|--|--|--|---|---|---|
| Screen size | 15.6 | | 17.3 | | 18.5 | 21.5 | |
| resolution ratio | 1366*768 | 1920*1080 | 1920*1080 | | 1366*768 | 1920*1080 | |
| Screen Scale | 16.9 | | 16.9 | | 16.9 | 16.9 | |
| luminance | 220cd/m ² | | 350cd/m ² | | 350cd/m ² | 350cd/m ² | |
| contrast ratio | 500:1 | | 500:1 | | 500:1 | 500:1 | |
| Display color | 262K | 16.7M | 262K | | 262K | 262K | |
| reaction time | 8ms | 25ms | 8ms | | 8ms | 8ms | |
| life in a poor lightMTBF | 15000hrs | | 15000hrs | | 15000hrs | 15000hrs | |
| viewing angle | 65/65/75/45 | | 95/95/80/80 | | 95/95/80/80 | 95/95/80/80 | |
| Overall dimension | 402.7*269.7*61.7mm | | 440.2*293.2*64.4mm | | 476.4*335.3*61.6mm | 550*355.6*63.7mm | |
| Recommended opening | 389*258mm(L*H) | | 431*284mm(L*H) | | 463*326mm(L*H) | 532*346mm(L*H) | |
| touch screen | Capacitance/resistance | | | | | | |
| work environment | 0℃~50℃ | | | | | | |
| Storage environment | -20℃~60℃ | | | | | | |
| Power input | DC 12V (Optional9~36V Broad pressure) | | | | | | |
| Structural materials | Aluminum panel, fanless flat design, front panel IP65 protection grade | | | | | | |
| face-plate | Front switch and USB | | | | | | |
| Border color | Lead color | | | | | | |
| Installation method | Embedded/wall mounted/desktop | | | | | | |
| Platform configuration (Common for all sizes) | | | | | | | |
| a main board | Standard Mini-ITX industrial grade | | | | | | |
| CPU | Celeron J1800 | Celeron n n | Support for three generations | Support five generations Intel®Celeron/Pentium/13/15/ | Support seven generations Intel®Celeron/Pentium15/17 | Support eight generations Intel®Celeron/Pentium/13/15/ | Support ten generations Intel®Celeron/Pentium/13/15/17 |
| terrace | Based on the Bay Trail platform | | Based on the Bay Trail platform | Intel-based® Skylake-U platform | Intel-based® Skylake/KabyLake-U platform | Intel-based® Whiskey Lake-U platform | Intel-based® Comet Lake-U platform |
| internal storage | 1*DDR3L SODIMM socket, 1600/1333MHz memory, maximum BGB support | 2DDR3L SODIMM slot, 1600MHz, up to 32GE | 2DDR3L SODIMM slot, 1600MHz, maximum support 32GE2 | 2*DDR4 SODIMM slot, 2133MH, up to 32GB | 2*DDR4 SODIMM slot, 2133MH, maximum support 32GB2*DDR4 | 2DDR4 SODIMM slot, 66MH2, up to 64GB | |
| storage | 1*SATA2.0 I know. 1MSATA | 1*SATA3.0 1* MSATA | | 1*SATA3.0 1 MSATA | | | |
| Graphics card | Intel® HD Graphics | | Intel® HD Graphics | Intel® Iris™ Graphics | Intel® HD Graphics 610 | Intel® UHD Graphics 620 | |
| operating system | 支持 Win7/Win8/Win10/LINUX | | | | Win10/LINUX | | |
| Serial port | 2*RS232 | 2*RS232 (up to 5 are supported, of which COM2 can choose 485) | | | | | |
| usb | 1*USB3.0, 3*USB2.0 (single network supports | 2*USB3.0, 2 USB2.0 (single network supports 2*USB2.0) | | | | | |
| Ethernet port | 1*Realtek RTL8111H Gigabit network card | 1*Realtek RTL8111H Gigabit network card, supporting network wake-up and PXE function (LAN2 and USB1 can be selected as two network interfaces) | | | | | |
| Display interface | 1*VGA, 1*HDMI | | | | | | |
| audio frequency | Integrated ALC662 6-channel high-fidelity audio controller, supporting MIC (red) Line_ Out | | | | | | |
| Expansion bus | 1*Mini-PCIE slot, supporting WIF/4G module (optional) | | | | | | |

