

First Look

This camera have been on the market for a while, but there is not much review done locally with photos and video sample, in fact, it is seldom talked about in the community.

Today, I shall explore this camera in great details and see what it can do. It is one of the camera that supports Dual Band Wireless (2.4GHz & 5GHz)



What is in the package?

- 1 x Camera Unit
- 1 x Mounting Bracket under the camera's base itself
- 1 x LAN Cable
- 1 x mounting screws kit
- 1 x Safety Mark Power Adapter
- All the warranty, user guides, etc.

Size Factor

As you can see from the photo below, the camera's height is $\frac{2}{3}$ compared against Samsung Note 7, with thickness around 1.5 times of the mobile phone



Side view of this camera against the Samsung Note 7



The camera compared next to the new model camera



Technical Aspect

- 1920x1080P (2Megapixel) Resolution, with H.264 Video Compression
- 128° Wide Angle Viewing Lens
- Night Vision
- Motion & Audio Detection Alarm
- 2-Way Communication
- Supports iOS & Android devices
- Support IE 9.0 or higher (only 32Bit browsers), Firefox
- Supports Mac OS X 10.7 or higher, Safari, Firefox

About Review Environment

A Standard HDB Flat with big living room (Square) ~~provided by third party~~

1Gbps Fibre Internet on ASUS RT-AC66U

Tested using both 2.4GHz at 20MHz & 5GHz at 40MHz frequency

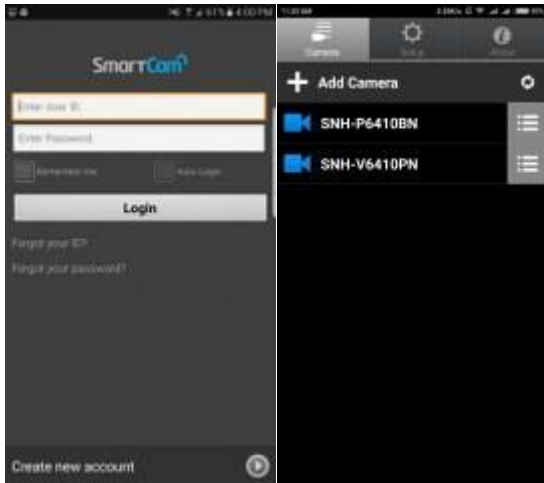
4G mobile network on Samsung Note 7

Samsung SmartCam APP

In my review, I am using Samsung Note 7 as my choice of mobile device. You can download the Samsung SmartCam App from both the PLAY and APPLE Store.



The APP have a clean interface with minimum icons. For non IT people, this is a plus. Upon Login into the APP, you get to see the Camera Listing which you can add cameras into the List (Mine was added before the screen shot was done) plus a Setup Icon which is the setup for the APP.



In Setup, You can configure the APP's notification, your initial default Video Profile of what resolution you want to see when you login to any of your camera. And management of your local video, which your locally (phone) recorded video is being copied over to your camera's VIDEO area. Remember to delete your local video clips to avoid clogging up your local recordings (30sec)

Simple Setup

Any cloud-based IP Cameras should be easy to setup, the loan unit **achieved this. I received surely give me this.** Without looking into the setup guide, I was able to follow the simple guide on the APP to complete adding a camera and to get it working. And this is only **a** one time process, the camera **that** you add to your account will be there even when you change **to a new devices. Just need to login will do. Simply login to the APP to see the cameras**



Procedure

1. Register an account
2. Press on Wireless Button below the camera til you see blinking yellow LED in front
3. Add Camera on APP, select the detected camera
4. Add Wireless to the camera
5. Press No to complete or Yes to further configure other options

It took me only under 2 minutes less registering and logging into an account to setup the camera. Oh yes. Make sure you are on WIFI network at home.

Camera's Features & Capabilities

LIVE Streaming Connectivity

In my testing, I have no problem connecting to the camera within average of 5 seconds.

Viewing Angle

Online specification shows Angular Field of View (D/V/H) as 128° / 62° / 111°. This is a Wide Angle Lens which can cover your room area completely if placed at the right corner of the room without additional cameras.

Zooming (Digital)

The camera supports 4X Zoom on iOS, Android but 10X zoom on web browser. ~~For new owners of IP Cameras, let me remind you that Digital Zoom is "blowing up" the pixels not making it clearer nor sharper. This is only achievable via optical zoom.~~

~~A good to have feature, in sufficient lighting environment, you can see clearly. But in insufficient lighting environment, this can be a challenge to see details. What I appreciate is that Samsung provides a frame to show you where you are zooming into and allows you to drag the zoomed-in frame around the Zoom area with information showing you how many times zoom are you doing, which is lacking in most of the other cameras on the market.~~

Night Vision

This camera has an effective range of 5 Meters which is sufficient for most of HDB & Condo housing in Singapore. Images are sharp at night and clear.

