Product Name: Panel PC
Model Name: IronTwo
Part Number: 98C010A000FD

Approved by	Checked By	Formulated By
Cathy Hsu	David Chen	Kent Ouyang

Customer Confirmation	Signature	Date
	Company Name: Hemisphere GNSS, Inc.	
	Approved By:	
	Stamp:	

- *Customer signature is required for Winmate to continue with the sample and receive orders.*
- *Orders received without customer signature will be regarded as agreement on the specifications.*

- *Any changes in product specifications shall be approved by both parties and a new revision of specifications shall be released to reflect changes.*

Document Revision History

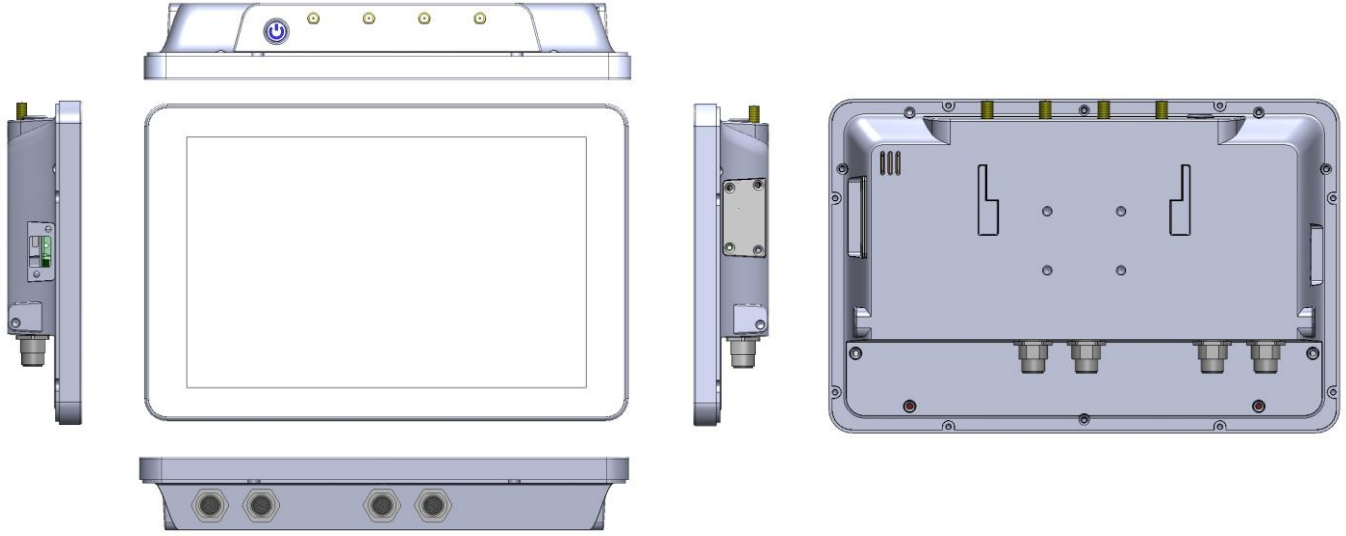
Item	Revision Date	Version	Revised Page (s)	Description of Changes	Revised By
1	12 - Jan - 2021	1.0	N/A	New document release	Kent Ouyang
				1.	
4				1.	
5				1.	
6				1.	
7				1.	

Panel PC Part Number:

Features

- 10.1” 1024 x 600 Resolution with P-Cap Multi-touch screen
- Intel® Celeron® N3350 Apollo Lake
- Fanless cooling system and Ultra-low power consumption
- IP65 Water and Dust Proof
- 2 x RS232, 2 x CANBUS, 3 x DI, 2 x LAN, 2 x USB,
- WiFi 802.11 a/b/g/n/ac
- WWAN 4G/LTE

