

SECTION 2

Test Reports of Emission

(EN55022/2010, EN61000-3-2/2006+A1/2009+A2/2009, EN61000-3-3/2013)

EN55032/2012
(EN 301 489-1 V1.9.2 <8.2>)
Radiated Interference Measurement

<i>Equipment</i>	<i>Model</i>	<i>Serial No.</i>
Printer	ECOSYS P3060dn	Z9T6500001
Paper Feeder	PF-320	NUR6507786
	PF-320	NUR6507183
	PF-320	NUR6507766
	PF-320	NUR6507763
	PF-3100	ZQT6700012
Paper Feeder Base	PB-325	NYV6601798
Printer NIC	IB-50	TEST-1
	IB-51	TEST-1
	IB-32B	TEST-1
HDD	HD-6	TEST-1
	HD-7	TEST-1
Wireless Network Unit	IB-36	TEST-1

This test was applied as follows.

(30MHz – 1GHz)

<i>Frequency</i>	<i>Limit</i>	<i>Result</i>
30 - 230 MHz	30dB	Pass
230 - 1000 MHz	37dB	Pass

(1GHz-6GHz)

<i>Frequency</i>	<i>Limit</i>		<i>Result</i>
	<i>Average</i>	<i>Peak</i>	
1 - 3 GHz	50dB	70dB	Pass
3 - 6 GHz	54dB	74dB	Pass

We entrusted this test to Labotech International Co., Ltd
See the attached documents for details.

EN55032/2012
(EN 301 489-1 V1.9.2 <8.4><8.7>)
Conducted Interference Measurement

<i>Equipment</i>	<i>Model</i>	<i>Serial No.</i>
Printer	ECOSYS P3060dn	Z9T6500001
Paper Feeder	PF-320	NUR6507786
	PF-320	NUR6507183
	PF-320	NUR6507766
	PF-320	NUR6507763
	PF-3100	ZQT6700012
Paper Feeder Base	PB-325	NYV6601798
Printer NIC	IB-50	TEST-1
	IB-51	TEST-1
	IB-32B	TEST-1
HDD	HD-6	TEST-1
	HD-7	TEST-1
Wireless Network Unit	IB-36	TEST-1

This test was applied as follows.

(AC Line)

<i>Frequency</i>	<i>Limit</i>	<i>Result</i>
0.15 - 0.5 MHz	66 - 56dB; Quasi-Peak 56 - 46dB; Average	Pass
0.5 - 5 MHz	56dB; Quasi-Peak 46dB; Average	Pass
5 - 30 MHz	60dB; Quasi-Peak 50dB; Average	Pass

(Telecommunication Line)

<i>Frequency</i>	<i>Current Limit</i>	<i>Result</i>
0.15 - 0.5 MHz	40 - 30dB; Quasi-Peak 30 - 20dB; Average	Pass
0.5 - 30 MHz	30dB; Quasi-Peak 20dB; Average	Pass

We entrusted this test to Labotech International Co., Ltd.

See the attached documents for details.

Report number: LIC 10-16-072

Project number: LIC 04-16-0321

Test standard(s)/ Test specifications: EN 55032: 2012 Class B

Manufacturer: KYOCERA Document Solutions Inc.
2-28, 1-Chome, Tamatsukuri, Chuo-ku Osaka, 540-8585, Japan

Model: MFP

Type: ECOSYS P3060dn


Serial number: Z9T6500001

Power rating: 230 VAC / 50 Hz

Date of receipt of samples: 11 July 2016

Test period: From 11 July 2016 to 20 July 2016

Place of test: Labotech International Co., Ltd.
- LABOTECH EMC Center
1-16, Fukazu-cho, Nishinomiya-shi, Hyogo, 663-8203 Japan

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List of Measuring/Test Instruments

RF Radiated disturbance:

(*)	C/N	Instrument	Type	S/N	Manufacturer
X	HT744	Radiated emission measurement software	EP5/RE-AJ	Ver. 5.6.0	Toyo Corp.
X	HT745	EMI Test receiver (20 Hz - 40 GHz)	ESU40	110243	Rohde & Schwarz
X	HT754	Pre-amp. (9 kHz - 1 GHz, Gain 32 dB)	310N	304877	Sonoma
X	HT755	Pre-amp. (1 GHz - 8 GHz, Gain 40 dB)	TAP0108-40	1017	Toyo Corp.
X	HT788	Biconical antenna (30 MHz - 300 MHz)	BBA9106+ VHBB9124	9124-521	SCHWARZBECK
X	HT789	Log Periodic antenna (300 MHz - 1 GHz)	3148B	00123951	ETS LINDGREN
X	HT758	Broadband Horn antenna (1 GHz - 6 GHz)	BBHA9120B	522	Schwarzbeck
--	HT759	Double rigged horn antenna & amp. (6 GHz - 18 GHz)	HAP06-18W	00000065	Toyo Corp.
--	HT761	Double rigged horn antenna & amp. (18 GHz - 26 GHz)	HAP18-26N	00000017	Toyo Corp.
--	HT762	Double rigged horn antenna & amp. (26 GHz - 40 GHz)	HAP26-40N	00000010	Toyo Corp.
--	HT905	Magnetic Loop Antenna	HLA6120	34698	TESEQ
X	HT779	Semi-Anechoic chamber	10mAC	90984	TOKIN
X	HT780	Programmable AC/DC Power Supply	ES18000W	9128767-1+ 9128767-2	NF
--	HT781	Programmable DC Power Supply	PAN60-20A	QM003356	KIKUSUI
X	HT883	Test table	W1500-D1000-H800	No.01	JSE

(*): X – indicates instruments used for the tests, -- – not used.

Conducted disturbance at mains terminals and telecommunication ports:

(*)	C/N	Item	Type	S/N	Manufacturer
X	HT763	Conducted emission measurement software	EP5/CE-AJ	Ver . 5.4.30	Toyo Corp.
X	HT745	EMI Test receiver (20 Hz - 40 GHz)	ESU40	110243	Rohde & Schwarz
--	HT764	Artificial Mains Network (LISN) (for 3-phase)	NSLK8128	NSLK8128-279	Schwarzbeck
X	HT769	Artificial Mains Network (LISN) (for single phase)	KNW-242F	8-2107-1	Kyoritsu Corp.
X	HT770	Artificial Mains Network (LISN) (for single phase)	KNW-242F	8-2107-2	Kyoritsu Corp.
--	HT765	Pulse limiter (0 Hz - 30 MHz)	ESH3-Z2	101247	Rohde & Schwarz
--	HT766	Impedance Stabilizing Network (ISN)	ISN T8	29452	TESEQ
--	HT767	Impedance Stabilizing Network (ISN)	ISN T8Cat6	29668	TESEQ
X	HT768	Impedance Stabilizing Network (ISN)	ISN ST8	30190	TESEQ
--	HT771	Artificial Hand	K-9003	7-1726-3	Kyoritsu Corp.
--	HT772	Artificial Hand	K-9003	7-1726-5	Kyoritsu Corp.
--	HT773	High impedance probe	KNW-411	8-2112-1	Kyoritsu Corp.
X	HT779	Semi-Anechoic chamber	10mAC	90984	TOKIN
X	HT780	Programmable AC/DC Power Supply	ES18000W	9128767-1+ 9128767-2	NF
--	HT781	Programmable DC Power Supply	PAN60-20A	QM003356	KIKUSUI
--	HT825	High pass filter	KFL-009	8-2132-4	KYORITSU

(*): X – indicates instruments used for the tests, -- – not used.