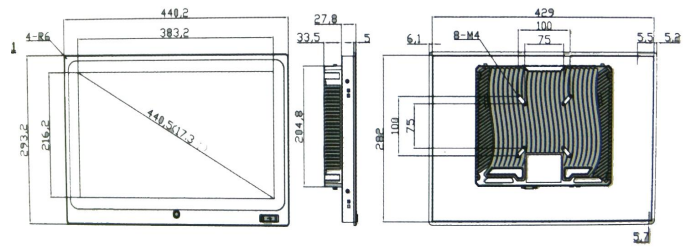
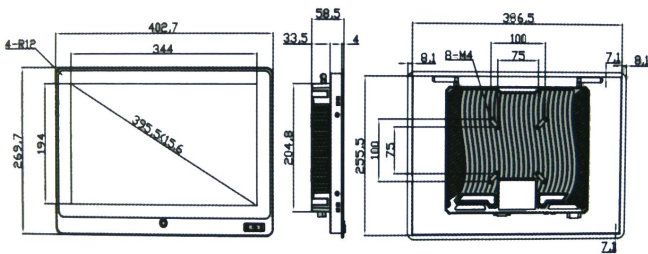
HWE Industrial tablet widescreen series



HWE156



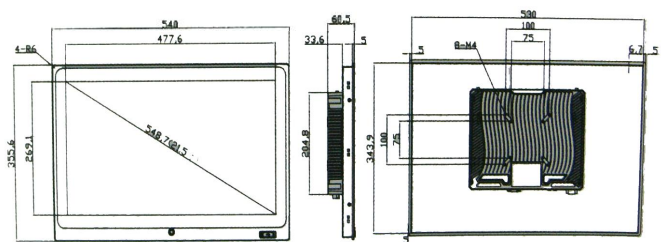
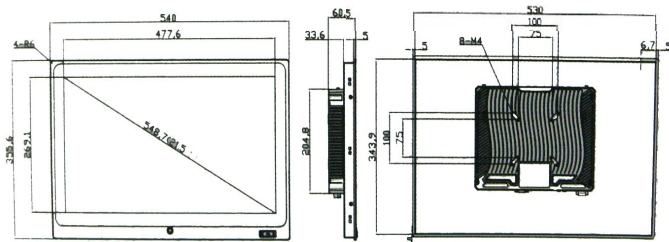
HWE173



HWE185



HWE215




HWC Industrial tablet Series parameters (front screen)

