

# UPC-V315-<sup>QM77</sup> NM70

15" Full IP65 Aluminum Panel PC

- Intel® Ivy Bridge mobile chipset (QM77/ NM70)
- 15" 400 nits 1024 x 768 LCD with LED backlight
- Full IP 65 compliant die-casting aluminum chassis
- PCIe Mini card expansion
- Dual-DC input, 9V ~ 36V and 10.5V ~ 36V, switch automatically
- ACC power support
- Dual-band 2.4/5GHz Wi-Fi 802.11a/b/g/n 3T3R MIMO design
- Reserved space for 3.75G / HSUPA USB dongle
- Optional GPS receiver
- Optional EM or Mifare RFID reader
- Optional Bluetooth module
- Built-in 2-megapixel webcam with AF, AE and AWB capabilities
- CAN-bus interface with isolation
- F1 ~ F10 function keys with customization options

**New**



## Various Connections Options

The UPC-V315 provides different kinds of communication interfaces, such as LAN/ WLAN/3G/GPS/ Bluetooth/RFID, which maximize flexibility of system integration and ensure seamless workflow.



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Optional Peripherals

### Connection Feasibility



#### Dual-Band 2.4/5GHZ Wi-Fi

Dual-band 2.4G/5G 802.11 a/b/g/n 3T3R MIMO design with up to 450 Mbps speed



#### 3.75G HSUPA (optional)

Comparing to wireless network, 3.75G HSUPA has higher mobility with long-range mobile communication and no hotspot limitation. It is also able to connect to the Internet in real time.



#### Bluetooth V2.1+EDR (optional)

Connect peripheral devices with Bluetooth, such as earphone, scanner, etc.



#### GPS (optional)

Travel navigation, real-time locating and path tracking

## Robust Mechanical Design

The UPC-V315 is fully IP65 protected with aluminum chassis and water proof rubber gaskets. It also supports wide operating temperature from -20°C to 60°C.

-20°C  60°C



## PCIe Mini Card Expansion

### A. 3T3R Wi-Fi Module

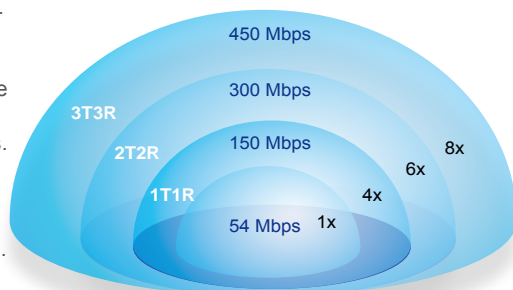
UPC-V315 supports IEEE 802.11a/b/g/n 3T3R WiFi module, enhancing the transmission speed and coverage.

T: Transmitter

The number T is absolutely relative with speed, 1T up to 150Mbps, 2T up to 300Mbps, 3T up to 450Mbps.

R: Receive

The number R is relative with receiving dead angle and distance. The higher R is, the wider the receiving range.



### B. Solid State Disk mSATA

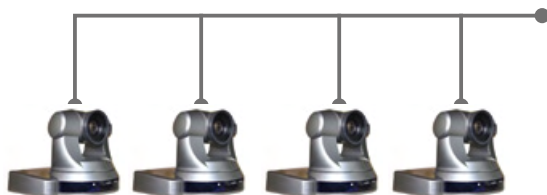
mSATA is compact, rugged, and much faster than traditional HDD, which is suitable for harsh environment.



### C. 4-Channel Capture Card

The UPC-V315-QM77 supports 4-channel video capture solution via PCIe Mini card, which can easily integrate IP camera for surveillance and real-time video streaming.

