

# ppk with matrice 210 rtk v2

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3041 14 2019-9-

1#



gilrito

lvl.3



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Person Message

Offline

Dear all,

I would like to process my images taken with a Matrice 210 rtk v2 with d-link2 base station. Where I can find the GPS file (rinex) for processing the data? Can I compute the lever arm in Pix4D mapper or Agisoft Metashape?

Thanks, Gil



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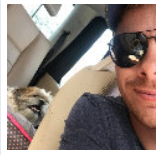
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2019-9-9

2#



Red\_Man

lvl.1

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Person Message

Offline

From my experience with the Matrice 210 RTK V2 the only way to get an RTK/PPK solution is by using DJI Pilot in Mission Planning mode.

This will tag the photos with the RTK GNSS position and Pix4D will recognise this automatically. There is no log/rinex file generated that I can find.

No other apps (4rd party or DJI) will do this which is very frustrating. Even flying manually in DJI Pilot wont tag the photos with an RTK position.

2019-9-12

3#



gilrito

lvl.3



Red\_Man Posted at 9-12 05:00

From my experience with the Matrice 210 RTK V2 the only way to get an RTK/PPK solution is by using DJI Pilot in Mission PL...

[View full quote](#)

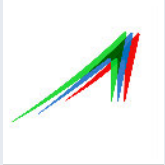
Hi Red\_man

Thanks for your feedback. I flight the M210 rtk v2 with Dji Mission planning app. However I don't get the tags on each image file related with the instantaneous accuracy that the image was taken. With the pahantom 4 RTK I get these tags on each image file. What about your experience on the accuracy of the M210 rtk v2?

Person Message

● Offline

🕒 2019-9-18



djiuser\_BHABtVYLJHF8

🛡️ lvl.2

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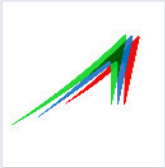
Person Message

● Offline

🕒 2019-9-24

4#

Hi, any news about this matter?



AerobotROI

🛡️ lvl.2

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Person Message

● Offline

🕒 2019-9-25

5#

Red\_Man Posted at 9-12 05:00

From my experience with the Matrice 210 RTK V2 the only way to get an RTK/PPK solution is by using DJI Pilot in Mission PL...

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Hi Red\_Man,

I think you're using the X7 for mapping. Do you notice a huge time (like 3 up to 5 seconds) of shutter interval (time between one shot and the next) for shooting either in jpeg or RAW?

We need the use the X7 for photogrammetry, but it's unusable since it's so slow.



fans1be118ed

🛡️ lvl.2

Flight distance : 591371 ft



>>>

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gilrito Posted at 9-18 13:08

Hi Red\_man

[View full quote](#)

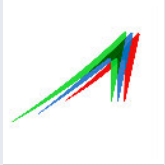
Hi, I read this morning that if you want tag info placed in a proper folder along with a ppk file you have to use the Matrice 210RTKv2 equipped with only X7 + 24mm lens or X7 + 35mm lens. I wish I had this information before, is this correct?

6#

Person Message

● Offline

🕒 2019-10-8



AerobotROI

🛡️ lvl.2

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Person Message

Italy

● Offline

7#  
As a former user of an Intel Falcon 8 Plus, and current user of a M210 RTK V2 with X7 24mm and XT2, I'm close to return this expensive toy. Did we notice how crap this system is?

🕒 2019-10-17



Euis

🛡️ lvl.2



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Person Message

Australia

● Offline

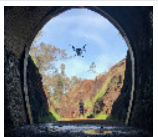
8#  
getting this thread back on track:

for PPK (not RTK) with the M201V2RTK you can use the Rinex file which is stored in the drone (once you've updated to firmware v 590)

You can use this rinex rover file with a rinex base file from a public base station (not from the D-RTK2 base-for-matrice as yet).

What you need (in addition to Agisoft or pix4D) is the KLAU PPK software. This takes care of the GNSS differential corrections, camera times and IMU values and exports a list of corrected photo-coordinates (or geotags your photos) . You can import the list into agisoft. Set preselection to 'reference' and away you go.

🕒 2019-11-6



mpower89

🛡️ lvl.1

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Person Message

9#  
Euis Posted at 11-6 21:50

getting this thread back on track:

[View full quote](#)

Hello Euis,

so can you please confirm a few things....

does the PPK file only get stored if you use a particular flight planning application??  
or will it work with any mission planning app that is used to control the drone?

Does it work in the same way as the P4RTK? as in does it create a new folder with all of the images from that flight mission?