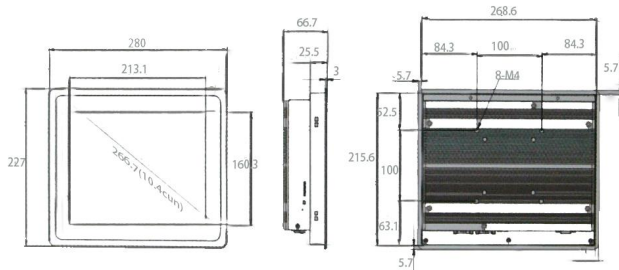
| model | HWC-104 | HWC-121 | HWC-15 | HWC-17 | |
|---|--|---|--|--|---|
| Screen size | 10.4 | 12.1 | 15 | 17 | |
| resolution ratio | 1024*768 | 1024*768 | 1024*768 | 1280*1024 | |
| Screen Scale | 4:3 | 4:3 | 4:3 | 4:3 | |
| luminance | 350cd/m ² | 250cd/m ² | 300cd/m ² | 350cd/m ² | |
| contrast ratio | 800:1 | 250:1 | 1500:1 | 1000:1 | |
| Display color | 16.7M | 262K | 16.2M | 16.2M | |
| reaction time | 30ms | 35ms | 20/15 ms | 30ms | |
| life in a poor light | 30000hrs | 30000hrs | 30000hrs | 30000hrs | |
| viewing angle | 80/80/80/80 | 65/65/75/45 | 85/85/85/85 | 80/80/80/70 | |
| Overall dimension | 280*227*66.7mm | 315.2*258.1*66.7mm | 375.2*299.2*66.7mm | 410*347*66.7mm | |
| Recommended opening | 270*217mm | 303.6*247.6mm | 359.6*283.6mm | 394*324mm | |
| touch screen | Resistance/capacitance | | | | |
| work environment | -10℃~60℃ | | | | |
| Storage environment | -20℃~70℃ | | | | |
| Power input | 1*quincunx four-core power interface, supporting 9V~36V power input, power 36W-180W | | | | |
| Structural materials | Aluminum panel, fanless flat design, front panel IP65 protection grade | | | | |
| Border color | Bright silver | | | | |
| Installation method | Embedded/wall mounted/desktop | | | | |
| Platform configuration (Common for all sizes) | | | | | |
| a main board | Standard Mini-ITX industrial grade | | | | |
| CPU | Celeron J1900 | Support four generations of Intel® Celeron/Pentium/Intel® 5 | Support for five generations of Intel® Celeron/Pentium/Intel® 13 | Support for six generations of Intel® Celeron/Pentium/Intel® 15/17 | Support for eight-generation Intel® Celeron/Pentium/Intel® 13/15/17 |
| internal storage | 1 * DDR3L SODIMM socket, 1600/1333MHz memory, up to 8GB | | 2*DDR3LSODIMM slot, supports 1600MHz memory, and supports up to | * DDR4SODIMM socket 2400MHz supports up to 32GB | |
| storage | 1*SATA2.0, 1*MSATA | | | | |
| Graphics card | Intel® HD Graphics | Intel® HD Graphics | Intel® Iris™ Graphics 540/550/610 | Intel® UHD Graphics620 | |
| operating system | sustain Win7/Win8/Win10/LINUX | | | | |
| POWER | 1*Power switch, 1 * Reset switch | | | | |
| AC Loss | 1*AC LOSS(Power-on toggle switch) | | | | |
| SIM | 1*SIM card slot, 3G/4G module application | | | | |
| Display interface | 1*VGA access(1920X1200@60Hz (HDMI1.4) 4096x2304@24Hz) | | | | |
| LAN | 2*Intel® WGI211AT Gigabit network card, supporting network wake-up and PXE functions | | | | |
| USB | 2*USB2.0 interface, 4 * USB3.0 interface, 1 * built-in USB dongle | | | | |
| COM | 3*DB9RS232 serial interface, COM2/3 supports RS232/485 switching, COM1/2 supports the 9th | | | | |
| Phoenix terminal | 2*10pin, 4 in and 4 out GPIO, with switch signal and COM4~COM6 (RS232/RS485), 5V, GND | | | | |
| audio frequency | 1*Line out interface 1*MIC interface, onboard ALC662 6-channel high-fidelity audio control | | | | |
| SATA | 1*2.5 inch hard disk expansion | | | | |
| Solid state disk | 1*MSATA SSD SSD SSD expansion, transmission speed up to 6Gbps | | | | |
| Mini PCIE | 2*Mini-PCIE slot, where MINIPCIE2 supports WIFI and MINIPCIE1 supports 4G | | | | |
| M.2 | N/A | | | | |
| Linux | Ubuntu | | | | |
| Watch Dog | Support hardware reset function (256 levels, 0-255 seconds) | | | | |