~~Effective range is 5 Meters, however, the IR is still able to penetrate beyond the limit, just that it will not be as bright as the effective range.~~

Response Time

Response time of the camera relatively ties back to varies factor. Your home internet speed and your mobile internet speed. Streaming is smooth with minimum lag noticed on WIFI. 4G Streaming is smooth provided your mobile bandwidth does not fluctuate that much.

SmartCam APP

Quality: 3 Levels - Low, Medium, High

In the Application itself, under Setup, the Video Profile is set to Low Resolution to allow you to establish the fastest connectivity and streaming. You may change this to your preference, I personally like to leave it at Low so that I can connect to the camera at the shortest time and change resolution during streaming based on my network condition

The Low Resolution is clear to show you the surround, but not in greater details. Speed of motion is very constant and instant*.



The Medium Resolution gives you resolution in greater details, words can be seen clearly from the picture below.



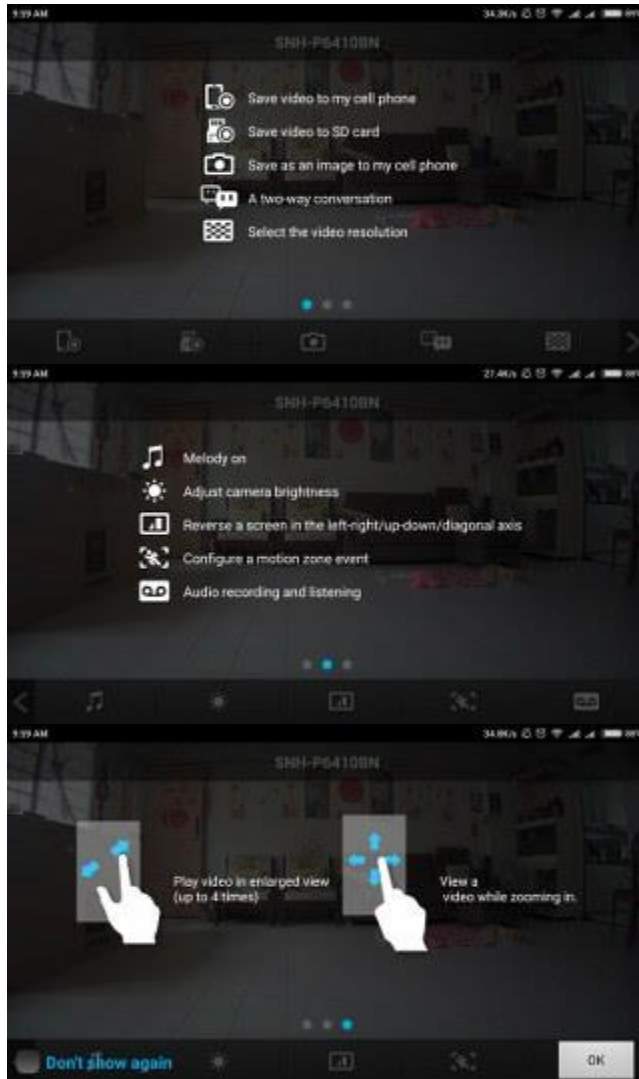
The High Resolution brings everything in the greatest possible details, image are sharper and you can definitely see the difference between medium and high. In high details, everything is clearer but speed wise, if under 4G conditions, may have to expect your expectation on the streaming continuity.



* There will definitely be a streaming delay for all IP Cameras.

I like the fact that LIVE view, they start you up with a HELP screen showing you what the icons represent. You can hide this recurrent display after you get familiar with the interface.

LIVE View Help Screen



Audio Feature

This camera comes with 2-way audio, and mind you, the audio quality is very clear. I can actually talk to the camera standing next to the camera without hearing the camera pick up echos when I depress the MIC button.