Drawing

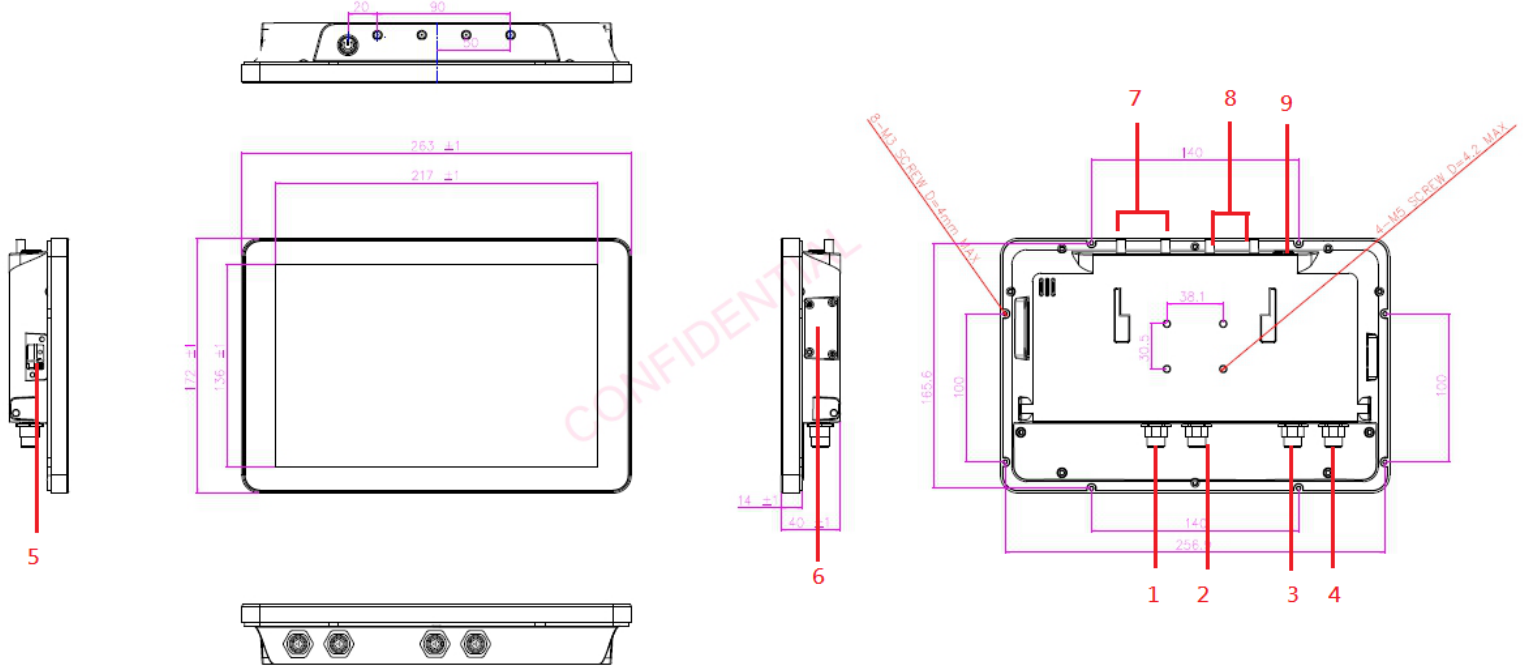


Technical Specifications

Model Name Part Number		W10FA3S-PCH1HB
System	Processor	Intel® Celeron® N3350 Apollo Lake
	System Memory	1 x SO-DIMM, 4GB DDR3L 1600 MHz
	Storage	1 x M.2 2242 SSD 64GB
OS	Operation System	Ubuntu 16.04
Display	Size/Type	10.1" TFT (Widescreen)
	Resolution	1920 x 1200
	Brightness	700 cd/m (typ.)
	Contrast Ratio	800 : 1 (typ.)
	Viewing Angle	-89~89(H);-89~89(V)
	Max Colors	262K (6bit)
	Touch	Projective-Capacitive Touch
Input/ Output	COM Port	2 x RS232 (4 Wires)
	USB Port	2 x USB 2.0 (one is on side)
	Ethernet	2 x 10/100 LAN
	Speaker	1 x 1 Watt Speaker
	CANBUS	2 x CANBUS
	Digital Input	3 x DI
	Ignition	1 x Ignition In
	Power Output	1 x Power Output, current limit at 1.5A
	Device Enable	1 x Device Enable Output base on Terminal Power State
Wireless Communication	WIFI	802.11 a/b/g/n/ac (up to 867 Mbps data rate)
	Bluetooth	Bluetooth 4.1
	WWAN	4G/LTE
Power Specifications	Power Input	9~36V DC
Mechanical	Cooling System	Fanless Design

