MPE ESTIMATION

Test report
On Behalf of
SHENZHEN BAICHUAN SECURITY TECHNOLOGY CO.,LTD
For
WiFi Network Video Recorde
Model No.: SWNVK-490KH2, SWNVK-490KH4, SWNVK-490SD2, SWNVK-490SD4

FCC ID: 2ABN7-SWNVK

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Date of Test:	**Nov. 07, 2018 ~ Nov. 14, 2018**
Date of Report:	**Nov. 14, 2018**
Report Number:	**HK1811071575-2E**

1,**Limit for General Population/ Uncontrolled Exposures**

Frequency	**Power density (mW/ cm^2)**	**Averaging time(minutes)**
300MHz----1.5GHz	F/1500	30
1.5GHz---100GHz	1.0	30

Note: F= Frequency in MHz

2, Estimation Result

For antenna 1:

Mode	Max PK Output power(dBm)	Tune Up Power(dBm)	Max Tune Up power(mW)	Antenna Gain(dBi)	Antenna Gain (linear)	MPE (mW/cm^2)
11b	14.06	14±1(15)	31.62	1	1.2589	0.00792
11g	13.15	12±1(13)	19.95	1	1.2589	0.00500
11n/HT20	11.03	11±1(12)	15.85	1	1.2589	0.00397
11n/HT40	10.45	10±1(11)	12.59	1	1.2589	0.00315

Note: $Pd = \frac{Pout * G}{4\pi r^2}$;

Note: The estimation distance is 20cm

Note:

PK Output power= conducted power.

Conducted power see the test report HK1811071575-1E, The MIMO mode power is max, so only calculate max power mode and antenna port 1 gain=1dBi, antenna port 2 gain=1dBi.

Mode	CH	PK Output power(dBm)	Output power(mW)	Antenna Gain(dBi)	Antenna Gain (linear)	MPE (mW/cm²)
11b	CH1	14.01	25.18	1	1.2589	0.00631
	CH6	13.66	23.23	1	1.2589	0.00582
	CH11	14.06	25.47	1	1.2589	0.00638
11g	CH1	13.03	20.09	1	1.2589	0.00503
	CH6	12.64	18.37	1	1.2589	0.00460
	CH11	13.15	20.65	1	1.2589	0.00518
11n/HT20	CH1	11.03	12.68	1	1.2589	0.00318
	CH6	10.96	12.47	1	1.2589	0.00313
	CH11	10.82	12.08	1	1.2589	0.00303
11n/HT40	CH1	9.04	8.02	1	1.2589	0.00201
	CH4	9.91	9.79	1	1.2589	0.00245
	CH7	10.45	11.09	1	1.2589	0.00278

Note: $Pd = \frac{Pout * G}{4\pi r^2}$;

Note: The estimation distance is 20cm

Note:

PK Output power= conducted power.

Conducted power see the test report HK1811071575-1E, The MIMO mode power is max, so only calculate max power mode and antenna port 1 gain=1dBi, antenna port 2 gain=1dBi.

For antenna 2:

Mode	Max PK Output power(dBm)	Tune Up Power(dBm)	Max Tune Up power(mW)	Antenna Gain(dBi)	Antenna Gain (linear)	MPE (mW/cm²)
11b	13.32	13±1(14)	25.12	1	1.2589	0.00629
11g	12.76	12±1(13)	19.95	1	1.2589	0.00500
11n/HT20	11.20	11±1(12)	15.85	1	1.2589	0.00397
11n/HT40	10.31	10±1(11)	12.59	1	1.2589	0.00315

Note: $Pd = \frac{Pout * G}{4\pi r^2}$;

Note: The estimation distance is 20cm

Note:

PK Output power= conducted power.

Conducted power see the test report HK1811071575-1E, The MIMO mode power is max, so only calculate max power mode and antenna port 1 gain=1dBi, antenna port 2 gain=1dBi.

Mode	CH	PK Output power(dBm)	Output power(mW)	Antenna Gain(dBi)	Antenna Gain (linear)	MPE (mW/cm^2)
11b	CH1	13.24	21.09	1	1.2589	0.00528
	CH6	13.32	21.48	1	1.2589	0.00538
	CH11	13.28	21.28	1	1.2589	0.00533
11g	CH1	11.87	15.38	1	1.2589	0.00385
	CH6	12.27	16.87	1	1.2589	0.00423
	CH11	12.76	18.88	1	1.2589	0.00473
11n/HT20	CH1	11.13	12.97	1	1.2589	0.00325
	CH6	10.99	12.56	1	1.2589	0.00315
	CH11	11.20	13.18	1	1.2589	0.00330
11n/HT40	CH1	9.68	9.29	1	1.2589	0.00233
	CH4	9.73	9.40	1	1.2589	0.00235
	CH7	10.31	10.74	1	1.2589	0.00269

Note: $Pd = \frac{Pout * G}{4\pi r^2}$;

Note: The estimation distance is 20cm

Note:

PK Output power= conducted power.

Conducted power see the test report HK1811071575-1E, The MIMO mode power is max, so only calculate max power mode and antenna port 1 gain=1dBi, antenna port 2 gain=1dBi.

For MIMO:

Mode	Max PK Output power(dBm)	Tune Up Power(dBm)	Max Tune Up power(mW)	Antenna Gain(dBi)	Antenna Gain (linear)	MPE (mW/cm²)
11b	--	--	--	--	--	--
11g	--	--	--	--	--	--
11n/HT20	14.09	14±1(15)	31.62	4.01	2.518	0.01259
11n/HT40	13.39	13±1(14)	25.12	4.01	2.518	0.01259

Note: $Pd = \frac{Pout * G}{4\pi r^2}$;

Note: The estimation distance is 20cm

Note:

PK Output power= conducted power.

Conducted power see the test report HK1811071575-1E, The MIMO mode power is max, so only calculate max power mode and antenna port 1 gain=1dBi, antenna port 2 gain=1dBi.

Mode	CH	PK Output power(dBm)	Output power(mW)	Antenna Gain(dBi)	Antenna Gain (linear)	MPE (mW/cm²)
11b	CH1	--	--	--	--	--
	CH6	--	--	--	--	--
	CH11	--	--	--	--	--
11g	CH1	--	--	--	--	--
	CH6	--	--	--	--	--
	CH11	--	--	--	--	--
11n/HT20	CH1	14.09	25.64	4.01	2.518	0.01285
	CH6	13.99	25.06	4.01	2.518	0.01256
	CH11	14.02	25.23	4.01	2.518	0.01265
11n/HT40	CH1	12.38	17.30	4.01	2.518	0.00867
	CH4	12.83	19.19	4.01	2.518	0.00962
	CH7	13.39	21.83	4.01	2.518	0.01094

Note: $Pd = \frac{Pout * G}{4\pi r^2}$;

Note: The estimation distance is 20cm

Note:

PK Output power= conducted power.

Conducted power see the test report HK1811071575-1E, The MIMO mode power is max, so only calculate max power mode and antenna port 1 gain=1dBi, antenna port 2 gain=1dBi.

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