Applanix AVX210 Configuration For PAS1000 and PAS190

Version 16 27 June 2019



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1.Before you start

- Configure the screens
- Configure the screen touch (par instructions om page33)

2. Introduction

Follow the instructions to configure the unit for PAS100/150 and PAS190. The difference between the PAS systems is in the following areas:

- IMU lever arm
- Length of the wires in the "Octopus" harness

3. Configuring the Wires

Five wires exit from the D-Type that connects to the AVX210:

• Power:

Connects to one of the iX Controller power ports.

• Com1:

Connects to the iX Controller Com port. This wire is used for:

- Commanding the SOMAG stabilizer by iX Flight (no connection to the AVX210, just uses the harness).
- Transfer of stabilizer angles to the AVX210 (GIM01 message).
- Com2:

Connects to the camera for tagging the image with GPS data.

- Ethernet:
 - Connects to the iX Controller right Ethernet port.
 - Supplies data to the flight management system.
 (The right port is supposed to be configured as part of the computer image. At the end of this manual, there are instructions in case of trouble).
- SOMAG connector:

Transmits flight management commands to the stabilizer. Transmits gimbal angles to the IMU for inclusion in the T04 data.

To configure the wires:

- 1. Connect all five wires.
- 2. Connect a GPS antenna.
- 3. Power up the system.



4. Opening Applanix Setup Application

To open the Applanix setup application:

1. To get to the Applanix setup application, on the address bar of your browser, enter the IP address: http://192.168.53.100.

· · · · · · · · ·	Carl said bu page	* + · · · · · · · · · ·
← → ○ @	O NENKEN O	
Receiver Statu Satellins Otta Logging Receiver Configuration (ID Configuration Sacurity Finness Intern Satelling Intern Satelling	Login	Here winther Here Without window Joon → 100% + ✓ Peoples Cert weith to device Red at oppin Read at out Annie Rin this page to Start Fill Deviceper Taols Coper with Internet Explorer Lind the device Exert Weithalt Exervices Starts Starts Exervices

- 2. Pin the page to the taskbar for fast future entries
- 3. The default credentials are:
 - User Name: admin
 - Password: password



After connecting, a splash screen opens on the screen, showing: the product, system name, serial number, and firmware version.

applaniž		APX-15v2 AV
	Receiver Type APX-15v2 AV System Namber: 550100057 Ethemet IP 0.0.0 Firmware Version: 5.14 2014-05-20 More	

The receiver type for the POS AVX210 product appears as APX-15v2 AV indicating the system has been set up for Airborne Vehicle applications and the hardware version of this unit is 2.

Firmware version in this example screenshot is 5.14.

5. Updating Firmware Version

Current firmware version is 5.50.

Make sure you have the correct files:

- APX-15v2_V550-A_RC3.timg- for hardware version 2
- APX-15v3_V550-A_RC3.timg- for hardware version 3

To update the firmware

- 1. Open Firmware page
- 2. Select Install page
- 3. Use "Choose File" button to point to firmware image
- 4. Use "Install New Firmware" button to initiate transfer and installation.
- 5. Click OK on browser message to start the process.
- 6. At the end of the installation the receiver will reboot (it will show reaching 100% three times for three processes done in a raw before completing).



Receiver Status Satellites Data Logging Receiver Configuration O Configuration Active Firmware Version: Active Firmware Release Date: Active Firmware Release Date: Active Firmware Warranty Date: Active Firmware Release Date: Active Firmware Warranty Date: Active Firmware Warranty Date: Active Firmware Checksum: Active Firmware Checksum: Active Firmware Checksum:	
Satellites Firmware Warranty Date: 2069- Data Logging Active Firmware Version: 5.40 Active Firmware Version: 0.78 Active Core Engine Version: 0.78 Active Firmware Release Date: 2018- Active Firmware Warranty Date: 2017- Active Firmware Warranty Date: 2017- Active Firmware Checksum: 15281	
Data Logging Receiver Configuration O Configuration Active Firmware Version: 0.540 Active Core Engine Version: 0.78 Active Firmware Release Date: 2018 Active Firmware Warranty Date: 2017 Active Firmware Checksum: 65281	-07-01
Active Firmware Version: 5.40 Active Core Engine Version: 0.78 Active Firmware Release Date: 2018- Active Firmware Warranty Date: 2017- Active Firmware Checksum: f5281	
Active Core Engine Version: 0.78 Active Firmware Release Date: 2018- Active Firmware Warranty Date: 2017- Active Firmware Checksum: f5281	
Active Firmware Release Date: 2018- Active Firmware Warranty Date: 2017- Active Firmware Checksum: f5281	
Active Firmware Warranty Date: 2017-	-07-06
Active Fillinwale Checksull. 15201	-04-01 1354
Choose File No file chosen	
Firmware	
lelp let	
Status: Idle	

