RF TEST REPORT



Report No.: 18071070-FCC-R

Supersede Report No.: N/A					
Applicant	Southern Telecom Inc.				
Product Name	HD WI-FI S	HD WI-FI Security Camera			
Model No.	SVC561				
Serial No.	N/A				
Test Standard	FCC Part 1	5.247, ANSI C63.10: 2013			
Test Date	September	18 to 25, 2018			
Issue Date	September 26, 2018				
Test Result	Test Result Pass Fail				
Equipment compl	ied with the s	specification			
Equipment did no	t comply with	n the specification			
Aaron Liong David Huang					
Aaron LiangDavid HuangTest EngineerChecked By					
This test report may be reproduced in full only					
Test result presented in this test report is applicable to the tested sample only					

Issued by:

SIEMIC (SHENZHEN-CHINA) LABORATORIES

Zone A, Floor 1, Building 2 Wan Ye Long Technology Park South Side of Zhoushi Road, Bao' an District, Shenzhen, Guangdong China 518108 Phone: +86 0755 2601 4629801 Email: China@siemic.com.cn



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Laboratories Introduction

SIEMIC, headquartered in the heart of Silicon Valley, with superior facilities in US and Asia, is one of the leading independent testing and certification facilities providing customers with one-stop shop services for Compliance Testing and Global Certifications.



In addition to testing and certification, SIEMIC provides initial design reviews and compliance management throughout a project. Our extensive experience with China, Asia Pacific, North America, European, and International compliance requirements, assures the fastest, most cost effective way to attain regulatory compliance for the global markets.

Country/Region	Scope
USA	EMC, RF/Wireless, SAR, Telecom
Canada	EMC, RF/Wireless, SAR, Telecom
Taiwan	EMC, RF, Telecom, SAR, Safety
Hong Kong	RF/Wireless, SAR, Telecom
Australia	EMC, RF, Telecom, SAR, Safety
Korea	EMI, EMS, RF, SAR, Telecom, Safety
Japan	EMI, RF/Wireless, SAR, Telecom
Singapore	EMC, RF, SAR, Telecom
Europe	EMC, RF, SAR, Telecom, Safety

Accreditations for Conformity Assessment



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1. Report Revision History

Report No.	Report Version	Description	Issue Date
18071070-FCC-R	NONE	Original	September 26, 2018

2. Customer information

Applicant Name	Southern Telecom Inc.
Applicant Add	5601 1st Ave, 2nd Floor Brooklyn New York United States
Manufacturer	Southern Telecom Inc.
Manufacturer Add	5601 1st Ave, 2nd Floor Brooklyn New York United States

3. Test site information

Test Lab :

Lab performing tests	SIEMIC (Shenzhen-China) LABORATORIES		
	Zone A, Floor 1, Building 2 Wan Ye Long Technology Park		
Lab Address	South Side of Zhoushi Road, Bao' an District, Shenzhen, Guangdong China		
	518108		
FCC Test Site No.	535293		
IC Test Site No.	4842E-1		
Test Software	Radiated Emission Program-To Shenzhen v2.0		



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4. Equipment under Test (EUT) Information

Description of EUT:	HD WI-FI Security Camera
Main Model:	SVC561
Serial Model:	N/A
Date EUT received:	September 17 , 2018
Test Date(s):	September 18 to 25, 2018
Equipment Category :	DTS
Antenna Gain:	WIFI: 2.5dBi
Antenna Type:	PCB Antenna
Type of Modulation:	802.11b/g/n: DSSS, OFDM
RF Operating Frequency (ies):	WIFI: 802.11b/g/n(20M): 2412-2462 MHz
Number of Channels:	WIFI :802.11b/g/n(20M): 11CH
Port:	Please refer to the user manual
Input Power:	Adapter: Model: A18A-050100U-US2 Input: AC100-240V~50/60Hz,Max.0.2A Output: DC 5V,1A
Trade Name :	SHARPER IMAGE
FCC ID:	2ABV4SVC561



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Mark:

Revision Number	Adapter Model	Report Number	Description of Revision	Date of Revision
0	D31-05050100	18070602-FCC-R	Original Report	July 18, 2018
1	A18A-050100U-US2	18071070-FCC-R	Amended Report	September 26, 2018

Note: This is the amended report application (18071070-FCC-R) of the device, the original submission (18070602-FCC-R) was granted on July 18, 2018. The difference between the original device and the current one was as following the detail information:

The difference is for different Adapter

And based on the above differences, we will retest the " AC Power Line Conducted Emissions and Radiated Emissions" test data, and others please refer to report 18070602-FCC-R.



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5. Test Summary

The product was tested in accordance with the following specifications.

