EMC EMISSION - TEST REPORT

Report Number	:	**64.711.11.03942.14 – (E)**	Date of Issue:	2018-05-30

Model / Serial No.	:	See attactment model list (for Appendix B) / NIL
Product Type	:	Multi-Split Type Air Conditioner (Indoor unit)
Trade Name	:	Midea, MDV
Applicant / Manufacturer / License holder	:	GD Midea Heating & Ventilating Equipment CO.,LTD.
Address	:	Penglai Industry Road, Beijiao, Shunde, Foshan,
	:	Guangdong, P. R. China
Test Result	:	■ **Positive** ☐ **Negative**
Total pages including Appendices	:	85

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch is a subcontractor to TÜV SÜD Product Service, GmbH according to the principles outlined in ISO/IEC Guide 25 and EN 45001.

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch reports apply only to the specific samples tested under stated test conditions. Construction of the actual test samples has been documented. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. The manufacturer/importer is responsible to the Competent Authorities in Europe for any modifications made to the production units which result in non-compliance to the relevant regulations. TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch shall have no liability for any deductions, inferences or generalizations drawn by the client or others from TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch issued reports.

This report is the confidential property of the client. As a mutual protection to our clients, the public and ourselves, extracts from the test report shall not be reproduced except in full without our written approval.

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
5F, Communication Building, 163 Pingyun Rd, Huangpu West Ave. Guangzhou 510656 P. R. China TEL: +86 20 3832 0668 FAX: +86 20 3832 0478

DIRECTORY - EMISSIONS

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch

5F, Communication Building, 163 Pingyun Rd, Huangpu West Ave. Guangzhou 510656 P. R. China TEL: +86 20 3832 0668 FAX: +86 20 3832 0478

EMISSIONS TEST REGULATIONS :

The emissions tests were performed according to the following regulations:

■ - EN 61000-6-3:2007+A1:2011

☐ - IEC 61000-6-4:2007

■ - CISPR 14-1:2016

■ - Household appliances and similar
☐ - Portable tools
☐ - Semiconductor devices

■ - IEC 61000-3-2:2014
■ - IEC 61000-3-3:2013
☐ - IEC 61000-3-11:2000
☐ - IEC 61000-3-12:2011

Refer to test report 64.711.11.03942.01-13

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
5F, Communication Building, 163 Pingyun Rd, Huangpu West Ave. Guangzhou 510656 P. R. China TEL: +86 20 3832 0668 FAX: +86 20 3832 0478

Environmental Conditions In The Laboratory:

	Actual
Temperature:	: 28 °C
Relative Humidity:	: 40-55 %
Atmospheric Pressure:	: 1010-1020 mBar

Power Supply Utilized:

Rated Power Supply : 230V / 50Hz / 1ϕ

STATEMENT OF MEASUREMENT UNCERTAINTY

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities that can account for a nominal measurement error (please refer to each test item). Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Symbol Definitions:

■ - Applicable
☐ - Not Applicable

Test laboratory:

■ - Midea
Add: Penglai Industry Road, Beijiao, Shunde, Foshan, Guangdong, P. R. China

■ - Inspection and Quarantine Technology Centre of Guangdong Entry-Exit Inspection and Quarantine Bureau
Add: No.3, Desheng East Road, Shunde, Daliang, Foshan, Guangdong, China

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
5F, Communication Building, 163 Pingyun Rd, Huangpu West Ave. Guangzhou 510656 P. R. China TEL: +86 20 3832 0668 FAX: +86 20 3832 0478

Emissions Test Conditions: CONDUCTED EMISSIONS (Interference Voltage)

The *CONDUCTED EMISSIONS (INTERFERENCE VOLTAGE)* measurements were performed at the following test location:

☐ - Test not applicable

■ - Test Area - Shielded room: Bare shielded room

Test Equipment Used:

For Midea Lab

	Model Number	Manufacturer	Description	Serial Number	Cal. Due
■ -	ESCI	Rohde & Schwarz	EMI Test Receiver	100786	2018-08-22
■ -	ESH3-Z2	Rohde & Schwarz	Pulse limiter	100917	2018-08-22
■ -	NSLK8128	SCWARZBECK	LISN	249	2019-01-02
■ -	NNLK8129	SCWARZBECK	LISN	8129-237	2018-09-28
☐ -	DIA1512D	Schaffner	Click analyzer	24232	2018-08-22
☐ -			Artificial Hand		

For IQTC Lab

	Model Number	Manufacturer	Description	Serial Number	Cal. Due
■ -	SMR4503	SCHAFNER	EMI receiver	47	2018-08-13
■ -	ESH2-Z5	R&S	LISN	3385219.53-100298-HS	2018-08-13
■ -	PLA-10N	Compliance Direction System	10dB Pulse Limiter	110525-010-0030	2018-08-13
☐ -	TK 9420	SCHWARZBECK	Voltage Probe	9420500	2018-08-13
☐ -	PM 9010	PMM	EMI receiver	153WJ80401	2018-08-13
☐ -	PM 9010 CLICK 4E	PMM	Click analyser	000WE80803	2018-08-13
☐ -	L3-32	PMM	LISN	1220X30403	2018-08-13
☐ -			Artificial Hand		

Measurement uncertainty: ±4.0dB

Remarks: All test equipments used are calibrated on a regular basis.

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
5F, Communication Building, 163 Pingyun Rd, Huangpu West Ave. Guangzhou 510656 P. R. China TEL: +86 20 3832 0668 FAX: +86 20 3832 0478

Emissions Test Conditions: RADIATED EMISSIONS (Electric Field): 30MHz – 6000MHz

The *RADIATED EMISSIONS (ELECTRIC FIELD)* measurements, in the frequency range of 30 MHz-6000 MHz, were tested in a horizontal and vertical polarization at the following test location:

☐ - Test not applicable

■ - Test Area (IQTC) - Anechoic ferrite lined shielded room

Testing was performed at a test distance of:

☐ - 3 meters
■ -10 meters

Test Equipment Used:

	Model Number	Manufacturer	Description	Serial Number	Cal. Due
■ -	ESU 40	Rohde & Schwarz	EMI Test Receiver	100298	2018-08-14
■ -	CBL6112D	TESEQ	Bi-Log Antenna	25225	2019-01-10
■ -	PAP-0203-30	Compliance Direction System	Pre-amplifier	22027	2019-01-10

Measurement uncertainty: ±5.1dB

Remarks: All test equipments used are calibrated on a regular basis.

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
5F, Communication Building, 163 Pingyun Rd, Huangpu West Ave. Guangzhou 510656 P. R. China TEL: +86 20 3832 0668 FAX: +86 20 3832 0478

Emissions Test Conditions: INTERFERENCE POWER

The *INTERFERENCE POWER* measurements were performed by using the absorbing clamp on the mains and interface cables in the frequency range 30 MHz - 300 MHz at the following test location:

■ - Test not applicable

☐ - Test Area (Midea) - Shielded room: Bare shielded room

Test Equipment Used:

	Model Number	Manufacturer	Description	Serial Number	Cal. Due
☐ -	ESCI	Rohde & Schwarz	EMI Test Receiver	100786	2018-08-22
☐ -	ESH3-Z2	Rohde & Schwarz	Pulse limiter	100917	2018-08-22
☐-	MDS-21	Rohde & Schwarz	Absorbing Clamp	100324	2018-09-07

Remarks: All test equipments used are calibrated on a regular basis.

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
5F, Communication Building, 163 Pingyun Rd, Huangpu West Ave. Guangzhou 510656 P. R. China TEL: +86 20 3832 0668 FAX: +86 20 3832 0478

Emissions Test Conditions: CONDUCTED EMISSIONS (Harmonics and Flicker)

The *Harmonic Current Emissions and Voltage Fluctuations and Flicker* measurements were performed at the following test location:

☐ - Test not applicable

■ - Test Area - Laboratory open area

Test Equipment Used:

For Midea Lab

	Model Number	Manufacturer	Description	Serial Number	Cal. Due
■ -	MX45	CI	Harmonic current & Flicker tester	72521	2018-06-02
■ -	PACS-3	CI	V-dip tester	57814	2018-06-02
■ -	DPA 503N/AIF 503 S1	EM TEST	Harmonic current & Flicker tester	V1019106581	2018-11-24
■-	ACS 503	EM TEST	V-dip tester	V1019106588	2018-11-24

For IQTC

	Model Number	Manufacturer	Description	Serial Number	Cal. Due
■ -	PACS-3	California Instruments	Harmonic & flicker analyzer	72812	2018-08-13
■ -	15003ix	California Instruments	Programmable ac source	59862/59863/59864	2018-08-13

Remarks: All test equipments used are calibrated on a regular basis.

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
5F, Communication Building, 163 Pingyun Rd, Huangpu West Ave. Guangzhou 510656 P. R. China TEL: +86 20 3832 0668 FAX: +86 20 3832 0478

Equipment Under Test (EUT) Test Operation Mode - Emissions Tests:

The equipment under test was operated under the following conditions during emissions testing:

☐ - Standby

☐ - Test Program (H - Pattern)

☐ - Test Program (Color Bar)

☐ - Test Program (Customer Specified)

■ - Normal Operating Mode

☐ - _____

_____

_____

Configuration of the equipment under test:

■ - See Constructional Data Form in Appendix B

■ - See Product Information Form(s) in Appendix B

The following peripheral devices and interface cables were connected during the testing:

■ - shielded cables Type : Indoor unit to outdoor unit connect line

☐ - _____ Type : _____

☐ - _____ Type : _____

☐ - _____ Type : _____

☐ - _____ Type : _____

☐ - _____ Type : _____

☐ - _____ Type : _____

☐ - _____ Type : _____

■ - unshielded power cable

☐ - unshielded cables

☐ - shielded cables TUVPS.No.: _____

☐ - customer specific cables

☐ - _____

☐ - _____

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch

5F, Communication Building, 163 Pingyun Rd, Huangpu West Ave. Guangzhou 510656 P. R. China TEL: +86 20 3832 0668 FAX: +86 20 3832 0478

Emissions Test Results:

Conducted Emissions, 9/150/450 kHz - 30 MHz

■ - PASS ☐ - FAIL ☐ - NOT APPLICABLE

Minimum limit margin **-0.79** dB at **0.41** MHz

Maximum limit exceeding _____ dB at _____ MHz

Remarks: According pre-test was applied with the highest emissions were detected Operation Mode (Please refer Appendix A test data).

Radiated Emissions (Electric Field), 30 MHz - 6000 MHz

■ - PASS ☐ - FAIL ☐ - NOT APPLICABLE

Minimum limit margin _____ dB at _____ MHz

Maximum limit exceeding _____ dB at _____ MHz

Remarks: According pre-test was applied with the highest emissions were detected Operation Mode (Please refer Appendix A test data).

The highest internal frequency of the EUT is less than 108 MHz, the measurement was made up to 1 GHz.

Interference Power at the Mains and Interface Cables, 30 MHz - 300 MHz

☐ - PASS ☐ - FAIL ■ - NOT APPLICABLE

Minimum limit margin _____ dB at _____ MHz

Maximum limit exceeding _____ dB at _____ MHz

Remarks: _____

Harmonic Current Emissions and Voltage Fluctuations and Flicker

■ - PASS ☐ - FAIL ☐ - NOT APPLICABLE

Harmonic measurement exceeding limit _____ Above at _____ Harmonic

Flicker measurement exceeding limit _____ Above the _____ Requirement

Remarks: _____

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
5F, Communication Building, 163 Pingyun Rd, Huangpu West Ave. Guangzhou 510656 P. R. China TEL: +86 20 3832 0668 FAX: +86 20 3832 0478

GENERAL REMARKS:

Please refer to remarks on page B16 of B19

SUMMARY:

All tests according to the regulations cited on page 3 were

■ - Performed

☐ - **Not** Performed

The Equipment Under Test

■ - **Fulfills** the general approval requirements cited on page 3.

☐ - **Does not** fulfill the general approval requirements cited on page 3.

Testing Start Date: 2018-03-23

Testing End Date: 2018-05-12

- TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch –

Reviewed by: Technical Certifier

Tony Liu

Prepared by:

Mike Zhuo

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch

5F, Communication Building, 163 Pingyun Rd, Huangpu West Ave. Guangzhou 510656 P. R. China TEL: +86 20 3832 0668 FAX: +86 20 3832 0478

Appendix A

Test Setup Photos

and

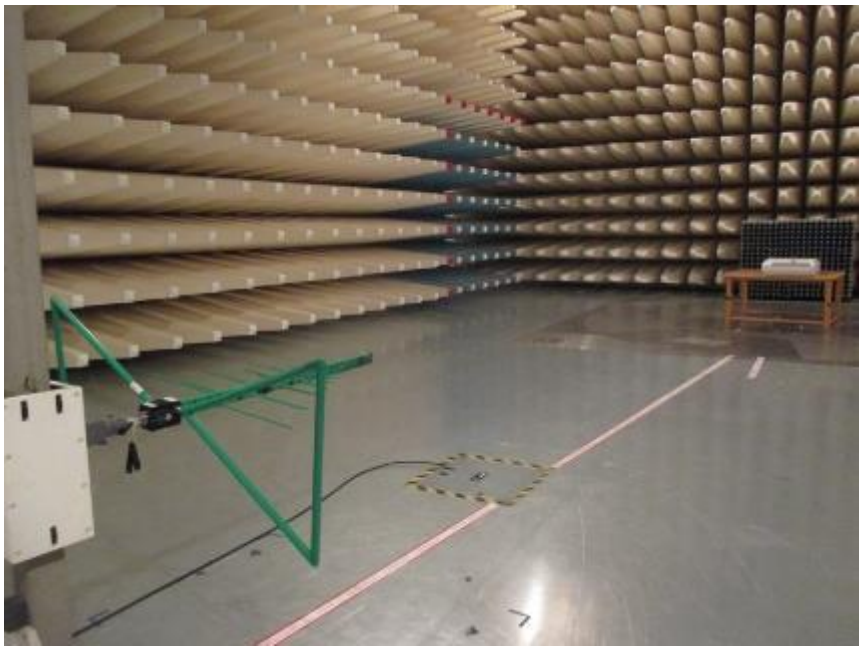
Test Data Sheets

Photograph of Test Setup:

Conducted Emissions, 150 kHz – 30 MHz

Photograph of Test Setup:

Radiated Emissions (Electric Field), 30 MHz – 1000 MHz

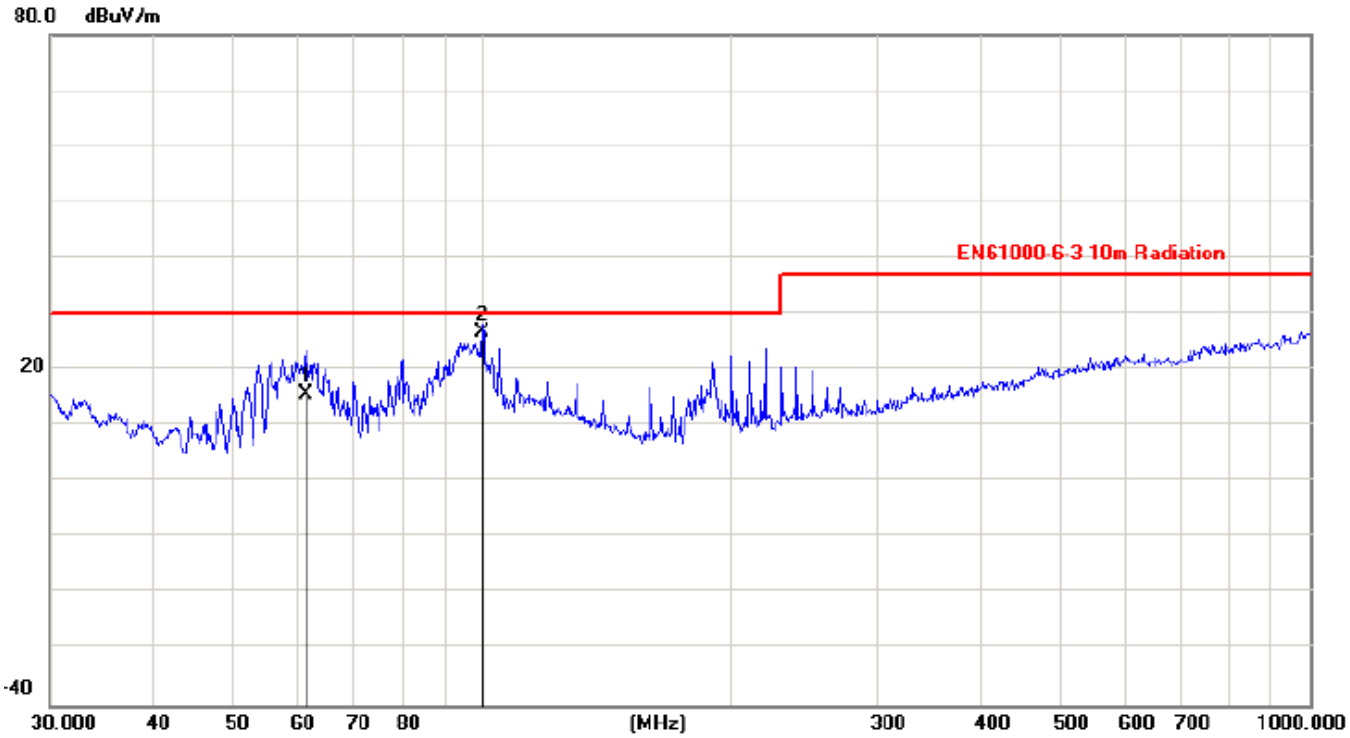


Photograph of Test Setup:

Harmonic Current Emissions and Voltage Fluctuations and Flicker

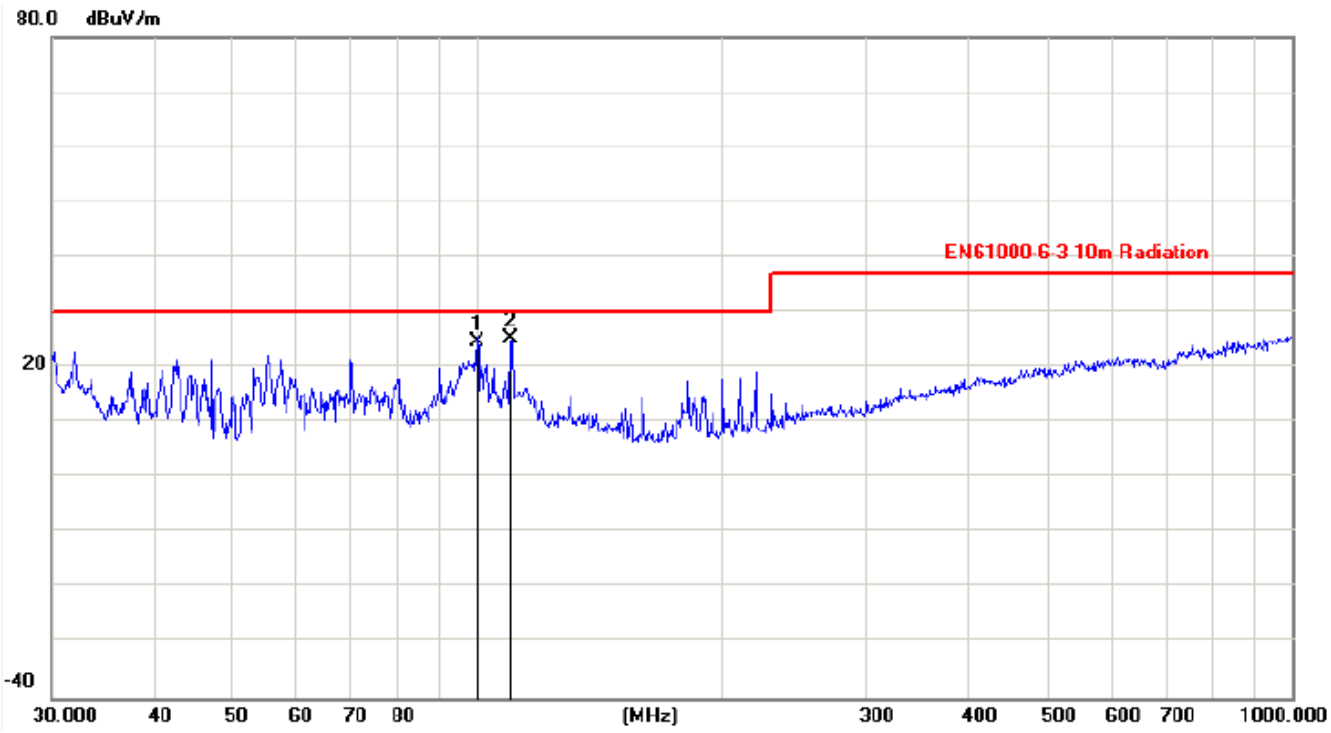
RADIATION - TEST (ELECTR. FIELD)
Frequency range: 30MHz-1000MHz

Ant. Polarization: Horizontal



Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
61.1316	-27.39	43.19	15.80	30.00	-14.20	QP
99.8777	-21.27	48.07	26.80	30.00	-3.20	QP

Ant. Polarization: Vertical



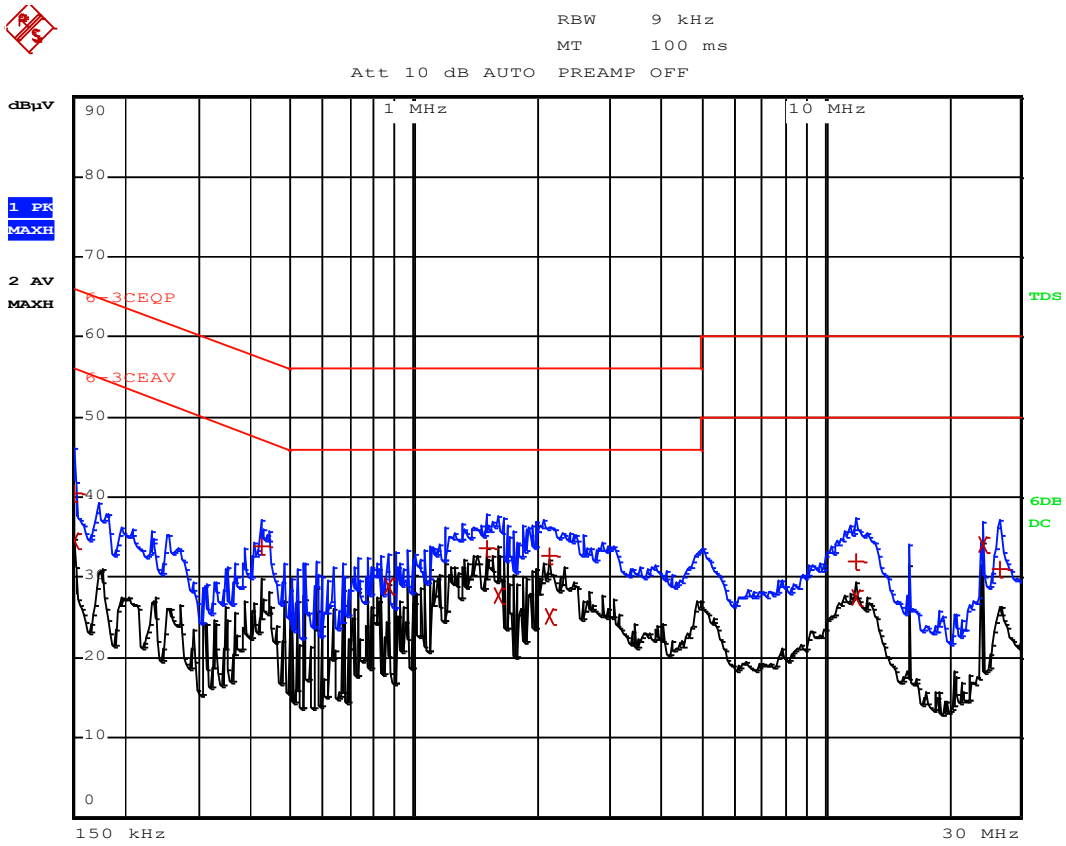
Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
99.8777	-21.47	46.07	24.60	30.00	-5.40	QP
109.7960	-20.36	45.46	25.10	30.00	-4.90	QP

Model : MI2-90GDN1
Operation Mode : cooling mode

	Date	Name
Tested by	2018-03-29	Mike Zhuo

Conducted Emission (Peak+AV detection)

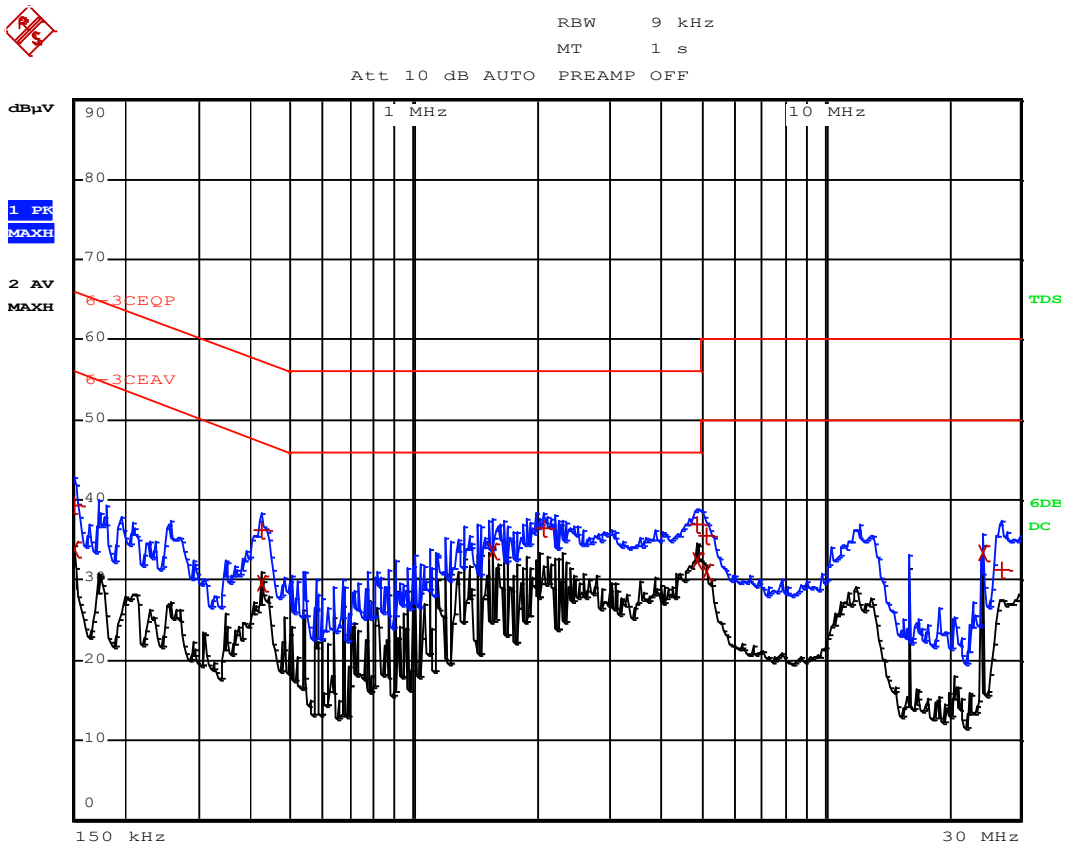
Test Spec: L



Date: 2.APR.2018 18:21:41

No significant emission was detected within 10 dB to limit.

Test Spec: N



Date: 2.APR.2018 18:24:29

No significant emission was detected within 10 dB to limit.