Keep browser opened during image transfer from your local drive to AVX210. Closing the browser during image transfer might result in corruption of the image itself.

Keep browser opened all the time until firmware is 100% installed.

At the end of the installation the following message appears:



Go back to Firmware page / Install New Firmware and verify the correct version is installed:

	Install New Firm	ware
Receiver Status		
Satellites	Firmware Warranty Date:	2068-06-01
Data Logging	Active Firmware Version	5 50
Receiver Configuration	Active Core Engine Version:	0.27
I/O Configuration	Active Firmware Release Date:	2019-03-07
Network Configuration	Active Firmware Warranty Date:	2017-04-01
Security	Active Firmware Checksum:	a9be3db9
Firmware Install FW Upgrade Check	Browse Install New Firmware	



6. Setting the Antenna

To set the antenna for internal testing:

- 1. From the **Receiver Configuration** menu, for internal testing select **Antenna** > **Unknown External**> click **OK**
- 2. After testing, change to the parameters shown in the following screenshot:

Passiver Status	Antenna Configuration
Satellites	Antenna Type AV39
Data Logging	RINEX Name TRMAV39 NONE V
Receiver Configuration	Antenna Serial Number
Summary	Radome Serial Number
Antenna	Antonna Maggurament Mathed Rattem of antonna mount V
Reference Station	Antenna weasurement wethod Bottom of antenna mount
Tracking	Antenna Height [m] 0.0000
Correction Controls	
Conoral	
INS	Borta-
Application Files	
Reset	
Default Language	
10.0	Apply Antenna Correction to:
I/O Configuration	RTCM V3 🖂
Network Configuration	
Security	OK Cancel
Firmware	
Help	

3. Customers using a different antenna should enter the correct antenna type.



7. Event Setting

- 1. Go to Receiver configuration General
- 2. Verify that the configuration is the same as that shown in the following screenshot:

(A)	General
Receiver Status	
Satellites	Event 1 On/Off Enable V Event 1 Slope Negative V
Data Logging	Event 2 On/Off Enable V Event 2 Slope Negative V
Receiver Configuration	1PPS On/Off Enable V 1PPS Always On
Summary	OK Cancel
Antenna Reference Station	
Tracking	
Correction Controls	
Position	
General	
Application Files	
Reset	
Default Language	
I/O Configuration	
Network Configuration	
Security	
Firmware	
Help	



8. Setting the Magnetic Calibration

To set the magnetic calibration:

- 1. In Receiver Configuration / INS / General, select the MAG Enable checkbox.
- 2. Set Receiver Motion to Airborne Fixed Wing.



3. Click **OK** on the following message

Riceire Balan	INS Configuration	1		applante statesta
	- General			The second second
	MAG Enable GMBAL Enable Static Bench Testing Heading Receiver Motion (Dynamic model) > Graphic Prerequisites	tan o		 Table Deales Anterna - Table Human - X Auto - Y Auto - Z Auto.
	> Mounting Angles > GNSS Lever Arm > IMU Lever Arm OK [Cancel]	This site says The selected dynamic model will be loaded with its default dimensions. Click OK to save those dimensions to the receiver.	185	
	Toxolie - Microsoft Ga	3	逐漸衝	



- 1. Click OK and reboot.
- In the Receiver Configuration / INS / Graphic Prerequisites dialog, select the "IMU shown as enclosure" checkbox.
- 3. Click "ok"
- From the Receiver Configuration menu, select INS > Mounting Angles.