All testing has been performed according to below product classification:

FCC Rules	Description of Test	Result
§15.207 (a),	AC Power Line Conducted Emissions	Compliance
§15.205, §15.209,	Radiated Emissions & Unwanted Emissions	Compliance
§15.247(d)	into Restricted Frequency Bands	Compliance

Measurement Uncertainty

Emissions						
Test Item	Description	Uncertainty				
Band-Edge & Unwanted						
Emissions into Restricted						
Frequency Bands and	Confidence level of approximately 95% (in the case					
Radiated Emissions &	where distributions are normal), with a coverage	+5.6dB/-4.5dB				
Unwanted Emissions	factor of 2 (for EUTs < 0.5m X 0.5m X 0.5m)					
into Restricted Frequency						
Bands						
-	_	-				



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6. Measurements, Examination And Derived Results

6.1 AC Power Line Conducted Emissions

Temperature	26 °C
Relative Humidity	55%
Atmospheric Pressure	1017mbar
Test date :	September 26, 2018
Tested By :	Aaron Liang

Requirement(s):

Spec	Item	Requirement	Requirement Applicable				
47CFR§15. 207, RSS210	 a) For Low-power radio-frequency devices the connected to the public utility (AC) power voltage that is conducted back onto the Au frequency or frequencies, within the band not exceed the limits in the following table [mu] H/50 ohms line impedance stabilization in the provide the limit applies at the boundary between limits applies at the boundary bet			s designed to be , the radio frequency ower line on any) kHz to 30 MHz, shall measured using a 50 network (LISN). The ne frequencies ranges.	V		
(48.1)		Frequency ranges	Limit (dBµV)			
(70.1)		(MHz)	QP	Average			
		0.15 ~ 0.5	66 – 56	56 - 46			
		0.5 ~ 5	56	46			
		5 ~ 30	60	50			
Test Setup							
Procedure	 The the The filte 	 The EUT and supporting equipment were set up in accordance with the requirements of the standard on top of a 1.5m x 1m x 0.8m high, non-metallic table. The power supply for the EUT was fed through a 50W/50mH EUT LISN, connected to filtered mains. 					

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	3. The RF OUT of t	the EUT LISN was cor	nnected to the EMI test receiver via a low-loss
	coaxial cable.		
	4. All other support	ing equipment were p	owered separately from another main supply.
	5. The EUT was sw		to warm up to its normal operating condition.
	0. A scall was mad	te on the NEOTRAL III	an EMI test resolver
	7 High peaks relat	tive to the limit line. Th	an ENI test receiver was then tuned to the
	selected frequen	icies and the necessar	ry measurements made with a receiver bandwidth
	setting of 10 kHz	,	
	8. Step 7 was then	repeated for the LIVE	line (for AC mains) or DC line (for DC power).
Remark			
Result	Pass	🗖 Fail	
Test Plot	Yes (See below)	□ _{N/A}	
Test Plot	Yes (See below)	► N/A	
Test Plot	Yes (See below)	► N/A	
Test Plot	Yes (See below)	► N/A	



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Test Data

Phase Line Plot at 120Vac, 60Hz

No.	P/L	Frequency (MHz)	Reading (dBµV)	Detector	Corrected (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)
1	L1	0.1695	25.88	QP	10.03	35.91	64.98	-29.07
2	L1	0.1695	6.28	AVG	10.03	16.31	54.98	-38.67
3	L1	0.2826	22.16	QP	10.03	32.19	60.74	-28.55
4	L1	0.2826	6.91	AVG	10.03	16.94	50.74	-33.80
5	L1	0.4815	22.09	QP	10.03	32.12	56.31	-24.19
6	L1	0.4815	14.99	AVG	10.03	25.02	46.31	-21.29
7	L1	0.9261	12.94	QP	10.03	22.97	56.00	-33.03
8	L1	0.9261	4.29	AVG	10.03	14.32	46.00	-31.68
9	L1	2.4744	12.17	QP	10.05	22.22	56.00	-33.78
10	L1	2.4744	2.85	AVG	10.05	12.90	46.00	-33.10
11	L1	13.1673	13.09	QP	10.20	23.29	60.00	-36.71
12	L1	13.1673	3.57	AVG	10.20	13.77	50.00	-36.23