Model : MI2-90GDN1
Operation Mode : cooling mode

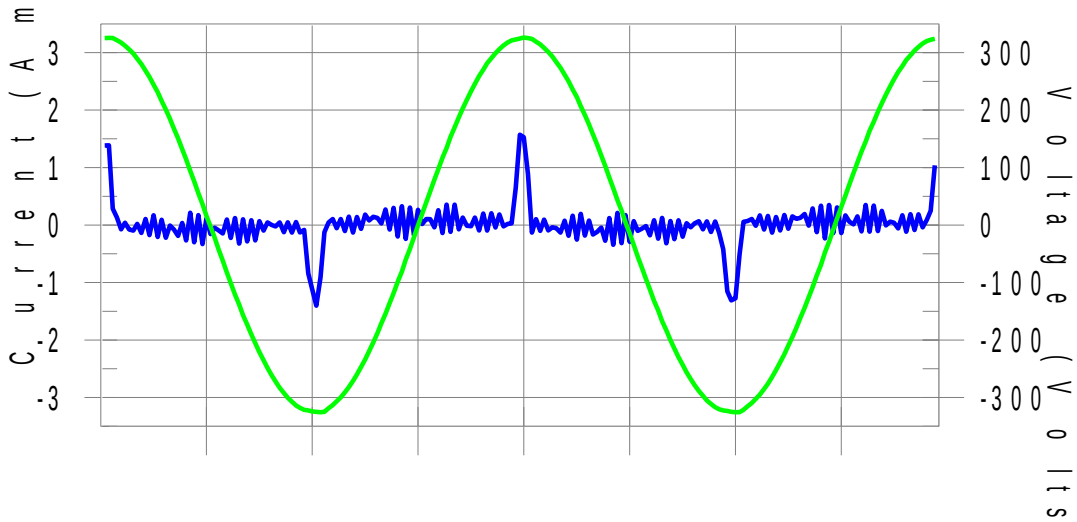
	Date	Name
Tested by	2018-04-02	Mike Zhuo

Harmonics – Class-A per Ed. 4.0 (2014)(Run time)

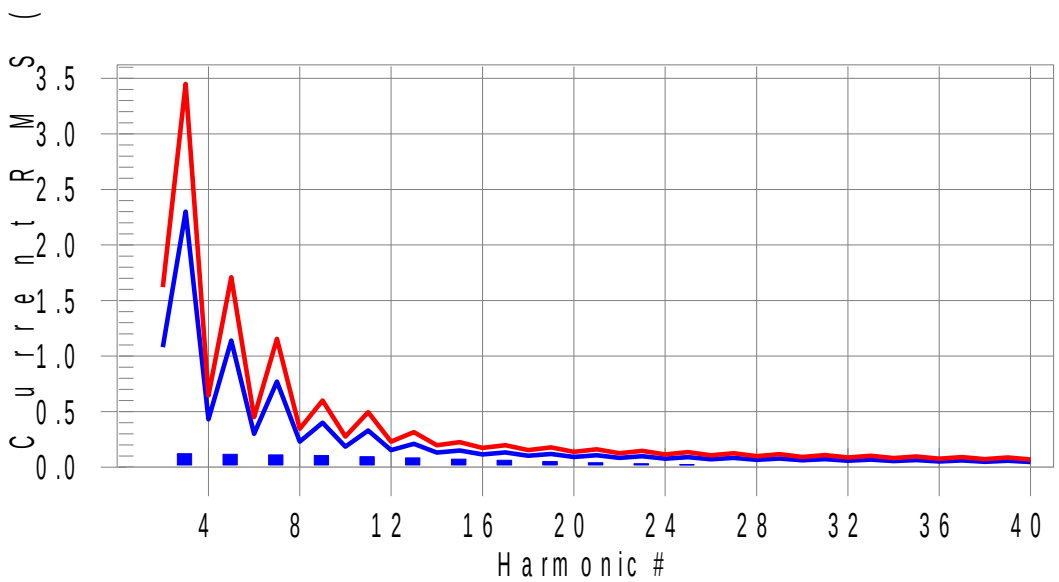
EUT: MI2-90GDN1 **Tested by: Mike Zhuo**
Test category: Class-A per Ed. 4.0 (2014) (European limits) **Test Margin: 100**
Test date: 2018-3-25 **Start time: 18:51:05** **End time: 18:53:47**
Test duration (min): 2.5
Comment: Cooling mode

Test Result: Pass **Source qualification: Normal**

Current & voltage waveforms



Harmonics and Class A limit line **European Limits**



Test result: Pass Worst harmonics H15-32.4% of 150% limit, H15-48.3% of 100% limit.

Current Test Result Summary (Run time)

EUT: MI2-90GDN1 **Tested by: Mike Zhuo**
Test category: Class-A per Ed. 4.0 (2014) (European limits) **Test Margin: 100**
Test date: 2018-3-25 **Start time: 18:51:05** **End time: 18:53:47**
Test duration (min): 2.5
Comment: Cooling mode

Test Result: Pass **Source qualification: Normal**
THC(A): 0.289 **I-THD(%): 210.0** **POHC(A): 0.058** **POHC Limit(A): 0.251**

Highest parameter values during test:

V_RMS (Volts):	230.347	Frequency(Hz):	50.00
I_Peak (Amps):	1.820	I_RMS (Amps):	0.354
I_Fund (Amps):	0.138	Crest Factor:	5.186
Power (Watts):	28.7	Power Factor:	0.356

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.009	1.080	0.8	0.011	1.620	0.7	Pass
3	0.121	2.300	5.3	0.123	3.450	3.6	Pass
4	0.008	0.430	1.9	0.010	0.645	1.5	Pass
5	0.117	1.140	10.3	0.118	1.710	6.9	Pass
6	0.008	0.300	2.7	0.009	0.450	2.0	Pass
7	0.111	0.770	14.4	0.112	1.155	9.7	Pass
8	0.008	0.230	3.5	0.009	0.345	2.5	Pass
9	0.103	0.400	25.7	0.103	0.600	17.2	Pass
10	0.008	0.184	4.5	0.009	0.276	3.1	Pass
11	0.094	0.330	28.3	0.094	0.495	19.1	Pass
12	0.009	0.153	5.7	0.009	0.230	4.0	Pass
13	0.083	0.210	39.7	0.084	0.315	26.6	Pass
14	0.009	0.131	7.0	0.010	0.197	4.9	Pass
15	0.072	0.150	48.3	0.073	0.225	32.4	Pass
16	0.010	0.115	8.8	0.011	0.173	6.3	Pass
17	0.061	0.132	46.5	0.062	0.198	31.4	Pass
18	0.011	0.102	10.6	0.011	0.153	7.4	Pass
19	0.050	0.118	42.6	0.051	0.178	29.0	Pass
20	0.011	0.092	12.4	0.012	0.138	8.6	Pass
21	0.040	0.107	37.4	0.041	0.161	25.2	Pass
22	0.012	0.084	13.9	0.012	0.125	9.7	Pass
23	0.030	0.098	31.2	0.031	0.147	21.1	Pass
24	0.012	0.077	15.2	0.012	0.115	10.5	Pass
25	0.022	0.090	24.5	0.023	0.135	17.3	Pass
26	0.011	0.071	15.9	0.012	0.107	11.0	Pass
27	0.015	0.083	17.7	0.015	0.125	12.1	Pass
28	0.011	0.066	16.3	0.011	0.099	11.1	Pass
29	0.009	0.078	11.4	0.009	0.116	7.9	Pass
30	0.010	0.061	15.8	0.010	0.092	10.8	Pass
31	0.005	0.073	N/A	0.005	0.109	N/A	Pass
32	0.009	0.058	15.0	0.009	0.086	10.2	Pass
33	0.003	0.068	N/A	0.003	0.102	N/A	Pass
34	0.007	0.054	13.1	0.007	0.081	9.2	Pass
35	0.004	0.064	N/A	0.004	0.096	N/A	Pass
36	0.006	0.051	11.3	0.006	0.077	7.8	Pass
37	0.005	0.061	N/A	0.005	0.091	N/A	Pass
38	0.004	0.048	N/A	0.005	0.073	N/A	Pass
39	0.005	0.058	N/A	0.005	0.087	N/A	Pass
40	0.003	0.046	N/A	0.004	0.069	N/A	Pass

Flicker Test Summary per EN/IEC61000-3-3 Ed. 3.0 (2013) (Run time)

EUT: MI2-90GDN1 **Tested by: Mike Zhuo**
Test category: All parameters (European limits) **Test Margin: 100**
Test date: 2018-3-25 **Start time: 20:56:59** **End time: 22:58:32**
Test duration (min): 120
Comment: Cooling mode

Test Result: Pass **Status: Test Completed**

Parameter values recorded during the test:

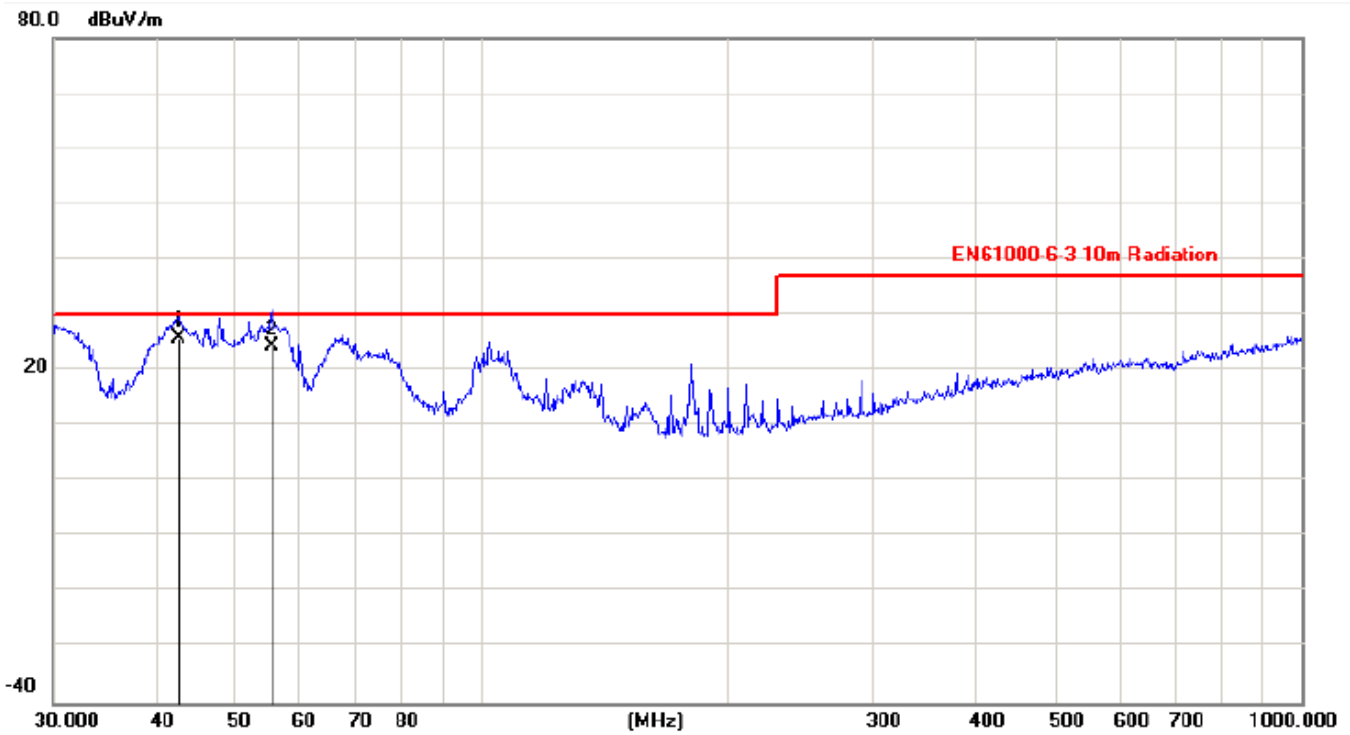
Vrms at the end of test (Volt):	**230.30**			
T-max (mS):	**0.0**	**Test limit (mS):**	**500.0**	**Pass**
Highest dc (%):	**0.00**	**Test limit (%):**	**3.30**	**Pass**
Highest dmax (%):	**0.12**	**Test limit (%):**	**6.00**	**Pass**
Highest Pst (10 min. period):	**0.064**	**Test limit:**	**1.000**	**Pass**
Highest Plt (2 hr. period):	**0.064**	**Test limit:**	**0.650**	**Pass**

RADIATION - TEST (ELECTR. FIELD)
Frequency range: 30MHz-1000MHz

Ant. Polarization: Horizontal

Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
65.8031	-27.20	44.50	17.30	30.00	-12.70	QP
108.2667	-20.42	39.82	19.40	30.00	-10.60	QP

Ant. Polarization: Vertical



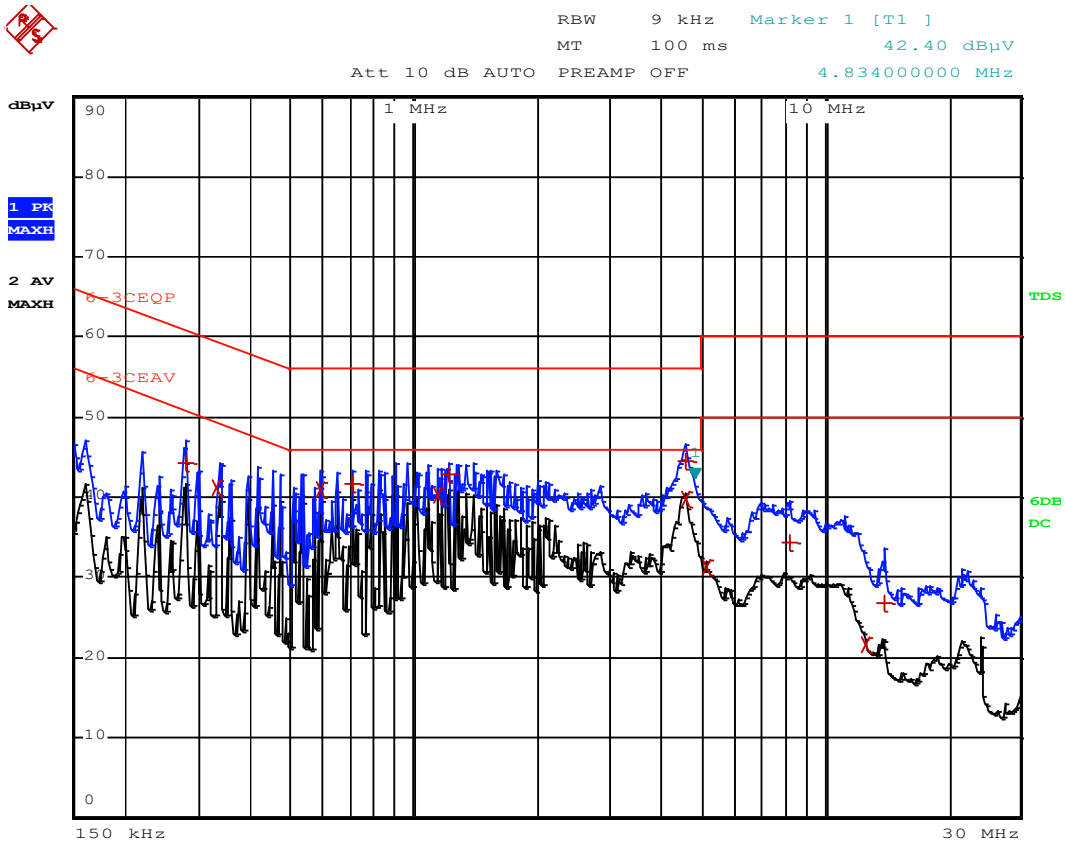
Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
42.6000	-22.72	48.62	25.90	30.00	-4.10	QP
55.4147	-27.03	51.43	24.40	30.00	-5.60	QP

Model : MI2-56GDN1
Operation Mode : cooling mode

	Date	Name
Tested by	2018-03-29	Mike Zhuo

Conducted Emission (Peak+AV detection)

Test Spec: L



Date: 31.MAR.2018 18:34:50

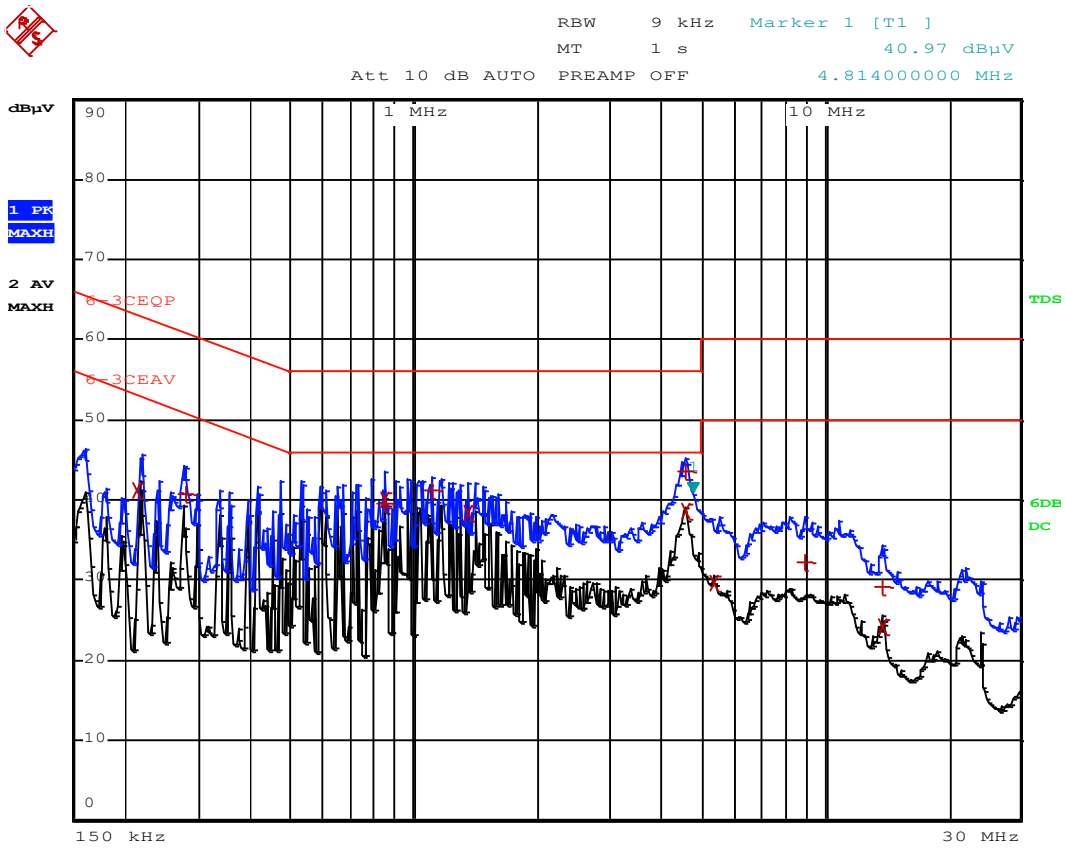
EDIT PEAK LIST (Final Measurement Results)

Trace1:	6-3CEQP
Trace2:	6-3CEAV
Trace3:	---

TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
1 Quasi Peak	278 kHz	44.21	-16.65
2 Average	334 kHz	41.13	-8.22
2 Average	590 kHz	41.09	-4.90
1 Quasi Peak	710 kHz	41.68	-14.31
2 Average	1.142 MHz	40.23	-5.76
1 Quasi Peak	1.222 MHz	42.83	-13.16
1 Quasi Peak	4.578 MHz	44.51	-11.48
2 Average	4.606 MHz	39.73	-6.26
2 Average	5.158 MHz	31.40	-18.59
1 Quasi Peak	8.202 MHz	34.25	-25.74
2 Average	12.594 MHz	21.58	-28.41
1 Quasi Peak	13.914 MHz	26.81	-33.18

Date: 31.MAR.2018 18:33:59

Test Spec: N



Date: 31.MAR.2018 18:37:20

EDIT PEAK LIST (Final Measurement Results)

Trace1:	6-3CEQP
Trace2:	6-3CEAV
Trace3:	---

TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
2 Average	214 kHz	41.17	-11.87
1 Quasi Peak	278 kHz	40.72	-20.15
2 Average	846 kHz	40.07	-5.92
1 Quasi Peak	850 kHz	39.59	-16.40
1 Quasi Peak	1.102 MHz	41.17	-14.83
2 Average	1.358 MHz	38.35	-7.64
1 Quasi Peak	4.606 MHz	43.50	-12.50
2 Average	4.606 MHz	38.68	-7.31
2 Average	5.374 MHz	29.60	-20.39
1 Quasi Peak	8.966 MHz	32.20	-27.79
1 Quasi Peak	13.866 MHz	29.21	-30.79
2 Average	13.87 MHz	24.31	-25.68

Date: 31.MAR.2018 18:37:09

Model : MI2-56GDN1
Operation Mode : cooling mode

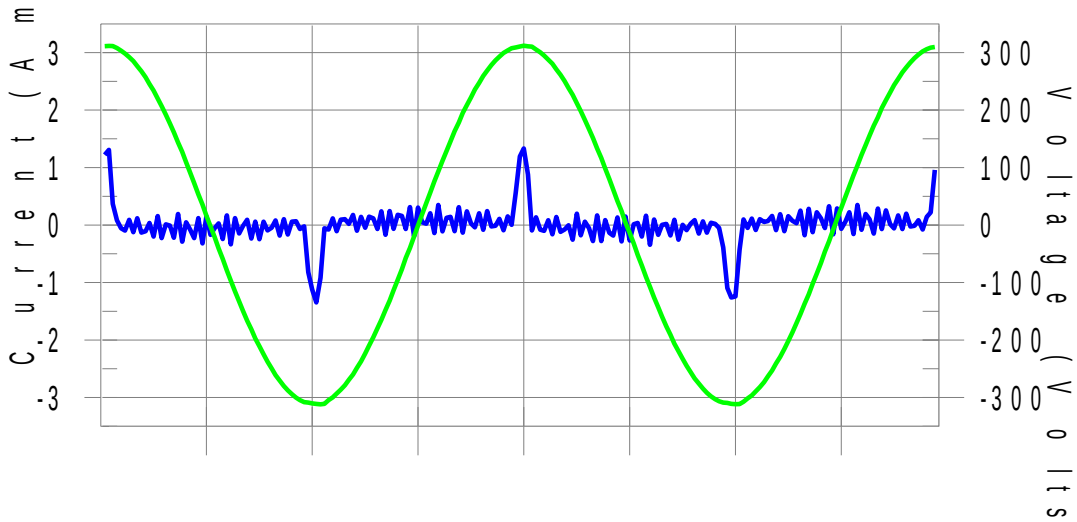
	Date	Name
Tested by	2018-03-31	Mike Zhuo

Harmonics – Class-A per Ed. 4.0 (2014)(Run time)

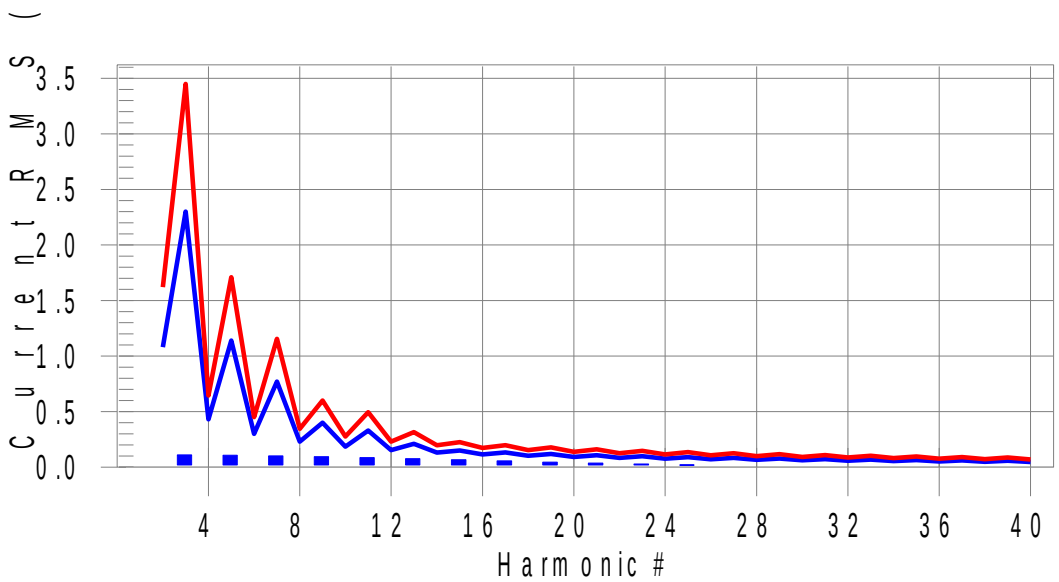
EUT: MI2-56GDN1 **Tested by: Mike Zhuo**
Test category: Class-A per Ed. 4.0 (2014) (European limits) **Test Margin: 100**
Test date: 2018-3-28 **Start time: 16:02:25** **End time: 16:05:07**
Test duration (min): 2.5
Comment: Cooling mode

Test Result: Pass **Source qualification: Normal**

Current & voltage waveforms



Harmonics and Class A limit line **European Limits**



Test result: Pass Worst harmonics H15-29.8% of 150% limit, H15-44.5% of 100% limit.