● Offline

Can the M210 V2 RTK also be used in RTK mode with the DRTK-2 base station the same way that the P4RTK is used? ie if it has RTK fix, and you fly a mapping mission all of the images have RTK fixed coordinates applied to the image

most importantly, what app is best for operating this for best functionality???


many thanks.

🕒 2019-11-20



Euis

🛡️ lvl.2



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Person Message

Australia

● Offline

10#

mpower89 Posted at 11-20 17:04

Hello Euis,

[View full quote](#)

we've been using the GS-RTK app on the CrystalSky screen. Don't know about other apps - there is work involved in organising the data to be stored this way so I suggest they may not (yet) do this.

The way the data is organised is the same as in the P4RTK: a separate folder for each mission, containing photos, raw GNSS observations (rinex formatted file), MRK file containing time, rtk positions, camera vs GPS offsets and some quality figures (rms, flag for fix/float solution). It should work with most cameras.

In RTK mode (via custom network or D-RTK2 base, same), the coordinates of the photos are RTK accuracy - and their RMS values are stored in the photo file, so that e.g. Agisoft can read the precision directly. Photos of RTK missions can go straight into Agisoft.

If RTK failed (or wasn't available) you can post-process the stored GNSS data in Klau PPK software (about US\$2500) , and then send the photos with updated geotags to Agisoft.


With GS RTK it all works really sweet.

Two pain points, though:

1. in the custom network set-up , you must type in the name of the mountpoint manually. Any type and it doesn't work. All other apps I know you can pick the mountpoint from a pull down list.
2. The D-RTK2 base (in GS-RTK app) requires you to enter precise coordinates of the base antenna phase centre, not the marker on the ground, not the bottom of the antenna. Must enter in dd.ddd format.





All other software I know you enter the known coordinates of the survey marker, enter the height above marker (from marker to 'ARP' : either the underside of the antenna or a mark on the rim of the antenna) and thirdly either enter or select the antenna offset (offset is from ARP to antenna phase centre).

🕒 2019-12-9



Manes F

🛡️ lvl.3



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Person Message

Spain

● Offline

11#

Red\_Man Posted at 2019-9-12 05:00

From my experience with the Matrice 210 RTK V2 the only way to get an RTK/PPK solution is by using DJI Pilot in Mission Pl...

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It does when you flight manually using a modem connected to a GNNS public service. As Red man says, it does not tag anything in manual flight when using the D-RTK-2

🕒 1-21 13:43

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12#



Manes F

lvl.3



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Person Message

Spain

● Offline

Euis Posted at 2019-12-9 15:52

we've been using the GS-RTK app on the CrystalSky screen. Don't know about other apps - there is work involved in organ...

[View full quote](#)

I am sorry for bothering you. My name is Manes Fernández and I am a Prof. at the University of Oviedo - Spain. We have two units of M210rtk and we have found the same problems with tagging the corrections of the images that you have solved in this post. What I cannot understand is where I can find the Rinex File you talk about. I mean the Rinex file stored in the M210RTK V2. I can only read and decode flydata binary files.

There is something I think I have also misunderstood. Are you flying M210 with the apps for Phantom IV as GS-RT? If the answer is affirmative, could you possibly tell me how did you manage to download them? Thank you very much in advance for your assistance.

Best Regards!

1-22 05:01

13#



Donclem

lvl.1

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Person Message

United States

● Offline

Euis Posted at 2019-12-9 15:52

we've been using the GS-RTK app on the CrystalSky screen. Don't know about other apps - there is work involved in organ...

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Hi, I have been using the M210 and x7 camera for surveying for quite some time now.

In the beginning (using the v2 RTK and its base station), I could not get the images together with the other files to be stored in a separate folder for each flight.

I was always getting an error "NO RTK fusion data used" during pre-flight checks and had to do manual take-off and shutdown before the error will clear.

I decided to fly the drone without its base station and this time i was getting the necessary files to be created in the folder just like the P4RTK.

Can anyone please confirm if they have experienced this same problem?

How do i use the drone together with its base station and still get data stored in "Survey" folder?

3-10 02:47

14#



Topodrone

lvl.2



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Person Message

Russia

● Offline

Hi, I would suggest to make PPK processing in TOPOSETTER 2.0 PRO software. [https://topodrone.org/product/so ...ing/toposetter-2-0/](https://topodrone.org/product/so...ing/toposetter-2-0/)

4-18 08:19



Skycatch0

lvl.2

Flight distance : 5272 ft



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Person Message

United States

● Offline

6-1 14:32

@Euis can you please add more details on your workflow, I tried to capture a mission with X7 camera and the only folder created on the SD card was the photos with the corrected geotag (RTK) where can I find the RINEX file to do the PPK?

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