CERTIFICATE OF COMPLIANCE

No. C13C056

Holder of Certificate: GREE Electric Appliances Inc. of zhuhai
Jinji West Road, Qianshan, Zhuhai, Guangdong 519070, P. R. China
Product: Air Conditioner
Model/Type: GTH36K3FI
GKH36K3FI
GFH36K3FI
GUHD36NK3FO

Is complied with:

EMC Directive: 2004/108/EC

Test acc. To: EN55014-1: 2006+A1:2009+A2:2011
EN55014-2: 1997+A1: 2001+A2:2008
EN61000-3-2: 2006+A1:2009+A2:2009
EN61000-3-3: 2008

Report Number: GER13C056E

This certificate of conformity is based on the adequate technical documentation and the tests in Testing Laboratory of Gree Electric Appliances Inc. of Zhuhai. This declaration becomes invalid if technical or operational modifications are introduced without the manufacturer's consent.
Note: Testing Laboratory of Gree Electric Appliances Inc. of Zhuhai is accredited by TUV Rheinland, CNAS, VDE, etc.

(Authorized signature)
Name: Li zhikun
Date: 2013-03-10

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EMC TEST REPORT

Product Name	:	Split-type Room Air Conditioner
Product Model	:	GTH36K3FI(indoor unit) GFH36K3FI(indoor unit) GKH36K3FI(indoor unit) GUHD36NK3FO（outdoor unit）
Serial No.	:	Pre-production model
Date of Receipt	:	2013.03.10
Test Period	:	2013.03.10
Applicant	:	Gree Electric Appliances, Inc. of Zhuhai
Testing Location	:	Gree EMC Testing Lab.

Applicable The Following Selected Harmonized Standards:

EN55014-1: 2006+A1:2009+A2:2011
EN55014-2: 1997+A1: 2001+A2:2008
EN61000-3-2: 2006+A1:2009+A2:2009
EN61000-3-3: 2008

Tested by	:	**Liujie**		2013-03-10
		Printed Name	*Signature*	*Date((YY-MM-DD)*
Reviewed by	:	Li zhikun		2013-03-10
		Printed Name	*Signature*	*Date((YY-MM-DD)*

EMC LABORATORY OF GREE ELETRIC APPLIANCES INC. OF ZHUHAI

Address: Jinji West Road. Qianshan Zhuhai China Postcode: 519070
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Remark:

Principle of Configuration Selection of test set-up and operation mode

Emission: The Equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

Immunity: The Equipment under test (EUT) was configured to have its highest possible susceptibility against the tested phenomena. The test modes were adapted accordingly in reference to the instructions for use.

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1. Test Summary

4. EMISSION TESTS:

4.1 Mains and additional Terminal Continuous Disturbance Voltage

Test Result: Pass

4.2 Discontinuous Interference on AC Mains

Test Result: Pass

4.3 Disturbance Power

Test Result: Pass

4.4 Harmonics on AC Mains

Test Result: Pass

4.5 Voltage Fluctuation on AC Mains

Test Result: Pass

5. IMMUNITY TESTS:

5.1 Electrostatic Discharge (ESD)

Test Result: Pass

5.2 Electrical Fast Transient/Burst (EFT)

Test Result: Pass

5.3 Surge

Test Result: Pass

5.4 Immunity to conducted Disturbances, induced by RF fields

Test Result: Pass

5.5 Voltage Dips and Short interruptions

Test Result: Pass

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2. Products Description

Power Supply : AC 220-240V , 50Hz

Power Cord : Unshielded

Interconnection Line : Unshielded

Additional Equipment : IR Remote Controller

Protection : Class Ⅰ

Operation Mode : Standby
Fan
Cool
Heat
Dry
Auto

General Description :

For these current models, they are split-type models consisting of two parts, one indoor unit and one common outdoor unit, For the common outdoor unit (GUHD36NK3FO), it can match three different model indoor units (GTH36K3FI, GKH36K3FI and GFH36K3FI) to work, and the power are supplied from the indoor and outdoor units respectively, all EMS test (Immunity item) are applied to the three different combination for indoor and outdoor units.

About the particular information of the modes, please refer to Technical Construction Document, user manual, etc.

Electric wiring between indoor and outdoor units

3. List of Test and Measurement Instruments

Equipment	Manufacturer	Model No.	Serial No.	Calibrated until
EMI Test Receiver	R&S	ESCS30	100353	07/07/2013
L.I.S.N	R&S	ENV4200	100031	07/07/2013
Pulse limiter	R&S	ESH3-Z2	100066	07/07/2013
Absorbing Clamp	R&S	MDS-21	100194	07/07/2013
Voltage Probe	Schwarbeck	TK9420	9426-235	07/07/2013
Clicks Analyzer	Schaffner	DIA1512D	21534	07/07/2013
Harmonic/Flicker Testing system	CI	PACS-3	72823	03/28/2014
ESD Simulator System	TESTQ	NSG438	1198	08/13/2013
EFT/B Generator	Schaffner	NSG2025-4	1237	07/07/2013
Capacitive Coupling Clamp	Schaffner	CDN126	532	07/07/2013
RF-Generator	Schaffner	NSG2070	1022	03/28/2014
Coupling/Decoupling Network	Schaffner	CDN M316	15072	07/07/2013
EM clamp	Schaffner	KEMZ801	15792	07/07/2013
Voltage Swell/DIP/Interrupt Source	KeyTek ECAT	EP62	0512181	11/30/2013
Surge Generator-Combination Wave	KeyTek ECAT	510A	0512182	11/30/2013
Coupling/Decoupling Network	KeyTek ECAT	E4554A	0512183	11/30/2013

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4. Emission Test

4.1 Main and Additional Terminal Continuous Disturbance Voltage

Date of testing	:	2013.03.10
Temperature	:	26°C/18°C
Operational mode	:	Cool /Heat, High speed
Humidity	:	65%RH~67%RH
Test procedure	:	EN55014-1: 2006+A1:2009+A2:2011
Frequency range	:	0.15M - 30MHz
Kind of test site	:	Shielded room
Test result	:	Pass

1.Test Setup:

The EUT is on an insulating plane (height=80cm)
The distance between EUT and L.I.S.N is 80cm.
The distance between EUT and other metal conductors grounded is at least 80cm.

2.If the result of the measurement with the Quasi Peak detector is below the Average limit, the measurement with Average Detector has been omitted.
Disturbances other than those mentioned are small or not detectable.

Receiver setup:
Detector:Peak+Average; IF-BW: 9kHz; Step: 4.5kHz; M-Time: 20ms
The test data are as follows:

At main terminal: Pass

Model: GUHD36NK3FO（outdoor unit）

Cooling mode **Port: Power Cord- L line**

Final measurement results

EDIT PEAK LIST (Final Measurement Results)				
Trace1:	14-QP			
Trace2:	14-AV			
Trace3:	---			
TRACE	FREQUENCY	LEVEL dBµV		DELTA LIMIT dB
1 Quasi Peak	162 kHz	58.52	L1 gnd	-6.83
2 Average	162 kHz	53.65	L1 gnd	-4.51
1 Quasi Peak	182 kHz	55.54	L1 gnd	-8.84
2 Average	182 kHz	50.97	L1 gnd	-5.93
1 Quasi Peak	202 kHz	51.40	L1 gnd	-12.12
2 Average	202 kHz	46.81	L1 gnd	-8.96
2 Average	222 kHz	42.44	L1 gnd	-12.31
1 Quasi Peak	1.25 MHz	42.56	L1 gnd	-13.44
2 Average	1.27 MHz	36.62	L1 gnd	-9.37
2 Average	1.326 MHz	39.70	L1 gnd	-6.29
1 Quasi Peak	1.342 MHz	46.25	L1 gnd	-9.74
1 Quasi Peak	3.042 MHz	44.55	L1 gnd	-11.44