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Test Data

Phase Neutral Plot at 120Vac, 60Hz

No.	P/L	Frequency (MHz)	Reading (dBµV)	Detector	Corrected (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)
1	Ν	0.1539	25.55	QP	10.02	35.57	65.79	-30.22
2	Ν	0.1539	6.00	AVG	10.02	16.02	55.79	-39.77
3	Ν	0.1695	24.46	QP	10.02	34.48	64.98	-30.50
4	Ν	0.1695	6.54	AVG	10.02	16.56	54.98	-38.42
5	Ν	0.4737	19.23	QP	10.02	29.25	56.45	-27.20
6	Ν	0.4737	6.37	AVG	10.02	16.39	46.45	-30.06
7	Ν	0.8910	17.20	QP	10.03	27.23	56.00	-28.77
8	Ν	0.8910	8.59	AVG	10.03	18.62	46.00	-27.38
9	Ν	3.6942	14.03	QP	10.06	24.09	56.00	-31.91
10	Ν	3.6942	5.21	AVG	10.06	15.27	46.00	-30.73
11	Ν	6.6543	18.75	QP	10.09	28.84	60.00	-31.16
12	Ν	6.6543	9.35	AVG	10.09	19.44	50.00	-30.56



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Test Data

Phase Line Plot at 240Vac, 60Hz

No.	P/L	Frequency (MHz)	Reading (dBµV)	Detector	Corrected (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)
1	L1	0.1734	24.40	QP	10.03	34.43	64.80	-30.37
2	L1	0.1734	4.80	AVG	10.03	14.83	54.80	-39.97
3	L1	0.2163	21.82	QP	10.03	31.85	62.96	-31.11
4	L1	0.2163	5.85	AVG	10.03	15.88	52.96	-37.08
5	L1	0.4854	20.84	QP	10.03	30.87	56.25	-25.38
6	L1	0.4854	16.21	AVG	10.03	26.24	46.25	-20.01
7	L1	0.9846	15.17	QP	10.03	25.20	56.00	-30.80
8	L1	0.9846	7.40	AVG	10.03	17.43	46.00	-28.57
9	L1	4.4820	12.18	QP	10.07	22.25	56.00	-33.75
10	L1	4.4820	-0.33	AVG	10.07	9.74	46.00	-36.26
11	L1	7.3251	14.12	QP	10.11	24.23	60.00	-35.77
12	L1	7.3251	3.52	AVG	10.11	13.63	50.00	-36.37



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Phase Neutral Plot at 240Vac, 60Hz

No.	P/L	Frequency (MHz)	Reading (dBµV)	Detector	Corrected (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)
1	Ν	0.1578	24.81	QP	10.02	34.83	65.58	-30.75
2	Ν	0.1578	6.45	AVG	10.02	16.47	55.58	-39.11
3	Ν	0.2592	20.02	QP	10.02	30.04	61.46	-31.42
4	Ν	0.2592	9.87	AVG	10.02	19.89	51.46	-31.57
5	Ν	0.5010	20.82	QP	10.02	30.84	56.00	-25.16
6	Ν	0.5010	15.86	AVG	10.02	25.88	46.00	-20.12
7	Ν	0.9612	17.64	QP	10.03	27.67	56.00	-28.33
8	Ν	0.9612	7.40	AVG	10.03	17.43	46.00	-28.57
9	Ν	6.2994	18.97	QP	10.09	29.06	60.00	-30.94
10	Ν	6.2994	9.20	AVG	10.09	19.29	50.00	-30.71
11	Ν	7.8789	18.78	QP	10.11	28.89	60.00	-31.11
12	Ν	7.8789	8.52	AVG	10.11	18.63	50.00	-31.37



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6.2 Radiated Spurious Emissions & Restricted Band

Temperature	26 °C
Relative Humidity	55%
Atmospheric Pressure	1017mbar
Test date :	September 26, 2018
Tested By :	Aaron Liang

Requirement(s):

Spec	Item	Requirement		Applicable
		Except higher limit as specified else emissions from the low-power radio exceed the field strength levels spe the level of any unwanted emission the fundamental emission. The tigh edges		
	,	Frequency range (MHz)	Field Strength (µV/m)	
	a)	0.009~0.490	2400/F(KHz)	▼
		0.490~1.705	24000/F(KHz)	
		1.705~30.0	30	
		30 - 88	100	
47CFR§15.		88 – 216	150	
247(d),		216 960	200	
RSS210		Above 960	500	
(A8.5)	b)	For non-restricted band, In any 100 frequency band in which the spread modulated intentional radiator is op power that is produced by the inten 20 dB or 30dB below that in the 100 band that contains the highest leve determined by the measurement m used. Attenuation below the general is not required 20 dB down 30	R	
	c)	or restricted band, emission must a emission limits specified in 15.209	lso comply with the radiated	7



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	The bar free 5. Ste poi	e resolution ndwidth is f quency abo eps 2 and 3 ints were m	n bandwidth of test red 10Hz with Peak detec ove 1GHz. 8 were repeated for th neasured.	ceiver/spectrum analyzer is 1MHz and the video tion for Average Measurement as below at e next frequency point, until all selected frequency
Remark				
Result	Pass		Fail	
Test Data	Yes		□ _{N/A}	
Test Plot	Yes (See	below)	□ _{N/A}	
	, ,	,		



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Test Result:

Test Mode:	Transmitting Mode				

Frequency range: 9KHz - 30MHz

Freq.	Detection	Factor	Reading	Result	Limit@3m	Margin
(MHz)	value	(dB/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)
						>20
						>20

Note:

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Distance extrapolation factor =40 log (specific distance/test distance)(dB);

Limit line = specific limits(dBuv) + distance extrapolation factor.