★ECOSYS P3060dn (EN55032 Class B)

◎EUT

Equipment	Model	S/N	System			Manufacturer
			A	B	C	
MFP	ECOSYS P3060dn	Z9T6500001	●	●	●	Kyocera Document
Paper Feeder	PF-320	NUR6507786	●	●		Kyocera Document
		NUR6507183	●	●		
		NUR6507766	●	●		
		NUR6507763	●	●		
	PF-3100	ZQT6700012			●	Kyocera Document
Printer NIC	IB-50	TEST-1	●			Kyocera Document
	IB-51	TEST-1		●		Kyocera Document
	IB-32	TEST-1			●	Kyocera Document
	IB-36	TEST-1	●	●	●	Kyocera Document
PC	OPTIPLEX 380	09097	●	●	●	DELL
	Vostro 270S	19819025497	●	●	●	
	OPTIPLEX 780	93J8MBX	●	●	●	
HUB	BSL-WS-G2108ML	16462030203331	●	●	●	BUFFALO

◎Operation Modes

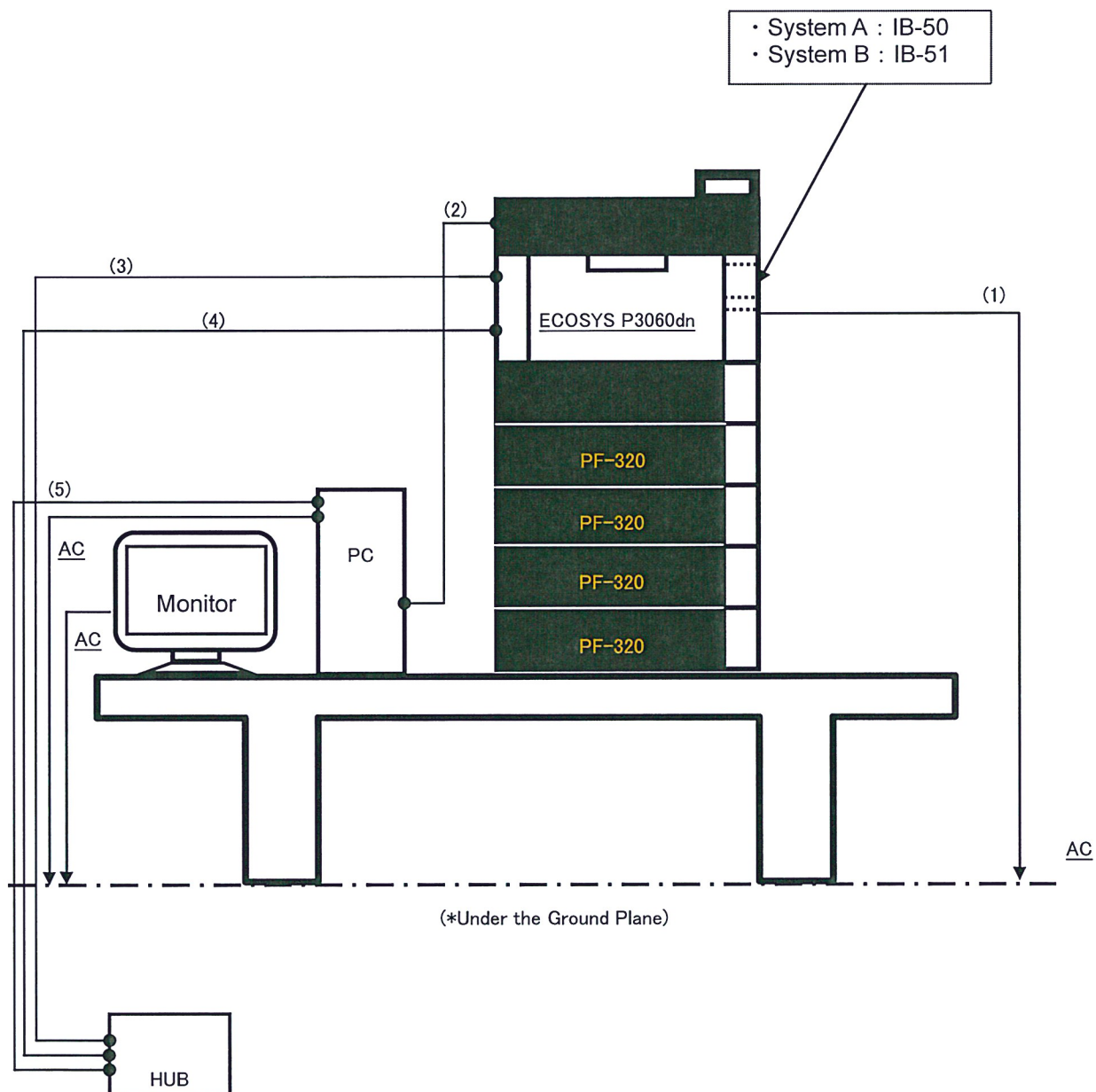
No.	Operation Mode	System	Rad.EMI		Con.EMI
			MHz	GHz	
①	Standby	A	○	○	○
②	LAN Print (On Board)	A	○	○	○
③	USB Print	B	○	---	---
④	Parallel Print	C	○	---	---
⑤	LAN Print (On Board) (Telecommunication Ports)	A	---	---	○

◎Connected Cable / Cord

No.	Cable / Cord	Length	Core	Shielded	Connector
1	Printer Power Cord	2.5 m	---	---	Resinous
2	USB Cable	1 m	---	○	Metallic
3	LAN Cable(On Board) for Printer	10m	---	○	Metallic
4	LAN Cable(Optional) for Printer	10m	---	○	Metallic
5	LAN Cable for PC	10m	---	○	Metallic
6	Parallel Cable	1 m	---	○	Metallic
7	PC Power Cord	2.5m	---	---	Resinous
8	Monitor Power Cord	2.5m	---	---	Resinous