Current Test Result Summary (Run time)

EUT: MI2-56GDN1 **Tested by: Mike Zhuo**
Test category: Class-A per Ed. 4.0 (2014) (European limits) **Test Margin: 100**
Test date: 2018-3-28 **Start time: 16:02:25** **End time: 16:05:07**
Test duration (min): 2.5
Comment: Cooling mode

Test Result: Pass **Source qualification: Normal**
THC(A): 0.265 **I-THD(%): 208.5** **POHC(A): 0.054** **POHC Limit(A): 0.251**

Highest parameter values during test:

V_RMS (Volts):	220.396	Frequency(Hz):	50.00
I_Peak (Amps):	1.578	I_RMS (Amps):	0.327
I_Fund (Amps):	0.127	Crest Factor:	4.858
Power (Watts):	25.2	Power Factor:	0.353

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.012	1.080	1.1	0.014	1.620	0.9	Pass
3	0.111	2.300	4.8	0.112	3.450	3.3	Pass
4	0.011	0.430	2.6	0.012	0.645	1.9	Pass
5	0.107	1.140	9.4	0.108	1.710	6.3	Pass
6	0.010	0.300	3.4	0.011	0.450	2.4	Pass
7	0.101	0.770	13.2	0.102	1.155	8.9	Pass
8	0.009	0.230	3.9	0.009	0.345	2.7	Pass
9	0.094	0.400	23.6	0.095	0.600	15.9	Pass
10	0.008	0.184	4.2	0.008	0.276	3.0	Pass
11	0.086	0.330	26.0	0.086	0.495	17.5	Pass
12	0.006	0.153	4.2	0.007	0.230	2.9	Pass
13	0.077	0.210	36.5	0.077	0.315	24.5	Pass
14	0.006	0.131	4.4	0.006	0.197	3.0	Pass
15	0.067	0.150	44.5	0.067	0.225	29.8	Pass
16	0.006	0.115	4.9	0.006	0.173	3.4	Pass
17	0.057	0.132	43.0	0.057	0.198	28.8	Pass
18	0.006	0.102	5.9	0.006	0.153	4.1	Pass
19	0.047	0.118	39.4	0.047	0.178	26.4	Pass
20	0.007	0.092	7.4	0.007	0.138	5.2	Pass
21	0.037	0.107	34.6	0.037	0.161	23.2	Pass
22	0.007	0.084	8.9	0.008	0.125	6.2	Pass
23	0.028	0.098	28.8	0.029	0.147	19.8	Pass
24	0.008	0.077	10.6	0.009	0.115	8.0	Pass
25	0.020	0.090	22.6	0.021	0.135	15.5	Pass
26	0.008	0.071	11.8	0.010	0.107	9.4	Pass
27	0.014	0.083	16.4	0.014	0.125	11.4	Pass
28	0.008	0.066	12.6	0.009	0.099	9.5	Pass
29	0.008	0.078	10.4	0.009	0.116	7.6	Pass
30	0.008	0.061	13.0	0.008	0.092	9.2	Pass
31	0.004	0.073	N/A	0.005	0.109	N/A	Pass
32	0.007	0.058	12.8	0.008	0.086	8.8	Pass
33	0.003	0.068	N/A	0.005	0.102	N/A	Pass
34	0.007	0.054	12.2	0.007	0.081	8.8	Pass
35	0.004	0.064	N/A	0.006	0.096	N/A	Pass
36	0.006	0.051	11.0	0.006	0.077	7.6	Pass
37	0.005	0.061	N/A	0.005	0.091	N/A	Pass
38	0.005	0.048	N/A	0.006	0.073	N/A	Pass
39	0.005	0.058	9.1	0.006	0.087	6.5	Pass
40	0.004	0.046	N/A	0.004	0.069	N/A	Pass

Flicker test

EUT:	MI2-56GDN1
Date of test:	13:43 3.Apr 2018
Tester:	Mike Zhuo
Standard used:	EN/IEC 61000-3-3 Ed.3 Flicker
Short time (Pst):	10 min
Observation time:	120 min (12 Flicker measurements)
Flickermeter:	230V / 50Hz according IEC 61000-4-15 Ed.2
Flicker Impedance:	Zref (IEC 60725)
Comment :	Cooling mode

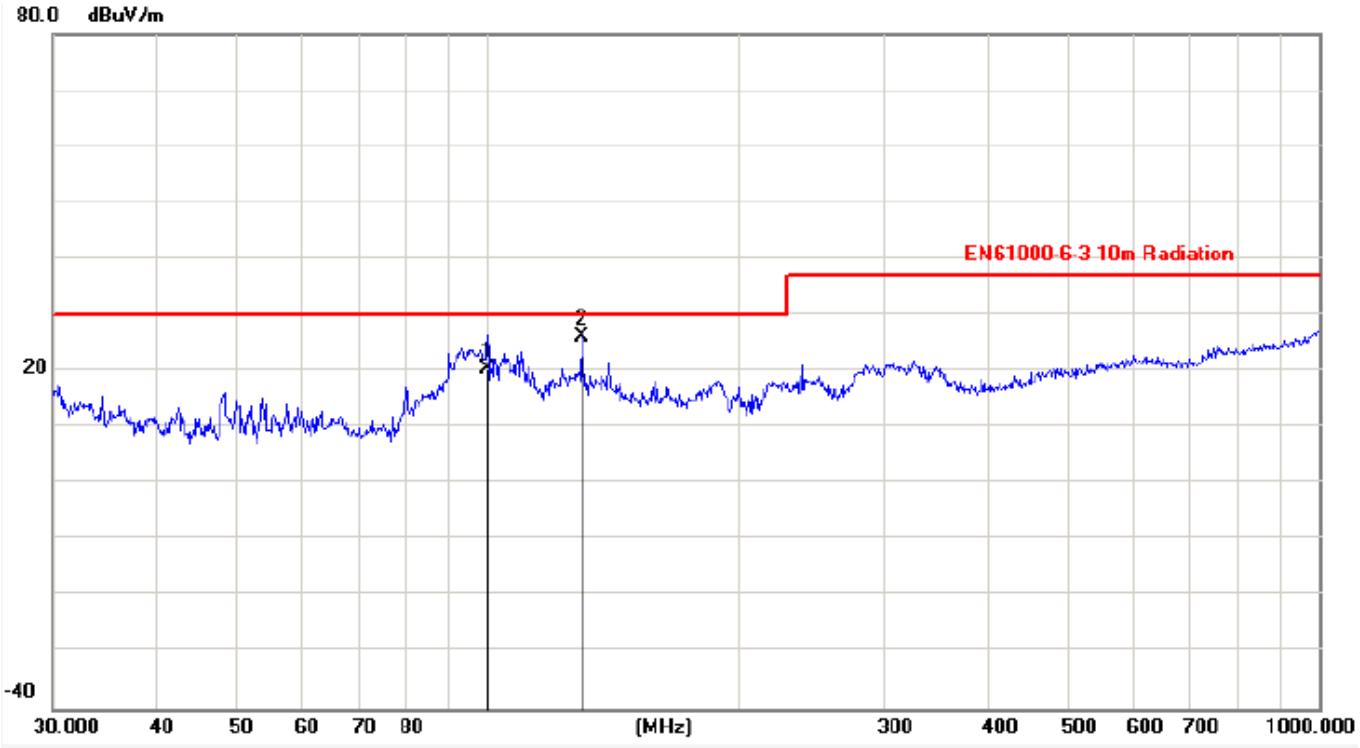
Test Result	PASS

Maximum Flicker results

	EUT values	Limit	Result
Pst	0.028	1.00	PASS
Plt	0.028	0.65	PASS
dc [%]	0.000	3.30	PASS
dmax [%]	0.050	6.00	PASS
Tmax [s]	0.000	0.50	PASS

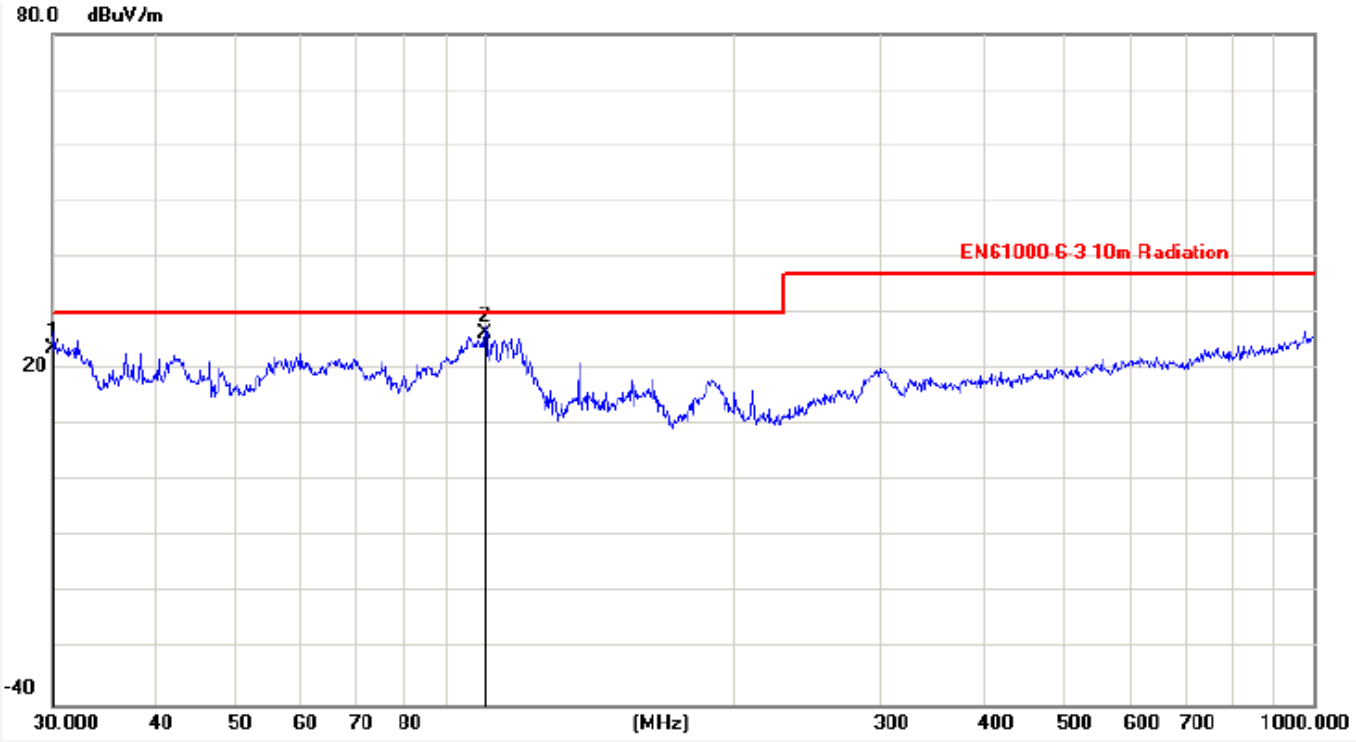
RADIATION - TEST (ELECTR. FIELD)
Frequency range: 30MHz-1000MHz

Ant. Polarization: Horizontal



Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
99.8777	-21.27	41.87	20.60	30.00	-9.40	QP
129.9226	-20.09	46.29	26.20	30.00	-3.80	QP

Ant. Polarization: Vertical



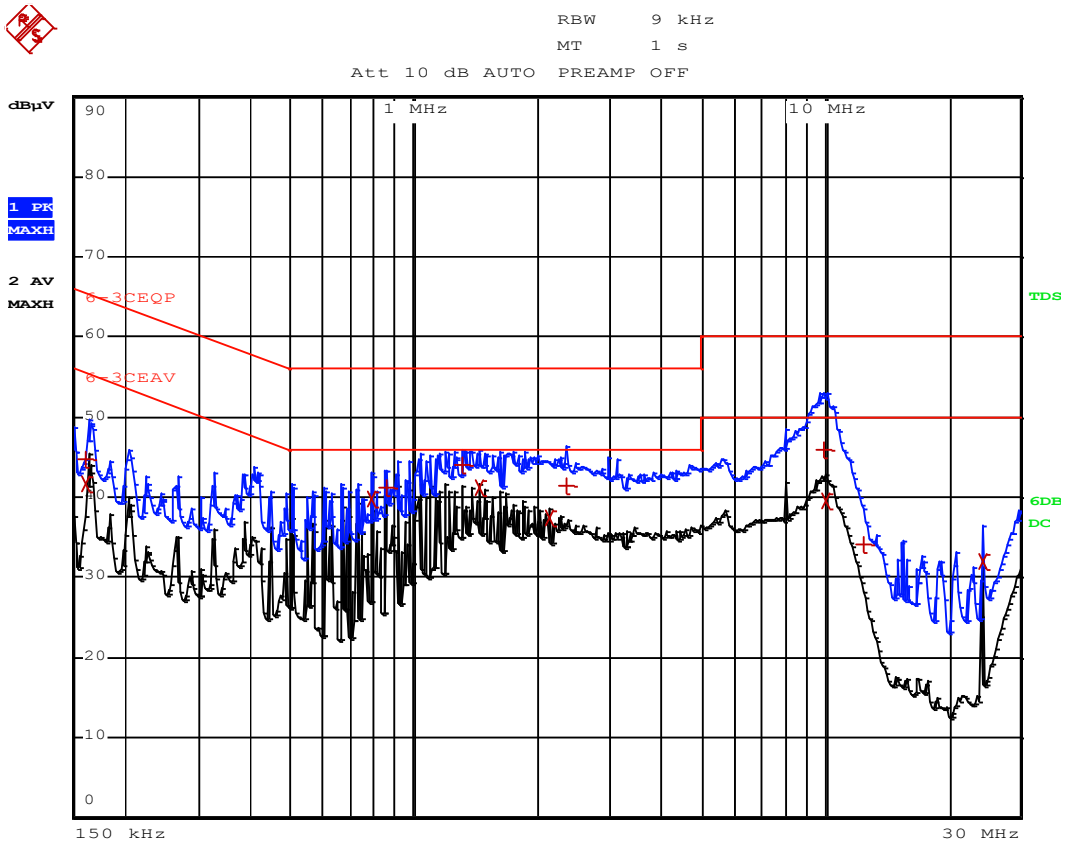
Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
30.0000	-16.37	40.17	23.80	30.00	-6.20	QP
99.8777	-21.47	47.97	26.50	30.00	-3.50	QP

Model : MI2-28GDN1
Operation Mode : cooling mode

	Date	Name
Tested by	2018-03-29	Mike Zhuo

Conducted Emission (Peak+AV detection)

Test Spec: L



Date: 23.MAR.2018 22:07:23

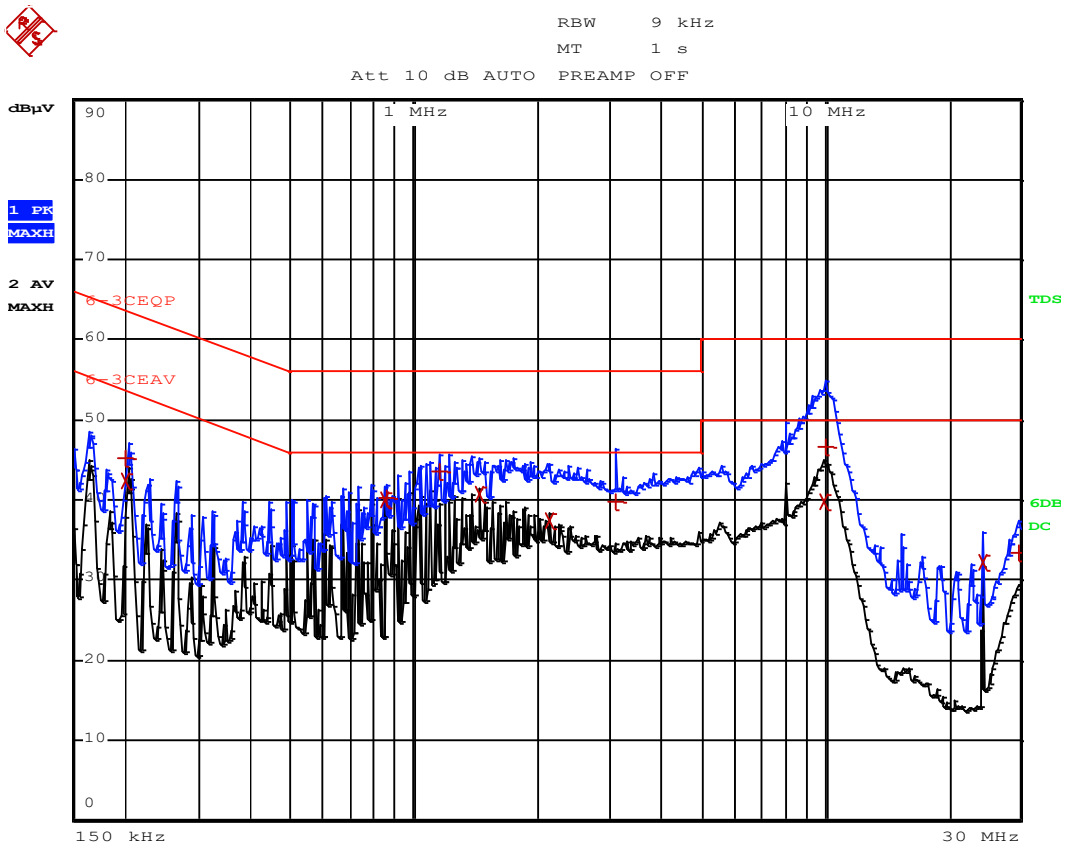
EDIT PEAK LIST (Final Measurement Results)

Trace1:	6-3CEQP
Trace2:	6-3CEAV
Trace3:	---

TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
1 Quasi Peak	162 kHz	44.85	-20.50
2 Average	162 kHz	41.69	-13.66
2 Average	790 kHz	39.89	-6.10
1 Quasi Peak	854 kHz	41.14	-14.85
1 Quasi Peak	1.318 MHz	44.05	-11.94
2 Average	1.438 MHz	41.23	-4.76
2 Average	2.15 MHz	37.32	-8.67
1 Quasi Peak	2.366 MHz	41.42	-14.57
1 Quasi Peak	10.014 MHz	46.03	-13.97
2 Average	10.074 MHz	39.45	-10.54
1 Quasi Peak	12.422 MHz	34.23	-25.76
2 Average	24.182 MHz	32.03	-17.96

Date: 23.MAR.2018 22:07:14

Test Spec: N



Date: 23.MAR.2018 22:09:36

EDIT PEAK LIST (Final Measurement Results)

Trace1:	6-3CEQP
Trace2:	6-3CEAV
Trace3:	---

TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
1 Quasi Peak	202 kHz	45.15	-18.37
2 Average	202 kHz	42.32	-11.20
2 Average	850 kHz	40.05	-5.94
1 Quasi Peak	854 kHz	40.37	-15.62
1 Quasi Peak	1.158 MHz	43.59	-12.40
2 Average	1.438 MHz	40.65	-5.34
2 Average	2.146 MHz	37.51	-8.48
1 Quasi Peak	3.098 MHz	39.74	-16.25
2 Average	9.99 MHz	39.76	-10.23
1 Quasi Peak	10.07 MHz	46.57	-13.42
2 Average	24.182 MHz	32.29	-17.71
1 Quasi Peak	29.766 MHz	33.33	-26.66

Date: 23.MAR.2018 22:09:26

Model : MI2-28GDN1
Operation Mode : cooling mode

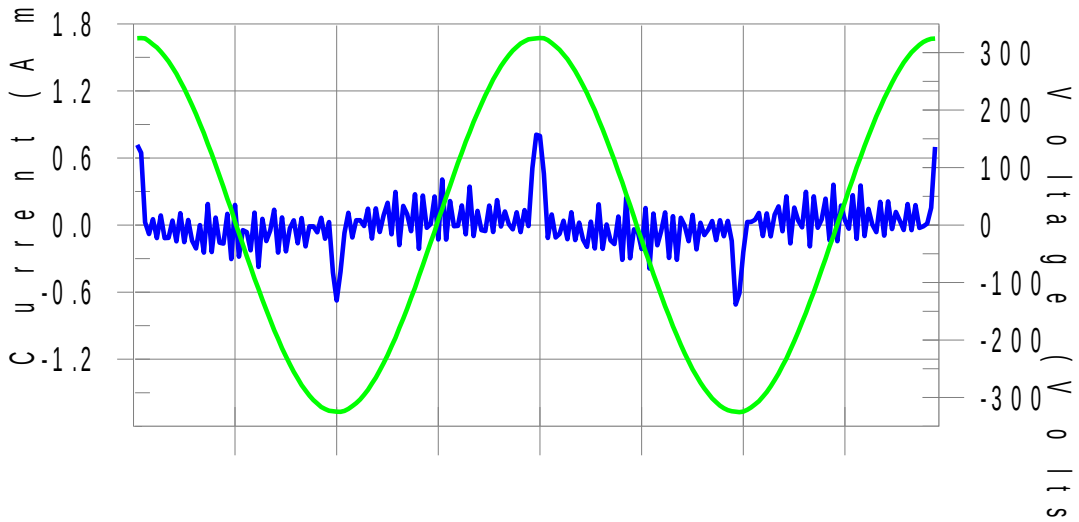
	Date	Name
Tested by	2018-03-23	Mike Zhuo

Harmonics – Class-A per Ed. 4.0 (2014)(Run time)

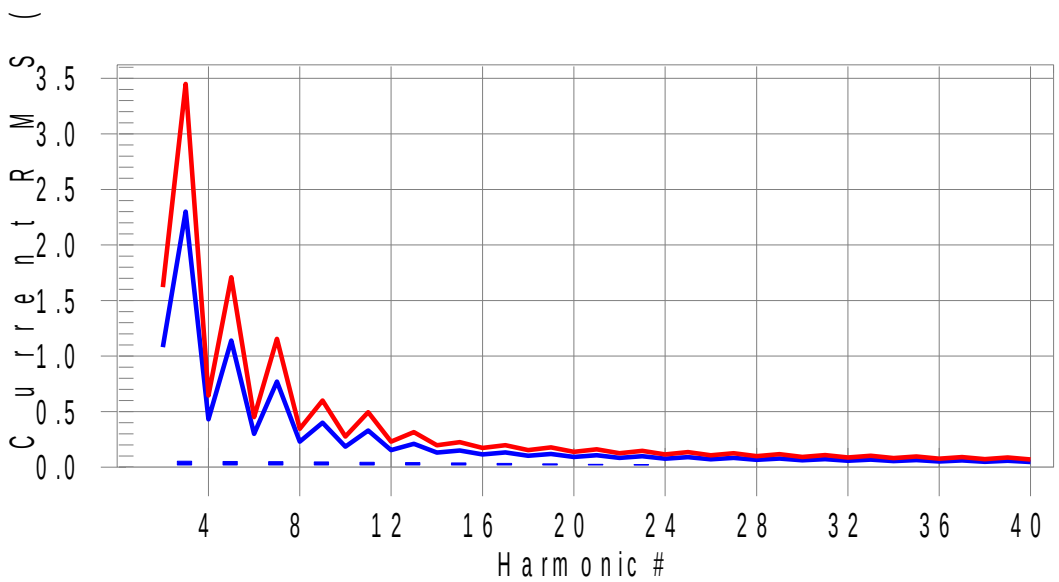
EUT: MI2-28GDN1 **Tested by: Mike Zhuo**
Test category: Class-A per Ed. 4.0 (2014) (European limits) **Test Margin: 100**
Test date: 2018-3-24 **Start time: 20:18:04** **End time: 20:20:46**
Test duration (min): 2.5
Comment: Cooling mode

Test Result: Pass **Source qualification: Normal**

Current & voltage waveforms



Harmonics and Class A limit line **European Limits**



Test result: Pass Worst harmonics H17-17.2% of 150% limit, H17-25.7% of 100% limit.

Current Test Result Summary (Run time)

EUT: MI2-28GDN1 **Tested by: Mike Zhuo**
Test category: Class-A per Ed. 4.0 (2014) (European limits) **Test Margin: 100**
Test date: 2018-3-24 **Start time: 20:18:04** **End time: 20:20:46**
Test duration (min): 2.5
Comment: Cooling mode

Test Result: Pass **Source qualification: Normal**
THC(A): 0.140 **I-THD(%): 175.0** **POHC(A): 0.044** **POHC Limit(A): 0.251**

Highest parameter values during test:

V_RMS (Volts):	230.378	Frequency(Hz):	50.00
I_Peak (Amps):	0.991	I_RMS (Amps):	0.212
I_Fund (Amps):	0.080	Crest Factor:	4.707
Power (Watts):	12.6	Power Factor:	0.261

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.007	1.080	0.7	0.010	1.620	0.6	Pass
3	0.053	2.300	2.3	0.054	3.450	1.6	Pass
4	0.007	0.430	1.6	0.008	0.645	1.3	Pass
5	0.052	1.140	4.5	0.053	1.710	3.1	Pass
6	0.007	0.300	2.2	0.007	0.450	1.6	Pass
7	0.050	0.770	6.5	0.051	1.155	4.4	Pass
8	0.006	0.230	2.6	0.006	0.345	1.9	Pass
9	0.047	0.400	11.9	0.048	0.600	8.0	Pass
10	0.006	0.184	3.0	0.006	0.276	2.2	Pass
11	0.044	0.330	13.5	0.045	0.495	9.1	Pass
12	0.005	0.153	N/A	0.005	0.230	N/A	Pass
13	0.041	0.210	19.6	0.042	0.315	13.2	Pass
14	0.004	0.131	N/A	0.004	0.197	N/A	Pass
15	0.038	0.150	25.1	0.038	0.225	16.9	Pass
16	0.003	0.115	N/A	0.003	0.173	N/A	Pass
17	0.034	0.132	25.7	0.034	0.198	17.2	Pass
18	0.003	0.102	N/A	0.003	0.153	N/A	Pass
19	0.030	0.118	25.2	0.030	0.178	16.9	Pass
20	0.003	0.092	N/A	0.003	0.138	N/A	Pass
21	0.026	0.107	24.2	0.026	0.161	16.3	Pass
22	0.003	0.084	N/A	0.003	0.125	N/A	Pass
23	0.022	0.098	22.5	0.022	0.147	15.1	Pass
24	0.003	0.077	N/A	0.003	0.115	N/A	Pass
25	0.018	0.090	20.3	0.018	0.135	13.7	Pass
26	0.003	0.071	N/A	0.004	0.107	N/A	Pass
27	0.015	0.083	17.7	0.015	0.125	12.0	Pass
28	0.004	0.066	N/A	0.004	0.099	N/A	Pass
29	0.011	0.078	14.7	0.012	0.116	10.2	Pass
30	0.004	0.061	N/A	0.004	0.092	N/A	Pass
31	0.009	0.073	11.9	0.009	0.109	8.6	Pass
32	0.004	0.058	N/A	0.004	0.086	N/A	Pass
33	0.006	0.068	8.9	0.006	0.102	6.3	Pass
34	0.004	0.054	N/A	0.005	0.081	N/A	Pass
35	0.004	0.064	N/A	0.004	0.096	N/A	Pass
36	0.004	0.051	N/A	0.004	0.077	N/A	Pass
37	0.003	0.061	N/A	0.003	0.091	N/A	Pass
38	0.004	0.048	N/A	0.004	0.073	N/A	Pass
39	0.002	0.058	N/A	0.002	0.087	N/A	Pass
40	0.003	0.046	N/A	0.003	0.069	N/A	Pass

Flicker Test Summary per EN/IEC61000-3-3 Ed. 3.0 (2013) (Run time)

EUT: MI2-28GDN1 **Tested by: Mike Zhuo**
Test category: All parameters (European limits) **Test Margin: 100**
Test date: 2018-3-24 **Start time: 20:32:48** **End time: 22:34:21**
Test duration (min): 120
Comment: Cooling mode

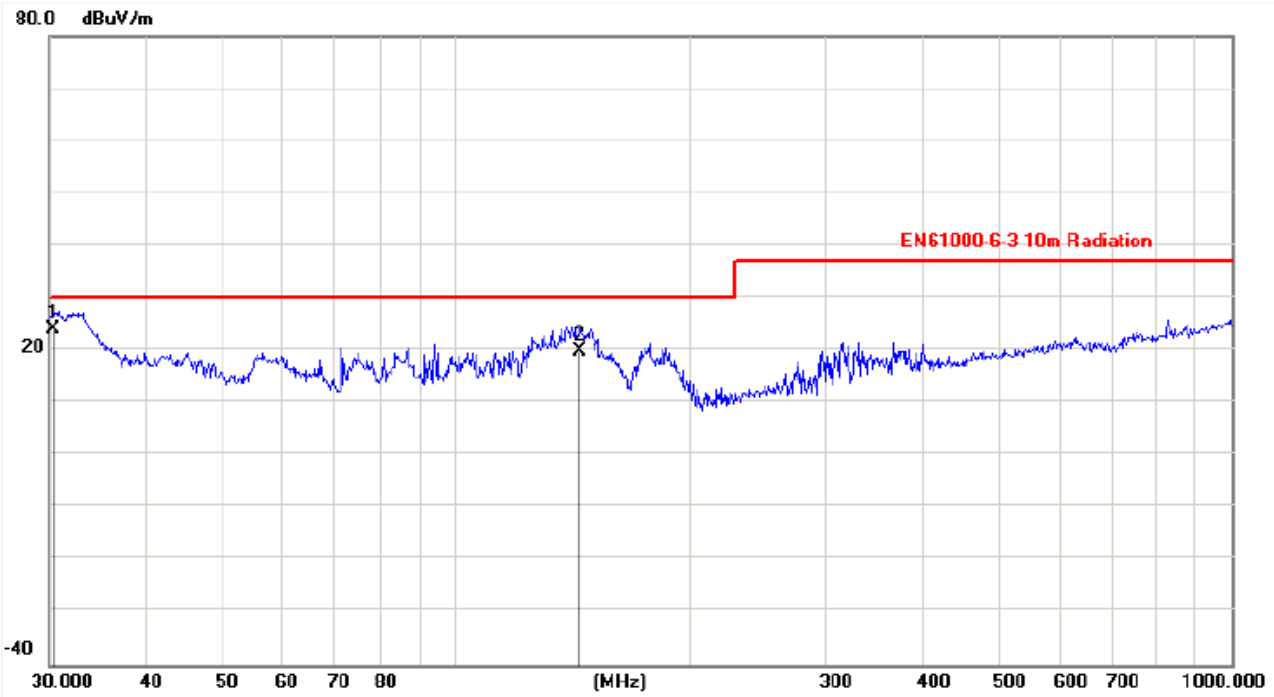
Test Result: Pass **Status: Test Completed**