Model: GUHD36NK3FO（outdoor unit）

Cooling mode **Port: Power Cord- N line**

Final measurement results

EDIT PEAK LIST (Final Measurement Results)				
Trace1:	14-QP			
Trace2:	14-AV			
Trace3:	---			
TRACE	FREQUENCY	LEVEL dBµV		DELTA LIMIT dB
1 Quasi Peak	154 kHz	60.15	L1 gnd	-5.63
2 Average	162 kHz	52.55	L1 gnd	-5.61
1 Quasi Peak	166 kHz	58.87	L1 gnd	-6.28
1 Quasi Peak	182 kHz	55.73	L1 gnd	-8.65
2 Average	182 kHz	48.43	L1 gnd	-8.47
1 Quasi Peak	194 kHz	55.78	L1 gnd	-8.07
2 Average	202 kHz	42.59	L1 gnd	-13.18
1 Quasi Peak	210 kHz	55.88	L1 gnd	-7.31
1 Quasi Peak	226 kHz	52.02	L1 gnd	-10.56
2 Average	1.298 MHz	38.43	L1 gnd	-7.56
2 Average	1.326 MHz	39.37	L1 gnd	-6.62
2 Average	1.346 MHz	39.26	L1 gnd	-6.74

Model: GUHD36NK3FO（outdoor unit）

Heating mode **Port: Power Cord- L line**

Final measurement results

EDIT PEAK LIST (Final Measurement Results)					
Trace1:	14-QP				
Trace2:	14-AV				
Trace3:	---				
TRACE		FREQUENCY	LEVEL dBµV		DELTA LIMIT dB
1	Quasi Peak	154 kHz	56.73	L1 gnd	-9.05
2	Average	162 kHz	54.81	L1 gnd	-3.35
1	Quasi Peak	802 kHz	30.08	L1 gnd	-25.91
2	Average	818 kHz	25.95	L1 gnd	-20.04
1	Quasi Peak	1.342 MHz	47.53	L1 gnd	-8.46
2	Average	1.342 MHz	39.76	L1 gnd	-6.23
2	Average	3.326 MHz	39.05	L1 gnd	-6.94
1	Quasi Peak	3.378 MHz	43.95	L1 gnd	-12.04
1	Quasi Peak	7.418 MHz	45.96	L1 gnd	-14.03
2	Average	7.522 MHz	40.43	L1 gnd	-9.56
1	Quasi Peak	21.97 MHz	42.13	L1 gnd	-17.86
2	Average	22.518 MHz	33.70	L1 gnd	-16.29

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Model: GUHD36NK3FO（outdoor unit）

Heating mode **Port: Power Cord- N line**

Final measurement results

EDIT PEAK LIST (Final Measurement Results)					
Trace1:	14-QP				
Trace2:	14-AV				
Trace3:	---				
TRACE		FREQUENCY	LEVEL dBµV		DELTA LIMIT dB
1	Quasi Peak	162 kHz	58.23	L1 gnd	-7.12
2	Average	162 kHz	53.16	L1 gnd	-5.00
1	Quasi Peak	182 kHz	55.17	L1 gnd	-9.21
2	Average	182 kHz	50.31	L1 gnd	-6.59
1	Quasi Peak	202 kHz	51.17	L1 gnd	-12.35
2	Average	202 kHz	46.50	L1 gnd	-9.28
2	Average	222 kHz	42.34	L1 gnd	-12.41
1	Quasi Peak	1.302 MHz	47.81	L1 gnd	-8.18
2	Average	1.302 MHz	39.47	L1 gnd	-6.52
1	Quasi Peak	1.354 MHz	45.43	L1 gnd	-10.56
2	Average	1.358 MHz	40.12	L1 gnd	-5.87
1	Quasi Peak	7.394 MHz	45.36	L1 gnd	-14.63

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Model: GTH36K3FI(indoor unit)

Cooling mode **Port: Power Cord- L line**

Cooling mode **Port: Power Cord- N line**

Model: GTH36K3FI(indoor unit)

Heating mode **Port: Power Cord- L line**

Heating mode **Port: Power Cord- N line**

Model: GKH36K3FI(indoor unit)

Cooling mode **Port: Power Cord- L line**

Final measurement results

EDIT PEAK LIST (Final Measurement Results)					
Trace1:	14-QP				
Trace2:	14-AV				
Trace3:	---				
TRACE		FREQUENCY	LEVEL dBµV		DELTA LIMIT dB
2	Average	150 kHz	48.94	L1 gnd	-10.05
1	Quasi Peak	166 kHz	57.47	L1 gnd	-7.68
1	Quasi Peak	466 kHz	45.49	L1 gnd	-11.08
2	Average	466 kHz	42.06	L1 gnd	-4.69
1	Quasi Peak	1.842 MHz	40.49	L1 gnd	-15.50
2	Average	1.95 MHz	34.87	L1 gnd	-11.12
2	Average	3.718 MHz	37.36	L1 gnd	-8.63
1	Quasi Peak	3.754 MHz	45.22	L1 gnd	-10.77
1	Quasi Peak	11.346 MHz	45.84	L1 gnd	-14.15
2	Average	11.934 MHz	43.59	L1 gnd	-6.40
2	Average	12.41 MHz	41.99	L1 gnd	-8.00
1	Quasi Peak	12.518 MHz	45.40	L1 gnd	-14.59

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Model: GKH36K3FI(indoor unit)

Cooling mode **Port: Power Cord- N line**

Final measurement results

EDIT PEAK LIST (Final Measurement Results)					
Trace1:	14-QP				
Trace2:	14-AV				
Trace3:	---				
TRACE		FREQUENCY	LEVEL dBµV		DELTA LIMIT dB
1	Quasi Peak	150 kHz	58.16	L1 gnd	-7.83
2	Average	150 kHz	50.61	L1 gnd	-8.38
1	Quasi Peak	462 kHz	43.68	L1 gnd	-12.97
2	Average	466 kHz	42.00	L1 gnd	-4.75
1	Quasi Peak	1.026 MHz	40.42	L1 gnd	-15.57
2	Average	1.938 MHz	33.93	L1 gnd	-12.06
1	Quasi Peak	3.638 MHz	45.37	L1 gnd	-10.62
2	Average	3.758 MHz	39.17	L1 gnd	-6.82
1	Quasi Peak	11.846 MHz	48.89	L1 gnd	-11.10
2	Average	11.846 MHz	43.18	L1 gnd	-6.81
2	Average	12.414 MHz	41.64	L1 gnd	-8.35
1	Quasi Peak	12.67 MHz	47.39	L1 gnd	-12.60

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Model: GKH36K3FI(indoor unit)

Heating mode **Port: Power Cord- L line**

Final measurement results

EDIT PEAK LIST (Final Measurement Results)					
Trace1:	14-QP				
Trace2:	14-AV				
Trace3:	---				
TRACE		FREQUENCY	LEVEL dBµV		DELTA LIMIT dB
1	Quasi Peak	150 kHz	57.43	L1 gnd	-8.56
2	Average	166 kHz	47.85	L1 gnd	-10.05
1	Quasi Peak	458 kHz	42.37	L1 gnd	-14.35
2	Average	470 kHz	41.71	L1 gnd	-4.95
1	Quasi Peak	1.954 MHz	41.72	L1 gnd	-14.27
2	Average	1.954 MHz	35.83	L1 gnd	-10.16
1	Quasi Peak	3.654 MHz	44.45	L1 gnd	-11.54
2	Average	3.682 MHz	37.09	L1 gnd	-8.90
2	Average	11.498 MHz	44.14	L1 gnd	-5.85
1	Quasi Peak	11.698 MHz	48.08	L1 gnd	-11.91
2	Average	12.558 MHz	40.90	L1 gnd	-9.09
1	Quasi Peak	12.578 MHz	46.52	L1 gnd	-13.47

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Model: GKH36K3FI(indoor unit)