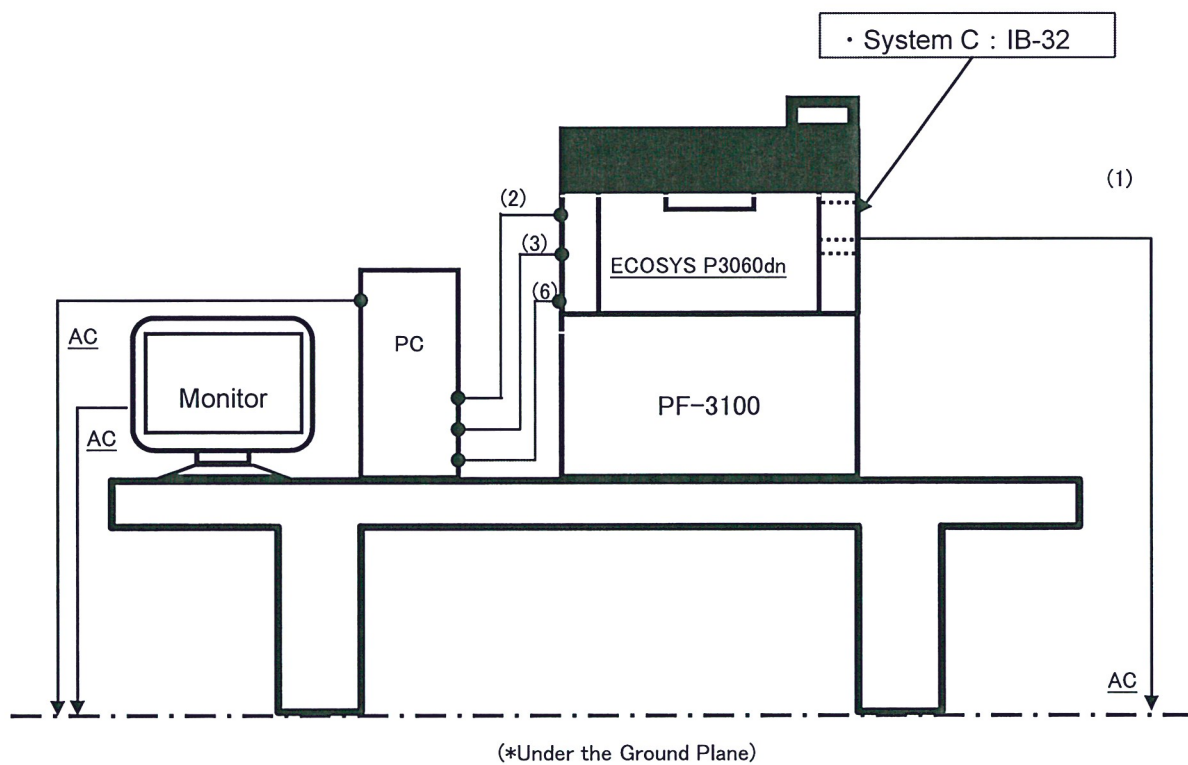
©Equipment Connection Figure

System A System B



©Equipment Connection Figure

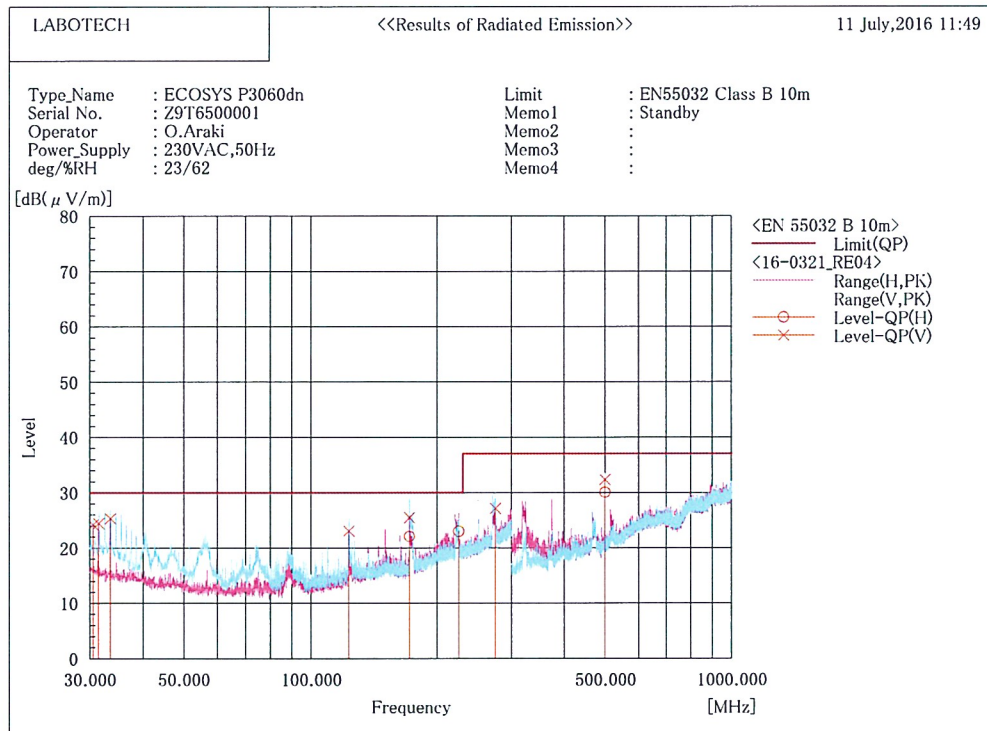
System C



Test Results

Radiated disturbance (30 – 1000 MHz)