- 5. Go to Reference to IMU Mounting Angles [Deg.] and set X [ROLL] to 180.
- 6. Click **OK**.

A reboot message displays.



Receiver Blatas	INS Configuration	
Data Logging	2 General	
Receiver Configuration Semmary Activitie	Graphic Prerequisites	
Tradition	~ Mounting Angles	
Correction Controls Public Operated INS Application (PDes Seast Default Language	Vehicle to Reference Mounting Angles [Deg] Range: [+180°,180°] X [Roll]: 0.000	
9D Configuration Hebeack Configuration	Pitchi: 0.000	INS Configuration
Security:	(Yawt: 0.000	
Effermante Shelp	Reference to IMU Mounting Angles [Deg] Range: [-160", 180"] X [Roll]: 180.000 Y [Picht]: 0.000 Z [Yaw]: 0.000	ок
	> GNSS Lever Arm > IMU Lever Arm	This site says featoat to complete installation of changes.
	OK Cancel	06

- 7. When the reboot message displays, click **OK** to reboot.
- 8. On **Reboot Receiver**, click **OK**.



Receiver Rese	et
Reboot Receiver:	OK
Use Default Application File:	OK
Clear Satellite Data:	OK
Clear Application Files:	OK
Clear All Receiver Settings:	OK

A verification message displays.

		×
This site says		
This will reboot the receiver. Are you sure?		
OK	Cancel	

9. Click **OK** and wait until the reboot completes.



10. Make sure that APX is tracking GNSS.

This is because gyro measurements are not available until after the receiver's clock has been synchronized with GPS time.

Raw gyro measurements are used to determine when to start and stop collecting magnetometer measurements for the calibration.

- 11. Before starting the calibration make sure the platform is fully static for the first minute after the power is applied:
- 12. Hold the unit away from screens and metal plates.
- 13. Rotate the unit slowly at least two times clockwise around the Z-axis.



The maximum angular rate cannot exceed 40-degrees per second. It should, therefore, take at least nine seconds to complete a full 360-degree rotation about one axis.

The calibration algorithm initiates automatically when the receiver is rotated about the Z-axis at a minimum of 0.6-degrees per second.

9. Checking Magnetometer Calibration

To check the magnetometer:

- 1. Power cycle the system.
- 2. After the unit reboots, go to the Receiver Status menu, select INS Display.





- If the calibration was successful, the **INS Mode** reads **Degraded**. The heading should now initialize when static.
- If the heading is unable to initialize the calibration was not successful. The INS mode shows INVALID and the INS display shows a "forbidden" icon.

Repeat the procedure.

Tenning Status Antong Proting	INS Status		- ap	
Design Carth Manchy Naciane Cautom Eatlethin Chro Lingstry Reamers Carthgurather Info Cartigatether Referet Carthgatether Eatlethy Formas Info	Polation Latitude 0" 0" 0.00000" N or-6.000 [m] Legislade 0" 0" 0.00000" N or-6.000 [m] Annual 0.000 [m] Annual Oom Oom	Velocity Ease 0.00 (ym) a=6.000 (ym) Netter: 0.00 (ym) a=0.000 (ym) ym) Velocity 0.00 (ym) a=0.000 (ym) Thee	Attrack Roll: 0.000° =0.000° Pick: 0.000° =0.000° Speed 0.000 (Mo) 3=0.00° Tack: 0° Magnetomater 0.000° Mode Ubcalanand Mode Ubcalanand Mode Ubcalanand 0.000° Magnetomater 0.000° Mode Ubcalanand 0.000° Mode Ubcalanand 0.000° Mode Ubcalanand 0.000 (Mo) Tack: 0.000 (Mo) Mode Ubcalanand 0.000 (Mo) Mode Ubcalanana 0.000 (Mo) Mode Ubc	



Note:

- If the magnetometer calibration was successful, the calibration times out and the system does not allow another calibration to be completed for 10 minutes (turning the system on and off does not change this).
- If the calibration was unsuccessful, redo the process. If you fail multiple times power down the system and wait 10 minutes before redoing.