HWC Industrial tablet Succession

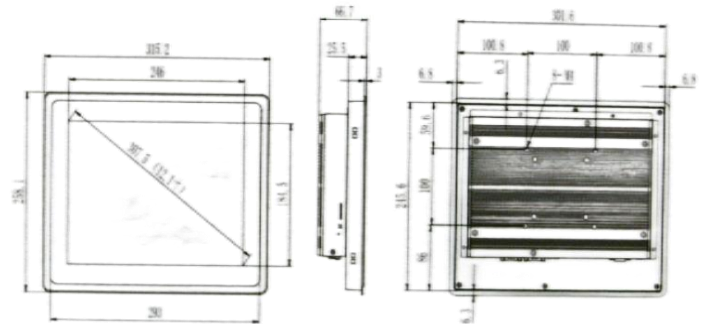


HWC Series dimension drawing (front screen)

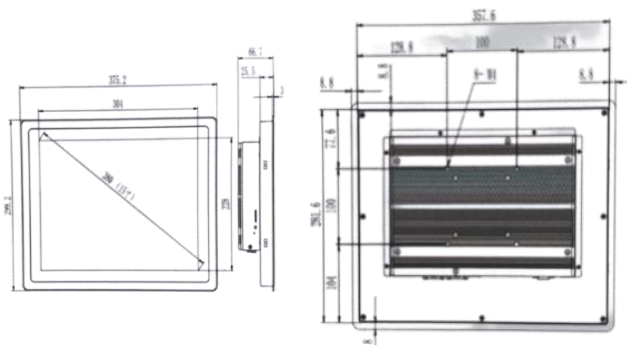
1 HWC104



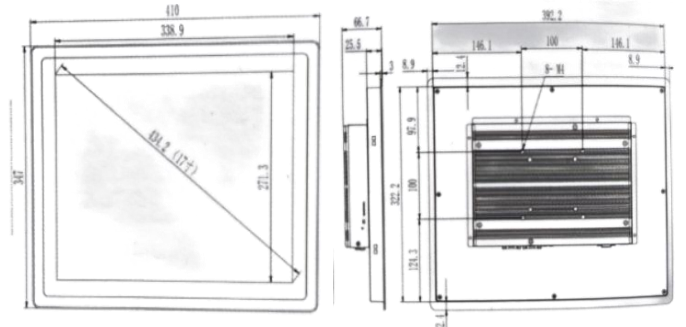
2 HWC121



3 HWC15



4 HWC17

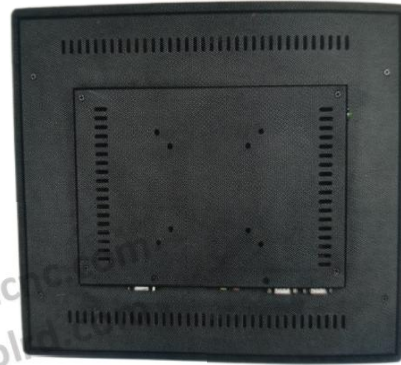




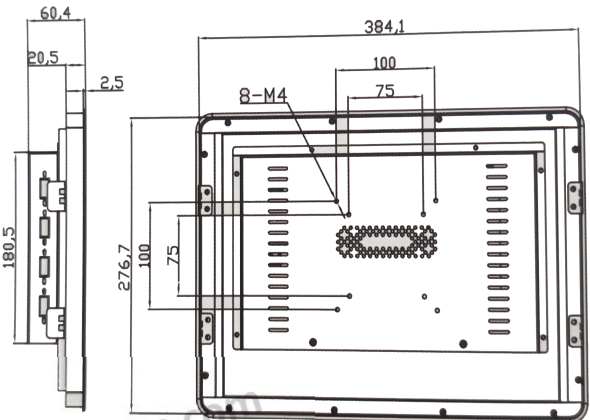
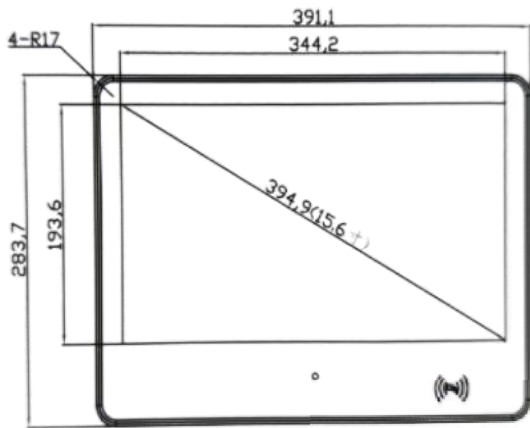
HWS Industrial tablet Series parameters