Standby

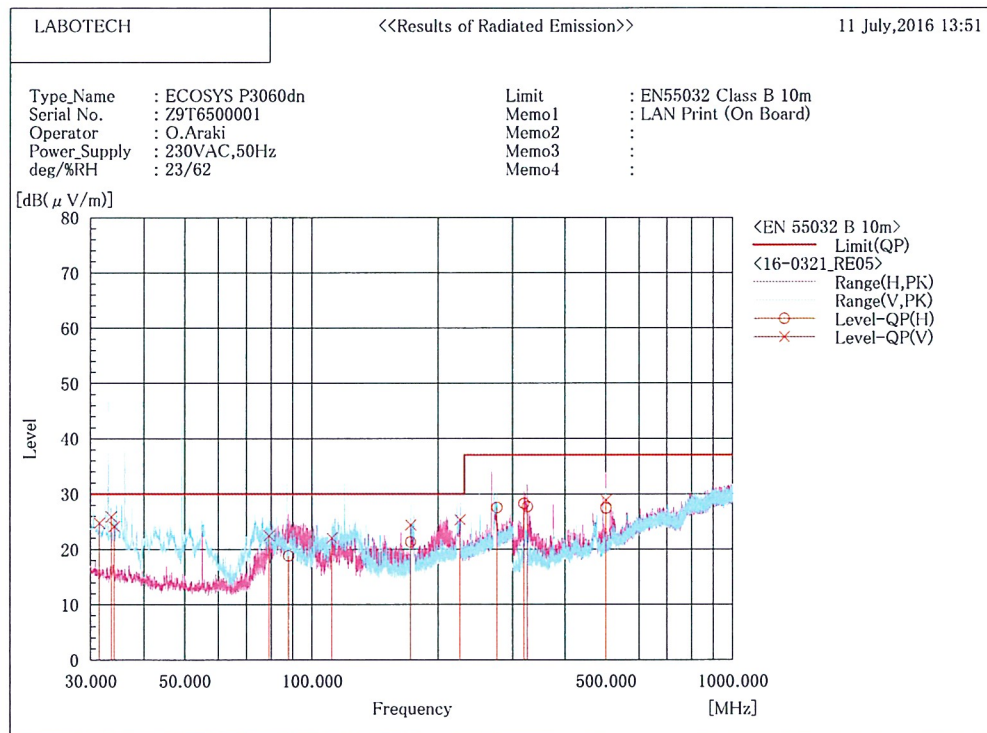


Final Result

No.	Frequency [MHz]	(P)	Reading QP [dB(μV)]	c. f [dB(1/m)]	Result QP [dB(μV/m)]	Limit QP [dB(μV/m)]	Margin QP [dB]	Height [cm]	Angle [°]
1	30.512	V	36.01	-11.81	24.20	30.0	5.8	100.0	359.0
2	31.498	V	36.44	-12.02	24.42	30.0	5.6	105.0	1.0
3	33.501	V	37.73	-12.41	25.32	30.0	4.7	100.0	319.0
4	122.839	V	35.82	-12.75	23.07	30.0	6.9	109.0	291.0
5	171.666	H	32.71	-10.64	22.07	30.0	7.9	292.0	180.0
6	171.666	V	36.10	-10.64	25.46	30.0	4.5	100.0	150.0
7	224.824	H	30.29	-7.30	22.99	30.0	7.0	232.0	55.0
8	274.810	V	31.73	-4.64	27.09	37.0	9.9	100.0	54.0
9	500.000	H	36.20	-6.19	30.01	37.0	7.0	382.0	232.0
10	500.000	V	38.52	-6.19	32.33	37.0	4.7	195.0	208.0

Radiated disturbance (30 – 1000 MHz)

LAN Print (On Board)

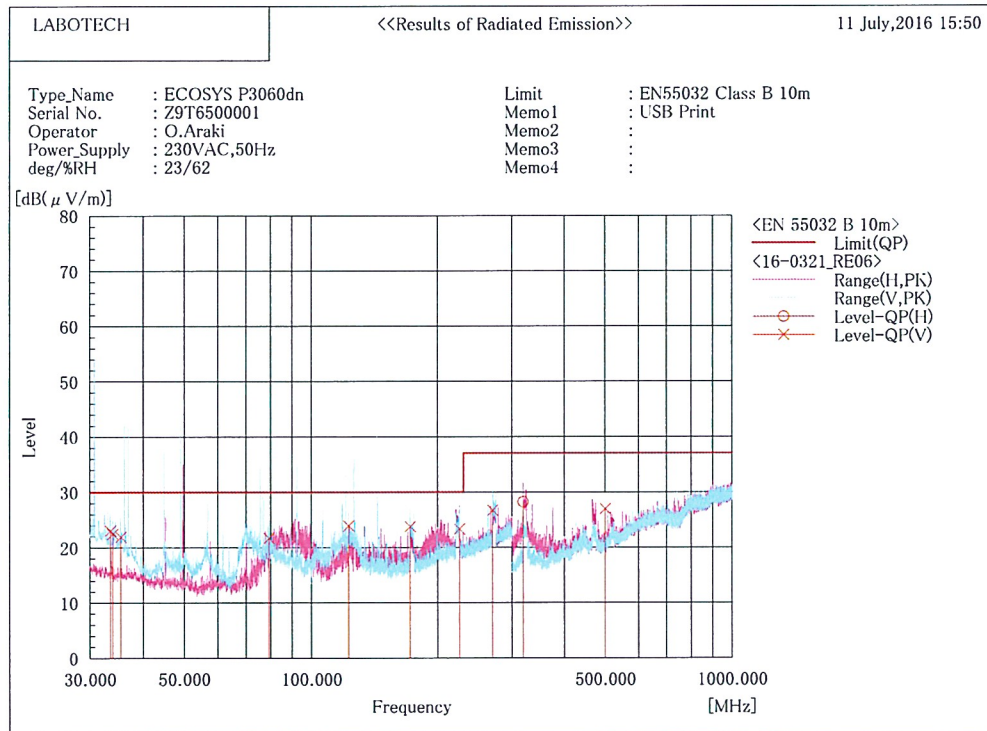


Final Result

No.	Frequency [MHz]	(P)	Reading QP [dB(μ V)]	c. f [dB(1/m)]	Result QP [dB(μ V/m)]	Limit QP [dB(μ V/m)]	Margin QP [dB]	Height [cm]	Angle [°]
1	31.504	V	36.79	-12.03	24.76	30.0	5.2	117.0	312.0
2	33.521	V	38.29	-12.41	25.88	30.0	4.1	101.0	359.0
3	34.101	V	36.63	-12.52	24.11	30.0	5.9	105.0	1.0
4	79.165	V	37.60	-15.18	22.42	30.0	7.6	190.0	67.0
5	88.089	H	33.64	-14.84	18.80	30.0	11.2	400.0	191.0
6	111.420	V	35.64	-13.62	22.02	30.0	8.0	105.0	299.0
7	171.668	V	35.04	-10.64	24.40	30.0	5.6	101.0	141.0
8	171.668	H	31.96	-10.64	21.32	30.0	8.7	282.0	106.0
9	224.812	V	32.62	-7.30	25.32	30.0	4.7	100.0	84.0
10	274.815	H	32.16	-4.64	27.52	37.0	9.5	192.0	140.0
11	318.740	H	39.16	-10.89	28.27	37.0	8.7	147.0	158.0
12	324.798	H	38.34	-10.67	27.67	37.0	9.3	152.0	150.0
13	500.000	H	33.59	-6.19	27.40	37.0	9.6	344.0	247.0
14	500.000	V	35.06	-6.19	28.87	37.0	8.1	205.0	200.0

Radiated disturbance (30 – 1000 MHz)