*QM77 Only*



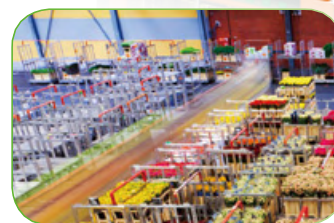
IVCME-C604



Forklift Management



Slaughter House Factory

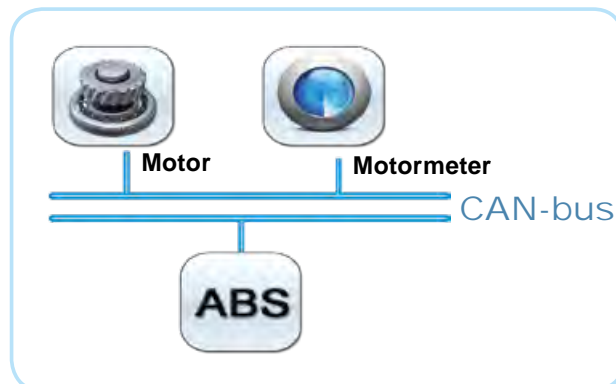


Flower Market Management

## CAN-bus Interface with Isolation

The Control Area Network (CAN) is a serial bus system. The UPC-V312 on-board CAN controllers provide bus arbitration and error detection with automatic transmission repeat function. This drastically reduces the chance of data loss, ensures system reliability, and is suitable for network intelligent I/O devices such as sensors or actuators of machines or plants.

1. Isolated protection voltage 2500V/min DC protection
2. Typical transient immunity 50 kV/ms ESD protection



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## Specifications

Model		UPC-V315-NM70	UPC-V315-QM77
Display	LCD Size	15 "	15 "
	Max Resolution	1024(W) x 768(H)	1024(W) x 768(H)
	Brightness (cd/m <sup>2</sup> )	400	400
	Contrast Ratio	700:1	700:1
	LCD Color	16.2M	16.2M
	Pixel Pitch (mm) (HxV)	0.297(H) x 0.297(V)	0.297(H) x 0.297(V)
	Viewing Angle (V/H)	125°/ 140°	125°/ 140°
	Backlight MTBF (hrs)	50000	50000
Touch	Touch Screen	Resistive Type 5-Wire with RS-232 interface	Resistive Type 5-Wire with RS-232 interface
	Touch Controller	DMC 9000	DMC 9000
Motherboard	CPU	Intel® Celeron® Processor 847	Intel® Core™ i7-3517UE Processor Intel® Core™ i3-3217UE Processor
	Chipset	Mobile Intel® NM70 Express Chipset	Mobile Intel® QM77 Express Chipset
	RAM	Built-in one 2 GB DDR3 memory (System max. 8GB; on board max. 4GB; socket max. 4GB)	Built-in one 2 GB DDR3 memory (System max. 8GB; on board max. 4GB; socket max. 4GB)
	Ethernet	Intel® WG82579LM GbE PHY	Intel® WG82579LM GbE PHY
	Audio Codec	Realtek ALC892 HD audio codec	Realtek ALC892 HD audio codec
I/O Ports and Switches		3 x RS-232 (RJ-45) 1 x RS-422/485 (RJ-45) 1 x CAN-bus 1 x VGA 1 x HDMI port 2 x GbE LAN 2 x USB 2.0 1 x Reset button 1 x Audio jack (Line out, MIC) 1 x DC Jack (9~36V DC) 1 x Terminal block (9~36V DC) 1 x AT / ATX mode switch	3 x RS-232 (RJ-45) 1 x RS-422/485 (RJ-45) 1 x CAN-bus 1 x VGA 1 x HDMI port 2 x GbE LAN 2 x USB 2.0 2 x USB 3.0 1 x Reset button 1 x Audio jack (Line out, MIC) 1 x DC Jack (9~36V DC) 1 x Terminal block (9~36V DC) 1 x AT / ATX mode switch
System	Audio	AMP 3W + 3W (Internal Speaker)	AMP 3W + 3W (Internal Speaker)
	Camera	2-megapixel	2-megapixel
Connectivity	Wireless	IEEE 802.11a/b/g/n 3T3R module (WIFI-RT5393-DB-R10)	IEEE 802.11a/b/g/n 3T3R module (WIFI-RT5393-DB-R10)
	Bluetooth	Bluetooth V2.0+EDR with USB interface (optional)	Bluetooth V2.0+EDR with USB interface (optional)
	3G	Reserved USB connector (Optional)	Reserved USB connector (Optional)
	GPS	N/A	FV-W9U (Optional, internal USB header)
Drive Bay	HDD Driver Bay	1 x 2.5" SATA SSD bay	1 x 2.5" SATA SSD bay
	SSD	mSATA	mSATA
	CD-ROM Driver Bay	N/A	N/A
Expansion Slot		N/A	1 x PCIe Mini Card
System Cooling		Fanless	Fanless
Physical	Construction Material	Aluminium alloy	Aluminium alloy
	Mounting	VESA 100mm x100mm or 75mm x 75mm with M8 screws	VESA 100mm x100mm or 75mm x 75mm with M8 screws
	Front Panel Color	Orange (Pantone 15C)	Orange (Pantone 15C)
	Dimensions (WxHxD) (mm)	427.19 x 330.63 x 77.06	427.19 x 330.63 x 77.06
	Net Weight	7.97 kg	7.97 kg
Environment	Operating Temperature	-20°C ~60°C	-20°C ~60°C
	Storage Temperature	-30°C ~70°C	-30°C ~70°C
	Operating Humidity	5% ~90%, non-condensing	5% ~90%, non-condensing
	Shock	Half-sine wave shock 3G; 11ms; 3 shocks per axis	Half-sine wave shock 3G; 11ms; 3 shocks per axis
	Vibration	MIL-STD-810F 514.5C-1 (with SSD)	MIL-STD-810F 514.5C-1 (with SSD)
Power	IP Rating	Full IP 65	Full IP 65
	Adapter	90 W; 63040-010090-020-RS	90 W; 63040-010090-020-RS
	Requirement	Power1: 9V~36V(+/-0.3V) Power2: 10.5V~36V(+/-0.3V)	Power1: 9V~36V(+/-0.3V) Power2: 10.5V~36V(+/-0.3V)