| model | HWS-156 | | HWS-215 | | | | |
|---|--|--|---|--|---|---|---|
| Screen size | 15.6 | | 21.5 | | | | |
| resolution ratio | 1920*1080 | | 1920*1080 | | | | |
| Screen Scale | 16:9 | | 16:9 | | | | |
| luminance | 220cd/m ² | | 220cd/m ² | | | | |
| contrast ratio | 500:1 | | 500:1 | | | | |
| Display color | 262K | | 16.7M | | | | |
| reaction time | 16ms | | 25ms | | | | |
| life in a poor lightMTBF | 15000hrs | | 39000hrs | | | | |
| viewing angle | 65/65/75/45 | | 89/89/89/89 | | | | |
| Overall dimension | 391.1*283.7*62.3mm | | 534.4*389.4*62.3mm | | | | |
| Hole size | 386.5*278.2mm | | 528.9*383.9mm | | | | |
| touch screen | electric capacity | | | | | | |
| camera | Front 200w | | | | | | |
| Ic Swipe card | Read tag card data, read card analog keyboard input (without secondary development by default), support Mifare s50, S70IS01443A Type tags (optional) | | | | | | |
| work environment | 0°C~50°C | | | | | | |
| Storage environment | -20°C~60°C | | | | | | |
| Power input | DC12V (optional 9~36V wide voltage) | | | | | | |
| Structural materials | Fanless flat design, front panel IP65 protection grade | | | | | | |
| Border color | black | | | | | | |
| Installation method | Embedded/wall mounted/desktop | | | | | | |
| Platform configuration (common for all sizes) | | | | | | | |
| main board | Standard Mini-ITX industrial grade | | | | | | |
| CPU | Celeron J1800 | Celeron J1900 | Support for three generations of Intel® Celeron/Pentium | Support for five generations of Intel® Celeron/Pentium | Support for seven generations of Intel® Celeron/Pentium | Support for eight-generation Intel® Celeron/Pentium | Support for ten generations of Intel® Celeron/Pentium |
| chipset | Based on the Bay Trail platform | | Intel based® Haswell-U/Broadwell-U SOC | Intel based® Skylake-U platform | Intel based® Skylake/KabyLake-U platform | Based on Intel's Whiskey Lake-U platform | Based on Intel Comet Lake-U platform |
| internal storage | 1 * DDR3L SODIMM socket, 1600/1333MH memory, up to 8GB | | 2*DDR3L SODIMM slot, 1600MHz, up to 32GB | 2*DDR4 SODIMM slot 2133MHz, maximum support 32GB | 2*DDR4 SODIMM slot, 2400MHz, up to 32GB | 2*DDR4SODIMM slot 2666MHz, maximum support 64GB | |
| storage | 1*SATA2.0, 1* MSATA | | 1*SATA3.0, 1*MSATA | | 1*SATA3.0, 1* MSATA, 1* M.2 slot | | |
| Graphics card | Intel® HD Graphics 4400 | | Intel® HD Graphics 4400 | Intel® Iris™ Graphics 540/550/610 | Intel® HD Graphics 610 | Intel® UHD Graphics 620 | |
| operating system | 支持 Win7/Win8Win10/LINUX | | | | | Win10/LINUX | |
| Serial port | 2*RS232 | 2*RS232(6 optional, 4 of which are 3PIN Phoenix terminals, COM2 optional 485) | | | | | |
| USB | 1*USB3.0, 3*USB2.0 (single network supports) | | 2*USB3.0, 2*USB2.0 (single network supports 2*USB2.0) | | | | |
| Ethernet port | 1 *Realtek RTL8111H | 1 * Realtek RTL8111H Gigabit network card, supporting network wake-up PXE function (LAN2 and USB1 can be selected as two network interfaces) | | | | | |
| Display interface | 1*VGA, 1*HDMI | | | | | | |
| audio frequency | Integrated ALC662 6-channel high-fidelity audio controller, supporting MIC (red), Line_Out | | | | | | |
| GPIO | Support 8-way GPIO with DB9-pin, 4-in and 4-out (optional) | | | | | | |
| Expansion bus | 1*Mini-PCIE slot, supporting WIFI/4G module (optional) | | | | | | |