USB Print

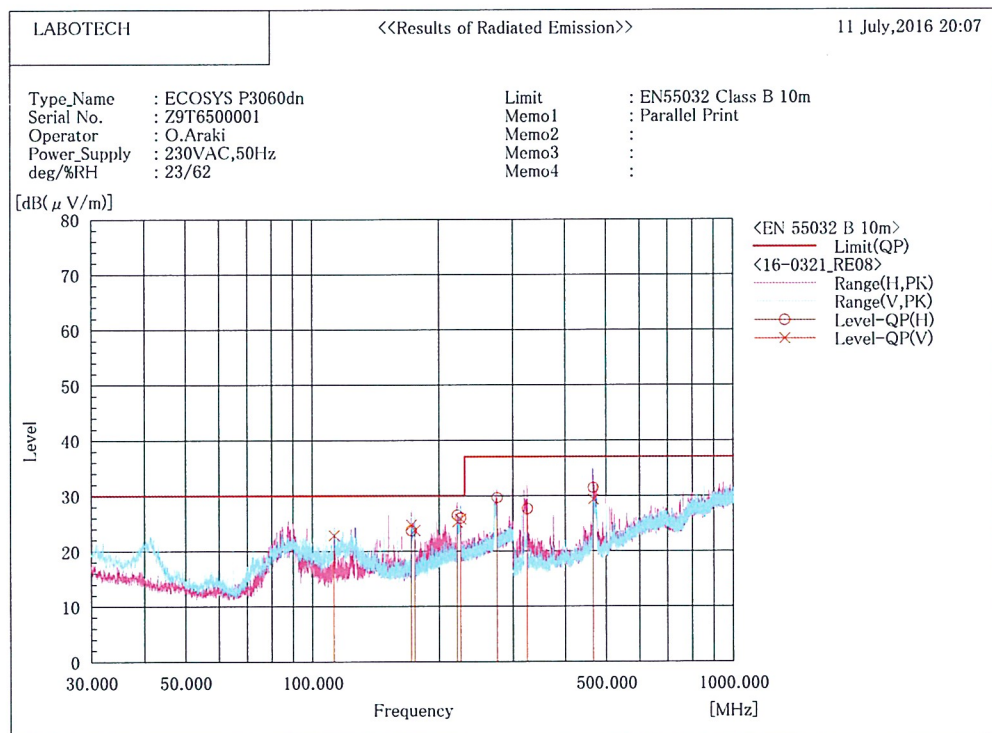


Final Result

No.	Frequency [MHz]	(P)	Reading QP [dB(μV)]	c.f [dB(1/m)]	Result QP [dB(μV/m)]	Limit QP [dB(μV/m)]	Margin QP [dB]	Height [cm]	Angle [°]
1	33.538	V	35.44	-12.41	23.03	30.0	7.0	103.0	358.0
2	33.958	V	34.96	-12.50	22.46	30.0	7.5	105.0	326.0
3	35.498	V	34.72	-12.82	21.90	30.0	8.1	252.0	326.0
4	79.256	V	36.87	-15.18	21.69	30.0	8.3	183.0	65.0
5	122.647	V	36.65	-12.76	23.89	30.0	6.1	113.0	2.0
6	171.673	V	34.42	-10.64	23.78	30.0	6.2	101.0	133.0
7	224.863	V	30.62	-7.30	23.32	30.0	6.7	101.0	106.0
8	269.704	V	31.59	-4.90	26.69	37.0	10.3	384.0	46.0
9	318.710	H	39.11	-10.90	28.21	37.0	8.8	157.0	143.0
10	500.000	V	33.14	-6.19	26.95	37.0	10.1	213.0	225.0

Radiated disturbance (30 – 1000 MHz)

Parallel Print

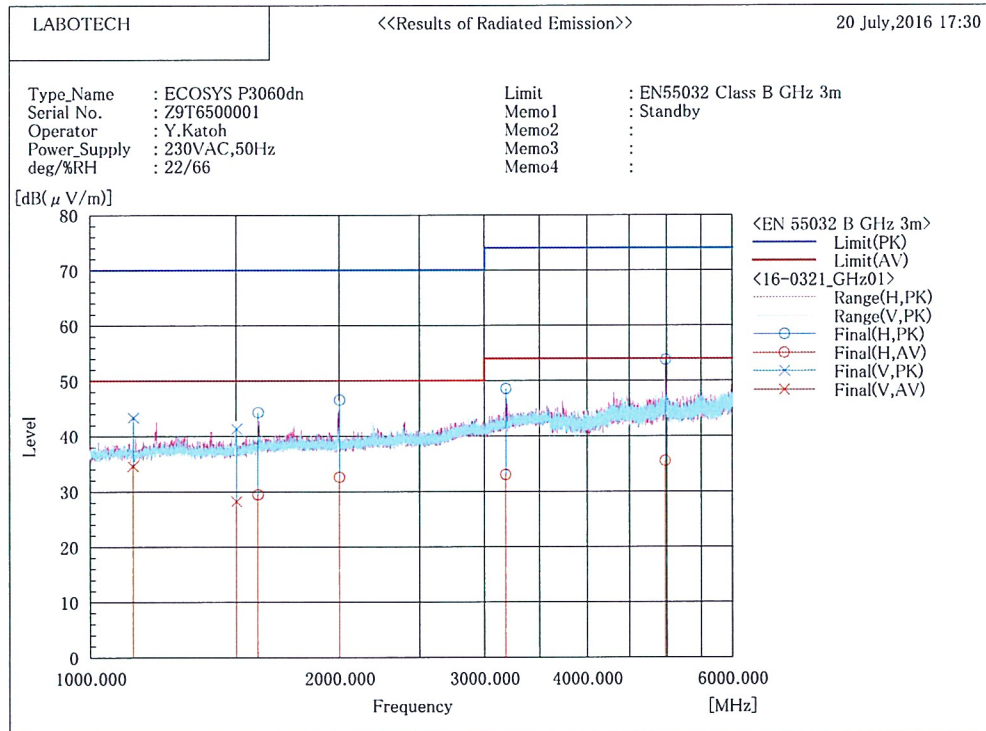


Final Result

No.	Frequency [MHz]	(P)	Reading QP [dB(μV)]	c. f [dB(1/m)]	Result QP [dB(μV/m)]	Limit QP [dB(μV/m)]	Margin QP [dB]	Height [cm]	Angle [°]
1	112.724	V	36.35	-13.53	22.82	30.0	7.2	114.0	252.0
2	171.660	V	35.37	-10.64	24.73	30.0	5.3	101.0	135.0
3	171.660	H	34.32	-10.64	23.68	30.0	6.3	313.0	106.0
4	174.840	V	34.18	-10.44	23.74	30.0	6.3	100.0	143.0
5	220.700	V	32.64	-7.41	25.23	30.0	4.8	100.0	136.0
6	220.700	H	33.85	-7.41	26.44	30.0	3.6	374.0	61.0
7	224.824	H	33.23	-7.30	25.93	30.0	4.1	293.0	53.0
8	224.824	V	33.09	-7.30	25.79	30.0	4.2	100.0	135.0
9	274.813	H	34.27	-4.64	29.63	37.0	7.4	191.0	150.0
10	324.750	H	38.30	-10.67	27.63	37.0	9.4	183.0	127.0
11	466.140	H	37.00	-5.56	31.44	37.0	5.6	160.0	156.0
12	466.140	V	34.90	-5.56	29.34	37.0	7.7	213.0	195.0

Radiated disturbance (1000 – 6000 MHz)