Parameter values recorded during the test:

Vrms at the end of test (Volt):	**230.37**			
T-max (mS):	**0.0**	**Test limit (mS):**	**500.0**	**Pass**
Highest dc (%):	**0.00**	**Test limit (%):**	**3.30**	**Pass**
Highest dmax (%):	**-0.11**	**Test limit (%):**	**6.00**	**Pass**
Highest Pst (10 min. period):	**0.064**	**Test limit:**	**1.000**	**Pass**
Highest Plt (2 hr. period):	**0.064**	**Test limit:**	**0.650**	**Pass**

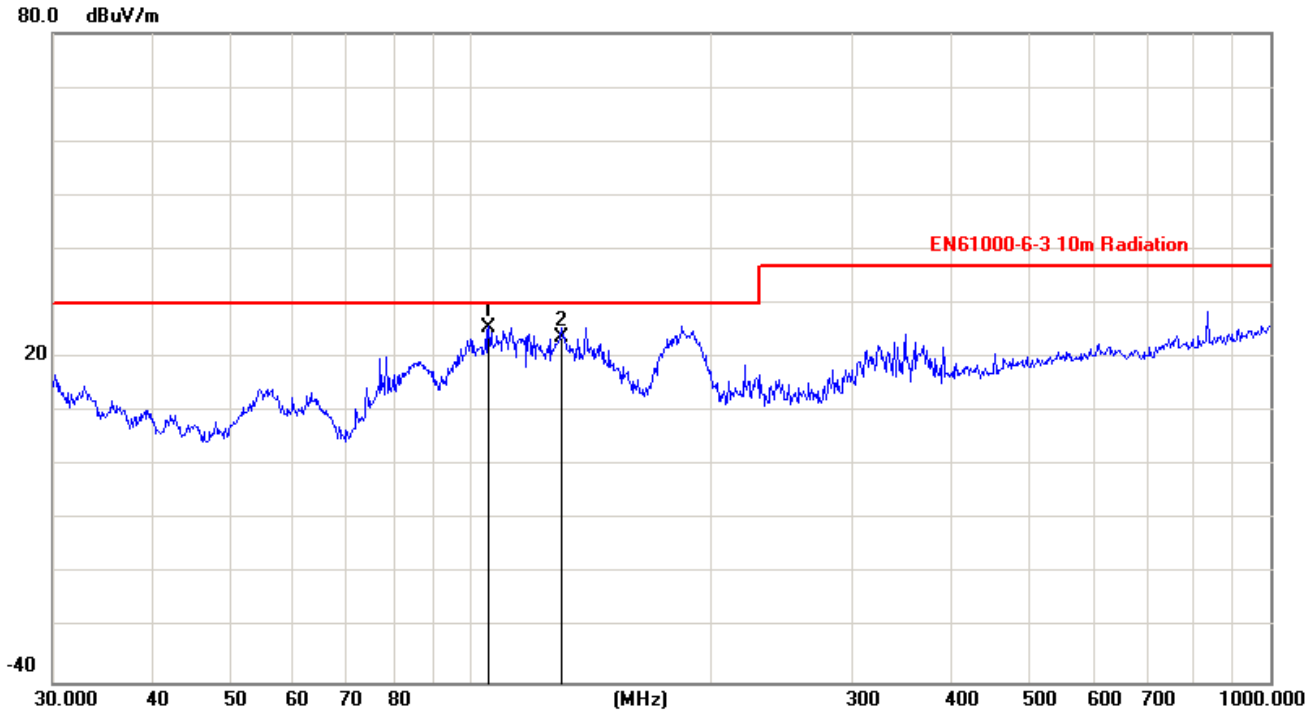
RADIATION - TEST (ELECTR. FIELD)
Frequency range: 30MHz-1000MHz

Ant. Polarization: Horizontal



Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
30.3173	-16.53	40.63	24.10	30.00	-5.90	QP
144.8418	-21.92	41.82	19.90	30.00	-10.10	QP

Ant. Polarization: Vertical



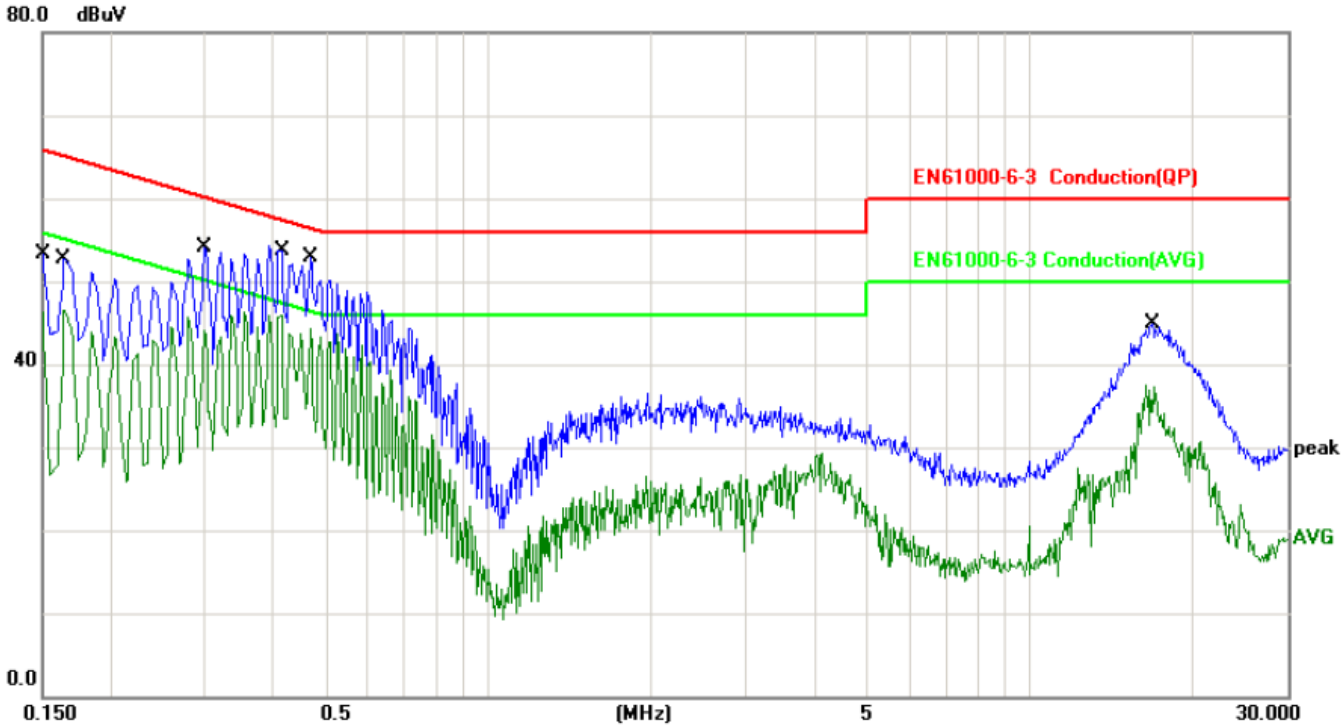
Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
105.2718	-20.86	46.46	25.60	30.00	-4.40	QP
129.9226	-20.60	44.30	23.70	30.00	-6.30	QP

Model : MI2-45ZDN1
Operation Mode : cooling mode

	Date	Name
Tested by	2018-05-10	Mike Zhuo

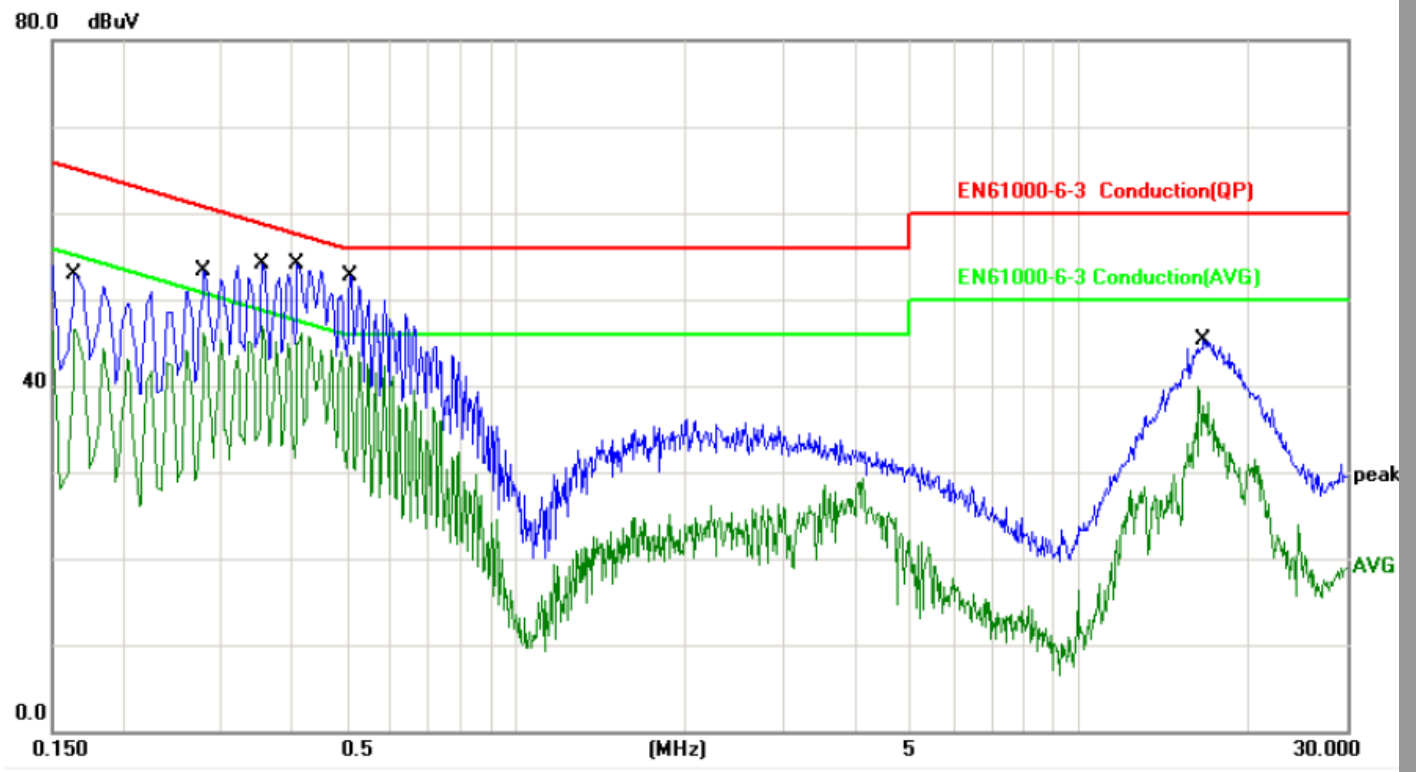
Conducted Emission (Peak+AV detection)

Test Spec: L



Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
0.1500	9.79	42.01	51.80	65.99	-14.19	QP	P
0.1500	9.79	36.61	46.40	55.99	-9.59	AVG	P
0.1650	9.81	42.10	51.91	65.20	-13.29	QP	P
0.1650	9.81	37.50	47.31	55.20	-7.89	AVG	P
0.3000	9.90	41.30	51.20	60.24	-9.04	QP	P
0.3000	9.90	35.30	45.20	50.24	-5.04	AVG	P
0.4100	9.96	38.50	48.46	57.65	-9.19	QP	P
0.4100	9.96	30.80	40.76	47.65	-6.89	AVG	P
0.4700	9.99	38.40	48.39	56.51	-8.12	QP	P
0.4700	9.99	32.60	42.59	46.51	-3.92	AVG	P
16.8550	10.33	26.77	37.10	60.00	-22.90	QP	P
16.8550	10.33	13.97	24.30	50.00	-25.70	AVG	P

Test Spec: N



Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
0.1650	9.81	42.50	52.31	65.20	-12.89	QP	P
0.1650	9.81	36.90	46.71	55.20	-8.49	AVG	P
0.2800	9.89	40.50	50.39	60.81	-10.42	QP	P
0.2800	9.89	35.40	45.29	50.81	-5.52	AVG	P
0.3550	9.93	42.40	52.33	58.84	-6.51	QP	P
0.3550	9.93	36.80	46.73	48.84	-2.11	AVG	P
0.4100	9.96	42.80	52.76	57.65	-4.89	QP	P
0.4100	9.96	36.90	46.86	47.65	-0.79	AVG	P
0.5100	10.01	39.70	49.71	56.00	-6.29	QP	P
0.5100	10.01	33.50	43.51	46.00	-2.49	AVG	P
16.7250	10.33	30.77	41.10	60.00	-18.90	QP	P
16.7250	10.33	25.47	35.80	50.00	-14.20	AVG	P

Model : MI2-45ZDN1
Operation Mode : cooling mode

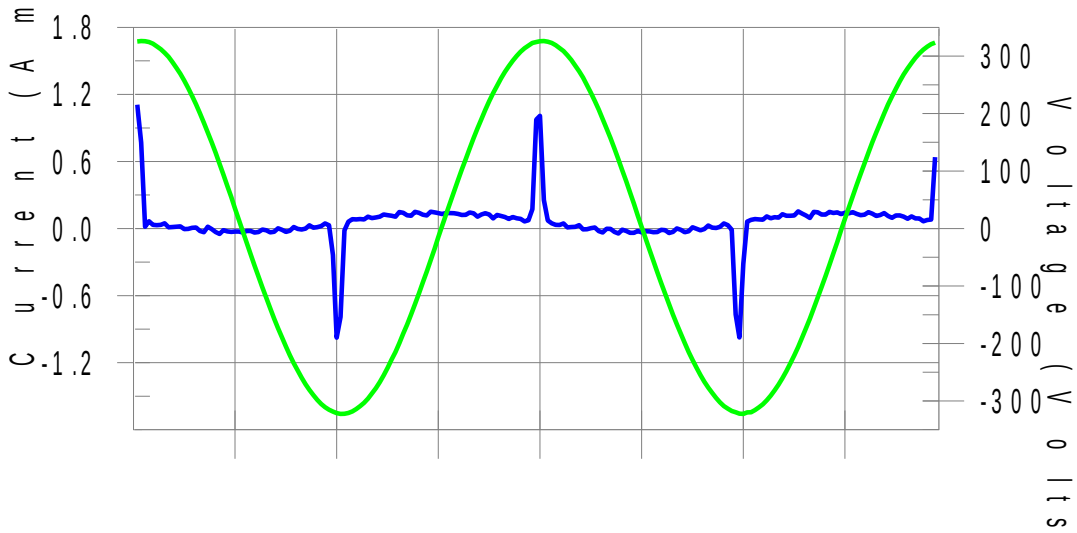
	Date	Name
Tested by	2018-05-10	Mike Zhuo

Harmonics – Class-A per Ed. 4.0 (2014)(Run time) incl. inter-harmonics

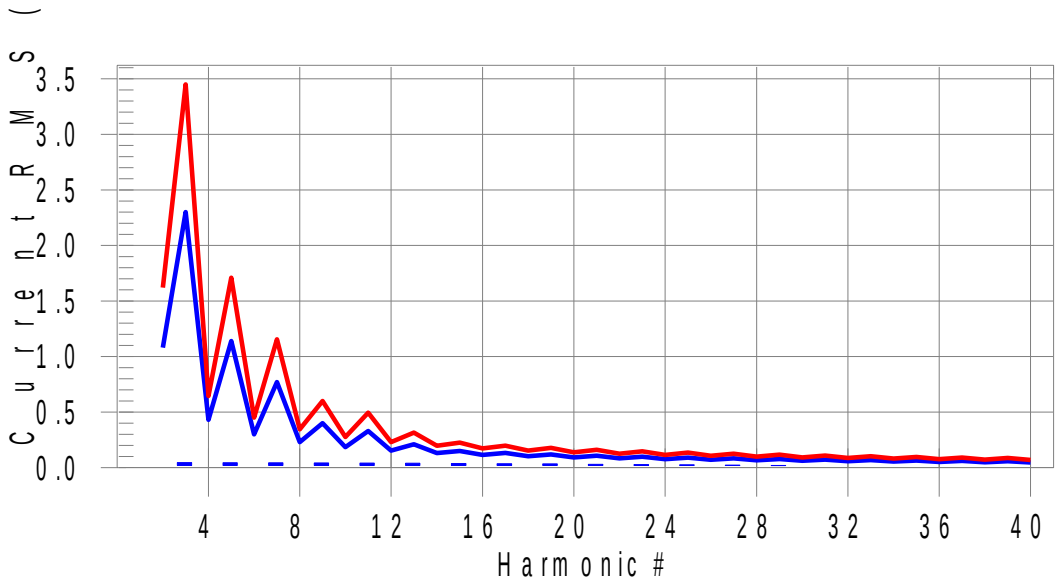
EUT: MI2-45ZDN1 **Tested by: Mike Zhuo**
Test category: Class-A per Ed. 4.0 (2014) (European limits) **Test Margin: 100**
Test date: 2018-5-11 **Start time: 11:50:27** **End time: 11:53:08**
Test duration (min): 2.5
Comment: Cooling mode

Test Result: Pass **Source qualification: Normal**

Current & voltage waveforms



Harmonics and Class A limit line **European Limits**



Test result: Pass **Worst harmonics H23-21.1% of 150% limit, H23-28.5% of 100% limit**

Current Test Result Summary (Run time)

EUT: MI2-45ZDN1 **Tested by: Mike Zhuo**
Test category: Class-A per Ed. 4.0 (2014) (European limits) **Test Margin: 100**
Test date: 2018-5-11 **Start time: 11:50:27** **End time: 11:53:08**
Test duration (min): 2.5
Comment: Cooling mode

Test Result: Pass **Source qualification: Normal**
THC(A): 0.136 **I-THD(%): 168.5** **POHC(A): 0.064** **POHC Limit(A): 0.251**

Highest parameter values during test:

V_RMS (Volts):	229.44	Frequency(Hz):	50.00
I_Peak (Amps):	1.139	I_RMS (Amps):	0.203
I_Fund (Amps):	0.081	Crest Factor:	5.983
Power (Watts):	11.8	Power Factor:	0.301

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.002	1.080	N/A	0.004	1.620	N/A	Pass
3	0.045	2.300	2.0	0.052	3.450	1.5	Pass
4	0.002	0.430	N/A	0.004	0.645	N/A	Pass
5	0.044	1.140	3.9	0.050	1.710	2.9	Pass
6	0.002	0.300	N/A	0.004	0.450	N/A	Pass
7	0.043	0.770	5.6	0.049	1.155	4.2	Pass
8	0.002	0.230	N/A	0.004	0.345	N/A	Pass
9	0.042	0.400	10.5	0.047	0.600	7.9	Pass
10	0.002	0.184	N/A	0.004	0.276	N/A	Pass
11	0.041	0.330	12.3	0.046	0.495	9.2	Pass
12	0.002	0.153	N/A	0.004	0.230	N/A	Pass
13	0.039	0.210	18.5	0.044	0.315	13.8	Pass
14	0.002	0.131	N/A	0.004	0.197	N/A	Pass
15	0.037	0.150	24.6	0.041	0.225	18.3	Pass
16	0.002	0.115	N/A	0.004	0.173	N/A	Pass
17	0.035	0.132	26.3	0.039	0.198	19.6	Pass
18	0.002	0.102	N/A	0.004	0.153	N/A	Pass
19	0.032	0.118	27.4	0.036	0.178	20.4	Pass
20	0.002	0.092	N/A	0.003	0.138	N/A	Pass
21	0.030	0.107	28.0	0.033	0.161	20.8	Pass
22	0.002	0.084	N/A	0.003	0.125	N/A	Pass
23	0.028	0.098	28.5	0.031	0.147	21.1	Pass
24	0.002	0.077	N/A	0.003	0.115	N/A	Pass
25	0.025	0.090	28.1	0.028	0.135	20.8	Pass
26	0.002	0.071	N/A	0.003	0.107	N/A	Pass
27	0.023	0.083	27.3	0.025	0.125	20.2	Pass
28	0.002	0.066	N/A	0.003	0.099	N/A	Pass
29	0.020	0.078	26.1	0.022	0.116	19.2	Pass
30	0.002	0.061	N/A	0.003	0.092	N/A	Pass
31	0.017	0.073	23.9	0.019	0.109	17.6	Pass
32	0.002	0.058	N/A	0.003	0.086	N/A	Pass
33	0.015	0.068	21.9	0.016	0.102	16.1	Pass
34	0.001	0.054	N/A	0.002	0.081	N/A	Pass
35	0.013	0.064	19.6	0.014	0.096	14.3	Pass
36	0.001	0.051	N/A	0.002	0.077	N/A	Pass
37	0.010	0.061	17.3	0.011	0.091	12.6	Pass
38	0.001	0.048	N/A	0.002	0.073	N/A	Pass
39	0.008	0.058	14.7	0.009	0.087	10.7	Pass
40	0.001	0.046	N/A	0.002	0.069	N/A	Pass

Flicker Test Summary per EN/IEC61000-3-3 (Run time)

EUT: MI2-45ZDN1 **Tested by: Mike Zhuo**
Test category: All parameters (European limits) **Test Margin: 100**
Test date: 2018-5-10 **Start time: 12:01:58** **End time: 14:04:08**
Test duration (min): 120
Comment: Cooling mode

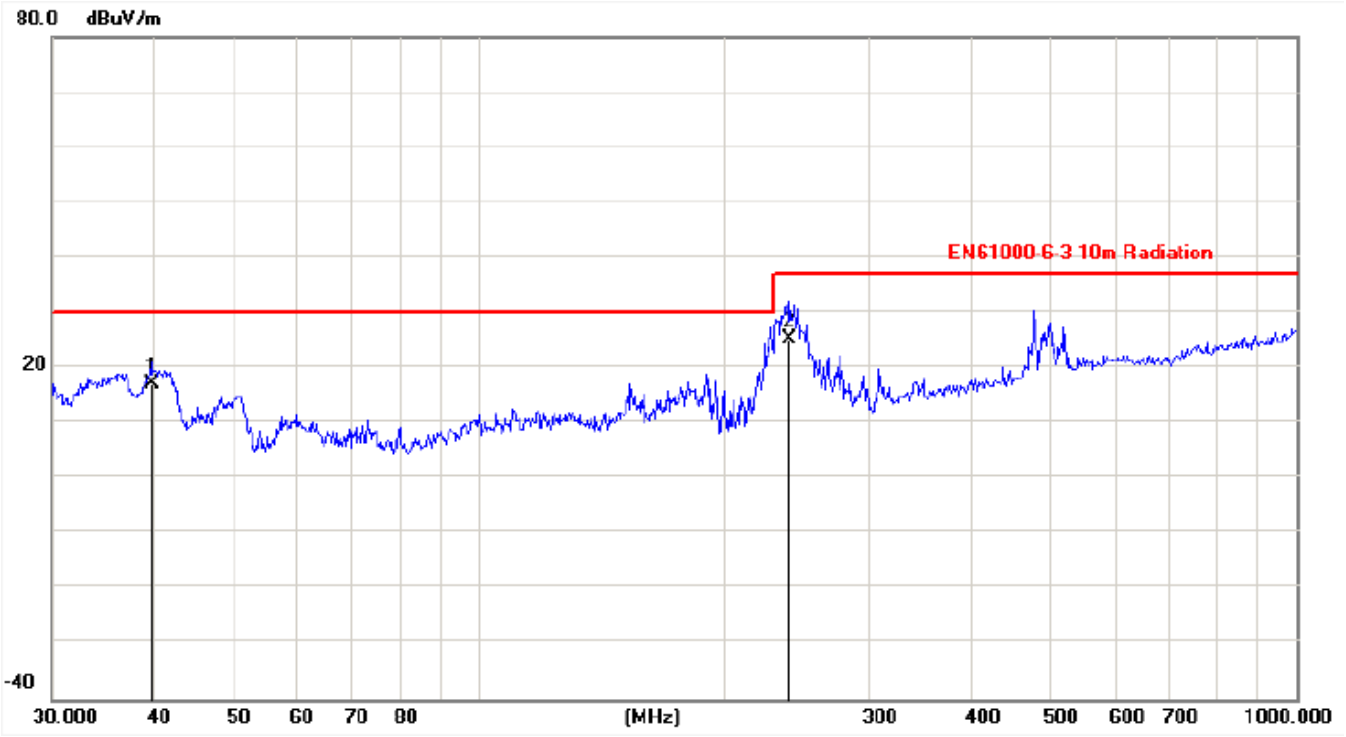
Test Result: Pass **Status: Test Completed**

Parameter values recorded during the test:

Vrms at the end of test (Volt):	**230.07**			
T-max (mS):	**0**	**Test limit (mS):**	**500.0**	**Pass**
Highest dc (%):	**0.02**	**Test limit (%):**	**3.30**	**Pass**
Highest dmax (%):	**0.06**	**Test limit (%):**	**4.00**	**Pass**
Highest Pst (10 min. period):	**0.064**	**Test limit:**	**1.000**	**Pass**
Highest Plt (2 hr. period):	**0.064**	**Test limit:**	**0.650**	**Pass**

RADIATION - TEST (ELECTR. FIELD)
Frequency range: 30MHz-1000MHz

Ant. Polarization: Horizontal



Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
39.7146	-20.67	37.87	17.20	30.00	-12.80	QP
239.9873	-19.21	44.31	25.10	37.00	-11.90	QP