Using the surveillance mode, I can hear clearly the surrounding; you will not hear static noises from the camera, and something that I noticed which is a plus point. Someone who is playing music in another room, I can easily pickup that sound easily

LIVE View Recording Possible

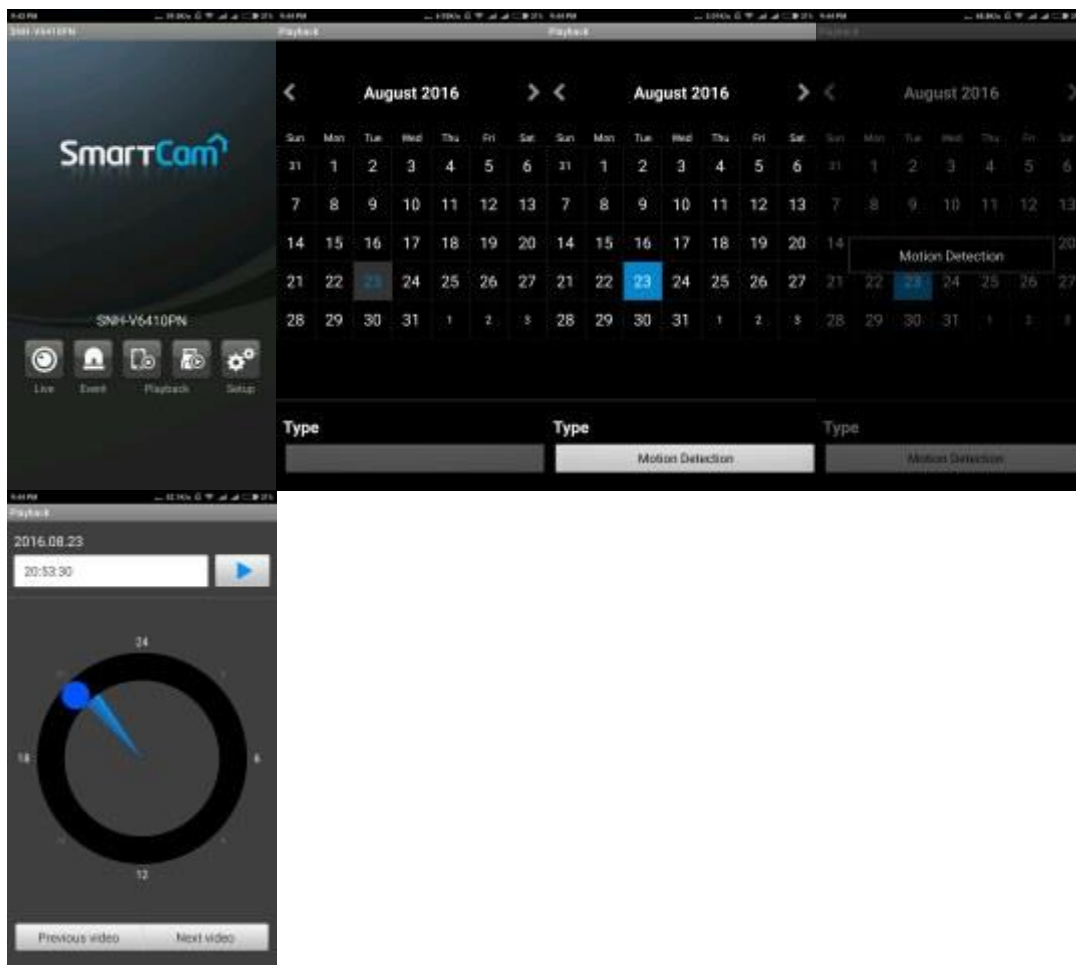
The camera supports up to 30 seconds LIVE view recording to either local phone or camera's microSD card. This allows us to capture critical video evidence when we need to.

Recording Resolution

The camera supports Continuous and Event Recording at 720P resolution. MicroSD max supported size is 64GB. I noticed that the Motion Recording is pretty accurate with low miss rate at 4metre range which is a good feature so that you need not do a full continuous recording and saves on microSD Card space