Standby

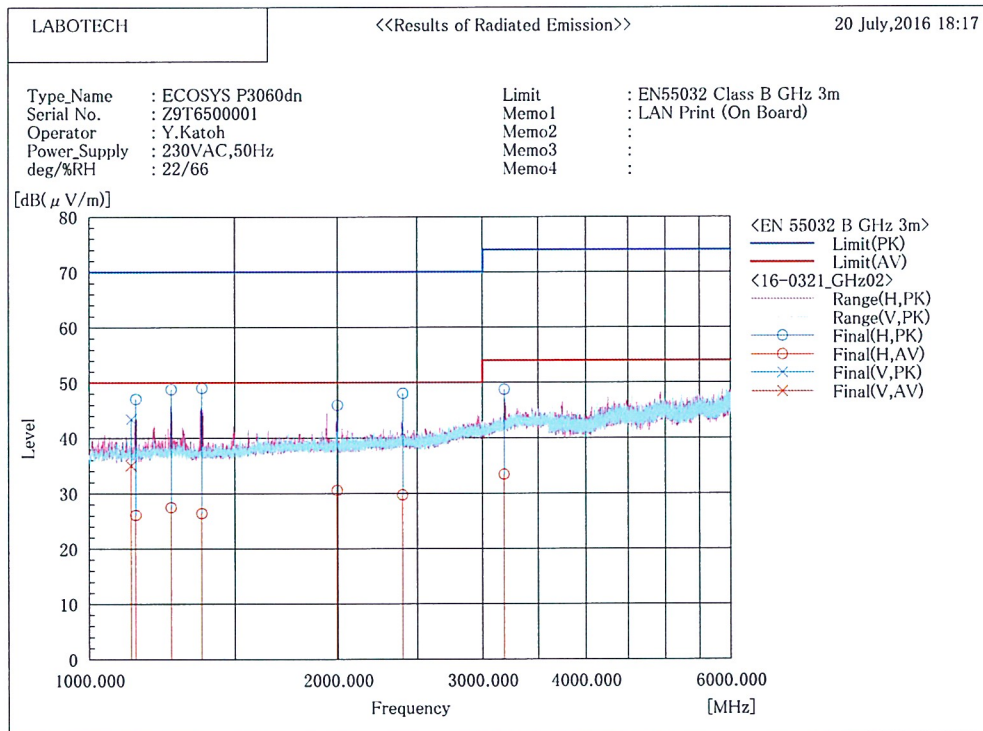


Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(μV)]	Reading AV [dB(μV)]	c.f [dB(1/m)]	Result PK [dB(μV/m)]	Result AV [dB(μV/m)]	Limit PK [dB(μV/m)]	Limit AV [dB(μV/m)]	Margin PK [dB]	Margin AV [dB]	Height [cm]	Angle [°]
1	1125.005	V	50.11	41.36	-6.76	43.35	34.60	70.0	50.0	26.6	15.4	100.0	38.0
2	1500.007	V	46.84	33.71	-5.51	41.33	28.20	70.0	50.0	28.7	21.8	100.0	159.0
3	1592.651	H	49.13	34.28	-4.82	44.31	29.46	70.0	50.0	25.7	20.5	100.0	319.0
4	2000.071	H	50.66	36.72	-4.14	46.52	32.58	70.0	50.0	23.5	17.4	100.0	208.0
5	3185.093	H	48.06	32.51	0.52	48.58	33.03	74.0	54.0	25.4	21.0	100.0	336.0
6	4975.466	H	46.56	28.27	7.24	53.80	35.51	74.0	54.0	20.2	18.5	100.0	129.0

Radiated disturbance (1000 – 6000 MHz)

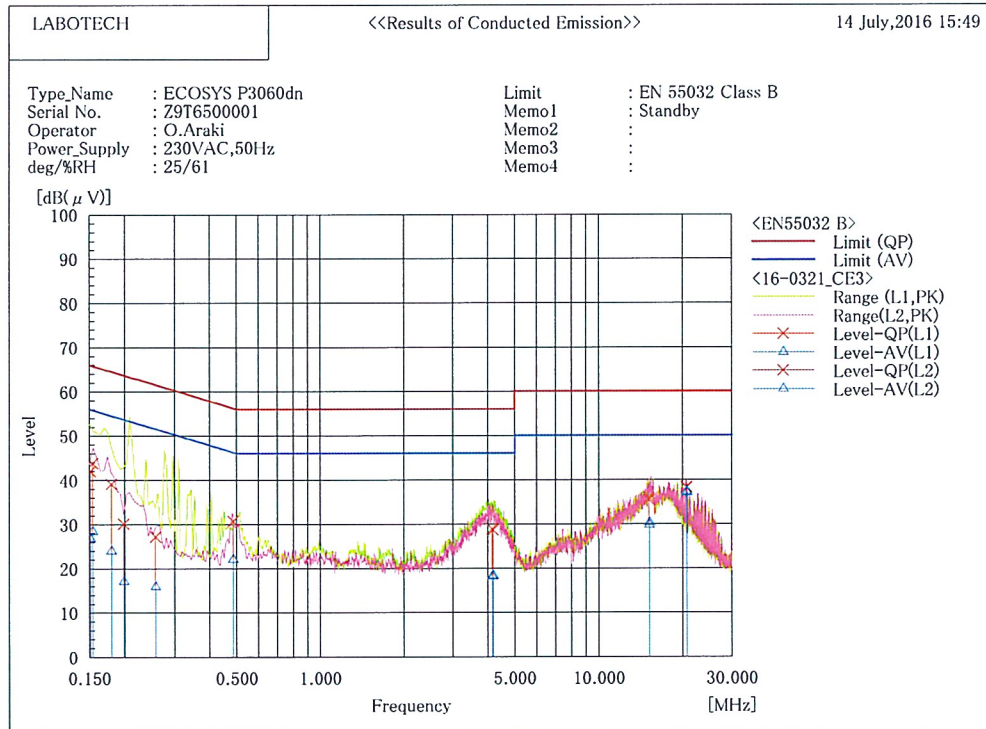
LAN Print (On Board)



Final Result

No.	Frequency [MHz]	(P)	Reading PK [dB(μV)]	Reading AV [dB(μV)]	c.f [dB(1/m)]	Result PK [dB(μV/m)]	Result AV [dB(μV/m)]	Limit PK [dB(μV/m)]	Limit AV [dB(μV/m)]	Margin PK [dB]	Margin AV [dB]	Height [cm]	Angle [°]
1	1125.000	V	50.15	41.79	-6.76	43.39	35.03	70.0	50.0	26.6	15.0	100.0	2.0
2	1140.286	H	53.70	32.71	-6.65	47.05	26.06	70.0	50.0	23.0	23.9	100.0	230.0
3	1256.286	H	54.76	33.47	-6.00	48.76	27.47	70.0	50.0	21.2	22.5	100.0	354.0
4	1367.714	H	55.01	32.37	-6.01	49.00	26.36	70.0	50.0	21.0	23.6	100.0	37.0
5	1996.793	H	50.03	34.69	-4.15	45.88	30.54	70.0	50.0	24.1	19.5	100.0	212.0
6	2398.486	H	51.49	33.11	-3.43	48.06	29.68	70.0	50.0	21.9	20.3	100.0	205.0
7	3185.399	H	48.23	32.86	0.52	48.75	33.38	74.0	54.0	25.2	20.6	100.0	317.0