10. Settings the Lever Arms

To set the lever arms:

- 1. From the Receiver Configuration menu, select **INS/Mounting Angles**.
- 2. Verify that the Vehicle to reference mounting angles are all set to zero.
- 3. In the **Reference to IMU Mounting Angle** pane, set **Z** to --90.000. (Minus (!) 90.
- 4. Verify that roll and pitch are 0.00

• 41 🖂 New Salt	🖾 Cart Inich Ihri page 🗼 Pintela	x + ~	- u x
< → O @	() 192.188.53.180/		1 t L B
Receiver Status	INS Configuration		applants and
Data Logging	> General		Reference
Receiver Configuration Summary	> Graphic Prerequisites		Primary GNSS Antenna MD Enclosure
Reference Station	~ Mounting Angles	T.	- X Axes
Correction Controls Position General NS - Application Files Reset Default Language	Vehicle to Reference Mounting Angles [Deg] Range: [-180°,180°] X [Roll]: 0.000		- Z Asis
UD Configuration Network Configuration Security	Y [Pitch]: 0.000 Z [Yaw]: 0.000		
Firmware Help	Reference to IMU Mounting Angles [Deg] Range: [-180°, 180°] X 0.000 [Roll]: 0.000 [Pittch]: 0.000 Z -90.000 [Yaw]: -90.000		
	> GNSS Lever Arm		
	> IMU Lever Arm		
	OK Cancel	8	ৰাত্য

5. From the INS configuration menu, select **Reference to IMU lever Arm** and set the values below as shown.



- 6. For:
 - PAS 1000 (ixu)- set:
 - X = 0.0022
 - Y = 0.013

Lens	32 mm	40 mm	50 mm	70 mm	90 mm	110 mm	150 mm
• Z (m)	-0.2023	-0.1932	-0.1964	-0.1866	-0.2272	-0.1731	-0.1654

- •
- PAS 190 set:
 - X = 0.02025
 - Y = 0.0405 (minus!)
 - **Z** = -0.3627 (minus!)



7. Make sure the graphic representation of the location and orientation to the unit, with respect to the camera, seems to be "OK".



8. Enter the following GNSS (antenna) lever arm and review the graphic presentation. End users need to change these values according to their aircraft. However, these initial values help in a sanity check.

Receiver Status	INS	Conf	igura	tion		applanit and and
Satelites	15 64	and the second				
Dete Logging	2 Ge	nerai				E fiederence
Receiver Configuration	NOR	sobie Dra	ra contra ile		9	Primary GNSS Anter
Antenna	V Gr	aprile Pre	requisit	ERC:		MU Enclosure
Reference Station	5 Ma	unting A	nates			-+ X Axm
Tracking	2 110	unung Au	igies			-+ Y Axis
Convertion Controls	- CN	ee Lesiar	Arm			- Z Aars
General	VGN	199 LEVEL	Am			
INS	Reference to Current Primary GNSS Estimate [m Lever Arm [m]			rrent:		
Apprication Fars				timate (m		
Reset				8		
Devens Frindheide.	(In VE	EHICLE				
IO Configuration	frame	1				
Network Configuration	X-	0.154		DT.		
Security	· =	0.104				
Firmware	Y:	-0.101	<< Y:	0.0	- P	
Help	Z	-1.007	Z	0.0	and the second s	
	1-σ	0.050	1-0	0.0		
		U Lever A	rm			
	Conclu					
	OK	Cancel				

9. Verify in the picture that the IMU is above the camera (reference system) and that the antenna is above and to the left of the camera. Zoom out if you do not see the antenna.

INS Configurati	on	
ок		
	X	1.2
	This site says Reboot to complete installation of changes.	1

- 10. Click **OK**.
- 11. Reboot.



11. Setting the I/O

This configures the data to be sent by the ports.

- TCP/IP data is used by iX Flight.
- Com1 connects to the Somag Stabilizer.
- **Com2** connects to the **camera**. It is used for tagging the images.