Specification	Mounting	RAM Mount (38.1x30mm) ; 4x M5-0.8 x 10mm phillips screws provided
	Dimensions (W x H x D)	263 x 172 x 40 (mm)
Environment Considerations	Operating Temperature	-20 deg. C to +60 deg. C
	Operating Humidity	30% to 90% (non-condensing)
	Ingress Protection	IP65

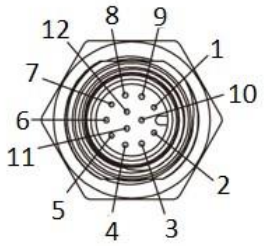
Mechanical Dimensions and I/O Layout



No.	Description	No.	Description
1	RS232+CANBUS+DIN+PWR (M12, A-Coding, 12-pin Female)	6	Sim Slot x 1 (Sealed)
2	RS232+CANBUS+DIN (M12, Custom, 10-pin Male)	7	WiFi Main Antenna SMA Connector (Female SMA Type)
3	LAN x 2, USB 2.0 x 1 (M12, A-Coding, 12-pin Male)	8	WWAN Aux Antenna SMA Connector (Female SMA Type)
4	9-36V DC (M12, B-Coding, 4-pin Male)	9	Power Button(JWQ003-01 w/ Blue LED)
5	USB 2.0 x 1		

Connector Pin Definition

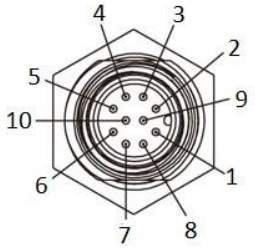
Connector 1 (CN7 on-board): (12-Pin Female) - RS232+CANBUS+DIN+PWR (M12, A-Coding)



Front View

Pin №	Signal Name	Pin №	Signal Name
1	CANH_2	7	GND
2	CANL_2	8	DI_2
3	RXB	9	+5V_OUT
4	TXB	10	VOUT+
5	RTSB	11	DEV_EN
6	CTSB	12	VOUT-

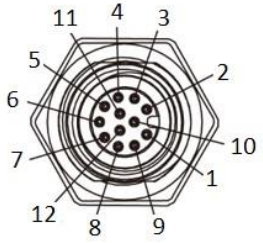
Connector 2 (CN5 on-board): (10-Pin Male) - RS232+CANBUS+DIN (M12, Custom)



Front View

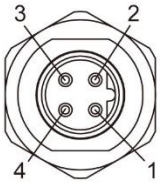
Pin №	Signal Name	Pin №	Signal Name
1	CANH_1	6	CTSA
2	CANL_1	7	GND
3	RXA	8	DI_0
4	TXA	9	DI_1
5	RTSA	10	+5V_OUT

Connector 3 (CN6 on-board): (12-Pin Male) - LAN x 2, USB 2.0 x 1 (M12, A-Coding)



Pin №	Signal Name	Pin №	Signal Name
1	USB_DP1	7	LAN2_MDI0-
2	VUSB_VBUS2	8	LAN2_MDI1+
3	LAN1_MDI0-	9	USB_DM1
4	LAN1_MDI1-	10	GND
5	LAN1_MDI1+	11	LAN1_MDI0+
6	LAN2_MDI0+	12	LAN2_MDI1-

Connector 4 (CN4 on-board): (4-Pin Male) - 9-24V DC IN (M12, B-Coding)



Front View

Pin №	Signal Name
1	VIN+
2	VIN-
3	VIN-
4	IGN_IN

FCC Warning

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-Reorient or relocate the receiving antenna.

-Increase the separation between the equipment and receiver.

-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Operations in the 5.15-5.25GHz band are restricted to indoor usage only.

The manufacturer ensures that the frequency stability of this U-NII device can maintain transmission within the operating frequency band under all normal operating conditions.