Conducted disturbance Standby



Final Result

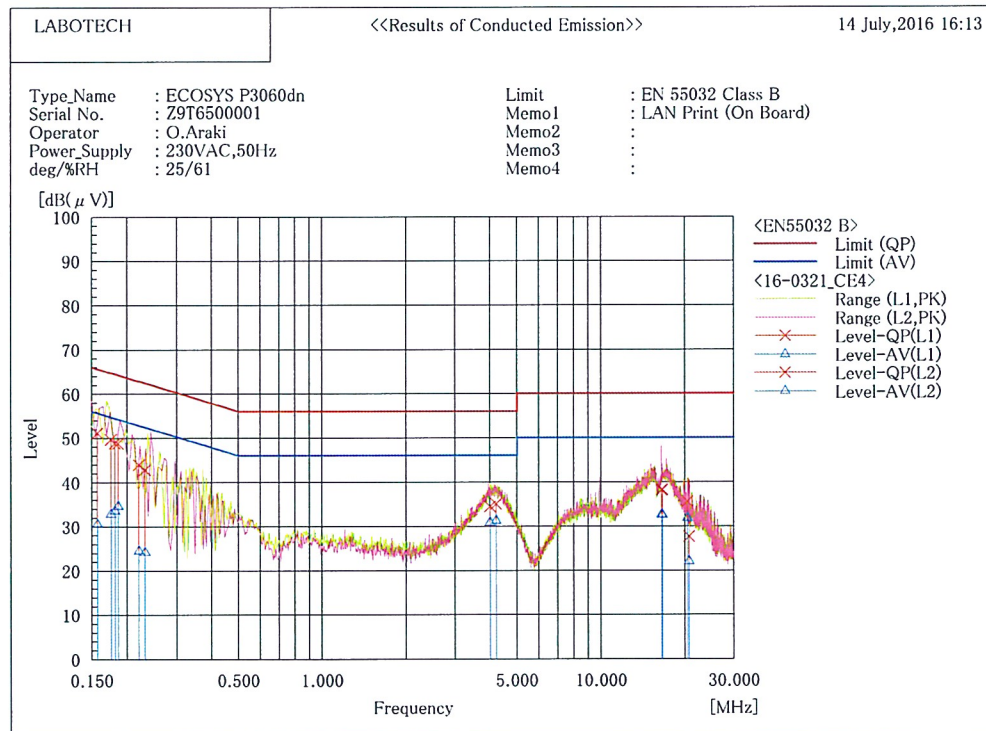
--- L1 Phase ---

No.	Frequency	Reading QP	Reading CAV	c. f	Result QP	Result CAV	Limit QP	Limit AV	Margin QP	Margin CAV
	[MHz]	[dB(μV)]	[dB(μV)]	[dB]	[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB]	[dB]
1	0.15112	31.8	16.6	10.2	42.0	26.8	65.9	55.9	23.9	29.1
2	0.19845	19.9	6.9	10.2	30.1	17.1	63.7	53.7	33.6	36.6
3	0.25655	17.0	5.7	10.2	27.2	15.9	61.5	51.5	34.3	35.6
4	4.14912	18.4	7.7	10.5	28.9	18.2	56.0	46.0	27.1	27.8
5	15.19845	24.3	18.7	11.1	35.4	29.8	60.0	50.0	24.6	20.2
6	20.67585	27.0	25.8	11.3	38.3	37.1	60.0	50.0	21.7	12.9

--- L2 Phase ---

No.	Frequency	Reading QP	Reading CAV	c. f	Result QP	Result CAV	Limit QP	Limit AV	Margin QP	Margin CAV
	[MHz]	[dB(μV)]	[dB(μV)]	[dB]	[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB]	[dB]
1	0.15404	33.7	18.2	10.2	43.9	28.4	65.8	55.8	21.9	27.4
2	0.17959	28.9	13.7	10.2	39.1	23.9	64.5	54.5	25.4	30.6
3	0.4863	20.5	11.9	10.2	30.7	22.1	56.2	46.2	25.5	24.1
4	4.1821	18.2	7.8	10.5	28.7	18.3	56.0	46.0	27.3	27.7
5	15.19875	24.8	19.2	11.1	35.9	30.3	60.0	50.0	24.1	19.7
6	20.67735	27.0	25.9	11.3	38.3	37.2	60.0	50.0	21.7	12.8

Conducted disturbance LAN Print (On Board)



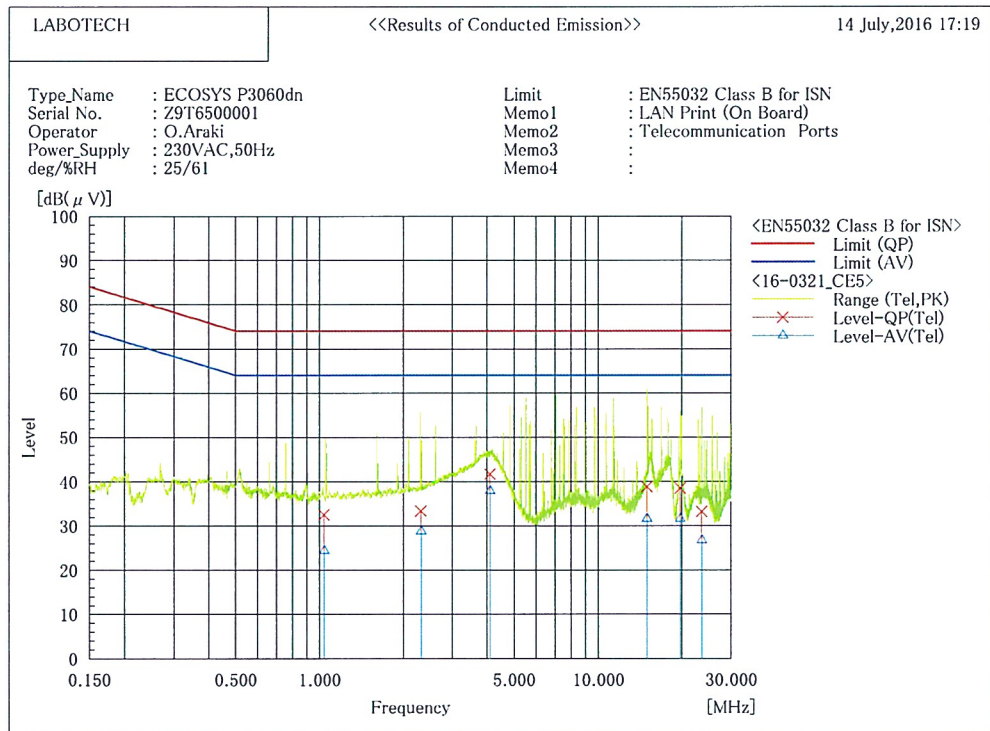
Final Result

--- L1 Phase ---										
No.	Frequency [MHz]	Reading QP [dB(μV)]	Reading CAV [dB(μV)]	c. f [dB]	Result QP [dB(μV)]	Result CAV [dB(μV)]	Limit QP [dB(μV)]	Limit AV [dB(μV)]	Margin QP [dB]	Margin CAV [dB]
1	0.15696	40.9	20.3	10.2	51.1	30.5	65.6	55.6	14.5	25.1
2	0.17512	39.5	22.6	10.2	49.7	32.8	64.7	54.7	15.0	21.9
3	0.23104	32.6	14.0	10.2	42.8	24.2	62.4	52.4	19.6	28.2
4	3.99566	24.0	20.3	10.5	34.5	30.8	56.0	46.0	21.5	15.2
5	16.60245	27.0	21.3	11.2	38.2	32.5	60.0	50.0	21.8	17.5
6	20.64975	16.3	10.7	11.3	27.6	22.0	60.0	50.0	32.4	28.0