Heating mode **Port: Power Cord- N line**

Final measurement results

EDIT PEAK LIST (Final Measurement Results)					
Trace1:	14-QP				
Trace2:	14-AV				
Trace3:	---				
TRACE		FREQUENCY	LEVEL dBµV		DELTA LIMIT dB
1	Quasi Peak	166 kHz	58.07	L1 gnd	-7.08
2	Average	166 kHz	48.80	L1 gnd	-9.10
1	Quasi Peak	466 kHz	44.68	L1 gnd	-11.90
2	Average	466 kHz	41.82	L1 gnd	-4.93
2	Average	1.022 MHz	37.06	L1 gnd	-8.93
1	Quasi Peak	1.954 MHz	43.01	L1 gnd	-12.98
1	Quasi Peak	3.662 MHz	46.40	L1 gnd	-9.59
2	Average	3.754 MHz	39.28	L1 gnd	-6.71
2	Average	11.406 MHz	42.69	L1 gnd	-7.30
1	Quasi Peak	11.83 MHz	47.78	L1 gnd	-12.21
1	Quasi Peak	12.414 MHz	47.47	L1 gnd	-12.52
2	Average	12.414 MHz	42.05	L1 gnd	-7.94

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Model: GFH36K3FI(indoor unit)

Cooling mode **Port: Power Cord- L line**

Final measurement results

EDIT PEAK LIST (Final Measurement Results)				
Trace1:	14-QP			
Trace2:	14-AV			
Trace3:	---			
TRACE	FREQUENCY	LEVEL dBµV		DELTA LIMIT dB
1 Quasi Peak	162 kHz	52.42	L1 gnd	-12.93
2 Average	162 kHz	45.45	L1 gnd	-12.71
1 Quasi Peak	502 kHz	39.86	L1 gnd	-16.13
2 Average	502 kHz	35.64	L1 gnd	-10.35
1 Quasi Peak	2.002 MHz	45.19	L1 gnd	-10.80
2 Average	2.002 MHz	39.69	L1 gnd	-6.30
1 Quasi Peak	3.526 MHz	47.39	L1 gnd	-8.61
2 Average	3.686 MHz	42.36	L1 gnd	-3.63
2 Average	9.794 MHz	39.18	L1 gnd	-10.81
1 Quasi Peak	9.834 MHz	43.54	L1 gnd	-16.46
1 Quasi Peak	26.242 MHz	41.48	L1 gnd	-18.51
2 Average	26.558 MHz	35.12	L1 gnd	-14.87

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Model: GFH36K3FI(indoor unit)

Cooling mode **Port: Power Cord- N line**

Final measurement results

EDIT PEAK LIST (Final Measurement Results)				
Trace1:	14-QP			
Trace2:	14-AV			
Trace3:	---			
TRACE	FREQUENCY	LEVEL dBµV		DELTA LIMIT dB
1 Quasi Peak	162 kHz	52.07	L1 gnd	-13.29
2 Average	162 kHz	45.68	L1 gnd	-12.48
1 Quasi Peak	742 kHz	39.18	L1 gnd	-16.81
2 Average	742 kHz	34.06	L1 gnd	-11.93
1 Quasi Peak	1.802 MHz	44.26	L1 gnd	-11.73
2 Average	2.002 MHz	39.77	L1 gnd	-6.22
1 Quasi Peak	3.446 MHz	47.30	L1 gnd	-8.69
2 Average	3.446 MHz	41.77	L1 gnd	-4.22
1 Quasi Peak	5.146 MHz	39.46	L1 gnd	-20.53
2 Average	9.814 MHz	35.11	L1 gnd	-14.88
1 Quasi Peak	24.41 MHz	39.70	L1 gnd	-20.29
2 Average	26.142 MHz	32.86	L1 gnd	-17.13

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Model: GFH36K3FI(indoor unit)

Heating mode **Port: Power Cord- L line**

Final measurement results

EDIT PEAK LIST (Final Measurement Results)				
Trace1:	14-QP			
Trace2:	14-AV			
Trace3:	---			
TRACE	FREQUENCY	LEVEL dBµV		DELTA LIMIT dB
1 Quasi Peak	162 kHz	52.52	L1 gnd	-12.84
2 Average	162 kHz	46.12	L1 gnd	-12.04
1 Quasi Peak	482 kHz	39.19	L1 gnd	-17.11
2 Average	502 kHz	35.22	L1 gnd	-10.77
1 Quasi Peak	2.062 MHz	45.45	L1 gnd	-10.54
2 Average	2.062 MHz	39.66	L1 gnd	-6.33
1 Quasi Peak	3.582 MHz	46.55	L1 gnd	-9.44
2 Average	3.582 MHz	41.82	L1 gnd	-4.17
1 Quasi Peak	9.79 MHz	39.99	L1 gnd	-20.00
2 Average	9.85 MHz	35.32	L1 gnd	-14.67
1 Quasi Peak	26.398 MHz	41.03	L1 gnd	-18.96
2 Average	26.418 MHz	34.91	L1 gnd	-15.09

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Model: GFH36K3FI(indoor unit)

Heating mode **Port: Power Cord- N line**

Final measurement results

EDIT PEAK LIST (Final Measurement Results)

Trace1:	14-QP
Trace2:	14-AV
Trace3:	---

TRACE		FREQUENCY	LEVEL dBµV		DELTA LIMIT dB
1	Quasi Peak	162 kHz	52.29	L1 gnd	-13.06
2	Average	162 kHz	45.88	L1 gnd	-12.28
1	Quasi Peak	502 kHz	39.46	L1 gnd	-16.53
2	Average	502 kHz	35.26	L1 gnd	-10.73
2	Average	2.022 MHz	39.97	L1 gnd	-6.02
1	Quasi Peak	2.026 MHz	43.45	L1 gnd	-12.54
1	Quasi Peak	3.75 MHz	45.90	L1 gnd	-10.09
2	Average	3.75 MHz	40.15	L1 gnd	-5.84
1	Quasi Peak	5.222 MHz	38.82	L1 gnd	-21.17
2	Average	9.822 MHz	31.83	L1 gnd	-18.16
1	Quasi Peak	23.762 MHz	40.38	L1 gnd	-19.62
2	Average	26.498 MHz	32.68	L1 gnd	-17.31

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According to EN55014.1, for terminal disturbance voltage, the test start frequency shall be obtained per the formula: f start=60/L (MHz), so, here, the f start=60/8.0 =7.5 MHz. Where, the length of interconnection line is 8.0 meters.

Cooling mode **Port:** Interconnection line at indoor unit

Final measurement results

TRACE		FREQUENCY	LEVEL dBµV		DELTA LIMIT dB
1	Quasi Peak	7.564 MHz	61.29	L1 gnd	-12.70
2	Average	7.608 MHz	55.81	L1 gnd	-8.18
1	Quasi Peak	11.268 MHz	53.80	L1 gnd	-20.19
2	Average	11.508 MHz	48.65	L1 gnd	-15.34
2	Average	12.936 MHz	47.07	L1 gnd	-16.92
1	Quasi Peak	13.52 MHz	53.82	L1 gnd	-20.17
2	Average	18.592 MHz	47.10	L1 gnd	-16.89
1	Quasi Peak	18.744 MHz	54.26	L1 gnd	-19.74
1	Quasi Peak	21.796 MHz	60.18	L1 gnd	-13.81
2	Average	22.104 MHz	55.14	L1 gnd	-8.85
2	Average	24.18 MHz	49.77	L1 gnd	-14.22
1	Quasi Peak	25.324 MHz	53.39	L1 gnd	-20.60

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Additional terminal:

Cooling mode **Port:** Interconnection line at outdoor unit

Final measurement results

TRACE		FREQUENCY	LEVEL dBµV		DELTA LIMIT dB
2	Average	7.5 MHz	53.78	L1 gnd	-10.21
1	Quasi Peak	7.668 MHz	59.63	L1 gnd	-14.36
1	Quasi Peak	9.644 MHz	54.87	L1 gnd	-19.12
2	Average	9.744 MHz	49.44	L1 gnd	-14.55
2	Average	11.984 MHz	47.06	L1 gnd	-16.93
1	Quasi Peak	13.212 MHz	50.37	L1 gnd	-23.62
2	Average	18.464 MHz	47.40	L1 gnd	-16.59
1	Quasi Peak	18.888 MHz	53.13	L1 gnd	-20.86
1	Quasi Peak	20.18 MHz	51.86	L1 gnd	-22.14
2	Average	21.52 MHz	48.97	L1 gnd	-15.02
2	Average	29.952 MHz	43.47	L1 gnd	-20.52
1	Quasi Peak	29.956 MHz	48.67	L1 gnd	-25.32