Ant. Polarization: Vertical

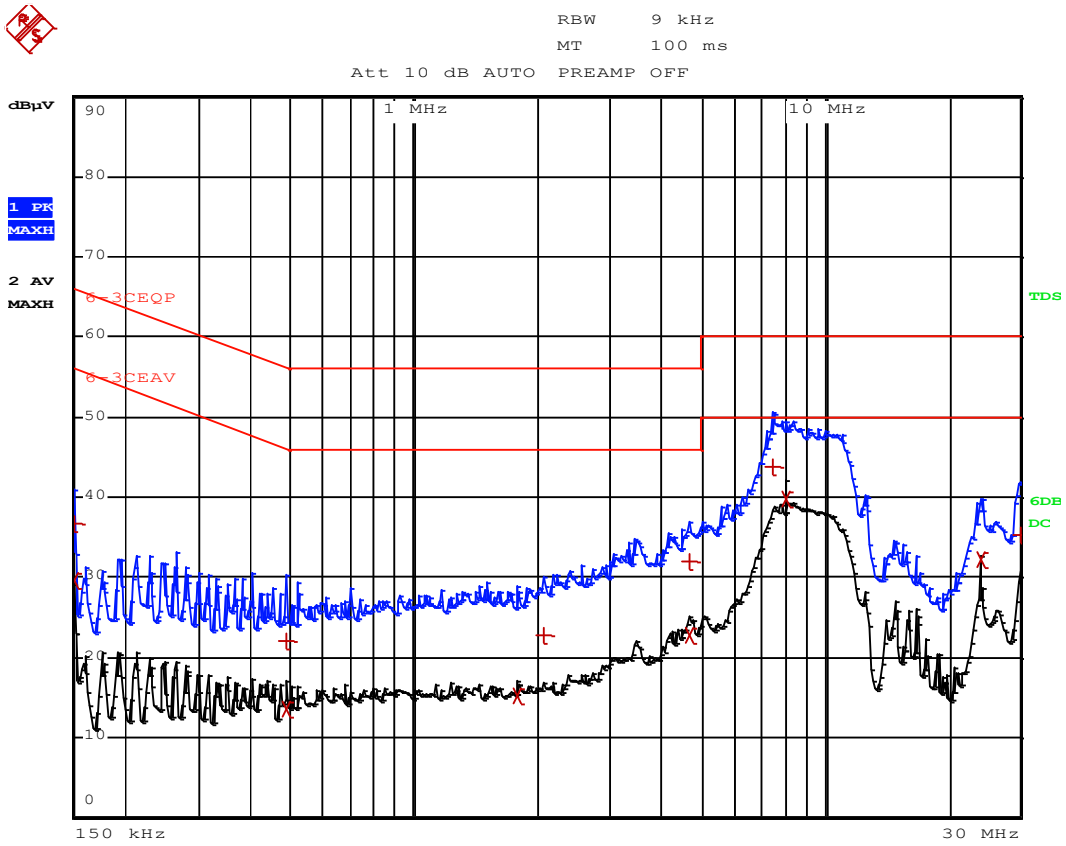
Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
40.4172	-21.95	47.95	26.00	30.00	-4.00	QP
236.6447	-20.39	46.59	26.20	37.00	-10.80	QP

Model : MI2-71T1DN1
Operation Mode : cooling mode

	Date	Name
Tested by	2018-04-13	Mike Zhuo

Conducted Emission (Peak+AV detection)

Test Spec: L



Date: 2.APR.2018 11:53:50

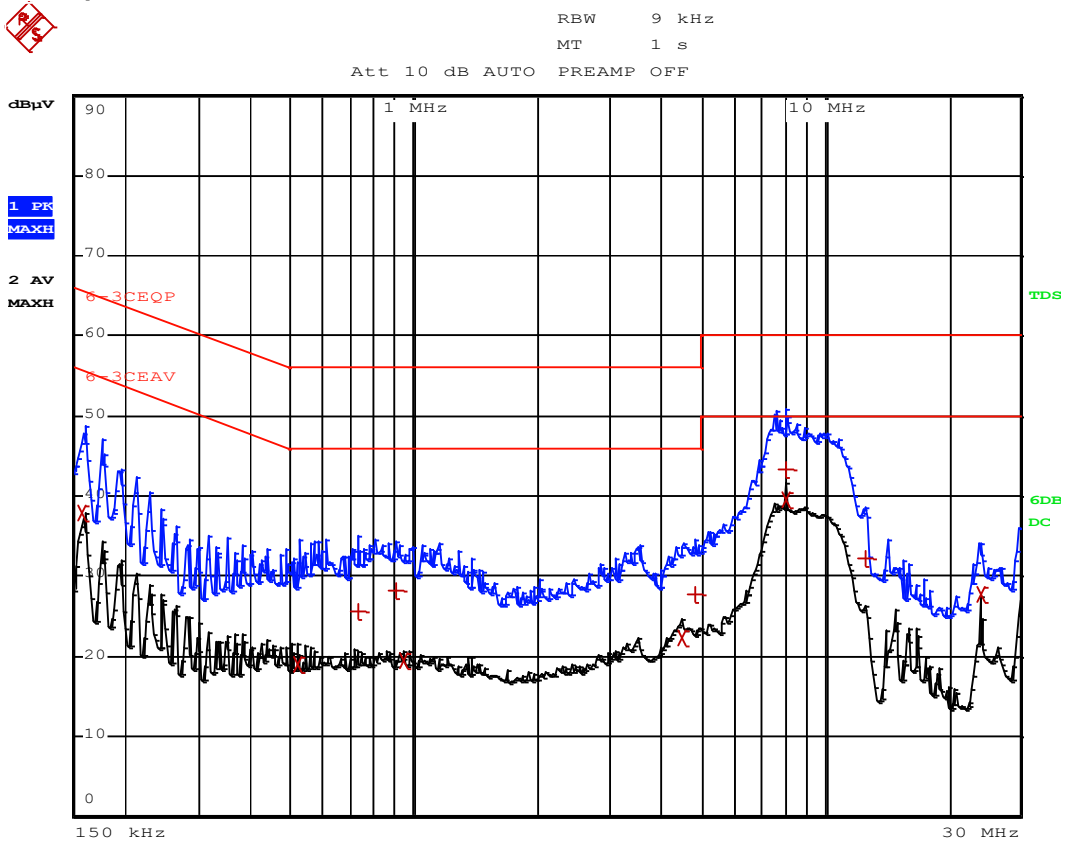
EDIT PEAK LIST (Final Measurement Results)

Trace1:	6-3CEQP
Trace2:	6-3CEAV
Trace3:	---

TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
1 Quasi Peak	150 kHz	36.66	-29.33
2 Average	150 kHz	29.60	-26.39
1 Quasi Peak	490 kHz	22.08	-34.08
2 Average	490 kHz	13.53	-32.63
2 Average	1.778 MHz	15.14	-30.85
1 Quasi Peak	2.082 MHz	22.87	-33.12
1 Quasi Peak	4.67 MHz	31.94	-24.05
2 Average	4.67 MHz	22.85	-23.14
1 Quasi Peak	7.506 MHz	43.70	-16.29
2 Average	8.062 MHz	39.79	-10.20
2 Average	24.054 MHz	32.24	-17.75
1 Quasi Peak	29.994 MHz	35.41	-24.58

Date: 2.APR.2018 11:52:10

Test Spec: N



Date: 2.APR.2018 11:57:15

EDIT PEAK LIST (Final Measurement Results)

Trace1:	6-3CEQP
Trace2:	6-3CEAV
Trace3:	---

TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
2 Average	158 kHz	37.92	-17.64
2 Average	522 kHz	18.95	-27.04
1 Quasi Peak	734 kHz	25.64	-30.35
1 Quasi Peak	906 kHz	28.13	-27.86
2 Average	942 kHz	19.39	-26.60
2 Average	4.478 MHz	22.33	-23.66
1 Quasi Peak	4.826 MHz	27.69	-28.30
2 Average	8.062 MHz	39.62	-10.37
1 Quasi Peak	8.094 MHz	43.44	-16.55
1 Quasi Peak	12.622 MHz	32.12	-27.87
2 Average	24.054 MHz	27.86	-22.13

Date: 2.APR.2018 11:56:26

Model : MI2-71T1DN1
Operation Mode : cooling mode

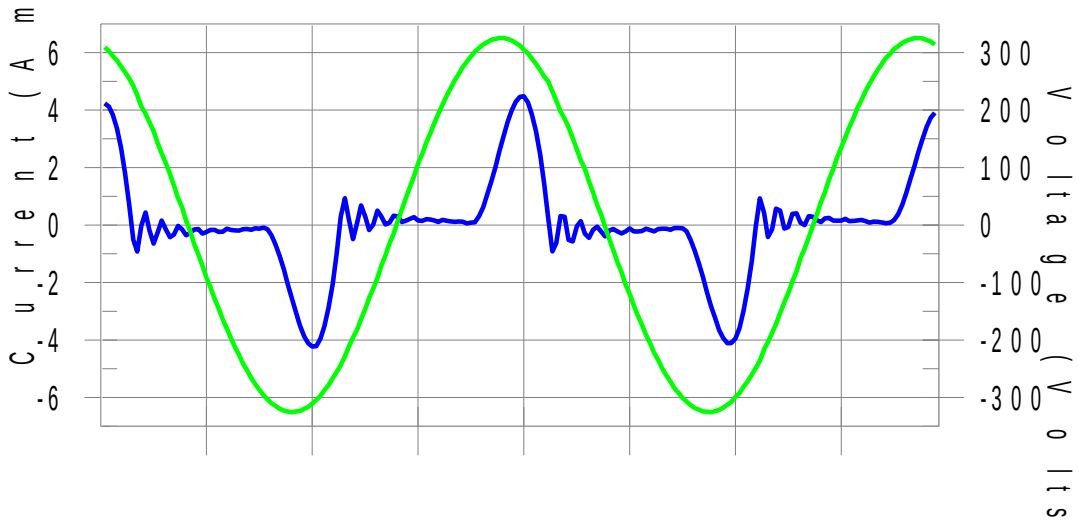
	Date	Name
Tested by	2018-04-02	Mike Zhuo

Harmonics – Class-A per Ed. 4.0 (2014)(Run time)

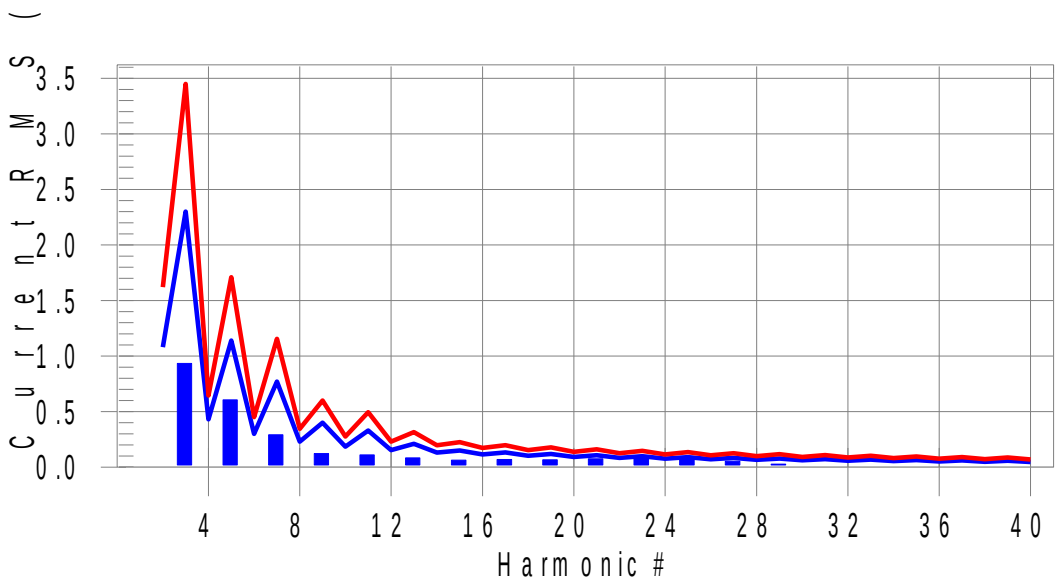
EUT: MI2-71T1DN1 **Tested by: Mike Zhuo**
Test category: Class-A per Ed. 4.0 (2014) (European limits) **Test Margin: 100**
Test date: 2018-4-3 **Start time: 9:13:58** **End time: 9:16:41**
Test duration (min): 2.5
Comment: Cooling mode

Test Result: Pass **Source qualification: Distorted**

Current & voltage waveforms



Harmonics and Class A limit line **European Limits**



Test result: Pass Worst harmonics H25-67.0% of 150% limit, H25-98.6% of 100% limit.

Current Test Result Summary (Run time)

EUT: MI2-71T1DN1 **Tested by: Mike Zhuo**
Test category: Class-A per Ed. 4.0 (2014) (European limits) **Test Margin: 100**
Test date: 2018-4-3 **Start time: 9:13:58** **End time: 9:16:41**
Test duration (min): 2.5
Comment: Cooling mode

Test Result: Pass **Source qualification: Distorted**
THC(A): 1.183 **I-THD(%): 102.0** **POHC(A): 0.161** **POHC Limit(A): 0.251**

Highest parameter values during test:

V_RMS (Volts):	230.324	Frequency(Hz):	50.00
I_Peak (Amps):	4.506	I_RMS (Amps):	1.686
I_Fund (Amps):	1.159	Crest Factor:	2.709
Power (Watts):	265.5	Power Factor:	0.686

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.014	1.080	1.3	0.017	1.620	1.0	Pass
3	0.934	2.300	40.6	0.966	3.450	28.0	Pass
4	0.010	0.430	2.4	0.012	0.645	1.8	Pass
5	0.606	1.140	53.2	0.622	1.710	36.4	Pass
6	0.006	0.300	1.9	0.006	0.450	1.4	Pass
7	0.292	0.770	37.9	0.295	1.155	25.5	Pass
8	0.004	0.230	N/A	0.004	0.345	N/A	Pass
9	0.122	0.400	30.5	0.124	0.600	20.6	Pass
10	0.003	0.184	N/A	0.003	0.276	N/A	Pass
11	0.111	0.330	33.5	0.114	0.495	23.0	Pass
12	0.003	0.153	N/A	0.003	0.230	N/A	Pass
13	0.085	0.210	40.3	0.085	0.315	27.0	Pass
14	0.003	0.131	N/A	0.003	0.197	N/A	Pass
15	0.063	0.150	41.7	0.064	0.225	28.4	Pass
16	0.004	0.115	N/A	0.004	0.173	N/A	Pass
17	0.069	0.132	52.2	0.071	0.198	35.6	Pass
18	0.005	0.102	5.1	0.005	0.153	3.6	Pass
19	0.066	0.118	55.7	0.067	0.178	37.5	Pass
20	0.008	0.092	8.2	0.008	0.138	5.7	Pass
21	0.076	0.107	70.7	0.078	0.161	48.4	Pass
22	0.009	0.084	11.3	0.010	0.125	7.7	Pass
23	0.092	0.098	94.3	0.094	0.147	63.9	Pass
24	0.010	0.077	12.5	0.010	0.115	8.5	Pass
25	0.089	0.090	98.6	0.091	0.135	67.0	Pass
26	0.010	0.071	13.8	0.010	0.107	9.5	Pass
27	0.053	0.083	64.2	0.054	0.125	43.3	Pass
28	0.004	0.066	N/A	0.004	0.099	N/A	Pass
29	0.026	0.078	34.0	0.027	0.116	22.9	Pass
30	0.001	0.061	N/A	0.001	0.092	N/A	Pass
31	0.015	0.073	20.6	0.016	0.109	14.2	Pass
32	0.002	0.058	N/A	0.002	0.086	N/A	Pass
33	0.011	0.068	15.5	0.011	0.102	10.4	Pass
34	0.001	0.054	N/A	0.001	0.081	N/A	Pass
35	0.006	0.064	9.4	0.006	0.096	6.4	Pass
36	0.001	0.051	N/A	0.001	0.077	N/A	Pass
37	0.005	0.061	N/A	0.005	0.091	N/A	Pass
38	0.001	0.048	N/A	0.001	0.073	N/A	Pass
39	0.004	0.058	N/A	0.004	0.087	N/A	Pass
40	0.001	0.046	N/A	0.001	0.069	N/A	Pass

Flicker test

EUT:	MI2-71T1DN1
Date of test:	16:24 3.Apr 2018
Tester:	Mike Zhuo
Standard used:	EN/IEC 61000-3-3 Ed.3 Flicker
Short time (Pst):	10 min
Observation time:	120 min (12 Flicker measurements)
Flickermeter:	230V / 50Hz according IEC 61000-4-15 Ed.2
Flicker Impedance:	Zref (IEC 60725)
Comment :	Cooling mode

Test Result	PASS

Maximum Flicker results

	EUT values	Limit	Result
Pst	0.038	1.00	PASS
Plt	0.029	0.65	PASS
dc [%]	0.027	3.30	PASS
dmax [%]	0.056	6.00	PASS
Tmax [s]	0.000	0.50	PASS

Appendix B

Constructional Data Form

and

Product Information Form(s)

Any safety relevant information or constructional aspect concerning the sample or equipment under test as submitted by the applicant / report holder / certificate holder or any authorized agent is deemed to have no adverse effect on the electromagnetic compatibility (EMC) performance. Insofar as safety or compliance with Low Voltage Directive (LVD) or any relevant directive is concerned, the applicant / report holder / certificate holder or any authorized agent is required, by virtue of the relevant EU Directive provisions, to have satisfied that the product concerned (for which a sample was tested) meets with LVD or other relevant directives before placing it on the market.

Where applicable, changes or modifications made to the original sample submitted for testing are documented herein. The applicant or manufacturer shall ensure that such changes or modifications are applied to the production units. Any further changes or modifications made to the production units may void the validity of this test report unless such changes or modifications have been formally assessed by TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch through technical evaluations or other means as appropriate and it has been confirmed that the EMC performance of such units is not adversely affected.

The enclosed, if any, circuit diagram / parts list / printed circuit board diagram / component layout / user manual are strictly for reference only. TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch shall not be held responsible for any error or omission in such documents. It is the manufacturer's responsibility to ensure that production units conform to the tested sample.

Attachment
Model List

Table 1: Indoor unit

Series	Model	Rated Voltage (V)	Rated current (A)
A1	MDV-D36DL/N1-C	220-240	0,23
A2	MDV-D45DL/N1-C	220-240	0,67
A3	MDV-D56DL/N1-C	220-240	0,67
A4	MDV-D71DL/N1-C	220-240	0,67
A5	MDV-D80DL/N1-C	220-240	0,83
A6	MDV-D90DL/N1-C	220-240	0,83
A7	MDV-D112DL/N1-C	220-240	1,11
A8	MDV-D140DL/N1-C	220-240	1,11
A9	MDVC-D36DL/N1-C	220-240	0,23
A10	MDVC-D45DL/N1-C	220-240	0,67
A11	MDVC-D56DL/N1-C	220-240	0,67
A12	MDVC-D71DL/N1-C	220-240	0,67
A13	MDVC-D80DL/N1-C	220-240	0,83
A14	MDVC-D90DL/N1-C	220-240	0,83
A15	MDVC-D112DL/N1-C	220-240	1,11
A16	MDVC-D140DL/N1-C	220-240	1,11
A17	MI-36DL/DHN1-C	220-240	0,32
A18	MI-45DL/DHN1-C	220-240	0,89
A19	MI-56DL/DHN1-C	220-240	0,89
A20	MI-71DL/DHN1-C	220-240	0,89
A21	MI-80DL/DHN1-C	220-240	1,14
A22	MI-90DL/DHN1-C	220-240	1,14
A23	MI-112DL/DHN1-C	220-240	1,25
A24	MI-140DL/DHN1-C	220-240	1,25
B1	MDV-D22G/DN1-S	220-240	Cooling: 0,14; Heating: 0,14+3,38(heater)
B2	MDV-D28G/DN1-S	220-240	Cooling: 0,14; Heating: 0,14+3,38(heater)
B3	MDV-D36G/DN1-S	220-240	Cooling: 0,14; Heating: 0,14+3,38(heater)
B4	MDV-D45G/DN1-S	220-240	Cooling: 0,2; Heating: 0,2+4,05(heater)
B5	MDV-D56G/DN1-S	220-240	Cooling: 0,2; Heating: 0,2+4,05(heater)
B6	MDV-D22G/N1-S	220-240	0,14
B7	MDV-D28G/N1-S	220-240	0,14
B8	MDV-D36G/N1-S	220-240	0,14
B9	MDV-D45G/N1-S	220-240	0,2
B10	MDV-D56G/N1-S	220-240	0,2
B11	MDVC-D22G/DN1-S	220-240	0,14
B12	MDVC-D28G/DN1-S	220-240	0,14
B13	MDVC-D36G/DN1-S	220-240	0,14
B14	MDVC-D45G/DN1-S	220-240	0,2

B15	MDVC-D56G/DN1-S	220-240	0,2
B16	MDVC-D22G/N1-S	220-240	0,14
B17	MDVC-D28G/N1-S	220-240	0,14
B18	MDVC-D36G/N1-S	220-240	0,14
B19	MDVC-D45G/N1-S	220-240	0,2
B20	MDVC-D56G/N1-S	220-240	0,2
B21	MDV-D71G-R3/N1Y	220-240	0,33
B22	MDV-D80G-R3/N1Y	220-240	0,39
B23	MDV-D90G-R3/N1Y	220-240	0,39
B24	MDVC-D71G-R3/N1Y	220-240	0,33
B25	MDVC-D80G-R3/N1Y	220-240	0,39
B26	MDVC-D90G-R3/N1Y	220-240	0,39
B27	MDV-D15G/N1-S	220-240	0,12
B28	MDV-D17G/N1-S	220-240	0,12
B29	MDVC-D15G/N1-S	220-240	0,12
B30	MDVC-D17G/N1-S	220-240	0,12
B31	MDV-D15G/N1YB	220-240	0,12
B32	MDV-D17G/N1YB	220-240	0,12
B33	MDVC-D15G/N1YB	220-240	0,12
B34	MDVC-D17G/N1YB	220-240	0,12
B35	MDV-D22G/N1Y-11D5	220-240	0,13
B36	MDV-D28G/N1Y-11D5	220-240	0,15
B37	MDV-D36G/N1Y-11D5	220-240	0,18
B38	MDV-D45G/N1Y-11D5	220-240	0,21
B39	MDV-D56G/N1Y-11D5	220-240	0,30
B40	MDV-D71G/N1Y-11D5	220-240	0,35
B41	MDVC-D22G/N1Y-11D5	220-240	0,13
B42	MDVC-D28G/N1Y-11D5	220-240	0,15
B43	MDVC-D36G/N1Y-11D5	220-240	0,18
B44	MDVC-D45G/N1Y-11D5	220-240	0,21
B45	MDVC-D56G/N1Y-11D5	220-240	0,30
B46	MDVC-D71G/N1Y-11D5	220-240	0,35
B47	MI-15G/DHN1-S	220-240	0,25
B48	MI-22G/DHN1-S	220-240	0,28
B49	MI-28G/DHN1-S	220-240	0,28
B50	MI-36G/DHN1-S	220-240	0,31
B51	MI-45G/DHN1-S	220-240	0,35
B52	MI-56G/DHN1-S	220-240	0,41
B53	MI-71G/DHN1-R3	220-240	0,49
B54	MI-80G/DHN1- R3	220-240	0,68
B55	MI-90G/DHN1- R3	220-240	0,68
B56	MIC-15G/DHN1-S	220-240	0,25
B57	MIC-22G/DHN1-S	220-240	0,28
B58	MIC-28G/DHN1-S	220-240	0,28
B59	MIC-36G/DHN1-S	220-240	0,31

B60	MIC-45G/DHN1-S	220-240	0,35
B61	MIC-56G/DHN1-S	220-240	0,41
B62	MIC-71G/DHN1-R3	220-240	0,49
B63	MIC-80G/DHN1- R3	220-240	0,68
B64	MIC-90G/DHN1- R3	220-240	0,68
C1	MDV-D28Q1/N1-C	220-240	0,23
C2	MDV-D36Q1/N1-C	220-240	0,23
C3	MDV-D45Q1/N1-C	220-240	0,37
C4	MDV-D56Q1/N1-C	220-240	0,39
C5	MDV-D71Q1/N1-C	220-240	0,41
C6	MDVC-D28Q1/N1-C	220-240	0,23
C7	MDVC-D36Q1/N1-C	220-240	0,23
C8	MDVC-D45Q1/N1-C	220-240	0,37
C9	MDVC-D56Q1/N1-C	220-240	0,39
C10	MDVC-D71Q1/N1-C	220-240	0,41
C11	MDV-D18Q1/N1-D	220-240	0,24
C12	MDV-D22Q1/N1-D	220-240	0,24
C13	MDV-D28Q1/N1-D	220-240	0,25
C14	MDV-D36Q1/N1-D	220-240	0,25
C15	MDVC-D18Q1/N1-D	220-240	0,24
C16	MDVC-D22Q1/N1-D	220-240	0,24
C17	MDVC-D28Q1/N1-D	220-240	0,25
C18	MDVC-D36Q1/N1-D	220-240	0,25
C19	MDV-D45Q1/N1-D	220-240	0,27
C20	MDV-D56Q1/N1-D	220-240	0,32
C21	MDV-D71Q1/N1-D	220-240	0,36
D1	MDV-D22Q2/N1	220-240	0,4
D2	MDV-D28Q2/N1	220-240	0,4
D3	MDV-D36Q2/N1	220-240	0,4
D4	MDV-D45Q2/N1	220-240	0,5
D5	MDV-D56Q2/N1	220-240	0,65
D6	MDV-D71Q2/N1	220-240	0,85
D7	MDVC-D22Q2/N1	220-240	0,4
D8	MDVC-D28Q2/N1	220-240	0,4
D9	MDVC-D36Q2/N1	220-240	0,4
D10	MDVC-D45Q2/N1	220-240	0,5
D11	MDVC-D56Q2/N1	220-240	0,65
D12	MDVC-D71Q2/N1	220-240	0,85
E1	MDV-D22Q4/N1-A3	220-240	0,22
E2	MDV-D28Q4/N1-A3	220-240	0,22
E3	MDV-D36Q4/N1-A3	220-240	0,25
E4	MDV-D45Q4/N1-A3	220-240	0,25
E5	MDVC-D22Q4/N1-A3	220-240	0,22
E6	MDVC-D28Q4/N1-A3	220-240	0,22
E7	MDVC-D36Q4/N1-A3	220-240	0,25

E8	MDVC-D45Q4/N1-A3	220-240	0,25
E9	MDV-D15Q4/N1-A3	220-240	0,22
E10	MDV-D17Q4/N1-A3	220-240	0,22
E11	MDVC-D15Q4/N1-A3	220-240	0,22
E12	MDVC-D17Q4/N1-A3	220-240	0,22
E13	MI-15Q4/DHN1-A3	220-240	0,23
E14	MI-22Q4/DHN1-A3	220-240	0,26
E15	MI-28Q4/DHN1-A3	220-240	0,26
E16	MI-36Q4/DHN1-A3	220-240	0,28
E17	MI-45Q4/DHN1-A3	220-240	0,28
F1	MDV-D125T1/N1-FA	220-240	2,4
F2	MDV-D140T1/N1-FA	220-240	2,4
F3	MDV-D200T1/N1-FA	220-240	5,3
F4	MDV-D250T1/N1-FA	220-240	5,6
F5	MDV-D280T1/N1-FA	220-240	5,6
F6	MDVC-D125T1/N1-FA	220-240	2,4
F7	MDVC-D140T1/N1-FA	220-240	2,4
F8	MDVC-D200T1/N1-FA	220-240	5,3
F9	MDVC-D250T1/N1-FA	220-240	5,6
F10	MDVC-D280T1/N1-FA	220-240	5,6
G1	MDV-D22T2/N1-BA5	220-240	0,28
G2	MDV-D28T2/N1-BA5	220-240	0,28
G3	MDV-D36T2/N1-BA5	220-240	0,28
G4	MDV-D45T2/N1-BA5	220-240	0,5
G5	MDV-D56T2/N1-BA5	220-240	0,5
G6	MDV-D71T2/N1-BA5	220-240	0,7
G7	MDV-D80T2/N1-BA5	220-240	1
G8	MDV-D90T2/N1-BA5	220-240	1
G9	MDV-D112T2/N1-BA5	220-240	1,8
G10	MDV-D140T2/N1-BA5	220-240	1,55
G11	MDVC-D22T2/N1-BA5	220-240	0,28
G12	MDVC-D28T2/N1-BA5	220-240	0,28
G13	MDVC-D36T2/N1-BA5	220-240	0,28
G14	MDVC-D45T2/N1-BA5	220-240	0,5
G15	MDVC-D56T2/N1-BA5	220-240	0,5
G16	MDVC-D71T2/N1-BA5	220-240	0,7
G17	MDVC-D80T2/N1-BA5	220-240	1
G18	MDVC-D90T2/N1-BA5	220-240	1
G19	MDVC-D112T2/N1-BA5	220-240	1,8
G20	MDVC-D140T2/N1-BA5	220-240	1,55
G21	MDV-D71T2/N1-CA5	220-240	0,7
G22	MDVC-D71T2/N1-CA5	220-240	0,7
G23	MDV-D15T2/N1-DA5	220-240	0,31
G24	MDV-D17T2/N1-DA5	220-240	0,31
G25	MDV-D22T2/N1-DA5	220-240	0,31