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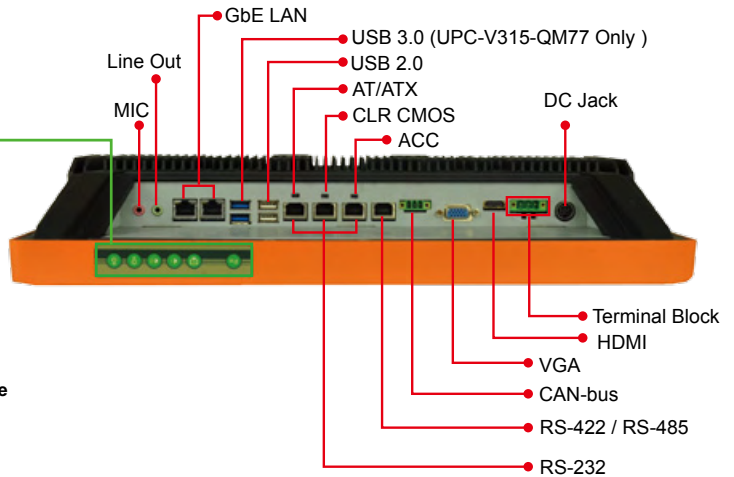
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Optional Peripherals

## IO and Human Machine Interface



Fn		RFID enable / disable
Backlight On/Off	Fn +	Audio mute
Audio -	Fn +	Camera enable / disable
Audio +	Fn +	Right side USB enable / disable
Brightness -	Fn +	Power on / off
Brightness +	Fn +	