THIS TEST REPORT IS RESPONSIBLE FOR THE SAMPLE TESTED ONLY AND SHOULD NOT BE DUPLICATED IN PART WITHOUT PERMISSION OF THE TEST LAB

Additional terminal:

Heating mode **Port: Interconnection line at indoor unit**

Final measurement results

TRACE		FREQUENCY	LEVEL dBµV		DELTA LIMIT dB
1	Quasi Peak	7.5 MHz	59.60	L1 gnd	-14.39
2	Average	7.5 MHz	54.17	L1 gnd	-9.82
2	Average	9.72 MHz	48.33	L1 gnd	-15.66
1	Quasi Peak	9.748 MHz	53.10	L1 gnd	-20.89
2	Average	12 MHz	46.36	L1 gnd	-17.63
1	Quasi Peak	12.048 MHz	51.32	L1 gnd	-22.67
1	Quasi Peak	18.364 MHz	53.22	L1 gnd	-20.77
2	Average	18.664 MHz	47.41	L1 gnd	-16.58
2	Average	19.024 MHz	46.20	L1 gnd	-17.79
1	Quasi Peak	20.064 MHz	51.52	L1 gnd	-22.47
1	Quasi Peak	29.868 MHz	46.92	L1 gnd	-27.07
2	Average	29.956 MHz	40.92	L1 gnd	-23.07

THIS TEST REPORT IS RESPONSIBLE FOR THE SAMPLE TESTED ONLY AND SHOULD NOT BE DUPLICATED IN PART WITHOUT PERMISSION OF THE TEST LAB

Additional terminal:

Heating mode **Port: Interconnection line at outdoor unit**

Final measurement results

	TRACE	FREQUENCY	LEVEL dBµV		DELTA LIMIT dB
1	Quasi Peak	7.54 MHz	57.81	L1 gnd	-16.18
2	Average	7.616 MHz	52.21	L1 gnd	-11.78
2	Average	11.416 MHz	47.72	L1 gnd	-16.28
1	Quasi Peak	11.448 MHz	52.50	L1 gnd	-21.49
2	Average	11.908 MHz	46.81	L1 gnd	-17.18
1	Quasi Peak	11.94 MHz	51.70	L1 gnd	-22.29
1	Quasi Peak	18.392 MHz	53.83	L1 gnd	-20.16
2	Average	18.66 MHz	48.80	L1 gnd	-15.19
1	Quasi Peak	21.924 MHz	59.88	L1 gnd	-14.11
2	Average	21.948 MHz	53.28	L1 gnd	-10.71
1	Quasi Peak	29.256 MHz	52.75	L1 gnd	-21.24
2	Average	29.26 MHz	45.60	L1 gnd	-18.39

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4.2 Discontinuous Interference on AC Mains

Date of testing	:	2013.03.10
Temperature	:	24°C~26°C
Humidity	:	66%RH~67%RH
Test procedure	:	EN55014-1: 2006+A1:2009+A2:2011
Frequency range	:	0.15M – 30MHz
Kind of test site	:	Shielded room
Operational mode	:	Dry
Test result	:	Pass

1.Test Setup

The EUT is on an insulating plane (height=80cm)
The distance between EUT and L.I.S.N is 80cm.
The distance between EUT and other metal conductors grounded is at least 80cm.

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2. Test results.

Model: GUHD36NK3FO（outdoor unit）					
Run A (Observation time=120Mins0Sec)					
Frequency (MHz)		0.15	0.5	1.4	30
Limit value (L)(**dB**μV)		66	56	56	60
Amount of clicks >L	Short (n1)	3	2	1	0
	Long (n2)	0	0	0	0
Total (n=n1+n2)		3	2	1	0
Click Rate (N=n/T)		0. 03	0. 02	0. 01	0.00
Continuous(s)		0	0	0	0
Switching operations		---			
f factor		N/A			
Result		PASS			
Model: GFH36K3FI(indoor unit)					
Run A (Observation time=120Mins0Sec)					
Frequency (MHz)		0.15	0.5	1.4	30
Limit value (L)(**dB**μV)		66	56	56	60
Amount of clicks >L	Short (n1)	32	24	11	0
	Long (n2)	0	0	0	0
Total (n=n1+n2)		32	24	11	0
Click Rate (N=n/T)		0. 27	0. 20	0. 09	0.00
Continuous(s)		0	0	0	0
Switching operations		---			
f factor		N/A			
Result		PASS			
Model: GTH36K3FI(indoor unit)					
Run A (Observation time=120Mins0Sec)					
Frequency (MHz)		0.15	0.5	1.4	30
Limit value (L)(**dB**μV)		66	56	56	60
Amount of clicks >L	Short (n1)	31	23	10	0
	Long (n2)	0	0	0	0
Total (n=n1+n2)		31	23	10	0
Click Rate (N=n/T)		0. 26	0. 19	0. 08	0.00
Continuous(s)		0	0	0	0
Switching operations		---			
f factor		N/A			
Result		PASS			

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Model: GKH36K3FI(indoor unit)					
Run A (Observation time=120Mins0Sec)					
Frequency (MHz)		0.15	0.5	1.4	30
Limit value (L)(**dB**μV)		66	56	56	60
Amount of clicks >L	Short (n1)	33	23	10	0
	Long (n2)	0	0	0	0
Total (n=n1+n2)		33	23	10	0
Click Rate (N=n/T)		0. 28	0. 19	0. 08	0.00
Continuous(s)		0	0	0	0
Switching operations		---			
f factor		N/A			
Result		PASS			

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4.3 Disturbance Power

Date of testing	:	2013.03.10
Temperature	:	25°C/18°C
Operational mode	:	Cool /Heat, High speed
Humidity	:	65%RH~67%RH
Test procedure	:	EN55014-1: 2006+A1:2009+A2:2011
Frequency range	:	30M - 300MHz
Kind of test site	:	Shielded room
Test ports	:	AC Mains/ Interconnection line
Test result	:	Pass

1.Test Setup:

EUT and absorbing clamp are placed on an insulating plane (height=80cm). The distance between the absorbing clamp and other metal conductors grounded is 40cm above. EUT is connected to A.C power through an extended cord(≧6m). The absorbing clamp clamps the power line and moves along the power line to measure the maximum disturbance power emitted from the line. If EUT has an indoors unit and an outdoors unit, its interconnection lines and signal lines(or controlling lines) should be also measured ,too.

2.If the result of the measurement with the Quasi Peak detector is below the Average limit, the measurement with Average Detector has been omitted.

The power cord and interconnection line had been extended to a length of 6m and routed through an absorbing clamp. The clamp was moved along the cable to find the maximal emission.

Disturbances other than those mentioned are small or not detectable.

Receiver setup:

Detector:Peak+Average, IF-BW: 120kHz, Step: 60kHz, M-Time: 10ms.