G26	MDV-D28T2/N1-DA5	220-240	0,31
G27	MDV-D36T2/N1-DA5	220-240	0,33
G28	MDVC-D15T2/N1-DA5	220-240	0,31
G29	MDVC-D17T2/N1-DA5	220-240	0,31
G30	MDVC-D22T2/N1-DA5	220-240	0,31
G31	MDVC-D28T2/N1-DA5	220-240	0,31
G32	MDVC-D36T2/N1-DA5	220-240	0,33
G33	MDV-D45T2/N1-DA5	220-240	0,36
G34	MDV-D56T2/N1-DA5	220-240	0,36
G35	MDV-D71T2/N1-DA5	220-240	0,47
G36	MDVC-D45T2/N1-DA5	220-240	0,36
G37	MDVC-D56T2/N1-DA5	220-240	0,36
G38	MDVC-D71T2/N1-DA5	220-240	0,47
G39	MI-15T2/DHN1-DA5	220-240	0,5
G40	MI-22T2/DHN1-DA5	220-240	0,5
G41	MI-28T2/DHN1-DA5	220-240	0,5
G42	MI-36T2/DHN1-DA5	220-240	0,5
G43	MI-45T2/DHN1-DA5	220-240	0,7
G44	MI-56T2/DHN1-DA5	220-240	0,7
G45	MI-71T2/DHN1-DA5	220-240	0,8
G46	MI-80T2/DHN1-BA5	220-240	1,1
G47	MI-90T2/DHN1-BA5	220-240	1,2
G48	MI-112T2/DHN1-BA5	220-240	2,1
G49	MI-140T2/DHN1-BA5	220-240	2,0
G50	MI-15T2/DHN1-DA5-AU	220-240	0,5
G51	MI-18T2/DHN1-DA5-AU	220-240	0,5
G52	MI-18T2/DHN1-DA5	220-240	0,5
G53	MI-22T2/DHN1-DA5	220-240	0,5
H1	MDV-D18T3/N1-B	220-240	0,18
H2	MDV-D22T3/N1-B	220-240	0,18
H3	MDV-D28T3/N1-B	220-240	0,18
H4	MDV-D36T3/N1-B	220-240	0,18
H5	MDV-D45T3/N1-B	220-240	0,25
H6	MDV-D56T3/N1-B	220-240	0,25
H7	MDVC-D18T3/N1-B	220-240	0,18
H8	MDVC-D22T3/N1-B	220-240	0,18
H9	MDVC-D28T3/N1-B	220-240	0,18
H10	MDVC-D36T3/N1-B	220-240	0,18
H11	MDVC-D45T3/N1-B	220-240	0,25
H12	MDVC-D56T3/N1-B	220-240	0,25
H13	MDV-D18T3/N1-C	220-240	0,31
H14	MDV-D22T3/N1-C	220-240	0,31
H15	MDV-D28T3/N1-C	220-240	0,31
H16	MDV-D36T3/N1-C	220-240	0,33
H17	MDV-D45T3/N1-C	220-240	0,36

H18	MDV-D56T3/N1-C	220-240	0,36
H19	MDV-D71T3/N1-C	220-240	0,5
H20	MDVC-D18T3/N1-C	220-240	0,31
H21	MDVC-D22T3/N1-C	220-240	0,31
H22	MDVC-D28T3/N1-C	220-240	0,31
H23	MDVC-D36T3/N1-C	220-240	0,33
H24	MDVC-D45T3/N1-C	220-240	0,36
H25	MDVC-D56T3/N1-C	220-240	0,36
H26	MDVC-D71T3/N1-C	220-240	0,5
H27	MI-18T3/DHN1-C	220-240	0,5
H28	MI-22T3/DHN1-C	220-240	0,5
H29	MI-28T3/DHN1-C	220-240	0,5
H30	MI-36T3/DHN1-C	220-240	0,5
H31	MI-45T3/DHN1-C	220-240	0,8
H32	MI-56T3/DHN1-C	220-240	0,8
H33	MI-71T3/DHN1-C	220-240	0,8
I1	MDV-D22Z/DN1-B	220-240	0,09
I2	MDV-D28Z/DN1-B	220-240	0,11
I3	MDV-D36Z/DN1-B	220-240	0,15
I4	MDV-D45Z/DN1-B	220-240	0,2
I5	MDVC-D22Z/DN1-B	220-240	0,09
I6	MDVC-D28Z/DN1-B	220-240	0,11
I7	MDVC-D36Z/DN1-B	220-240	0,15
I8	MDVC-D45Z/DN1-B	220-240	0,2
J1	MDV-D22Z/N1-F1B	220-240	0,18
J2	MDV-D22Z/N1-F2B	220-240	0,18
J3	MDV-D22Z/N1-F3B	220-240	0,18
J4	MDV-D28Z/N1-F1B	220-240	0,21
J5	MDV-D28Z/N1-F2B	220-240	0,21
J6	MDV-D28Z/N1-F3B	220-240	0,21
J7	MDV-D36Z/N1-F1B	220-240	0,22
J8	MDV-D36Z/N1-F2B	220-240	0,22
J9	MDV-D36Z/N1-F3B	220-240	0,22
J10	MDV-D45Z/N1-F1B	220-240	0,22
J11	MDV-D45Z/N1-F2B	220-240	0,22
J12	MDV-D45Z/N1-F3B	220-240	0,22
J13	MDV-D56Z/N1-F1B	220-240	0,4
J14	MDV-D56Z/N1-F2B	220-240	0,4
J15	MDV-D56Z/N1-F3B	220-240	0,4
J16	MDV-D71Z/N1-F1B	220-240	0,59
J17	MDV-D71Z/N1-F2B	220-240	0,59
J18	MDV-D71Z/N1-F3B	220-240	0,59
J19	MDV-D80Z/N1-F1B	220-240	0,59
J20	MDV-D80Z/N1-F2B	220-240	0,59
J21	MDV-D80Z/N1-F3B	220-240	0,59

J22	MDVC-D22Z/N1-F1B	220-240	0,18
J23	MDVC-D22Z/N1-F2B	220-240	0,18
J24	MDVC-D22Z/N1-F3B	220-240	0,18
J25	MDVC-D28Z/N1-F1B	220-240	0,21
J26	MDVC-D28Z/N1-F2B	220-240	0,21
J27	MDVC-D28Z/N1-F3B	220-240	0,21
J28	MDVC-D36Z/N1-F1B	220-240	0,22
J29	MDVC-D36Z/N1-F2B	220-240	0,22
J30	MDVC-D36Z/N1-F3B	220-240	0,22
J31	MDVC-D45Z/N1-F1B	220-240	0,22
J32	MDVC-D45Z/N1-F2B	220-240	0,22
J33	MDVC-D45Z/N1-F3B	220-240	0,22
J34	MDVC-D56Z/N1-F1B	220-240	0,4
J35	MDVC-D56Z/N1-F2B	220-240	0,4
J36	MDVC-D56Z/N1-F3B	220-240	0,4
J37	MDVC-D71Z/N1-F1B	220-240	0,59
J38	MDVC-D71Z/N1-F2B	220-240	0,59
J39	MDVC-D71Z/N1-F3B	220-240	0,59
J40	MDVC-D80Z/N1-F1B	220-240	0,59
J41	MDVC-D80Z/N1-F2B	220-240	0,59
J42	MDVC-D80Z/N1-F3B	220-240	0,59
K1	MDV-D22Z/N1-F4	220-240	0,18
K2	MDV-D22Z/N1-F5	220-240	0,18
K3	MDV-D28Z/N1-F4	220-240	0,19
K4	MDV-D28Z/N1-F5	220-240	0,19
K5	MDV-D36Z/N1-F4	220-240	0,22
K6	MDV-D36Z/N1-F5	220-240	0,22
K7	MDV-D45Z/N1-F4	220-240	0,22
K8	MDV-D45Z/N1-F5	220-240	0,22
K9	MDV-D56Z/N1-F4	220-240	0,43
K10	MDV-D56Z/N1-F5	220-240	0,43
K11	MDV-D71Z/N1-F4	220-240	0,63
K12	MDV-D71Z/N1-F5	220-240	0,63
K13	MDV-D80Z/N1-F4	220-240	0,63
K14	MDV-D80Z/N1-F5	220-240	0,63
K15	MDVC-D22Z/N1-F4	220-240	0,18
K16	MDVC-D22Z/N1-F5	220-240	0,18
K17	MDVC-D28Z/N1-F4	220-240	0,19
K18	MDVC-D28Z/N1-F5	220-240	0,19
K19	MDVC-D36Z/N1-F4	220-240	0,22
K20	MDVC-D36Z/N1-F5	220-240	0,22
K21	MDVC-D45Z/N1-F4	220-240	0,22
K22	MDVC-D45Z/N1-F5	220-240	0,22
K23	MDVC-D56Z/N1-F4	220-240	0,43
K24	MDVC-D56Z/N1-F5	220-240	0,43

K25	MDVC-D71Z/N1-F4	220-240	0,63
K26	MDVC-D71Z/N1-F5	220-240	0,63
K27	MDVC-D80Z/N1-F4	220-240	0,63
K28	MDVC-D80Z/N1-F5	220-240	0,63
K29	MI-22Z/DHN1-F4	220-240	0,29
K30	MI-28Z/DHN1-F4	220-240	0,32
K31	MI-36Z/DHN1-F4	220-240	0,33
K32	MI-45Z/DHN1-F4	220-240	0,35
K33	MI-56Z/DHN1-F4	220-240	0,55
K34	MI-71Z/DHN1-F4	220-240	0,81
K35	MI-80Z/DHN1-F4	220-240	0,82
K36	MI-22Z/DHN1-F5	220-240	0,29
K37	MI-28Z/DHN1-F5	220-240	0,32
K38	MI-36Z/DHN1-F5	220-240	0,33
K39	MI-45Z/DHN1-F5	220-240	0,35
K40	MI-56Z/DHN1-F5	220-240	0,55
K41	MI-71Z/DHN1-F5	220-240	0,81
K42	MI-80Z/DHN1-F5	220-240	0,82
K43	MI-22Z/DHN1-F3B	220-240	0,29
K44	MI-28Z/DHN1-F3B	220-240	0,32
K45	MI-36Z/DHN1-F3B	220-240	0,33
K46	MI-45Z/DHN1-F3B	220-240	0,35
K47	MI-56Z/DHN1-F3B	220-240	0,55
K48	MI-71Z/DHN1-F3B	220-240	0,81
K49	MI-80Z/DHN1-F3B	220-240	0,82
L1	MDV-D71T1/N1-B	220-240	1,23
L2	MDV-D80T1/N1-B	220-240	1,23
L3	MDV-D90T1/N1-B	220-240	1,87
L4	MDV-D112T1/N1-B	220-240	2,3
L5	MDV-D140T1/N1-B	220-240	2,85
L6	MDV-D160T1/N1-B	220-240	4,77
L7	MDV-D200T1/N1-B	220-240	8,6
L8	MDV-D250T1/N1-B	220-240	8,6
L9	MDV-D280T1/N1-B	220-240	8,6
L10	MDVC-D71T1/N1-B	220-240	1,23
L11	MDVC-D80T1/N1-B	220-240	1,23
L12	MDVC-D90T1/N1-B	220-240	1,87
L13	MDVC-D112T1/N1-B	220-240	2,3
L14	MDVC-D140T1/N1-B	220-240	2,85
L15	MDVC-D160T1/N1-B	220-240	4,77
L16	MDVC-D200T1/N1-B	220-240	8,6
L17	MDVC-D250T1/N1-B	220-240	8,6
L18	MDVC-D280T1/N1-B	220-240	8,6
L19	MDV-D400T1/N1	220-240	12,5
L20	MDV-D450T1/N1	220-240	12,5

L21	MDV-D560T1/N1	220-240	15,5
L22	MDVC-D400T1/N1	220-240	12,5
L23	MDVC-D450T1/N1	220-240	12,5
L24	MDVC-D560T1/N1	220-240	15,5
M1	MDV-D28Q4/N1-D	220-240	0,41
M2	MDV-D36Q4/N1-D	220-240	0,41
M3	MDV-D45Q4/N1-D	220-240	0,41
M4	MDV-D56Q4/N1-D	220-240	0,41
M5	MDV-D71Q4/N1-D	220-240	0,52
M6	MDV-D80Q4/N1-D	220-240	0,52
M7	MDV-D90Q4/N1-D	220-240	0,73
M8	MDV-D100Q4/N1-D	220-240	0,73
M9	MDV-D112Q4/N1-D	220-240	0,73
M10	MDV-D140Q4/N1-D	220-240	0,82
M11	MDVC-D28Q4/N1-D	220-240	0,41
M12	MDVC-D36Q4/N1-D	220-240	0,41
M13	MDVC-D45Q4/N1-D	220-240	0,41
M14	MDVC-D56Q4/N1-D	220-240	0,41
M15	MDVC-D71Q4/N1-D	220-240	0,52
M16	MDVC-D80Q4/N1-D	220-240	0,52
M17	MDVC-D90Q4/N1-D	220-240	0,73
M18	MDVC-D100Q4/N1-D	220-240	0,73
M19	MDVC-D112Q4/N1-D	220-240	0,73
M20	MDVC-D140Q4/N1-D	220-240	0,82
M21	MDV-D28Q4/N1-E	220-240	0,31
M22	MDV-D36Q4/N1-E	220-240	0,31
M23	MDV-D45Q4/N1-E	220-240	0,41
M24	MDV-D56Q4/N1-E	220-240	0,41
M25	MDV-D71Q4/N1-E	220-240	0,41
M26	MDV-D80Q4/N1-E	220-240	0,48
M27	MDV-D90Q4/N1-E	220-240	0,67
M28	MDV-D100Q4/N1-E	220-240	0,72
M29	MDV-D112Q4/N1-E	220-240	0,72
M30	MDV-D140Q4/N1-E	220-240	0,75
M31	MDVC-D28Q4/N1-E	220-240	0,31
M32	MDVC-D36Q4/N1-E	220-240	0,31
M33	MDVC-D45Q4/N1-E	220-240	0,41
M34	MDVC-D56Q4/N1-E	220-240	0,41
M35	MDVC-D71Q4/N1-E	220-240	0,41
M36	MDVC-D80Q4/N1-E	220-240	0,48
M37	MDVC-D90Q4/N1-E	220-240	0,67
M38	MDVC-D100Q4/N1-E	220-240	0,72
M39	MDVC-D112Q4/N1-E	220-240	0,72
M40	MDVC-D140Q4/N1-E	220-240	0,75
M41	MI-28Q4/DHN1-D	220-240	0,32

M42	MI-36Q4/DHN1-D	220-240	0,32
M43	MI-45Q4/DHN1-D	220-240	0,34
M44	MI-56Q4/DHN1-D	220-240	0,34
M45	MI-71Q4/DHN1-D	220-240	0,36
M46	MI-80Q4/DHN1-D	220-240	0,37
M47	MI-90Q4/DHN1-D	220-240	0,82
M48	MI-100Q4/DHN1-D	220-240	0,82
M49	MI-112Q4/DHN1-D	220-240	0,82
M50	MI-140Q4/DHN1-D	220-240	0,98
M51	MIC-28Q4/DHN1-D	220-240	0,32
M52	MIC-36Q4/DHN1-D	220-240	0,32
M53	MIC-45Q4/DHN1-D	220-240	0,34
M54	MIC-56Q4/DHN1-D	220-240	0,34
M55	MIC-71Q4/DHN1-D	220-240	0,36
M56	MIC-80Q4/DHN1-D	220-240	0,37
M57	MIC-90Q4/DHN1-D	220-240	0,82
M58	MIC-100Q4/DHN1-D	220-240	0,82
M59	MIC-112Q4/DHN1-D	220-240	0,82
M60	MIC-140Q4/DHN1-D	220-240	0,98
N1	MDV-D22G/DN1YB	220-240	Cooling: 0,14; Heating: 0,14+3,38(heater)
N2	MDV-D28G/DN1YB	220-240	Cooling: 0,14; Heating: 0,14+3,38(heater)
N3	MDV-D36G/DN1YB	220-240	Cooling: 0,14; Heating: 0,14+3,38(heater)
N4	MDV-D45G/DN1YB	220-240	Cooling: 0,2; Heating: 0,2+4,05(heater)
N5	MDV-D56G/DN1YB	220-240	Cooling: 0,2; Heating: 0,2+4,05(heater)
N6	MDV-D22G/N1YB	220-240	0,14
N7	MDV-D28G/N1YB	220-240	0,14
N8	MDV-D36G/N1YB	220-240	0,14
N9	MDV-D45G/N1YB	220-240	0,2
N10	MDV-D56G/N1YB	220-240	0,2
N11	MDVC-D22G/DN1YB	220-240	0,14
N12	MDVC-D28G/DN1YB	220-240	0,14
N13	MDVC-D36G/DN1YB	220-240	0,14
N14	MDVC-D45G/DN1YB	220-240	0,2
N15	MDVC-D56G/DN1YB	220-240	0,2
N16	MDVC-D22G/N1YB	220-240	0,14
N17	MDVC-D28G/N1YB	220-240	0,14
N18	MDVC-D36G/N1YB	220-240	0,14
N19	MDVC-D45G/N1YB	220-240	0,2
N20	MDVC-D56G/N1YB	220-240	0,2
O1	MDV-D160DL/N1-C	220-240	1,41
O2	MDVC-D160DL/N1-C	220-240	1,41
P1	MI-22G/N1-S	220-240	0,14

P2	MI-28G/N1-S	220-240	0,14
P3	MI-36G/N1-S	220-240	0,14
P4	MI-45G/N1-S	220-240	0,20
P5	MI-56G/N1-S	220-240	0,20
Q1	MI-28Q4/N1-E	220-240	0,38
Q2	MI-36Q4/N1-E	220-240	0,38
Q3	MI-45Q4/N1-E	220-240	0,48
Q4	MI-56Q4/N1-E	220-240	0,48
Q5	MI-71Q4/N1-E	220-240	0,48
Q6	MI-80Q4/N1-E	220-240	0,59
Q7	MI-90Q4/N1-E	220-240	0,98
Q8	MI-100Q4/N1-E	220-240	0,99
Q9	MI-112Q4/N1-E	220-240	0,99
Q10	MI-140Q4/N1-E	220-240	1,01
R1	MI-22T2/N1-EA5	220-240	0,31
R2	MI-28T2/N1-EA5	220-240	0,31
R3	MI-36T2/N1-EA5	220-240	0,39
R4	MI-45T2/N1-EA5	220-240	0,46
R5	MI-56T2/N1-EA5	220-240	0,46
R6	MI-71T2/N1-EA5	220-240	0,47
R7	MI-80T2/N1-EA5	220-240	1,0
R8	MI-90T2/N1-EA5	220-240	1,0
R9	MI-112T2/N1-EA5	220-240	1,8
R10	MI-140T2/N1-EA5	220-240	1,55
S1	MI-22Q4/N1-A3	220-240	0,22
S2	MI-28Q4/N1-A3	220-240	0,22
S3	MI-36Q4/N1-A3	220-240	0,27
S4	MI-45Q4/N1-A3	220-240	0,27
T1	MI-71T1/DHN1-B	220-240	1,7
T2	MI-80T1/DHN1-B	220-240	1,7
T3	MI-90T1/DHN1-B	220-240	2,4
T4	MI-112T1/DHN1-B	220-240	3,6
T5	MI-140T1/DHN1-B	220-240	4,5
T6	MI-160T1/DHN1-B	220-240	4,5
T7	MI-200T1/DHN1-B	220-240	7,5
T8	MI-250T1/DHN1-B	220-240	7,5
T9	MI-280T1/DHN1-B	220-240	7,5
T10	MI-125T1/DHN1-FA	220-240	2,8
T11	MI-140T1/DHN1-FA	220-240	2,8
T12	MI-200T1/DHN1-FA	220-240	4,5
T13	MI-250T1/DHN1-FA	220-240	5
T14	MI-280T1/DHN1-FA	220-240	5

U1	MI-22G/DHN1-M	220-240	0,27
U2	MI-28G/DHN1-M	220-240	0,31
U3	MI-36G/DHN1-M	220-240	0,43
U4	MI-45G/DHN1-M	220-240	0,44
U5	MI-56G/DHN1-M	220-240	0,58
U6	MI-71G/DHN1-M	220-240	0,6
U7	MI-80G/DHN1-M	220-240	0,6
U8	MI-90G/DHN1-M	220-240	0,78
U9	MIC-22G/DHN1-M	220-240	0,27
U10	MIC-28G/DHN1-M	220-240	0,31
U11	MIC-36G/DHN1-M	220-240	0,43
U12	MIC-45G/DHN1-M	220-240	0,44
U13	MIC-56G/DHN1-M	220-240	0,58
U14	MIC-71G/DHN1-M	220-240	0,6
U15	MIC-80G/DHN1-M	220-240	0,6
U16	MIC-90G/DHN1-M	220-240	0,78
V1	MI-22T2/DHN1-EA5	220-240	1,0
V2	MI-28T2/DHN1-EA5	220-240	1,0
V3	MI-36T2/DHN1-EA5	220-240	1,0
V4	MI-45T2/DHN1-EA5	220-240	2,5
V5	MI-56T2/DHN1-EA5	220-240	2,5
V6	MI-71T2/DHN1-EA5	220-240	2,5
V7	MI-90T2/DHN1-EA5	220-240	2,5
V8	MI-112T2/DHN1-EA5	220-240	3,0
V9	MI-140T2/DHN1-EA5	220-240	3,0
X1	MI2-22T2DN1	220-240	0,74
X2	MI2-28T2DN1	220-240	0,74
X3	MI2-36T2DN1	220-240	0,77
X4	MI2-45T2DN1	220-240	1,0
X5	MI2-56T2DN1	220-240	1,0
X6	MI2-71T2DN1	220-240	1,1
X7	MI2-80T2DN1	220-240	1,3
X8	MI2-90T2DN1	220-240	1,3
X9	MI2-112T2DN1	220-240	1,5
X10	MI2-140T2DN1	220-240	2,6
Y1	MI2-18Q1DN1	220-240	0,38
Y2	MI2-22Q1DN1	220-240	0,38

Y3	MI2-28Q1DN1	220-240	0,39
Y4	MI2-36Q1DN1	220-240	0,39
Y5	MI2-45Q1DN1	220-240	0,53
Y6	MI2-56Q1DN1	220-240	0,57
Y7	MI2-71Q1DN1	220-240	0,59
Z1	MI2-22Q2DN1	220-240	0,47
Z2	MI2-28Q2DN1	220-240	0,47
Z3	MI2-36Q2DN1	220-240	0,52
Z4	MI2-45Q2DN1	220-240	0,59
Z5	MI2-56Q2DN1	220-240	0,9
Z6	MI2-71Q2DN1	220-240	1,3
AA1	MI2-28Q4DN1	220-240	0,41
AA2	MI2-36Q4DN1	220-240	0,41
AA3	MI2-45Q4DN1	220-240	0,56
AA4	MI2-56Q4DN1	220-240	0,56
AA5	MI2-71Q4DN1	220-240	0,56
AA6	MI2-80Q4DN1	220-240	0,76
AA7	MI2-90Q4DN1	220-240	0,88
AA8	MI2-100Q4DN1	220-240	1,0
AA9	MI2-112Q4DN1	220-240	1,0
AA10	MI2-140Q4DN1	220-240	1,2
AB1	MI2-22Q4CDN1	220-240	0,43
AB2	MI2-28Q4CDN1	220-240	0,43
AB3	MI2-36Q4CDN1	220-240	0,48
AB4	MI2-45Q4CDN1	220-240	0,48
AC1	MI2-36DLDN1	220-240	0,45
AC2	MI2-45DLDN1	220-240	1,2
AC3	MI2-56DLDN1	220-240	1,2
AC4	MI2-71DLDN1	220-240	1,2
AC5	MI2-80DLDN1	220-240	1,3
AC6	MI2-90DLDN1	220-240	1,3
AC7	MI2-112DLDN1	220-240	1,7
AC8	MI2-140DLDN1	220-240	1,7
AD1	MI2-22F3DN1	220-240	0,49
AD2	MI2-28F3DN1	220-240	0,55
AD3	MI2-36F3DN1	220-240	0,55
AD4	MI2-45F3DN1	220-240	0,55
AD5	MI2-56F3DN1	220-240	0,85

AD6	MI2-71F3DN1	220-240	1,4
AD7	MI2-80F3DN1	220-240	1,4
AD8	MI2-22F4DN1	220-240	0,49
AD9	MI2-28F4DN1	220-240	0,55
AD10	MI2-36F4DN1	220-240	0,55
AD11	MI2-45F4DN1	220-240	0,55
AD12	MI2-56F4DN1	220-240	0,85
AD13	MI2-71F4DN1	220-240	1,4
AD14	MI2-80F4DN1	220-240	1,4
AD15	MI2-22F5DN1	220-240	0,49
AD16	MI2-28F5DN1	220-240	0,55
AD17	MI2-36F5DN1	220-240	0,55
AD18	MI2-45F5DN1	220-240	0,55
AD19	MI2-56F5DN1	220-240	0,85
AD20	MI2-71F5DN1	220-240	1,4
AD21	MI2-80F5DN1	220-240	1,4
AE1	MI2-71T1DN1	220-240	2,1
AE2	MI2-80T1DN1	220-240	2,1
AE3	MI2-90T1DN1	220-240	2,2
AE4	MI2-112T1DN1	220-240	2,9
AE5	MI2-140T1DN1	220-240	4,5
AE6	MI2-160T1DN1	220-240	4,7
AE7	MI2-200T1DN1	220-240	6,7
AE8	MI2-250T1DN1	220-240	6,7
AE9	MI2-280T1DN1	220-240	6,7
AE10	MI2-125FADN1	220-240	3,5
AE11	MI2-140FADN1	220-240	3,5
AE12	MI2-200FADN1	220-240	5,2
AE13	MI2-250FADN1	220-240	5,2
AE14	MI2-280FADN1	220-240	5,2
AF1	MI2-22GDN1	220-240	0,32
AF2	MI2-28GDN1	220-240	0,32
AF3	MI2-36GDN1	220-240	0,45
AF4	MI2-45GDN1	220-240	0,47
AF5	MI2-56GDN1	220-240	0,58
AF6	MI2-71GDN1	220-240	0,90
AF7	MI2-80GDN1	220-240	0,90
AF8	MI2-90GDN1	220-240	1,1

AG1	MI2-22ZDN1	220-240	0,37
AG2	MI2-28ZDN1	220-240	0,40
AG3	MI2-36ZDN1	220-240	0,42
AG4	MI2-45ZDN1	220-240	0,53

Table 2

Series	Model	Rated Voltage (V)	Rated power (W)
W1	SMK-D140/MN1	220-240	10

Remark:
The report is based on 64.711.11.03942.13 and issued for adding models in series AF, AG.