To set the I/O:

1. Select I/O Configuration.

	Activity
Receiver Status	
Satellites	Satellity tracked: 19
Data Logging	9 5 (9): 5, 7, 13, 15, 17, 19, 20, 28, 30
Receiver Configuration	GLONASS (4): 2, 11, 12, 22
I/O Configuration	Galleo (4): 2, 3, 8, 30
Network Configuration	SBAS (2) 120, 127
Security	
Firmware	Temperature: 41 97°C
Help	Buntime 00.01:01
	Disk: [7066MB/7296MB]
	0% 100%
	2018-03-26T10:01:12Z (UTC)

The following screen opens:

	I/O Cont	figuration	n	E anatante Art. 194
Receiver Status	0.0000000000000000000000000000000000000			appidi #A susseed
Sateläites	TCPIIP	5017		and the second
Deta Logging Receiver Configuration	TCP/IP	5018	7.	NMEA-GGA(20Hz), NMEA-VTG(20Hz), NMEA-GSA(20Hz), NMEA-PASHR(20Hz), NMEA- EVT, NMEA-ENT
I/O Configuration	TCP/IP	28001		
Port Summary Port Configuration	NTRIP Client	7/	7	
Network Configuration	NTRIP Client	¥ ()	-	÷
Firmware	NTRIP Client			
Help	NTRIP Server			
	NTRIP Caster	2101		
	NTRIP Caster	2102	1 27	1. Sec.
	NTRIP Caster	2103	*	
	Serial	COM1 (115K- BN1)	GIMBAL GIM01	
	Serial	COM2 (115K- 8N1)	- 14 - 14	NMEA-EN1
	USB	-	1	
	CAN	CAN 1		



10.1. Setting TCP/IP configuration

The TCP/IP communication data is used by iX Flight.

1. Click on **TCP/IP** Port 5018. A screen opens.

	UO Configuration
Reveluer Status	no comguration
Satutiteo	The state and the state of the
Dela Lugging Receiver Configuration	Server: TCP Port: Sins Date:
VO Configuration Port Summary Port Configuration Network Configuration Security Firmware	Client Cutout only/Allow multiple connections Destrie Nagle Algorithm UDP Mode Authoriticate, set pesseord: InsulfPortext
rieg.	inputouput
	Output NMEA-GGA (20 Hz), Output NMEA-VTG (20 Hz), Output NMEA-GSA (20 Hz), Output NMEA-PASHR (20 Hz), Output NMEA-EVT (1 Hz), Output NMEA-EVT
	NMEA
	AVR OT GLL OT LLQ OT VTG 2014 BPQ: OT ONS OT PAR OT ZDA: OT DP OT ORS OT PAR OT EVT ZDA: OT DP OT ORS OT PAR OT EVT EVT OT DTM: OT ORS OT PAR OT EVT OT EVT OT OTM ORS OT PAR OT PSHIR EVT OT EVT OT EVT OT EVT OT EVT OT EVT OT EVT EVT OT EVT EVT OT EVT
	Report max DDI-2 in NNEA GGA string Report extended information in NNEA GGA, String Report extended information in NNEA GGA, GNS, and RMC strings Report GST message always as GPGST Report legicly later id

- 2. Verify TCP/IP 5018, NMEA
- Verify server TCP 192.168.53.100, port 5018.
 To changing the server address, go to "Network Configuration" (see the section described in "12Changing Network Configuration", on page 23).
- 4. In the dialog that opens, select:
 - GGA (20 Hz)
 - GSA (20 Hz)
 - VTG (20 Hz)
 - PASHR (20 Hz)
 - EN1 (ON)
- 5. Verify Standard NMEA Legacy is checked.
- 6. Click "ok"



7.

10.2. Setting Com1 configuration

Com1 communication is used for communication with the Somag stabilizer.