The frequency spectra are as follows:

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Model: GUHD36NK3FO（outdoor unit）

Cooling mode **Port: Power Cord**

Final measurement results

EDIT PEAK LIST (Final Measurement Results)			
Trace1:	P14-QP		
Trace2:	P14-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBpW	DELTA LIMIT dB
1 Quasi Peak	31.12 MHz	36.45	-8.58
2 Average	32.04 MHz	23.02	-12.05
1 Quasi Peak	75.08 MHz	34.65	-12.01

Model: GUHD36NK3FO（outdoor unit）

Heating mode **Port: Power Cord**

Model: GUHD36NK3FO（outdoor unit）

Cooling mode **Port: Interconnection line, at indoor unit.**

Final measurement results

EDIT PEAK LIST (Final Measurement Results)			
Trace1:	P14-QP		
Trace2:	P14-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBpW	DELTA LIMIT dB
2 Average	30 MHz	18.72	-16.27
1 Quasi Peak	45.68 MHz	25.49	-20.08
1 Quasi Peak	89.04 MHz	30.24	-16.94
1 Quasi Peak	120.24 MHz	25.64	-22.70

Model: GUHD36NK3FO（outdoor unit）

Heating mode **Port: Interconnection line, at indoor unit.**

Final measurement results

EDIT PEAK LIST (Final Measurement Results)			
Trace1:	P14-QP		
Trace2:	P14-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBpW	DELTA LIMIT dB
1 Quasi Peak	30.28 MHz	28.50	-16.50
1 Quasi Peak	73.76 MHz	25.77	-20.84
1 Quasi Peak	89.4 MHz	25.97	-21.22
1 Quasi Peak	118.52 MHz	27.27	-21.00

Model: GUHD36NK3FO（outdoor unit）

Cooling mode **Port: Interconnection line, at outdoor unit.**

Final measurement results

EDIT PEAK LIST (Final Measurement Results)			
Trace1:	P14-QP		
Trace2:	P14-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBpW	DELTA LIMIT dB
1 Quasi Peak	30.52 MHz	25.85	-19.16
1 Quasi Peak	39.16 MHz	27.38	-17.95
1 Quasi Peak	45.48 MHz	31.51	-14.05
2 Average	45.76 MHz	20.96	-14.61
1 Quasi Peak	64.68 MHz	25.11	-21.17
1 Quasi Peak	72.8 MHz	33.36	-13.22
1 Quasi Peak	119.8 MHz	18.56	-29.76
1 Quasi Peak	213.04 MHz	25.75	-26.02
1 Quasi Peak	214.92 MHz	21.64	-30.20

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Model: GUHD36NK3FO（outdoor unit）

Heating mode **Port: Interconnection line, at outdoor unit.**

Final measurement results

EDIT PEAK LIST (Final Measurement Results)			
Trace1:	P14-QP		
Trace2:	P14-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBpW	DELTA LIMIT dB
1 Quasi Peak	30.32 MHz	26.59	-18.41
1 Quasi Peak	46 MHz	32.32	-13.27
2 Average	46 MHz	22.65	-12.94
1 Quasi Peak	55.04 MHz	24.45	-21.47
1 Quasi Peak	73.64 MHz	33.20	-13.41

Model: GTH36K3FI(indoor unit)

Cooling mode **Port: Power Cord**

Final measurement results

EDIT PEAK LIST (Final Measurement Results)			
Trace1:	P14-QP		
Trace2:	P14-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBpW	DELTA LIMIT dB
2 Average	31.44 MHz	26.12	-8.93
1 Quasi Peak	31.52 MHz	38.08	-6.97
1 Quasi Peak	38.12 MHz	33.77	-11.52
2 Average	43.36 MHz	25.71	-9.77
1 Quasi Peak	43.84 MHz	37.81	-7.70
1 Quasi Peak	45.24 MHz	35.17	-10.39
1 Quasi Peak	58.36 MHz	30.86	-15.18
1 Quasi Peak	65.4 MHz	32.81	-13.49
2 Average	65.68 MHz	20.79	-15.52
1 Quasi Peak	72.32 MHz	31.23	-15.32
1 Quasi Peak	89.44 MHz	31.74	-15.46
1 Quasi Peak	95.4 MHz	30.81	-16.60

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Model: GTH36K3FI(indoor unit)

Heating mode **Port: Power Cord**

Final measurement results

EDIT PEAK LIST (Final Measurement Results)			
Trace1:	P14-QP		
Trace2:	P14-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBpW	DELTA LIMIT dB
2 Average	30.16 MHz	26.63	-8.37
1 Quasi Peak	32 MHz	37.38	-7.68
1 Quasi Peak	39.16 MHz	30.95	-14.38
1 Quasi Peak	39.44 MHz	30.95	-14.39
1 Quasi Peak	43.52 MHz	36.53	-8.96
2 Average	43.6 MHz	23.99	-11.50
1 Quasi Peak	57.76 MHz	29.33	-16.68
1 Quasi Peak	65.92 MHz	31.72	-14.61
1 Quasi Peak	81.76 MHz	25.94	-20.96
1 Quasi Peak	89.16 MHz	31.02	-16.16

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Model: GFH36K3FI(indoor unit)

Cooling mode **Port: Power Cord**

Final measurement results

EDIT PEAK LIST (Final Measurement Results)			
Trace1:	P14-QP		
Trace2:	P14-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBpW	DELTA LIMIT dB
1 Quasi Peak	46.2 MHz	30.17	-15.42
1 Quasi Peak	58.52 MHz	28.95	-17.10
1 Quasi Peak	74.8 MHz	24.23	-22.42
1 Quasi Peak	113.12 MHz	19.82	-28.25
1 Quasi Peak	133.16 MHz	18.69	-30.12

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Model: GFH36K3FI(indoor unit)

Heating mode **Port: Power Cord**

Final measurement results

EDIT PEAK LIST (Final Measurement Results)			
Trace1:	P14-QP		
Trace2:	P14-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBpW	DELTA LIMIT dB
2 Average	38.8 MHz	22.54	-12.78
1 Quasi Peak	40.64 MHz	34.00	-11.39
1 Quasi Peak	65.52 MHz	27.15	-19.16
1 Quasi Peak	71.32 MHz	21.21	-25.31
1 Quasi Peak	95 MHz	20.88	-26.52

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Model: GKH36K3FI(indoor unit)

Cooling mode **Port: Power Cord**

Final measurement results

EDIT PEAK LIST (Final Measurement Results)			
Trace1:	P14-QP		
Trace2:	P14-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBpW	DELTA LIMIT dB
1 Quasi Peak	38.72 MHz	29.53	-15.79
1 Quasi Peak	53.96 MHz	31.10	-14.78
1 Quasi Peak	72.36 MHz	30.91	-15.65
1 Quasi Peak	84.16 MHz	26.74	-20.26
1 Quasi Peak	111.12 MHz	26.05	-21.94

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Model: GKH36K3FI(indoor unit)

Heating mode **Port: Power Cord**

Final measurement results

EDIT PEAK LIST (Final Measurement Results)			
Trace1:	P14-QP		
Trace2:	P14-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBpW	DELTA LIMIT dB
2 Average	46.2 MHz	22.56	-13.03
1 Quasi Peak	46.44 MHz	32.02	-13.58
2 Average	54.36 MHz	21.70	-14.19
1 Quasi Peak	54.4 MHz	36.69	-9.21
1 Quasi Peak	72.72 MHz	29.05	-17.52
1 Quasi Peak	110.68 MHz	20.17	-27.81

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Model: wired controller

Cooling mode **Port: Interconnection line, Near wired controller**

Heating mode **Port: Interconnection line, Near wired controller**

Model: Control panel

Cooling mode **Port: Interconnection line, Away from wired controller**

Heating mode **Port: Interconnection line, Away from wired controller**

4.4 Harmonics on AC Mains

Date of testing	:	2013.03.10
Temperature	:	25°C/18°C
Humidity	:	66%RH~67%RH
Test procedure	:	EN61000-3-2: 2006+A1:2009+A2:2009
Harmonics order	:	2 – 40
Equipment Class	:	A
Operational mode	:	Cool /Heat, High speed
Test result	:	Pass

1.Test Setup:

2. Test result.

The test results are shown as follows:

.