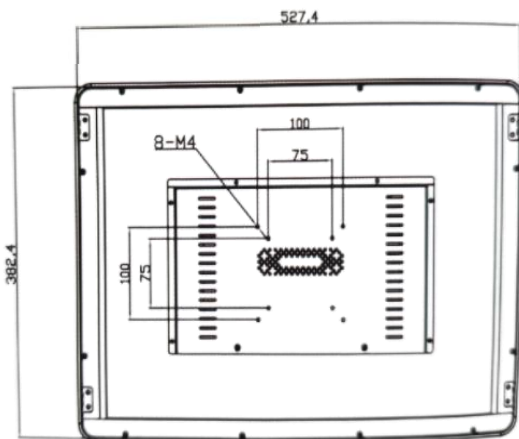
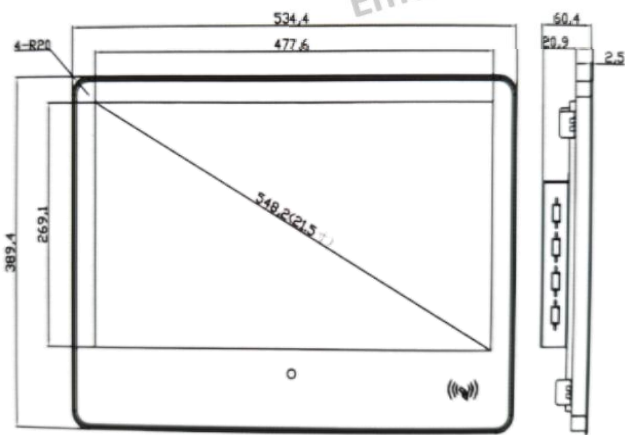
HWS Industrial tablet Succession



1 HWS156



2 HWS215




HWEM Industrial display Series parameters (front screen)