1. Enable gimbal angles. In Receiver configuration/INS/General put a check mark in the Gimbal Enable check box.



2. Click OK and reboot the system for this setting to be saved.



- 3. In I/O Configuration select serial Com1
- 4. On the first line- select GIMBAL (see Following screen shot)
- 5. On the second line select Baud 115200 and Parity N
- 6. In GIMBAL select GIM01

<u></u>	I/O Configuration
Receiver Status	J. J
Satellites	Serial1 / COM1 V GIMBAL V
Data Logging	
Receiver Configuration	Serial Port Setup
I/O Configuration Port Summary Port Configuration	Baud: 115200 V Parity: NV
Network Configuration	mpuboutput
Security	Input:GIMBAL-GIM01
Firmware	GIMBAL
Help	GIM01 V OK Cancel

7. Click OK



10.3. Setting Com2 configuration

Com2 communication data is used by the camera

- 1. In I/O Configuration click on Serial Com2.
- 2. Select the following values:
 - Baud 115200
 - EN1-ON

a and the under a sold de-			-	1	×
← → ○ ⋒	© 192.168.52.100.	61 +	to L	ษ	-
 ← → O m Receiver Statuss Satulities Data Logging Receiver Configuration I/O Configuration I/O Configuration Port Configuration Network Configuration Security Firmware Help 	VIELENAU VIELENAU Serial Port Setup Baud: 115280 Pacty: N Flow: Deated I Input/Output Output:NMEA.Ent NMEA AVR: Official Construction GBS: Official Port Setup Bud: 115280 Pacty: N Flow: Deated I Input/Output Output:NMEA.Ent NMEA GBS: Official Port One		planîx		42 AV 20402

- 3. Verify Standard NMEA Legacy is checked.
- 4. Click OK.



12. Changing Network Configuration

This is needed only in cases where you need to change communication with the system.

1. Select "Network Configuration

	Activity	
Satellites Data Logging	Satellites Tracked:0	
Receiver Configuration IIO Configuration Vetwork Configuration Security Fermann Help	Input/Output: Output: TCP/IP (5018) - NMEA-GGA (2012) Output: TCP/IP (5018) - NMEA-VTG (2012) Output: TCP/IP (5018) - NMEA-GSA (2012) Output: TCP/IP (5018) - NMEA-EVT (2012) Output: TCP/IP (5018) - NMEA-EVT (112) Output: Senal - NMEA-GGA (2014)	



2. Select Ethernet

applanix dintridui

3. Verify the settings are as shown. You may change the numbers to conform to the numbers shown.

	Ethernet Configuration	applanix minim
Receiver Blatus	219412-22942-2	
Balantings	Stored settings	
Clata Logging	IP Setup Itunk IF 🗸	
Receiver Configuration	IP Address. 192 168 53 188	
ND Configuration	Notmask 256	
Network Coofiguration	Gatoway 960 198 .0 1	
Summary	Hostname ED135-IVE	
Out Cardenation	MTU: 1500	
100	Force DNS Address	
Routing Table	DNS Address 177 16 10 2	
T-Mail Client	Sec DNS Addr II II II II II	
C ANKI AVKITSI H T TP	DNS Domain, elements applicito com	
Phury	DNS Proxy	
1.1.4	Power Saving: 🖂	
NTF	Durge Configuration Cancel	
ZerocanfiUPeP	Hostname: Only alphanumenc and hyphan allowed Required to start with letter and end	with lefter manifer
Security		
Firmware	Current settings	
Help ()	(P Selip Selic P	
	National 255 255 0.0	
	Cateway 192 302.01	
	History BDB35.NS	
	MTU 1500	



13. Changing Security Configuration

When security is not needed, and quick access to the GPS pages in flight is needed, you may bypass the need for user and password by changing the security configuration.

- 1. Click on "Security".
- 2. Click on "Configuration"
- 3. In Security select "Disabled"

Click "OK".

Receiver Itiatus	Security Configuration	
Estellise Data Logging Receiver Cottiguration IO Configuration Not with Cotting values Secure	Security Diverse	
Security Summary Chefgaratus Change Panware Firmware Help	Add User User Name: Pressent Varity Passant Receiver Config File Download File Delete Edit User NTripCaster	
	(deline)	



14. Testing the System

The test shows the connectivity between the camera, iX Capture, iX Flight, and the GPS.