Model: GUHD36NK3FO（outdoor unit）

Cooling mode

Test Result: Pass **Source qualification: Normal**
THC(A): 1.29 **I-THD(%): 10.79** **POHC(A): 0.145** **POHC Limit(A): 0.251**
Highest parameter values during test:

V_RMS (Volts):	230.20	Frequency(Hz):	50.00
I_Peak (Amps):	25.430	I_RMS (Amps):	14.077
I_Fund (Amps):	13.972	Crest Factor:	1.675
Power (Watts):	3197.1	Power Factor:	0.994

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.054	1.080	5.0	0.062	1.620	3.81	Pass
3	1.026	2.300	44.6	1.039	3.450	30.11	Pass
4	0.090	0.430	20.9	0.100	0.645	15.49	Pass
5	0.441	1.140	38.7	0.451	1.710	26.35	Pass
6	0.076	0.300	25.5	0.090	0.450	20.11	Pass
7	0.383	0.770	49.7	0.398	1.155	34.49	Pass
8	0.070	0.230	30.3	0.081	0.345	23.51	Pass
9	0.323	0.400	80.6	0.339	0.600	56.44	Pass
10	0.079	0.184	43.1	0.106	0.276	38.55	Pass
11	0.212	0.330	64.1	0.228	0.495	46.08	Pass
12	0.081	0.153	53.3	0.105	0.230	45.82	Pass
13	0.174	0.210	82.8	0.196	0.315	62.33	Pass
14	0.053	0.131	40.7	0.068	0.197	34.54	Pass
15	0.091	0.150	60.6	0.104	0.225	46.40	Pass
16	0.030	0.115	25.7	0.034	0.173	19.48	Pass
17	0.084	0.132	63.4	0.088	0.199	44.21	Pass
18	0.024	0.102	24.0	0.027	0.153	17.93	Pass
19	0.079	0.118	66.6	0.083	0.178	46.60	Pass
20	0.022	0.092	23.7	0.024	0.138	17.69	Pass
21	0.072	0.107	67.0	0.076	0.161	47.39	Pass
22	0.023	0.084	27.4	0.027	0.125	21.38	Pass
23	0.062	0.098	63.0	0.065	0.147	44.34	Pass
24	0.023	0.077	30.0	0.027	0.115	23.04	Pass
25	0.043	0.090	47.3	0.046	0.135	34.44	Pass
26	0.022	0.071	30.5	0.025	0.106	23.85	Pass
27	0.042	0.083	50.2	0.046	0.125	36.77	Pass
28	0.022	0.066	33.6	0.025	0.099	25.36	Pass
29	0.033	0.078	42.1	0.036	0.116	30.85	Pass
30	0.027	0.061	43.5	0.030	0.092	32.15	Pass
31	0.043	0.073	59.5	0.047	0.109	43.14	Pass
32	0.037	0.058	65.1	0.041	0.086	48.07	Pass
33	0.049	0.068	71.5	0.053	0.102	51.54	Pass
34	0.032	0.054	59.9	0.036	0.081	44.88	Pass
35	0.042	0.064	64.9	0.046	0.096	47.53	Pass
36	0.023	0.051	45.6	0.026	0.077	33.89	Pass
37	0.030	0.061	48.5	0.033	0.091	36.08	Pass
38	0.023	0.048	47.4	0.025	0.073	34.46	Pass
39	0.025	0.058	42.7	0.029	0.087	33.40	Pass
40	0.016	0.046	34.1	0.019	0.069	27.26	Pass

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Model: GUHD36NK3FO（outdoor unit）

Heating mode

Test Result: Pass **Source qualification: Normal**
THC(A): 1.29 **I-THD(%): 10.74** **POHC(A): 0.145** **POHC Limit(A): 0.251**
Highest parameter values during test:

V_RMS (Volts):	230.21	Frequency(Hz):	50.00
I_Peak (Amps):	23.514	I_RMS (Amps):	14.197
I_Fund (Amps):	14.082	Crest Factor:	1.667
Power (Watts):	3222.5	Power Factor:	0.994

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.055	1.080	5.1	0.066	1.620	4.07	Pass
3	1.025	2.300	44.6	1.038	3.450	30.09	Pass
4	0.088	0.430	20.5	0.096	0.645	14.93	Pass
5	0.453	1.140	39.7	0.464	1.710	27.16	Pass
6	0.075	0.300	25.0	0.085	0.450	18.79	Pass
7	0.379	0.770	49.2	0.395	1.155	34.21	Pass
8	0.076	0.230	32.9	0.086	0.345	24.86	Pass
9	0.327	0.400	81.7	0.339	0.600	56.53	Pass
10	0.098	0.184	53.0	0.105	0.276	38.05	Pass
11	0.206	0.330	62.4	0.219	0.495	44.28	Pass
12	0.098	0.153	64.0	0.106	0.230	46.00	Pass
13	0.166	0.210	79.1	0.180	0.315	57.13	Pass
14	0.063	0.131	47.8	0.069	0.197	34.92	Pass
15	0.086	0.150	57.0	0.093	0.225	41.15	Pass
16	0.029	0.115	25.6	0.035	0.173	20.04	Pass
17	0.085	0.132	64.2	0.089	0.199	44.60	Pass
18	0.026	0.102	25.1	0.028	0.153	18.63	Pass
19	0.078	0.118	66.2	0.083	0.178	46.43	Pass
20	0.022	0.092	24.0	0.025	0.138	17.98	Pass
21	0.070	0.107	65.8	0.076	0.161	46.90	Pass
22	0.023	0.084	27.7	0.026	0.125	20.71	Pass
23	0.063	0.098	64.0	0.066	0.147	44.72	Pass
24	0.023	0.077	30.3	0.026	0.115	22.75	Pass
25	0.041	0.090	45.9	0.046	0.135	33.97	Pass
26	0.022	0.071	31.7	0.025	0.106	23.98	Pass
27	0.041	0.083	49.5	0.045	0.125	35.88	Pass
28	0.023	0.066	35.1	0.026	0.099	25.82	Pass
29	0.033	0.078	42.7	0.037	0.116	31.64	Pass
30	0.028	0.061	45.0	0.030	0.092	33.09	Pass
31	0.044	0.073	60.6	0.047	0.109	43.57	Pass
32	0.039	0.058	68.2	0.043	0.086	49.60	Pass
33	0.049	0.068	72.4	0.054	0.102	52.61	Pass
34	0.034	0.054	62.8	0.037	0.081	45.89	Pass
35	0.043	0.064	66.5	0.047	0.096	48.82	Pass
36	0.024	0.051	46.6	0.028	0.077	35.80	Pass
37	0.030	0.061	50.0	0.035	0.091	38.30	Pass
38	0.024	0.048	48.6	0.027	0.073	36.37	Pass
39	0.025	0.058	42.8	0.027	0.087	31.05	Pass
40	0.016	0.046	34.9	0.018	0.069	26.45	Pass

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Model: GKH36K3FI(indoor unit)

fan mode

Test Result: Pass **Source qualification: Normal**
THC(A): 0.52 **I-THD(pk%): 13.20** **POHC(A): 0.004** **POHC Limit(A): 0.251**
Highest parameter values during test:

V_RMS (Volts):	230.53	Frequency(Hz):	50.00
I_Peak (Amps):	0.809	I_RMS (Amps):	0.542
I_Fund (Amps):	0.478	Crest Factor:	1.661
Power (Watts):	108.1	Power Factor:	0.980