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Test Data

Vertical	Polarity	Plot	@3m
v ci li cai	i Ulanty		W ollin

No.	P/L	Frequency	Reading	Ant_F	PA_G	Cab_L	Result	Limit	Margin	Height	Degr
		(MHz)	(dBuV/m)	(dB/m)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	()
1	Н	272.2776	44.92	12.38	22.29	1.74	36.75	46.00	-9.25	100	105
2	Н	222.9502	43.52	11.78	22.34	1.61	34.57	46.00	-11.43	100	109
3	Н	166.0680	32.97	12.11	22.26	1.37	24.19	43.50	-19.31	100	283
4	Н	247.6819	36.05	11.43	22.29	1.69	26.88	46.00	-19.12	100	305
5	Н	955.4381	26.34	22.78	20.77	3.20	31.55	46.00	-14.45	100	214
6	Н	574.6258	26.80	18.74	21.64	2.48	26.38	46.00	-19.62	200	181



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30MHz -1GHz



Horizontal Polarity Plot @3m

Ν	P/	Frequency	Reading	Ant_F	PA_G	Cab_L	Result	Limit	Margin	Height	Degr
о.	L										ee
		(MHz)	(dBuV/m	(dB/m)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	()
)								
1	V	90.8554	43.72	8.21	22.32	0.96	30.57	43.50	-12.93	100	294
2	V	222.9502	43.47	11.78	22.34	1.61	34.52	46.00	-11.48	100	100
3	V	32.2925	36.24	19.63	22.27	0.68	34.28	40.00	-5.72	100	205
4	V	36.3814	34.70	16.54	22.26	0.77	29.75	40.00	-10.25	100	188
5	V	166.6514	37.14	12.07	22.26	1.37	28.32	43.50	-15.18	100	110
6	v	267.5455	33.27	12.17	22.29	1.73	24.88	46.00	-21.12	200	348



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Annex A. TEST INSTRUMENT

Instrument	Model	Serial #	Cal Date	Cal Due	In use
AC Line Conducted					L
EMI test receiver	ESCS30	8471241027	09/15/2017	09/14/2018	•
Line Impedance	LI-125A	191106	09/23/2017	09/22/2018	
Line Impedance	LI-125A	191107	09/23/2017	09/22/2018	•
ISN	ISN T800	34373	09/23/2017	09/22/2018	
Transient Limiter	LIT-153	531118	08/30/2017	08/29/2018	
Radiated Emissions					
EMI test receiver	ESL6	100262	09/15/2017	09/14/2018	>
Positioning Controller	UC3000	MF780208282	11/17/2017	11/16/2018	>
OPT 010 AMPLIFIER (0.1-1300MHz)	8447E	2727A02430	08/30/2017	08/29/2018	V
Microwave Preamplifier (1 ~ 26.5GHz)	8449B	3008A02402	03/22/2018	03/21/2019	L
Horn Antenna	BBHA9170	3145226D1	09/27/2017	09/26/2018	V
Active Antenna (9kHz-30MHz)	AL-130	121031	10/12/2017	10/11/2018	2
Bilog Antenna (30MHz~6GHz)	JB6	A110712	09/19/2017	09/18/2018	K
Double Ridge Horn Antenna (1 ~18GHz)	AH-118	71283	09/22/2017	09/21/2018	
Universal Radio Communication Tester	CMU200	121393	09/23/2017	09/22/2018	V



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Annex B. TEST SETUP AND SUPPORTING EQUIPMENT

Annex B.i. TEST SET UP BLOCK

Block Configuration Diagram for AC Line Conducted Emissions





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Block Configuration Diagram for Radiated Emissions (Below 1GHz).





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Block Configuration Diagram for Radiated Emissions (Above 1GHz).





Annex B. ii. SUPPORTING EQUIPMENT DESCRIPTION

The following is a description of supporting equipment and details of cables used with the EUT.

Supporting Equipment:

Manufacturer	Manufacturer Equipment Description		Serial No	
DongGuan AoHai Power	Adapter	A18A-0501001-US2	N/A	
Technology Co.,Ltd	Adapter	A10A-0301000-032	///T	

Supporting Cable:

Cable type	Shield Type	Ferrite Core	Length	Serial No
USB Cable	Un-shielding	No	0.8m	N/A



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Annex C. User Manual / Block Diagram / Schematics / Partlist/ DECLARATION OF SIMILARITY

Please see the attachment