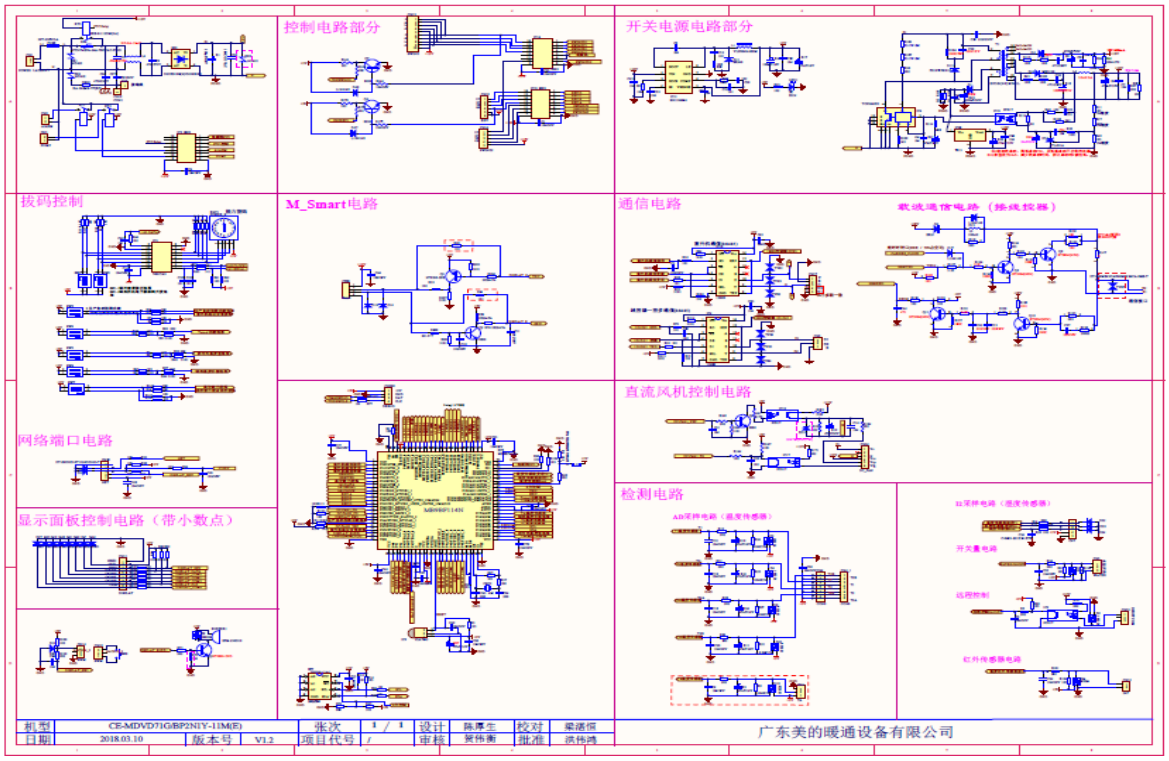
1. Add new indoor unit models series AF1 to AF8 in model list. difference description for series AF as below:
The model AF1 is same as model AF2 except for the heating exchange and nameplate.
The model AF3 is same as model AF4 except for the heating exchange and nameplate.
The model AF4 is same as model AF5 except for the nameplate.
The model AF6 is same as model AF7 and AF8 except for the nameplate.

2. Adding alternative fan motor ZKSP-240-8-1, main control board, reactor (R05094A) in model AE1 and AE2. new main control board change the bridge is going from 35A to 25A, the reactor was changed from 25mH to 9.4mH, and moved to the upper right corner of the image electronic control box, reduce an electrolytic capacitor on the main board and change the capacity from 820uF to 560uF in table 24,1. Details can be referred to photo documents.
The alternative reactor(9,4mH) and PCB must be used in conjunction with the alternative fan motor ZKSP-240-8-1.
Adding alternative PCB material in all models.

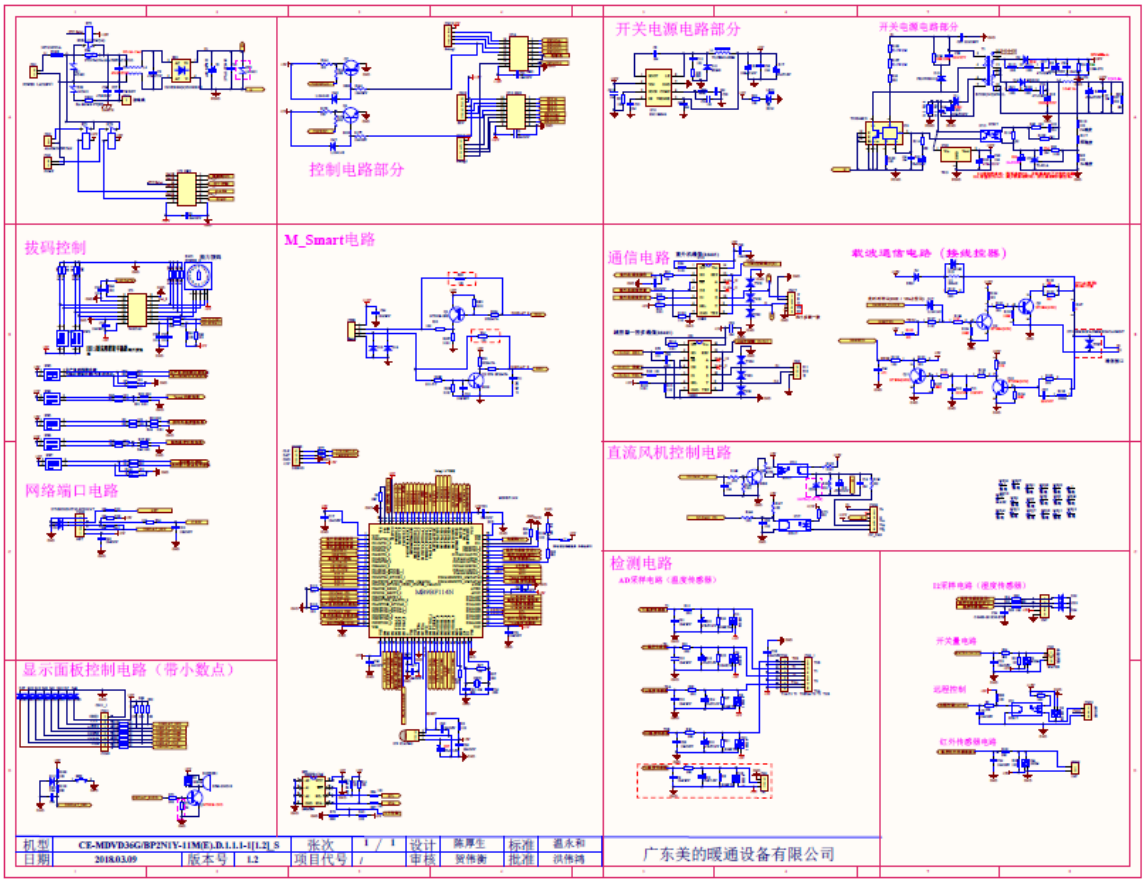
3. Add new indoor unit models series AG1 to AG4 in model list. difference description for series AF as below:
The model AG1 is same as model AG2 except for the heating exchange and nameplate
The model AG2 is same as model AG3 except for the heating exchange and nameplate
The model AG3 is same as model AG4 only except for the nameplate

So emission test is applied on MI2-90GDN1, MI2-56GDN1, MI2-28GDN1, MI2-45ZDN1, MI2-71T1DN1 full test.
Also immunity test is applied on MI2-90GDN1, MI2-56GDN1, MI2-28GDN1, MI2-45ZDN1, MI2-71T1DN1 full test.

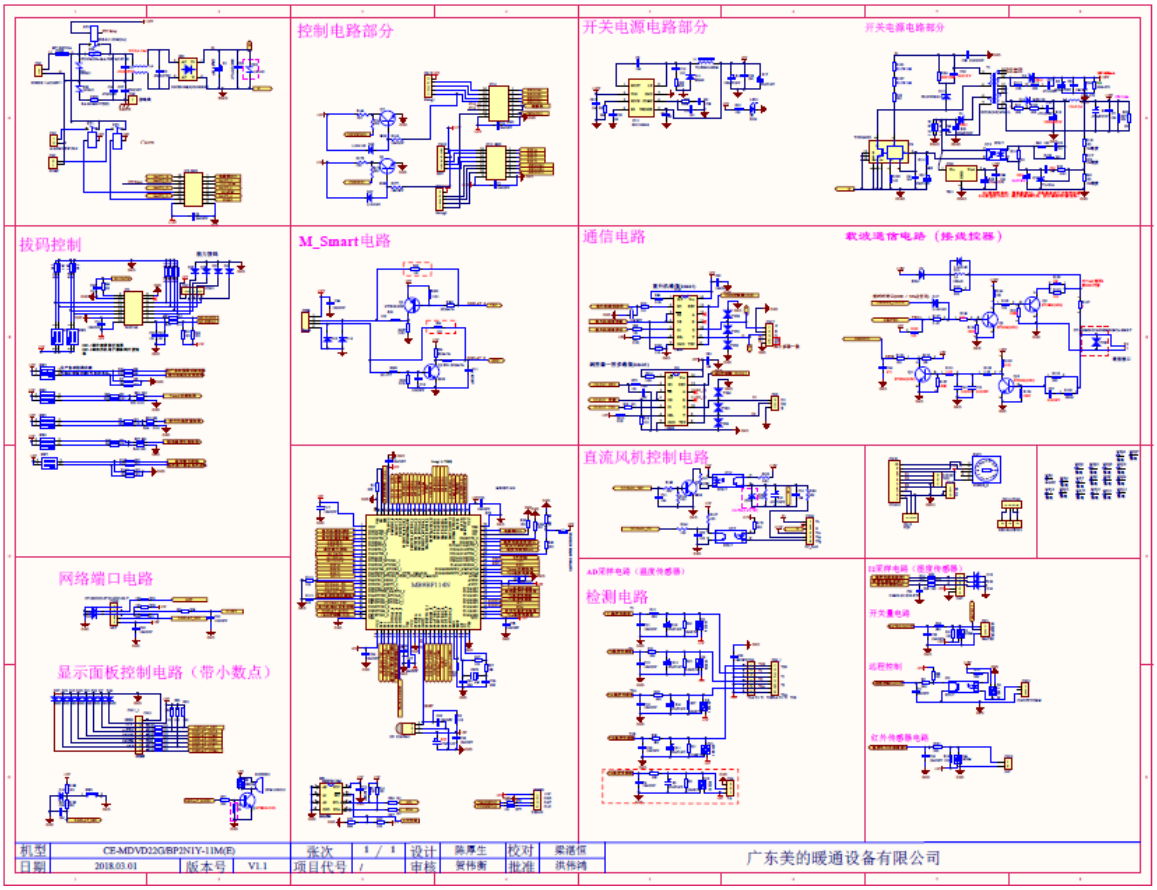
MI2-90GDN1



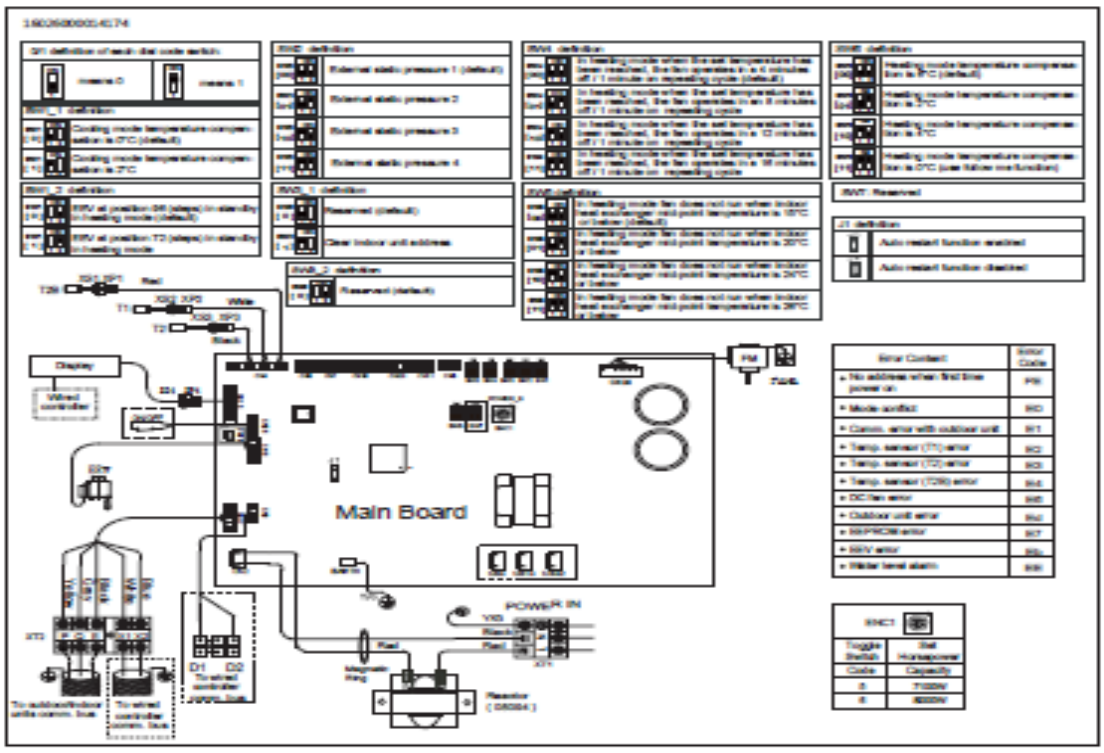
MI2-56GDN1



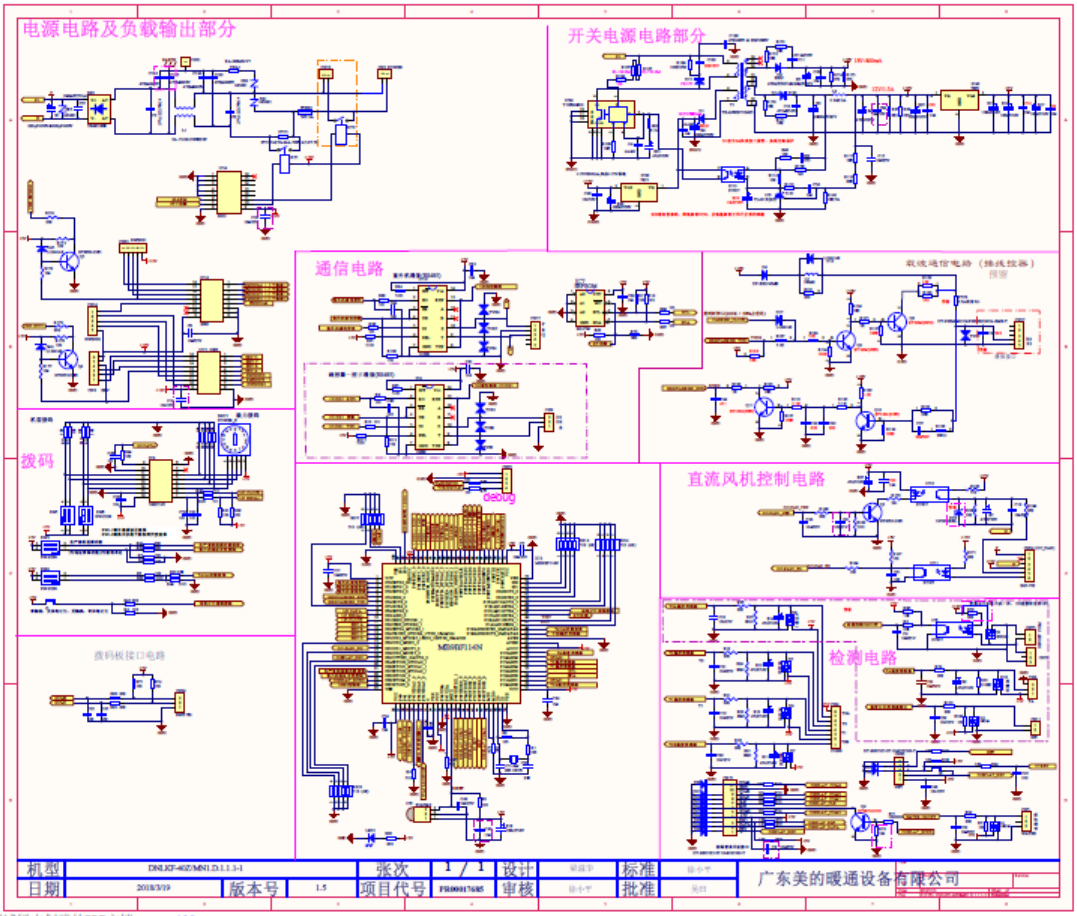
MI2-28GDN1



MI2-71T1DN1



MI2-45ZDN1,



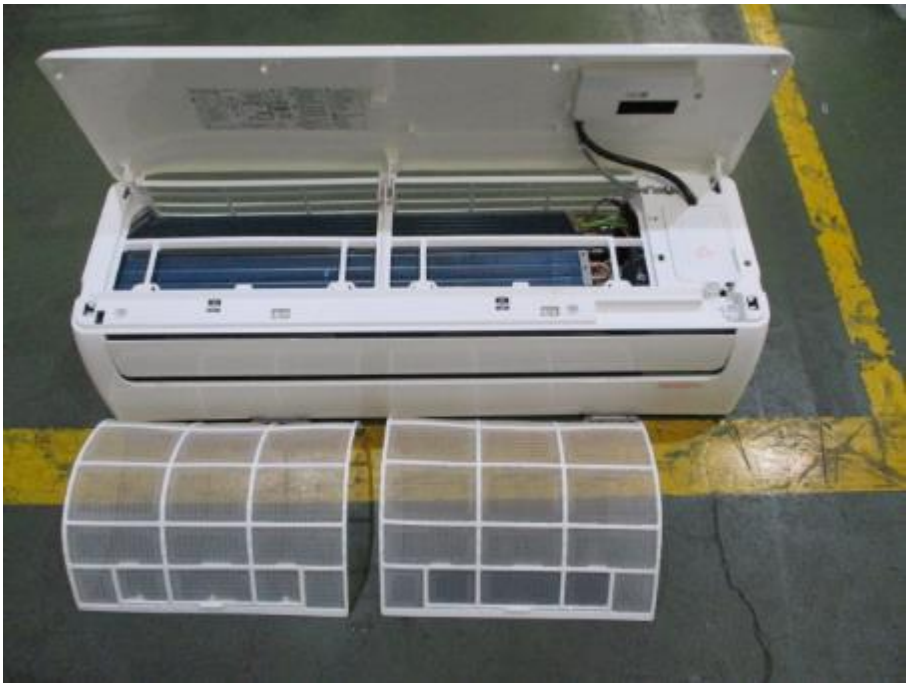
Appendix C

Constructional Photographs
of
Equipment under test (EUT)

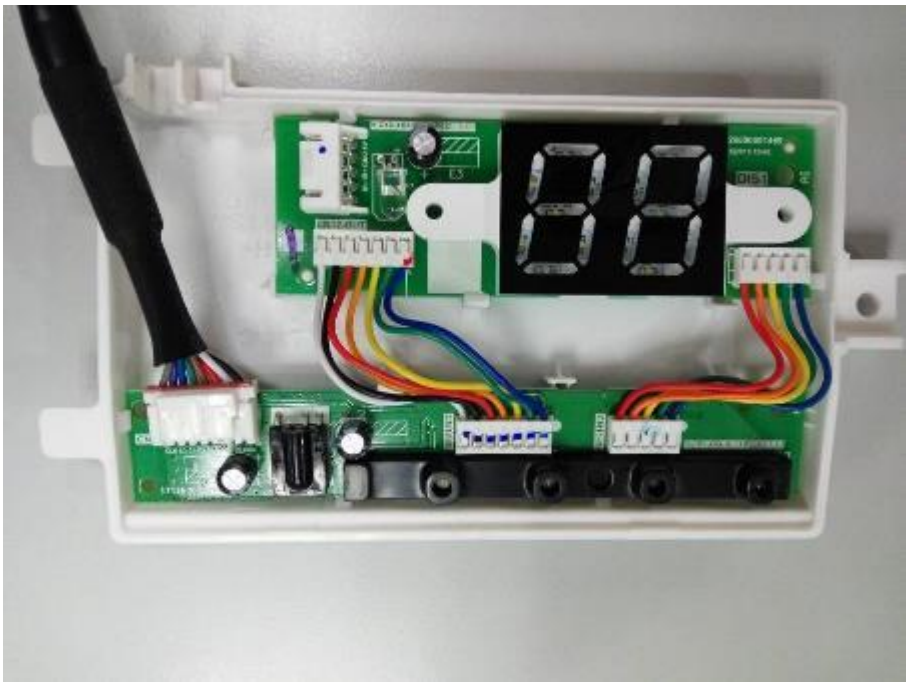
Any safety relevant information or constructional aspect concerning the sample or equipment under test as submitted by the applicant / report holder / certificate holder or any authorized agent is deemed to have no adverse effect on the electromagnetic compatibility (EMC) performance. Insofar as safety or compliance with Low Voltage Directive (LVD) or any relevant directive is concerned, the applicant / report holder / certificate holder or any authorized agent is required, by virtue of the relevant EU Directive provisions, to have satisfied that the product concerned (for which a sample was tested) meets with LVD or other relevant directives before placing it on the market.

Constructional Photographs

MI2-xGDN1 (x=22, 28)

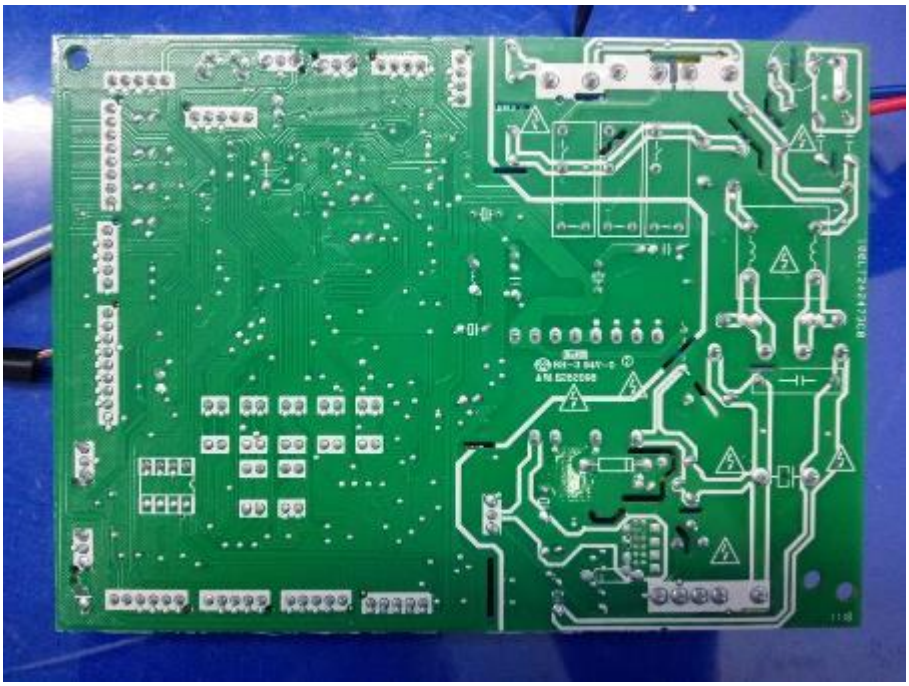


Constructional Photographs



Constructional Photographs

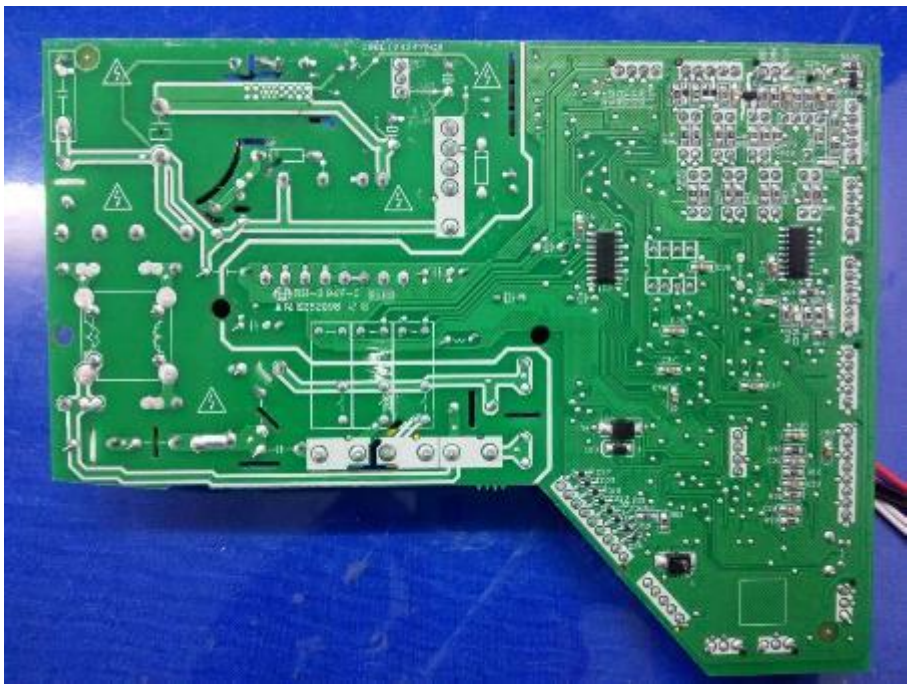
Constructional Photographs



Constructional Photographs

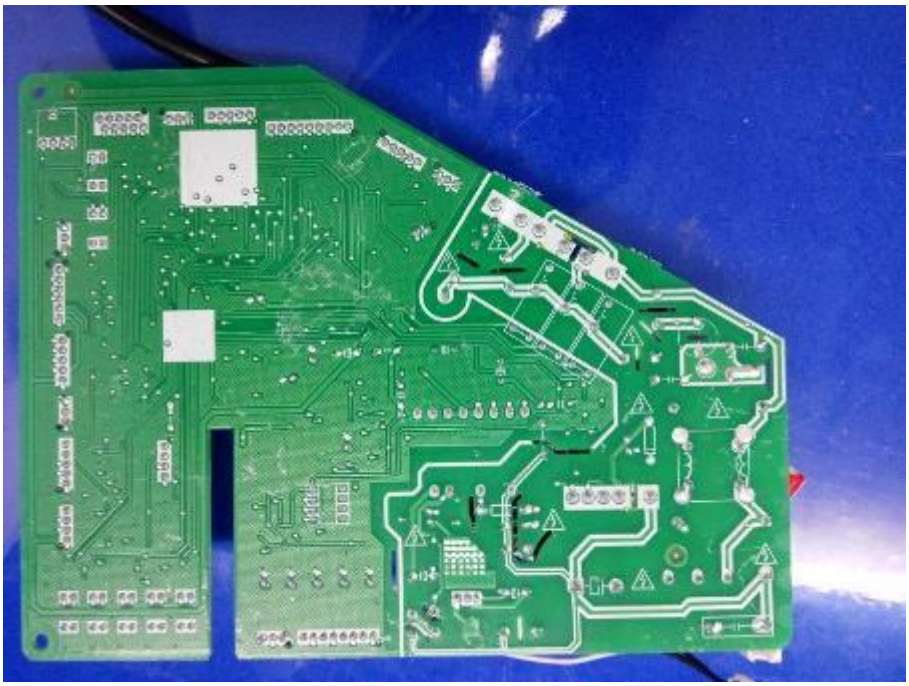
MI2-xGDN1 (x=36, 45, 56)

Constructional Photographs



model MI2-xGDN1 (x=71, 80, 90)

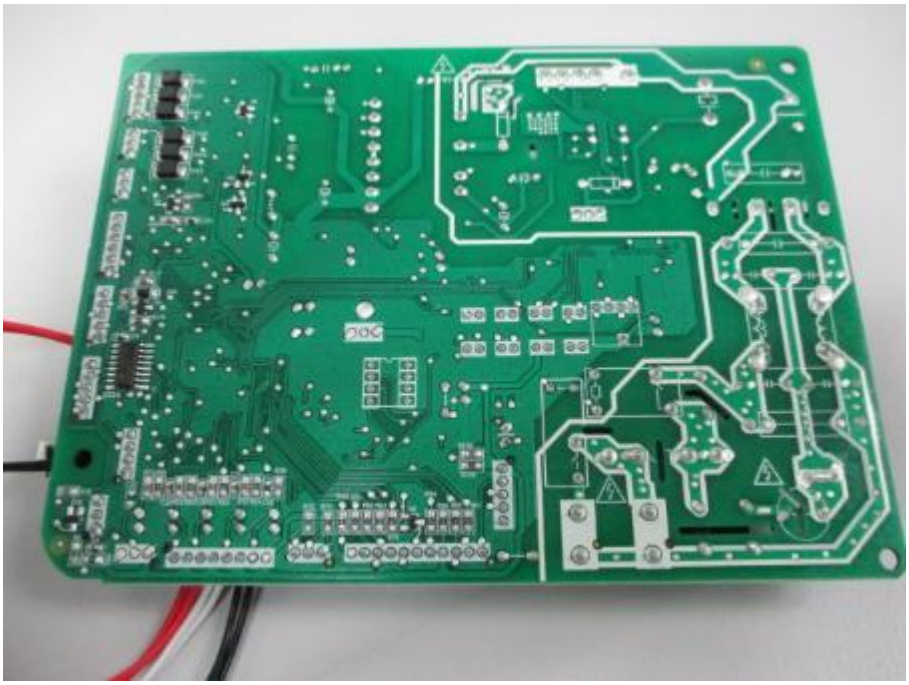
Constructional Photographs



Constructional Photographs

model MI2-xZDN1 (x=22, 28, 36, 45)

Constructional Photographs



EMC IMMUNITY - TEST REPORT

Report Number	:	**64.711.11.03942.14 – (I)**	Date of Issue:	2018-05-30
Model / Serial No.	:	See attactment model list (for Appendix B) / NIL		
Product Type	:	Multi-Split Type Air Conditioner (Indoor unit)		
Trade Name	:	Midea, MDV		
Applicant / Manufacturer / License holder	:	GD Midea Heating & Ventilating Equipment CO.,LTD.		
Address	:	Penglai Industry Road, Beijiao, Shunde, Foshan,		
	:	Guangdong, P. R. China		
Test Result	:	■ **Positive** ☐ **Negative**		
Total pages including Appendices	:	**23**		

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch is a subcontractor to TÜV SÜD Product Service, GmbH according to the principles outlined in ISO/IEC Guide 25 and EN 45001.