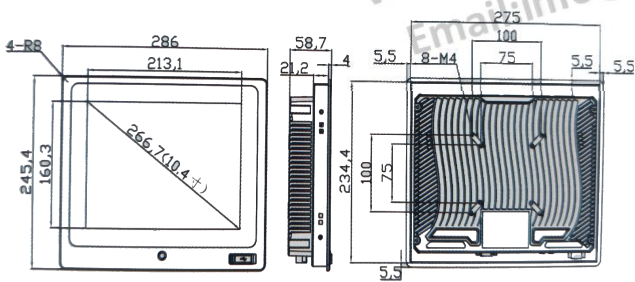
| model | FWEM-104 | FWEM- 121 | FWEM- 15 | FWEM-17 | FWEM-19 |
|-------------------------|---|----------------------|----------------------|----------------------|----------------------|
| Screen size | 10.4 | 12.1 | 15 | 17 | 19 |
| resolution ratio | 1024*768 | 1024*768 | 1024*768 | 1280*1024 | 1280*1024 |
| Screen Scale | 4:3 | 4:3 | 4:3 | 4:3 | 4:3 |
| contrast ratio | 800:1 | 800:1 | 800:1 | 800:1 | 1000:1 |
| luminance | 250cd/m ² | 250cd/m ² | 300cd/m ² | 300cd/m ² | 250cd/m ² |
| Display color | 16.7M | 16.7M | 16.7M | 16.7M | 16.7M |
| reaction time | 30ms | 3/5ms | 2/6ms | 3.8/1.2ms | 3.6/1.4ms |
| Backlight MTBF | 30000hrs | 50000hrs | 40000hrs | 50000hrs | 30000hrs |
| viewing angle | 70/70/60/70 | 80/80/80/80 | 70/70/65/75 | 80/80/75/85 | 85/85/80/80 |
| Overall dimension | 286*245.4*75mm | 310*273.2*75.7mm | 360.5*306*62.3mm | 397.8*354*62.7mm | 439*386.5*63.9mm |
| Opening size | 277*236.4mm | 300*255.4mm | 352*298mm | 384*342mm | 425.6*373.3mm |
| work environment | 0C~50° C | 0° C~50° C | 0° C~50° C | 0° C~50° C | 0° C~50° C |
| Storage environment | -20C~60° C | -20C~60° C | -20C~60° C | -20C~60° C | -20C~60° C |
| touch screen | Capacitance/resistance | | | | |
| Display input interface | Support VGA, DVI, HDMI (two out of three) | | | | |
| touch screen interface | USB support | | | | |
| Installation method | Embedded/wall-mounted installation | | | | |
| Housing material | Aluminum alloy panel fully enclosed front panel protection grade IP65 | | | | |
| source | DC12V input | | | | |

HWEM Industrial display Succession

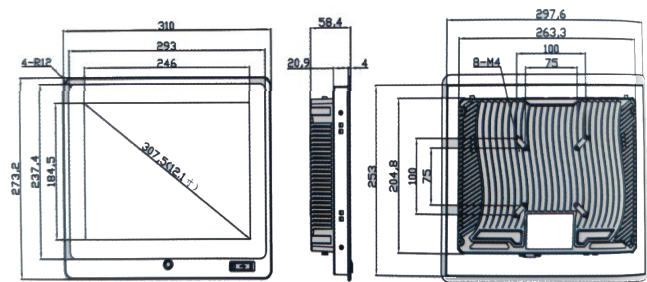


HWEM Series dimension drawing (front screen)