## Ordering Information

P/N	Description
UPC-V315-QM77-i7/R/2G-R10	15" 400cd/m <sup>2</sup> XGA fanless full IP65 panel PC with Mobile Intel® QM77 Express Chipset and Intel® Core™ i7-3517UE Processor, 802.11a/b/g/n wireless module, resistive touch screen, 2-mgeapixel camera, microphone, 2GB DDR3 RAM, R10
UPC-V315-QM77-i3/R/2G-R10	15" 400cd/m <sup>2</sup> XGA fanless full IP65 panel PC with Mobile Intel® QM77 Express Chipset and Intel® Core™ i3-3217UE Processor, 802.11a/b/g/n wireless module, resistive touch screen, 2-mgeapixel camera, microphone, 2GB DDR3 RAM, R10
UPC-V315-NM70-C/R/2G-R10	15" 400cd/m <sup>2</sup> XGA fanless full IP65 panel PC with Mobile Intel® NM70 Express Chipset and Intel® Celeron® Processor 847, 802.11a/b/g/n wireless module, resistive touch screen, 2-mgeapixel camera, microphone, 2GB DDR3 RAM, R10

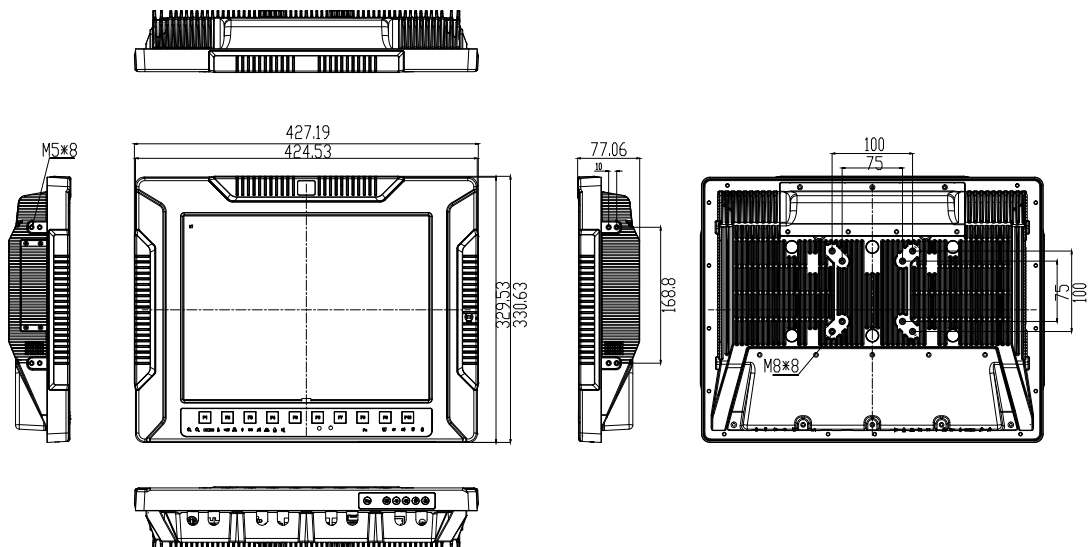
## Packing List

Item	P/N	Q'ty
Utility CD		1
One Key Recovery CD		1
IR Remote Controller	7Z000-SLPCB005-RS	1
RJ-45 to DB-9 COM Port Cable	32005-000200-200-RS	4
M8 Screw	44325-080081-RS	8
M4 Screw	44005-040082-RS	8
Mounting Bracket	41003-0433C2-00-RS	2
Screw Driver	45019-001004-00	1
Power Adapter	63040-010065-010-RS	1
Power Cord (European Standard)	32702-000401-100-RS	1
Power Transfer Cord	32702-000300-100-RS	1
M8 to M4 Screw	44300-040061-RS	8

## Options

Item	P/N
ARM	ARM-31-RS
Wall Mounting Kit	AFLWK-19B
Stand	STAND-C19-R10/STAND-100/STAND-210
GPS Module Kit	UPC-GPS-KIT01-R10
Bluetooth Module Kit	UPC-BT-KIT01-R10
EM RFID Kit	UPC-EM-RFID-KIT01-R10
Mifare RFID Kit	UPC-MF-RFID-KIT01-R10
OS: Win XPE (CD-ROM)	UPC-V315-XPE-R10
OS: Linux (CD-ROM)	UPC-V315-LNX-R10
OS: Win 7 Embedded (DVD-ROM)	UPC-V315-W7E-R10

## Dimensions (Unit: mm)



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