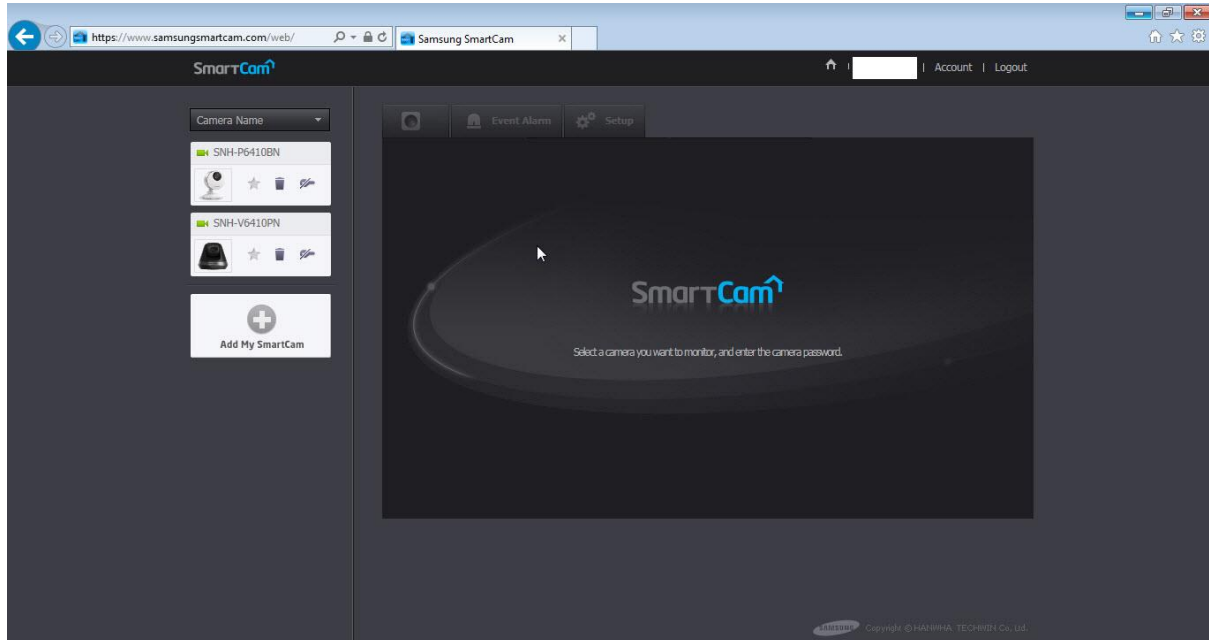
Playback Feature

The Playback module is very easy to use, select the date, and select the Type of recording you are retrieving, and the camera will bring you to an innovative interface that allows you to search for the clips and starts the playback. Upon completion of playback, the APP interface allows you to play the next clip



Web Interface

In an event which your office does not allows you to use your mobile to connect to the WIFI but you have a web-browser, you can still login to the cloud interface to access your cameras



Low Resolution Image over the webUI (For comparison, look at the edges of the objects to see the sharpness)



Medium Resolution Image over the webUI (For comparison, look at the edges of the objects to see the sharpness)



High Resolution Image over the webUI (For comparison, look at the edges of the objects to see the sharpness)



Special Product Features

Baby Lullaby Songs

This camera is also a baby monitoring camera. The camera comes bundled with 3 x Lullaby tunes that you can playback to your baby while monitoring. This additional feature value-adds the camera.

Motion & Audio Detection

The first of its kind to have both features available in a single camera and have the option to adjust each feature's sensitivity individually according to needs.

The audio detection function is very sensitive, using it to monitor a baby, the camera picks up noise easily including the baby's adjusting of himself on the bed and sends you a notification for you to login and check if the baby is truly awake which I find is a useful feature

The motion detection allows you to setup up to 3 ZONES for area detection. A very useful feature to prevent full screen detection (or false alarm). Pictures can be uploaded to Google's Picasa

Image Encryption

Samsung cameras supports encryption of your data over the internet, when you enable the Image encryption, your streaming is encrypted and thus, taken care of the security concern over intercepted transmission over the internet! However, this means a hit on your speed of access since decryption is required.

Wide Dynamic Range

This is one helpful feature on Samsung's cameras, when your surrounding is dark, you can activate the WDR to allow the camera to auto compensate the surround area by doing adjustments to the brightness, etc. So that you can see more clearly, and this feature is extremely helpful when you try to see a person face more clearly against strong sunlight.

Image without WDR enabled. You can see that the area around the SCOOTER wordings are not very visible to some. Note; this image is taken with a SNH-V6410PN to demonstrate the WDR, so viewing angle is smaller



Image with WDR enabled. You can see now that the image that is against the light are adjusted so that you can see more in details, the bicycle area will show you more details in terms of the decals and wordings on it. Note; this image is taken with a SNH-V6410PN to demonstrate the WDR, so viewing angle is smaller



Summary



The 128° Wide Angle view of this camera brings value to its price, you will no longer need to invest in multiple cameras to see more. Moreover, the sensitive motion and audio detection is top notch which was brought forward to the newer series SNH-V6410PN. I like the clear image and no nonsense motion detection technology on the camera. Digital Zooming was also very well considered in implementation.

Easy to use and good streaming quality is the plus point

It comes with 2 Years warranty from Convergent Systems (S) P/L, and is available also in Gain City megastore and showrooms.