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.428	1.080	39.6	0.446	1.620	27.56	Pass
3	0.235	2.300	10.2	0.240	3.450	6.95	Pass
4	0.028	0.430	6.6	0.037	0.645	5.74	Pass
5	0.067	1.140	5.9	0.069	1.710	4.06	Pass
6	0.047	0.300	15.5	0.052	0.450	11.51	Pass
7	0.007	0.770	1.0	0.009	1.155	0.75	Pass
8	0.026	0.230	11.3	0.030	0.345	8.63	Pass
9	0.006	0.400	1.4	0.007	0.600	1.15	Pass
10	0.005	0.184	2.8	0.007	0.276	2.44	Pass
11	0.009	0.330	2.6	0.010	0.495	1.92	Pass
12	0.004	0.153	2.4	0.006	0.230	2.50	Pass
13	0.004	0.210	1.9	0.005	0.315	1.45	Pass
14	0.003	0.131	2.3	0.004	0.197	1.81	Pass
15	0.002	0.150	1.5	0.003	0.225	1.30	Pass
16	0.002	0.115	2.1	0.003	0.173	1.71	Pass
17	0.003	0.132	2.2	0.003	0.199	1.71	Pass
18	0.002	0.102	1.7	0.003	0.153	1.68	Pass
19	0.002	0.118	1.9	0.003	0.178	1.57	Pass
20	0.002	0.092	1.8	0.002	0.138	1.66	Pass
21	0.002	0.107	1.8	0.002	0.161	1.49	Pass
22	0.002	0.084	1.9	0.002	0.125	1.71	Pass
23	0.002	0.098	1.5	0.002	0.147	1.34	Pass
24	0.001	0.077	1.9	0.002	0.115	1.76	Pass
25	0.001	0.090	1.6	0.002	0.135	1.36	Pass
26	0.001	0.071	1.9	0.002	0.106	1.71	Pass
27	0.001	0.083	1.6	0.002	0.125	1.37	Pass
28	0.001	0.066	1.8	0.002	0.099	1.61	Pass
29	0.001	0.078	1.6	0.002	0.116	1.36	Pass
30	0.001	0.061	1.8	0.001	0.092	1.60	Pass
31	0.001	0.073	1.5	0.001	0.109	1.33	Pass
32	0.001	0.058	1.8	0.001	0.086	1.57	Pass
33	0.001	0.068	1.5	0.001	0.102	1.35	Pass
34	0.001	0.054	1.8	0.001	0.081	1.60	Pass
35	0.001	0.064	1.5	0.001	0.096	1.34	Pass
36	0.001	0.051	1.8	0.001	0.077	1.54	Pass
37	0.001	0.061	1.5	0.001	0.091	1.35	Pass
38	0.001	0.048	1.8	0.001	0.073	1.56	Pass
39	0.001	0.058	1.6	0.001	0.087	1.33	Pass
40	0.001	0.046	1.8	0.001	0.069	1.61	Pass

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Model: GTH36K3FI(indoor unit)

fan mode

Test Result: Pass **Source qualification: Normal**
THC(A): 0.49 **I-THD(pk%): 12.31** **POHC(A): 0.004** **POHC Limit(A): 0.251**
Highest parameter values during test:

V_RMS (Volts):	230.43	Frequency(Hz):	50.00
I_Peak (Amps):	0.961	I_RMS (Amps):	0.644
I_Fund (Amps):	0.581	Crest Factor:	1.631
Power (Watts):	131.4	Power Factor:	0.981

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.395	1.080	36.6	0.441	1.620	27.23	Pass
3	0.224	2.300	9.8	0.242	3.450	7.01	Pass
4	0.031	0.430	7.2	0.044	0.645	6.74	Pass
5	0.055	1.140	4.9	0.060	1.710	3.53	Pass
6	0.038	0.300	12.7	0.051	0.450	11.23	Pass
7	0.008	0.770	1.0	0.014	1.155	1.18	Pass
8	0.025	0.230	10.8	0.030	0.345	8.59	Pass
9	0.006	0.400	1.5	0.010	0.600	1.66	Pass
10	0.006	0.184	3.0	0.007	0.276	2.71	Pass
11	0.008	0.330	2.4	0.010	0.495	1.93	Pass
12	0.004	0.153	2.7	0.007	0.230	2.88	Pass
13	0.004	0.210	1.7	0.005	0.315	1.51	Pass
14	0.003	0.131	2.2	0.004	0.197	1.88	Pass
15	0.003	0.150	1.9	0.004	0.225	1.99	Pass
16	0.003	0.115	2.2	0.003	0.173	1.87	Pass
17	0.003	0.132	2.0	0.003	0.199	1.69	Pass
18	0.002	0.102	1.6	0.002	0.153	1.48	Pass
19	0.002	0.118	1.8	0.003	0.178	1.59	Pass
20	0.002	0.092	1.8	0.002	0.138	1.71	Pass
21	0.002	0.107	1.6	0.002	0.161	1.44	Pass
22	0.002	0.084	1.8	0.002	0.125	1.72	Pass
23	0.001	0.098	1.5	0.002	0.147	1.39	Pass
24	0.001	0.077	1.8	0.002	0.115	1.73	Pass
25	0.001	0.090	1.6	0.002	0.135	1.42	Pass
26	0.001	0.071	1.8	0.002	0.106	1.70	Pass
27	0.001	0.083	1.6	0.002	0.125	1.40	Pass
28	0.001	0.066	1.8	0.002	0.099	1.70	Pass
29	0.001	0.078	1.6	0.002	0.116	1.42	Pass
30	0.001	0.061	1.8	0.002	0.092	1.69	Pass
31	0.001	0.073	1.6	0.002	0.109	1.40	Pass
32	0.001	0.058	1.8	0.001	0.086	1.66	Pass
33	0.001	0.068	1.5	0.001	0.102	1.42	Pass
34	0.001	0.054	1.8	0.001	0.081	1.63	Pass
35	0.001	0.064	1.5	0.001	0.096	1.40	Pass
36	0.001	0.051	1.8	0.001	0.077	1.67	Pass
37	0.001	0.061	1.6	0.001	0.091	1.50	Pass
38	0.001	0.048	1.8	0.001	0.073	1.70	Pass
39	0.001	0.058	1.5	0.001	0.087	1.41	Pass
40	0.001	0.046	1.8	0.001	0.069	1.67	Pass

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Model: GFH36K3FI(indoor unit)

fan mode

Test Result: Pass **Source qualification: Normal**
THC(A): 0.51 **I-THD(pk%): 14.91** **POHC(A): 0.003** **POHC Limit(A): 0.251**
Highest parameter values during test:

V_RMS (Volts):	230.48	Frequency(Hz):	50.00
I_Peak (Amps):	1.605	I_RMS (Amps):	0.991
I_Fund (Amps):	0.928	Crest Factor:	1.698
Power (Watts):	209.4	Power Factor:	0.980

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.396	1.080	36.7	0.448	1.620	27.66	Pass
3	0.208	2.300	9.0	0.232	3.450	6.73	Pass
4	0.039	0.430	9.1	0.067	0.645	10.33	Pass
5	0.092	1.140	8.1	0.145	1.710	8.46	Pass
6	0.051	0.300	17.0	0.058	0.450	12.92	Pass
7	0.031	0.770	4.0	0.068	1.155	5.86	Pass
8	0.024	0.230	10.5	0.029	0.345	8.33	Pass
9	0.011	0.400	2.7	0.021	0.600	3.56	Pass
10	0.006	0.184	3.4	0.012	0.276	4.38	Pass
11	0.008	0.330	2.4	0.010	0.495	2.05	Pass
12	0.005	0.153	3.1	0.006	0.230	2.74	Pass
13	0.004	0.210	1.9	0.005	0.315	1.52	Pass
14	0.004	0.131	2.8	0.005	0.197	2.63	Pass
15	0.003	0.150	1.7	0.003	0.225	1.42	Pass
16	0.002	0.115	1.8	0.003	0.173	1.62	Pass
17	0.002	0.132	1.8	0.003	0.199	1.43	Pass
18	0.001	0.102	1.4	0.002	0.153	1.34	Pass
19	0.002	0.118	1.4	0.003	0.178	1.42	Pass
20	0.002	0.092	1.7	0.002	0.138	1.46	Pass
21	0.002	0.107	1.5	0.002	0.161	1.36	Pass
22	0.001	0.084	1.6	0.002	0.125	1.53	Pass
23	0.001	0.098	1.4	0.002	0.147	1.27	Pass
24	0.001	0.077	1.5	0.002	0.115	1.78	Pass
25	0.001	0.090	1.4	0.002	0.135	1.47	Pass
26	0.001	0.071	1.5	0.002	0.106	2.03	Pass
27	0.001	0.083	1.3	0.002	0.125	1.30	Pass
28	0.001	0.066	1.5	0.001	0.099	1.49	Pass
29	0.001	0.078	1.3	0.001	0.116	1.26	Pass
30	0.001	0.061	1.4	0.001	0.092	1.45	Pass
31	0.001	0.073	1.3	0.001	0.109	1.23	Pass
32	0.001	0.058	1.3	0.001	0.086	1.40	Pass
33	0.001	0.068	1.3	0.001	0.102	1.25	Pass
34	0.001	0.054	1.4	0.001	0.081	1.43	Pass
35	0.001	0.064	1.3	0.001	0.096	1.25	Pass
36	0.001	0.051	1.4	0.001	0.077	1.41	Pass
37	0.001	0.061	1.2	0.001	0.091	1.23	Pass
38	0.001	0.048	1.4	0.001	0.073	1.44	Pass
39	0.001	0.058	1.2	0.001	0.087	1.22	Pass
40	0.001	0.046	1.4	0.001	0.069	1.43	Pass