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch reports apply only to the specific samples tested under stated test conditions. Construction of the actual test samples has been documented. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. The manufacturer/importer is responsible to the Competent Authorities in Europe for any modifications made to the production units which result in non-compliance to the relevant regulations. TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch shall have no liability for any deductions, inferences or generalizations drawn by the client or others from TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch issued reports.

This report is the confidential property of the client. As a mutual protection to our clients, the public and ourselves, extracts from the test report shall not be reproduced except in full without our written approval.

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
5F, Communication Building, 163 Pingyun Rd, Huangpu West Ave. Guangzhou 510656 P. R. China TEL: +86 20 3832 0668 FAX: +86 20 3832 0478

DIRECTORY - IMMUNITY

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch

5F, Communication Building, 163 Pingyun Rd, Huangpu West Ave. Guangzhou 510656 P. R. China TEL: +86 20 3832 0668 FAX: +86 20 3832 0478

IMMUNITY TEST REGULATIONS :

The immunity tests were performed according to the following regulations:

■ - EMC Directive 2014/30/EU

■ - EN 61000-6-1:2017
■ - EN 61000-6-1:2007
☐ - EN 61000-6-2:2005
■ - CISPR 14-2:2015

■ - IEC 61000-4-2:2008
■ - IEC 61000-4-3:2006+A1:2007
■ - IEC 61000-4-4:2004
■ - IEC 61000-4-5:2005
■ - IEC 61000-4-6:2008
☐ - IEC 61000-4-8:1993+A1:2000
■ - IEC 61000-4-11:2004

Refer to test report 64.711.11.03942.01-13

Note: For undated references, the latest edition of the publication at the time of testing (including amendments) was applied.

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
5F, Communication Building, 163 Pingyun Rd, Huangpu West Ave. Guangzhou 510656 P. R. China TEL: +86 20 3832 0668 FAX: +86 20 3832 0478

Environmental Conditions In The Laboratory:

	Actual
Temperature:	: 25-28 °C
Relative Humidity:	: 40-55 %
Atmospheric Pressure:	: 1010-1020 mBar

Power Supply Utilized:

Rated Power Supply : 230V / 50Hz / 1ϕ

STATEMENT OF MEASUREMENT UNCERTAINTY

The tolerances for each tests are reduced by the uncertainty reported on the calibration certificate for the measurement, all the parameters are within the tolerances required by the relevant standard, reduced by the uncertainty reported on the calibration certificate, so the laboratory has confidence that all the tests compliant with the relevant standards with a 95% confidence level.
Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Symbol Definitions:

■ - Applicable
☐ - Not Applicable

Test laboratory:

■ - Midea
Add: Penglai Industry Road, Beijiao, Shunde, Foshan, Guangdong, P. R. China

■ - Inspection and Quarantine Technology Centre of Guangdong Entry-Exit Inspection and Quarantine Bureau
Add: No.3, Desheng East Road, Shunde, Daliang, Foshan, Guangdong, China

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
5F, Communication Building, 163 Pingyun Rd, Huangpu West Ave. Guangzhou 510656 P. R. China TEL: +86 20 3832 0668 FAX: +86 20 3832 0478

Immunity Test Conditions: ELECTROSTATIC DISCHARGE (ESD)

The immunity against *ELECTROSTATIC DISCHARGE (ESD)* events was performed in the following location:

☐ - Test not applicable

■ - Test Area – Laboratory open area

Test Equipment Used:

For Midea

	Model Number	Manufacturer	Description	Serial Number	Cal. Due
■ -	NSG435	SCHAFFNER	ESD Simulator System	6074	2019-05-08
■ -	---	Midea	H/V Coupling Plane		
■ -	NSG437	SCHAFFNER	ESD Simulator System	814	2018-09-29
■ -	---	Midea	H/V Coupling Plane		

For IQTC

	Model Number	Manufacturer	Description	Serial Number	Cal. Due
■ -	EMS61000-2A-V1	Tease	ESD tester	906002T	2018-12-28
■ -	---	IQTC	H/V Coupling Plane	IQTC	/

Remarks: All test equipments used are calibrated on a regular basis.

Test Specification:

Discharge Voltage (Air): ■ - 2 kV ■ - 8 kV ☐ - 6 kV
■ - 4 kV ☐ - 15 kV ☐ - _ kV

Discharge Voltage (Contact): ■ - 2 kV ☐ - 6 kV ☐ - _ kV
■ - 4 kV ☐ - 8 kV

Discharge Impedance: ■ - 330 Ω / 150 pF ☐ - 150 Ω / 150 pF

Discharge Repetition Rate: ■ - ≥ 1 sec.

Number of Discharges: ■ - ≥ 10 at all locations

Kind of Discharges: ■ - Air discharge ■ - Conducted discharge (relay)
■ - Direct ■ - Indirect

Polarity: ■ - Positive ■ - Negative

Location of Discharge: ■ - VCP
■ - Each location on the surface touchable by hand

Result:

■ - No degradation of function - Met Criterion A
☐ - Distortion of function - Met Criterion B
☐ - Error of function - Met Criterion C
☐ - Loss of function - Unrecoverable Failure

Remarks: _____

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
5F, Communication Building, 163 Pingyun Rd, Huangpu West Ave. Guangzhou 510656 P. R. China TEL: +86 20 3832 0668 FAX: +86 20 3832 0478

Immunity Test Conditions: RADIATED ELECTROMAGNETIC FIELDS

The immunity against *RADIATED ELECTROMAGNETIC FIELDS* exposure was performed in the following location:

☐ **- Test not applicable**

■ - Test Area (IQTC) - Anechoic ferrite lined shielded room

Test Equipment Used:

	Model Number	Manufacturer	Description	Serial Number	Cal. Due
■ -	SMF100A	RS	Signal Generator	1167.0000k02 -101828-xu	2018-08-15
■ -	PM2002	AR	Power Meter	324169	2018-08-15
■ -	EP601	PMM	Field Probe	511WX21270	2018-09-12
■ -	AT1080	AR	Log-Periodic Antenna(80MHz-1000MHz)	0325160	2018-08-15
■ -	NTWPAS-00810500E	RFLight	Power Amplifier (80MHz-1000MHz 500W)	16113272	2019-01-12
■ -	BBHA 9120E	Schwarzbeck	Double Ridge Broadband Horn Antenna(0.5GHz-6GHz)	701	2018-08-15
■ -	NTWPAS-1025100	RFLight	Power Amplifier(1000-2500MHz 100W)	16043079	2019-01-12
■ -	NTWPAS-2560100	RFLight	Power Amplifier(2000-6000MHz 100W)	17039022	2019-01-12

Remarks: All test equipments used are calibrated on a regular basis.

Test Specification:

Frequency Range/ Field Strength:
■ - 80 MHz - 1000 MHz: 3V/m
■ - 1.4 GHz - 2 GHz: 3V/m
■ - 2 GHz – 6 GHz: 3V/m

Distance Antenna - EUT: ☐ - 1 m ■ - 3 m

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
5F, Communication Building, 163 Pingyun Rd, Huangpu West Ave. Guangzhou 510656 P. R. China TEL: +86 20 3832 0668 FAX: +86 20 3832 0478

Test Specification (continued):

Modulation:	■ - AM:	80%	1KHz
	☐ - FM:	__ kHz dev.	__ kHz
	■ - sine wave:		
	■ - unmodulated		
	☐ - Pulse	ON/OFF	Duty Cycle: __ %
Step:	☐ -≤ 0.015 decades / sec		■ - 1%
Polarization of Antenna:	■ - Horizontal	■ - Vertical	

Result:

■ - No degradation of function	- Met Criterion A
☐ - Distortion of function	- Met Criterion B
☐ - Error of function	- Met Criterion C
☐ - Loss of function	- Unrecoverable Failure

Remarks: _____

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
5F, Communication Building, 163 Pingyun Rd, Huangpu West Ave. Guangzhou 510656 P. R. China TEL: +86 20 3832 0668 FAX: +86 20 3832 0478

Immunity Test Conditions: FAST TRANSIENTS (BURST)

The immunity against *FAST TRANSIENTS (BURST)* events was performed in the following test location:

☐ - Test not applicable

■ - Test Area - Laboratory open area

Test Equipment Used:

For Midea

	Model Number	Manufacturer	Description	Serial Number	Cal. Due
■ -	PNW2225	EM Test	EFT simulator	V1204111721	2019-05-19
■ -	HFK	EM Test	Coupling Clamp	0212-B2	2019-05-19
■ -	UCS500N5	SCHAFFNER	EFT simulator	200712-556LU	2019-02-06
■ -	CDN8014	SCHAFFNER	Coupling Clamp	24131	2019-02-06

For IQTC

	Model Number	Manufacturer	Description	Serial Number	Cal. Due
☐ -	EMS61000-4B-V1	ENERFINE	EFT Generator	907005	2018-09-01
■ -	NSG3060(FTM3425)	Teseq AG	EFT/Burst Module	3089	2018-08-15

Remarks: All test equipments used are calibrated on a regular basis.

Test Specification:

Pulse Amplitude - AC Power Port:	■ - 1,0 kV	☐ - 2,0 kV	
	☐ - 4,0 kV	☐ - ___ kV	
Pulse Amplitude - DC Power Port:	☐ - 1,0 kV	☐ - 2,0 kV	
	☐ - 4,0 kV	☐ - ___ kV	
Pulse Amplitude - Signal/Data	☐ - 0,5 kV	☐ - 1,0 kV	
Non control Port:	☐ - 2,0 kV	☐ - ___ kV	
Pulse Amplitude - Process:	■ - 0,5 kV	☐ - 1,0 kV	
Control Port	☐ - 2,0 kV	☐ - ___ kV	
Burst Frequency:	☐ - 2,5 kHz	■ - 5,0 kHz	☐ - ___ kHz
Time of Coupling:	☐ - 60 seconds	■ - 120 seconds	☐ - ___ seconds
Coupling Method:	■ - Coupling/decoupling network		■ - Coupling clamp
Polarity:	■ - Positive	■ - Negative	

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
5F, Communication Building, 163 Pingyun Rd, Huangpu West Ave. Guangzhou 510656 P. R. China TEL: +86 20 3832 0668 FAX: +86 20 3832 0478

Immunity Test Conditions: FAST TRANSIENTS (BURST), continued

Location of Coupling:

name of lines:	AC POWER CORD		
type of lines:	☐ - shielded	■ - unshielded	
status of lines:		☐ - passive	■ - active
kind of transmission:		■ - analog	☐ - digital
length of lines:			
name of lines:	Control Line		
type of lines:	■ - shielded	☐ - unshielded	
status of lines:		☐ - passive	■ - active
kind of transmission:		■ - analog	☐ - digital
length of lines:			
name of lines:			
type of lines:	☐ - shielded	☐ - unshielded	
status of lines:		☐ - passive	☐ - active
kind of transmission:		☐ - analog	☐ - digital
length of lines:			

Result:

■ - No degradation of function	- Met Criterion A
☐ - Distortion of function	- Met Criterion B
☐ - Error of function	- Met Criterion C
☐ - Loss of function	- Unrecoverable Failure

Remarks:

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
5F, Communication Building, 163 Pingyun Rd, Huangpu West Ave. Guangzhou 510656 P. R. China TEL: +86 20 3832 0668 FAX: +86 20 3832 0478

Immunity Test Conditions: SURGE TRANSIENTS

The immunity against *SURGE TRANSIENTS* events was performed in the following test location:

☐ - Test not applicable

■ - Test Area - Laboratory open area

Test Equipment Used:

For Midea

	Model Number	Manufacturer	Description	Serial Number	Cal. Due
■ -	PNW2050	SCHAFFNER	Surge Immunity test system	200711-602LU	2019-02-06
■ -	CDN133-153	SCHAFFNER	Surge Coupling System	34413	2019-02-06
☐ -	PNW2225	EM Test	Surge simulator	V1204111721	2019-05-19

For IQTC

	Model Number	Manufacturer	Description	Serial Number	Cal. Due
☐ -	EMS61000-5B-V1	Everfine	surge generator	907007	2019-04-15
■ -	NSG3060	TESEQ	surge generator	0473	2018-08-15

Remarks: All test equipments used are calibrated on a regular basis.

Test Specification:

Pulse Amplitude - AC Power Port:	■ - 1,0 kV	■ - 2,0 kV
	☐ - 4,0 kV	☐ - ___ kV
Pulse Amplitude - DC Power Port:	☐ - 1,0 kV	☐ - 2,0 kV
	☐ - 4,0 kV	☐ - ___ kV
Pulse Amplitude - Signal/Data	☐ - 0,5 kV	☐ - 1,0 kV
Non control Port:	☐ - 2,0 kV	☐ - ___ kV
Pulse Amplitude - Process:	☐ - 0,5 kV	☐ - 1,0 kV
Measurement & Control Port	☐ - 2,0 kV	☐ - ___ kV
Source Impedance:	■ - 2 Ω + 18 µF	■ - 12 Ω + 9 µF
	☐ - 42 Ω + 0,1 µF	☐ - 42 Ω + 0,5 µF
Number of Surges:	■ - 5 surges/angle	☐ - ___ surges /angle
Angle:	■ - 0 °	■ - 90 °
	■ - 180 °	■ - 270 °
Repetition Rate:	■ - 60 sec.	☐ - ___ sec.
Polarity:	■ - Positive	■ - Negative

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
5F, Communication Building, 163 Pingyun Rd, Huangpu West Ave. Guangzhou 510656 P. R. China TEL: +86 20 3832 0668 FAX: +86 20 3832 0478

Immunity Test Conditions: SURGE TRANSIENTS, continued

Location of Coupling:

name of lines:	AC POWER CORD		
type of lines:	☐ - shielded	■ - unshielded	
status of lines:		☐ - passive	■ - active
kind of transmission:		■ - analog	☐ - digital
length of lines:			

name of lines:			
type of lines:	☐ - shielded	☐ - unshielded	
status of lines:		☐ - passive	☐ - active
kind of transmission:		☐ - analog	☐ - digital
length of lines:			

name of lines:			
type of lines:	☐ - shielded	☐ - unshielded	
status of lines:		☐ - passive	☐ - active
kind of transmission:		☐ - analog	☐ - digital
length of lines:			

Result:

■ - No degradation of function	- Met Criterion A
☐ - Distortion of function	- Met Criterion B
☐ - Error of function	- Met Criterion C
☐ - Loss of function	- Unrecoverable Failure

Remarks:

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
5F, Communication Building, 163 Pingyun Rd, Huangpu West Ave. Guangzhou 510656 P. R. China TEL: +86 20 3832 0668 FAX: +86 20 3832 0478

Immunity Test Conditions: CONDUCTED DISTURBANCE

The immunity against *CONDUCTED DISTURBANCE* events, induced by radio frequency fields above 9 kHz, was performed in the following test location:

☐ - Test not applicable

■ - Test Area - Laboratory open area

Test Equipment Used:

For Midea

	Model Number	Manufacturer	Description	Serial Number	Cal. Due
■ -	NSG4070	SCHAFFNER	CW sine generator	25809	2018-08-22
■ -	CDN M016	SCHAFFNER	CDN	26132	2018-08-22
■ -	CDN-M525	SCHAFFNER	CDN	25836	2018-08-22
■ -	KEMZ-801	SCHAFFNER	EM Injected Clamp	25476	2018-08-22
■ -	ATN 6075	SCHAFFNER	6dB Attenuator	25408	2018-08-22

For IQTC

	Model Number	Manufacturer	Description	Serial Number	Cal. Due
■-	NSG 4070-75	TESEQ	Compact immunity test system	37518	2019-01-03
■-	CDN 016S	TESEQ	CDN	36927	2019-01-03
■ -	ATN 6075	TESEQ	6dB Attenuator	37353	2019-01-03
☐ -	KEMZ 801AS50	TESEQ	EM Injected Clamp	35528	2019-01-03

Remarks: All test equipments used are calibrated on a regular basis.

Test Specification:

Frequency Range:	☐ - 0,15 MHz - 230 MHz		■ - 0,15 MHz - 80 MHz
Voltage Level (EMF):	■ - 1 V	■ - 3 V	
	☐ - 10 V	☐ - __ V	
Modulation:	■ - AM :	80 %	1 kHz
	☐ - FM :	__ kHz dev.	___ kHz
	■ - sine wave:		
	☐ - unmodulated		
	☐ - Pulse	ON/OFF	Duty Cycle: __ %
Step:	■ -≤ 0.015 decades / sec		

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
5F, Communication Building, 163 Pingyun Rd, Huangpu West Ave. Guangzhou 510656 P. R. China TEL: +86 20 3832 0668 FAX: +86 20 3832 0478

Immunity Test Conditions: CONDUCTED DISTURBANCE, continued

Location of Coupling:

name of lines:	AC POWER CORD		
type of lines:	☐ - shielded	■ - unshielded	
status of lines:		☐ - passive	■ - active
kind of transmission:		■ - analog	☐ - digital
length of lines:		30cm	
name of lines:	Control Line		
type of lines:	■ - shielded	☐ - unshielded	
status of lines:		☐ - passive	■- active
kind of transmission:		■ - analog	☐ - digital
length of lines:			
name of lines:			
type of lines:	☐ - shielded	☐ - unshielded	
status of lines:		☐ - passive	☐ - active
kind of transmission:		☐ - analog	☐ - digital
length of lines:			

Result :

■ - No degradation of function	- Met Criterion A
☐ - Distortion of function	- Met Criterion B
☐ - Error of function	- Met Criterion C
☐ - Loss of function	- Unrecoverable Failure

Remarks:

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
5F, Communication Building, 163 Pingyun Rd, Huangpu West Ave. Guangzhou 510656 P. R. China TEL: +86 20 3832 0668 FAX: +86 20 3832 0478

Immunity Test Conditions: VOLTAGE DIPS, INTERRUPTIONS & VARIATIONS

The immunity against *VOLTAGE DIPS, INTERRUPTIONS & VARIATIONS* events, induced by radio frequency fields above 9 kHz, was performed in the following test location:

☐ **- Test not applicable**

■ - Test Area - Laboratory open area

Test Equipment Used:

For Midea

	Model Number	Manufacturer	Description	Serial Number	Cal. Due
■ -	MX45	CI	Harmonic current & Flicker tester	72521	2018-06-02
■ -	PACS-3	CI	V-dip tester	57814	2018-06-02
■ -	DPA 503N/AIF 503 S1	EM TEST	Harmonic current & Flicker tester	V1019106581	2018-11-24
■ -	ACS 503	EM TEST	V-dip tester	V1019106588	2018-11-24

For IQTC

	Model Number	Manufacturer	Description	Serial Number	Cal. Due
■ -	PACS-3	California Instruments	Harmonic & flicker analyzer	72812	2018-08-13
■ -	15003ix	California Instruments	Programmable ac source	59862/59863/59864	2018-08-13

Remarks: All test equipments used are calibrated on a regular basis.

Test Specification:

Nominal Mains Voltage (V_{NOM}): ■ - 230 Vac

Level of Reduction (dip): ■ - 500 mS at 30% of V_{NOM}
☐ - 200 mS at 60% of V_{NOM}
☐ - _____

Duration of Interruption (>.95*V_{NOM}): ■ -10 mS
■ -20 mS
■ - 5 S

Voltage Fluctuation: ☐ -V_{NOM} + 10% ☐ -V_{NOM} - 10%

Result :

☐ - No degradation of function - Met Criterion A
■ - Distortion of function - Met Criterion B
☐ - Error of function - Met Criterion C
☐ - Loss of function - Unrecoverable Failure

Remarks: The EUT work slowly when each voltage dip applied on, but it could self-recover after the influence removed.

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
5F, Communication Building, 163 Pingyun Rd, Huangpu West Ave. Guangzhou 510656 P. R. China TEL: +86 20 3832 0668 FAX: +86 20 3832 0478

Equipment Under Test (EUT) Test Operation Mode - Immunity Tests :

The equipment under test was operated under the following conditions during immunity testing :

☐ - Standby

☐ - Test Program (H - Pattern)

☐ - Test Program (Color Bar)

☐ - Test Program (Customer Specified)

■ - Normal Operating Mode

☐ - _____

_____

Configuration of the equipment under test:

☐ - See Constructional Data Form in Appendix B - Page B2

☐ - See Product Information Form(s) in Appendix B - Page B2

The following peripheral devices and interface cables were connected during the testing:

■ - unshielded cables Type : Indoor unit and outdoor unit connect line

☐ - _____ Type : _____

☐ - _____ Type : _____

☐ - _____ Type : _____

☐ - _____ Type : _____

☐ - _____ Type : _____

☐ - _____ Type : _____

☐ - _____ Type : _____

■ - unshielded power cable

☐ - unshielded cables

☐ - shielded cables TÜVPS. No.: _____

☐ - customer specific cables

☐ - _____

☐ - _____

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
5F, Communication Building, 163 Pingyun Rd, Huangpu West Ave. Guangzhou 510656 P. R. China TEL: +86 20 3832 0668 FAX: +86 20 3832 0478

GENERAL REMARKS:

Please refer to remarks on page B16 of B19 (emission report)

SUMMARY:

All tests according to the regulations cited on page 3 were

■ - Performed

☐ - **Not** Performed

The Equipment Under Test

■ - **Fulfills** the general approval requirements cited on page 3.

☐ - **Does not** fulfill the general approval requirements cited on page 3.

Testing Start Date: 2018-03-25

Testing End Date: 2018-05-13

- TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch –

Reviewed by: Technical Certifier

Tony Liu

Prepared by:

Mike Zhuo

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
5F, Communication Building, 163 Pingyun Rd, Huangpu West Ave. Guangzhou 510656 P. R. China TEL: +86 20 3832 0668 FAX: +86 20 3832 0478

Appendix A

Test Setup Photos

Photograph of Test Setup:
Electrostatic Discharge(ESD)

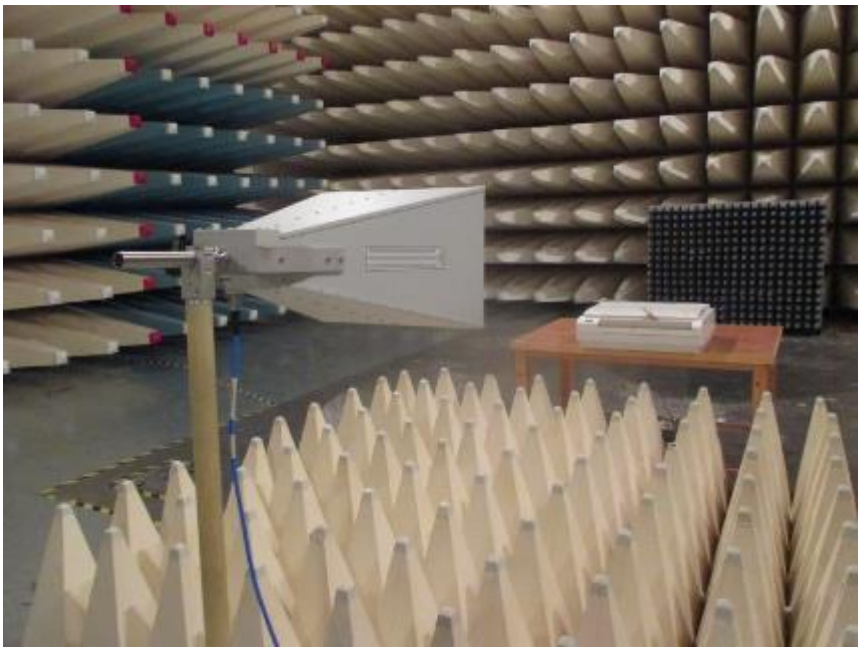
☐ **- Test not applicable**

IEC 61000-4-2

Photograph of Test Setup:
Radiated Electromagnetic Field

☐ **- Test not applicable**

IEC 61000-4-3



Photograph of Test Setup:
Fast transients (BURST)/SURGE transients

☐ **- Test not applicable**

IEC 61000-4-4

Photograph of Test Setup:
Fast transients (BURST)/SURGE transients

☐ **- Test not applicable**

IEC 61000-4-5

Photograph of Test Setup:
C o n d u c t e d d i s t u r b a n c e

☐ **- Test not applicable**

IEC 61000-4-6

Photograph of Test Setup:
Voltage Dips, Interruptions & Variations

☐ **- Test not applicable**

IEC 61000-4-11