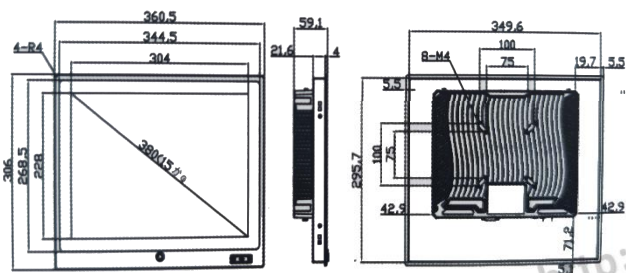
1 HWEM104



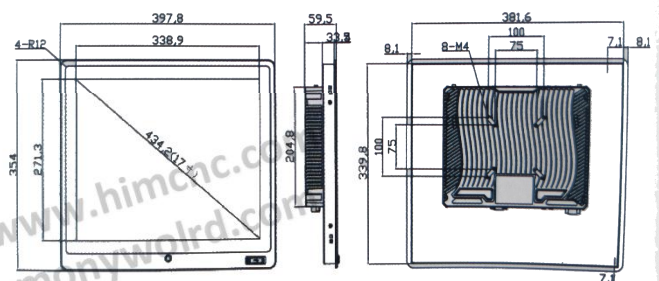
2 HWEM121



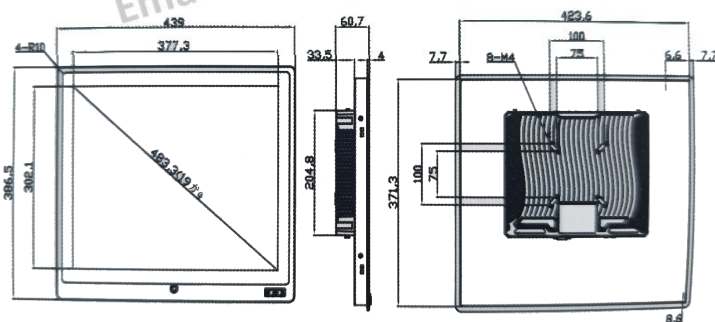
3 HWEM15



4 HWEM17



5 HWEM19




FWEM Industrial display Series parameters (widescreen)

| model | FWEM-156 | FWEM-173 | FWEM-185 | FWEM-215 |
|-------------------------|---|----------------------|----------------------|----------------------|
| Screen size | 15.6 | 17.3 | 18.5 | 21.5 |
| resolution ratio | 1366*768 (可选 1920*1080) | 1920*1080 | 1366*768 | 1920*1080 |
| Screen Scale | 16:9 | 16:9 | 16:9 | 16:9 |
| contrast ratio | 500:1 | 600:1 | 1000:1 | 1000:1 |
| luminance | 300cd/m ² | 300cd/m ² | 250cd/m ² | 300cd/m ² |
| Display color | 16.7M | 16.7M | 16.7M | 16.7M |
| reaction time | 2/6ms | 3.8/1.2ms | 3.6/1.4ms | 3.8/1.2ms |
| Backlight MTBF | 50000hrs | 50000hrs | 30000hrs | 50000hrs |
| viewing angle | 45/45/40/40 | 80/80/60/80 | 45/45/40/40 | 85/85/80/80 |
| Overall dimension | 402.7*269.7*61.7mm | 440.2*293.2*64.4mm | 476.4*335.3*61.6mm | 550*355.6*63.7mm |
| Opening size | 389*258mm (L*H) | 431*284mm (L*H) | 463*326mm (L*H) | 532*346mm (L*H) |
| work environment | 0C~50° C | 0C~50° C | 0C~50° C | 0C~50° C |
| Storage environment | -20° C~60° C | -20° C~60° C | -20° C~60° C | -20° C~60° C |
| touch screen | Capacitance/resistance | | | |
| Display input interface | Support VGA, DVI, HDMI (two out of three) | | | |
| Touch screen interface | USB support | | | |
| Housing material | Embedded/wall-mounted installation | | | |
| Installation method | Aluminum alloy panel/totally enclosed/front panel protection grade IP65 | | | |
| source | DC12V input | | | |

HWEM Industrial display succession

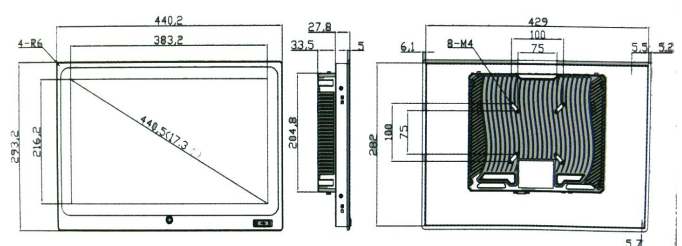
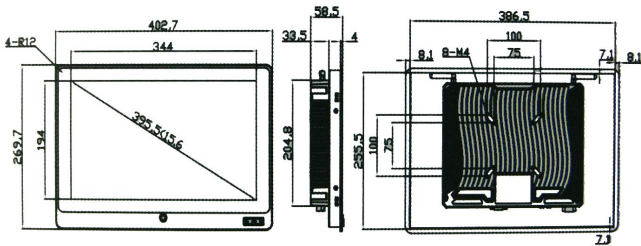


HWEM Series size drawing (widescreen)

Website: <http://www.himcnc.com>
Email: info@harmonyworld.com

1 HWEM156

2 HWEM173



3 HWEM185

4 HWEM215

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