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4.5 Voltage Fluctuation on AC Mains

Date of testing	:	2013.03.10
Temperature	:	24°C~26°C
Humidity	:	66%RH~67%RH
Test procedure	:	EN61000-3-3: 2008
Frequency Range	:	0-2kHz
Test observation period	:	120min
Operational mode	:	Dry
Test result	:	Pass

1.Test Setup:

2. Test result.

Model	d_c [%]	d_{max} [%]	d (t)[ms]	Pst	Plt
GUHD36NK3FO（outdoor unit）	0.95	0.98	0.0	0.184	0.153
GFH36K3FI(indoor unit)	0.13	1.50	0.0	0.207	0.202
GTH36K3FI(indoor unit)	0.12	1.51	0.0	0.210	0.204
GKH36K3FI(indoor unit)	0.15	1.52	0.0	0.212	0.205
Limit	**3.30**	**6.00**	**500.0**	**1.000**	**0.650**

Remark:

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5. Immunity Tests

5.1 Electrostatic Discharge (ESD)

Date of testing	:	2013.03.10
Temperature	:	24°C~26°C
Humidity	:	56%RH
Test procedure	:	EN55014-2: 1997+A1: 2001+A2:2008
Basic Standard	:	IEC 61000-4-2:2008
Performance Criterion	:	B
Operational mode	:	Cool, High fan
Test result	:	Pass

1. Test setup

Note: HCP means Horizontal Coupling Plane,
VCP means Vertical Coupling Plane
GRP means Ground Reference Plane

The EUT was put on a 0.8m high wooden tabel/0.1m high for floor standing equipment standing on the ground reference plane(GRP) 3m by 2m in size, made by iron 1.0 mm thick.
A horizontal coupling plane(HCP) 1.6m by 0.8m in size was placed on the table, and the EUT with its cables were isolated from the HCP by an insulating support thick than 0.5mm. The VCP 0.5m by 0.5m in size & HCP were constructed from the same material type & thinness as that of the GRP, and connected to the GRP via a 470kΩ resistor at each end.
The distance between EUT and any of the other metallic surface excepted the GRP, HCP & VCP was greater than 1m.
The EUT was arranged and connected according to its functional requirements.

Direct static electricity discharges was applied only to those points and surface which are accessible to personnel during normal usage.

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2. Test result

Location of Discharge	Type of Discharge	Level(kV)	Polarity	Number of Discharge	Result
Remote Receiver	Air	8.0	±	10	A
Display window	Air	8.0	±	10	A
Manual key	Air	8.0	±	10	A
Touchable screw	Contact	4.0	±	10	A
Remote Controller	Air	8.0	±	10	A
	HCP	4.0	±	10	A
	VCP	4.0	±	10	A
Remark: The Air discharge could not occur and the EUT worked normally during the test, no degradation of function occurred.					

Air -Air Discharge
Contact -Contact Discharge
HCP—Horizontal Coupling Plate,
VCP—Vertical Coupling Plate

5.2 Electrical Fast Transient/Burst (EFT)

Date of testing	:	2013.03.10
Temperature	:	24°C
Humidity	:	67%RH
Test procedure	:	EN55014-2: 1997+A1: 2001+A2:2008
Basic Standard	:	IEC 61000-4-4:2004
Repetition Frequency	:	5kHz
Performance Criterion	:	B
Operational mode	:	Cool, High fan
Test result	:	Pass

1.Test Setup

The EUT is placed on an insulating plane, it is 0.1m high for table model and 0.1m high for floor type above the grounded reference plane. EUT is at least 0.5m away from the wall of the EMC laboratory and other metal conductors grounded except the grounded reference plane., and its four borders are at least 0.1m away from the borders of the grounded reference plane. The cable between EUT and CDN is not more than 0.5m.

For signal lines and control lines, the burst signal is coupled by a capacitive coupling clamp.

2. Test result:

Location	Voltage (kV)	Duration (s)	Coupled by	Result
L +N+PE	±1	120	CDN	A
Interconnection line	±0.5	120	Capacitive Coupling Clamp	A
Remark: The EUT worked normally during the test, no degradation of function occurred.				

5.3 Surge

Date of testing	:	2013.03.10
Temperature	:	24°C
Humidity	:	67%RH
Test procedure	:	EN55014-2: 1997+A1: 2001+A2:2008
Basic Standard	:	IEC 61000-4-5:2005
Performance Criterion	:	B
Operational mode	:	Cool, High fan
Test result	:	Pass

1.Test Setup

The cable between EUT and CDN is not more than 1m..
No other special specifications.

2.Test result

Location	Polarity	Phase Angle	Number of test	Pulse Voltage (kV)	Result
L—N	±	0°	5	1	A
	±	90°	5	1	A
	±	180°	5	1	A
	±	270°	5	1	A
L-PE	±	0°	5	2	A
	±	90°	5	2	A
	±	180°	5	2	A
	±	270°	5	2	A
N-PE	±	0°	5	2	A
	±	90°	5	2	A
	±	180°	5	2	A
	±	270°	5	2	A
Remark: The EUT worked normally during the test, no degradation of function occurred.					

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5.4 Immunity to conducted Disturbances, induced by RF fields

Date of testing	:	2013.03.10
Temperature	:	24°C
Humidity	:	67%RH
Test procedure	:	EN55014-2: 1997+A1: 2001+A2:2008
Basic Standard	:	IEC 61000-4-6:2008
Frequency range	:	150k~230MHz
Modulation	:	80%AM, 1kHz sine-wave
Dwell time/Step size	:	3000ms / 1%
Performance Criterion	:	A
Operational mode	:	Cool, High fan
Test result	:	Pass

1. Test Setup

Frequency Range	Coupling Port	Strength	Coupling Method	Result
0.15MHz~80MHz	AC Mains	3V	CDN	A
80MHz~230MHz	AC Mains	3V	CDN	A
0.15MHz~80MHz	Interconnection wire	1V	Coupling/Decoupling Network	A
80MHz~230MHz	Interconnection wire	1V	Coupling/Decoupling Network	A
Remark: The EUT worked normally during the test, no degradation of function occurred.				

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5.5 Voltage Dips and Short interruptions

Date of testing	:	2013.03.10
Temperature	:	24°C
Humidity	:	67%RH
Test procedure	:	EN55014-2: 1997+A1: 2001+A2:2008
Basic Standard	:	IEC 61000-4-11:2004
Performance Criterion	:	C
Operational mode	:	Cool, High fan
Test result	:	Pass

1.Test Setup

No other special specifications.

2. Test result.

Severity Level		Test Level	Duration	Intervals	Phase Angle	Number of Test	Result
Short Interruption 100%		0%U_T	0.5P	3min	0°	3	A
					180°	3	A
Voltage Dips	60%	40%U_T	10P	3min	0°	3	B
					180°	3	B
	30%	70%U_T	25P	3min	0°	3	B
					180°	3	B

Remark:

1, U_T: Nominal Voltage of EUT.

2, During the test of 40%U_T, 70%U_T the EUT stopped, but it could recover the primal status. No degradation of function occurred.

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