To test the iX Capture system:

- 1. Activate iX Capture.
- 2. Verify a camera is connected.
- 3. Go to **Settings**/camera page

System	ML000136		
FIELE IMAGE LINC	GPS HDMI NETWORK	FMC SERVICE ABOUT	IXM-100 S/N ML000136
SERIAL LINK			
LEFT TERMINAL		RIGHT TERMINAL	
TXPE	airs 🗸 🗸	TYPE	Disabite 🗸 🗸
RAUD BATE	115700 🗸	DII POSITIONING MODE	(995.) 👾
GPS			
TIME IN WEEKS SECONDS		GPS RECEIVER	NMEA Device 🗸

- 4. Serial link/left terminal/type set GPS
- 5. Baud rate set 115200
- 6. In GPS/GPS Receiver Select Applanix.
- 7. Trigger a picture.
- 8. Verify a picture is taken.
- 9. Verify the GPS information is shown.

To test the iX Flight system:

- 1. Activate iX Flight.
- 2. In settings, select **Display windows**.
- 1. Select Separate pilot window.
- 2. Move the pilot window to the pilot display.
- 3. Click Save display positions.

To test the Sensor handler:

Configure the sensor handler (using its manual)



Auto Initialize Al	Ľ.		Sensor		IP	Port	
Camata Camata PhaneONE	N/OFI	1	NMLA serial or UDP	~	142.166.53.100	4 seus	stone
GPS NMEA setial or UDP		2		~			open
Platform SOMAG_VZ		3	[open
	-			~			open
							ppierz
COM ports							

- 1. Click on the camera (1), GPS (2), and platform (3).
- 2. Verify GPS and Camera green, stabilizer yellow.
- 3. If the GPS is not green verify the port (4) is 5018. You may edit it by clicking on it and putting the correct data in its place.
- 4. Click GPS



5. Verify the GPS data is correct.

Auto Initialize All	TARA Sanal Article			
Camery PhaseONE	GPS signal	GPS time Longtude Latitude Atitude	08:29:53 34:92962519 32:16463431 48:6	
NVEA seriel or USP Paptions SOMAG_V2		Speed (km/h) Track (GPS) Track coord	32 348.04	
		Precision Satellites Pritch Roll Heading	pdop 2.1 / hdop 1.0 / vdop 1.9 7 1.36 -0.48 183.56	
		Settings	au. ()	
₽ Settings				
COM ports				
Ethernet				

- 6. Click on **Camera**.
- 7. Click Trigger capture.
- 8. Verify an image is taken and the GPS data is present.





9. Verify that the gimbal angles are correctly sent to the AXV210.

In page INS Status see "Gimbal". Move the stabilizer and verify that the angles update.

🐿 📹 🔺 Territo - 2018-12-03	m × e =			10 X
+ + 0 @ 0	182.186,03.189.		11 🔺 🛆 Z	a
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	2018-12-03716:28:20Z (UTC)			

15. After-Testing the Antenna Setting

To post-test the antenna setting:

- 1. From the Receiver Configuration menu, select Antenna.
- 2. From the Antenna Type list, select AV39.



	Antenna Configuration
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Help	



16. Setting Up the iX Controller Port

This procedure is usually not required b because the iX Controller should be preset for this configuration.

However, If the iX Controller is not preset to PAS configuration-<u>this procedure</u> <u>should be done before connecting to the Applanix unit</u>.

The Applanix unit is pre-configured for:

- Static IP address: 192.168.53.100
- Subnet mask: 255.255.255.0
- 1. Change the right port of the iX Controller to communicate with the Applanix AVX210.



To change the iX Controller Ethernet port configuration:

- 1. On the lower right corner of the iX Controller main screen, right click on the network icon.
- 2. Open Network and Internet Settings.
- 3. Click Ethernet.
- 4. Change the adapter options.

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To set the iX Controller port IP address and subnet mask:

- 1. Click on Internet Protocol Version 4 (TCP/IPv4) properties.
- 2. Enter:
 - IP 192.168.53.101
 - Subnet mask 255.255.255.0
- 3. Click **OK**.



Setting touch screen configuration

- a. Go to Control Panel
 - b. Choose Hardware and Sound
 - c. Choose Tablet
 - d. Choose Setup
 - e. Tap 15" display and press enter
 - f. Tap 7" display
 - g. Close all relevant windows

2. It should be kept like that. Any change is caused by OS and there's nothing we can do about it.