--- L2 Phase ---										
No.	Frequency [MHz]	Reading QP [dB(μV)]	Reading CAV [dB(μV)]	c. f [dB]	Result QP [dB(μV)]	Result CAV [dB(μV)]	Limit QP [dB(μV)]	Limit AV [dB(μV)]	Margin QP [dB]	Margin CAV [dB]
1	0.1808	38.6	23.4	10.2	48.8	33.6	64.4	54.4	15.6	20.8
2	0.18566	38.6	24.3	10.2	48.8	34.5	64.2	54.2	15.4	19.7
3	0.22013	33.7	14.3	10.2	43.9	24.5	62.8	52.8	18.9	28.3
4	4.20276	24.6	20.8	10.5	35.1	31.3	56.0	46.0	20.9	14.7
5	16.4829	27.1	21.5	11.1	38.2	32.6	60.0	50.0	21.8	17.4
6	20.3973	24.3	20.5	11.3	35.6	31.8	60.0	50.0	24.4	18.2

Conducted disturbance

LAN Print (On Board) (Telecommunication Ports)



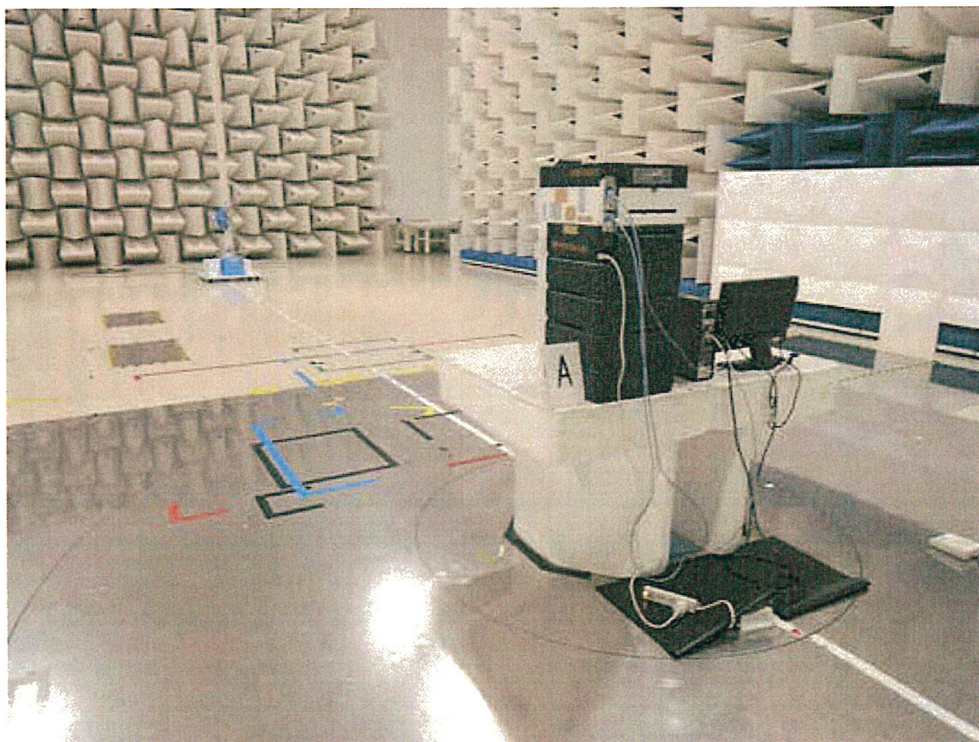
Final Result

Tel Phase										
No.	Frequency	Reading	Reading	c. f	Result	Result	Limit	Limit	Margin	Margin
	[MHz]	[dB(μV)]	CAV		[dB(μV)]	[dB(μV)]	QP	AV	QP	CAV
			[dB(μV)]	[dB]			[dB(μV)]	[dB(μV)]	[dB]	[dB]
1	1.03888	22.7	14.5	9.9	32.6	24.4	74.0	64.0	41.4	39.6
2	2.31308	23.4	18.8	10.0	33.4	28.8	74.0	64.0	40.6	35.2
3	4.09928	31.6	27.8	10.1	41.7	37.9	74.0	64.0	32.3	26.1
4	14.9709	28.3	21.1	10.5	38.8	31.6	74.0	64.0	35.2	32.4
5	19.7171	27.8	20.9	10.7	38.5	31.6	74.0	64.0	35.5	32.4
6	23.5458	22.4	15.9	10.8	33.2	26.7	74.0	64.0	40.8	37.3

Photographs of Test Setup/Arrangement

Radiated disturbance (30 – 1000 MHz)

System A



Radiated disturbance (30 – 1000 MHz)

System B



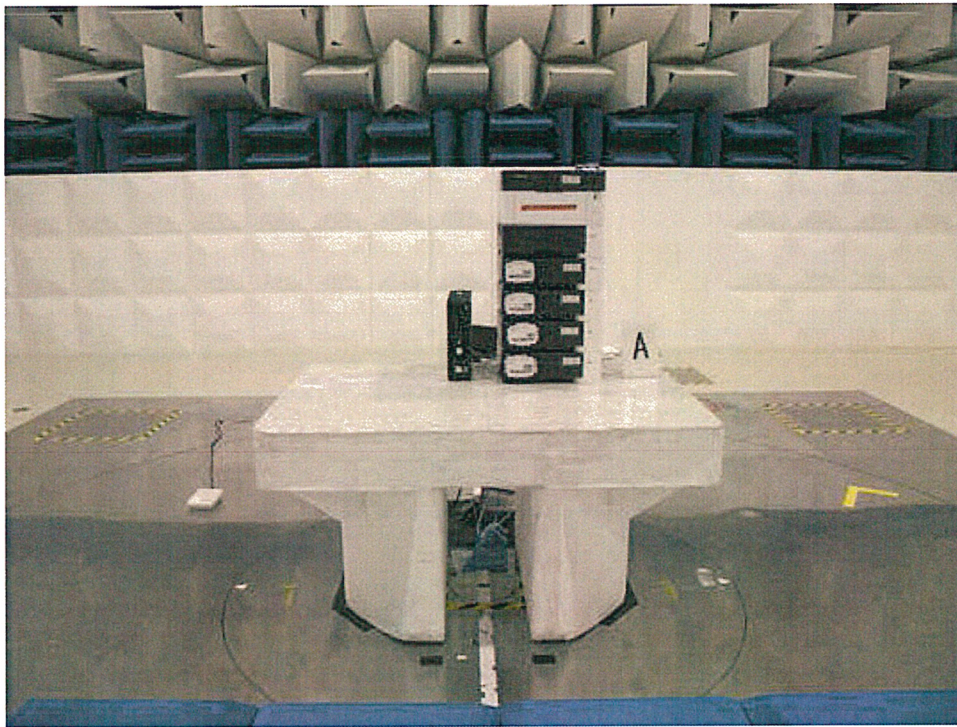
Radiated disturbance (30 – 1000 MHz)

System C



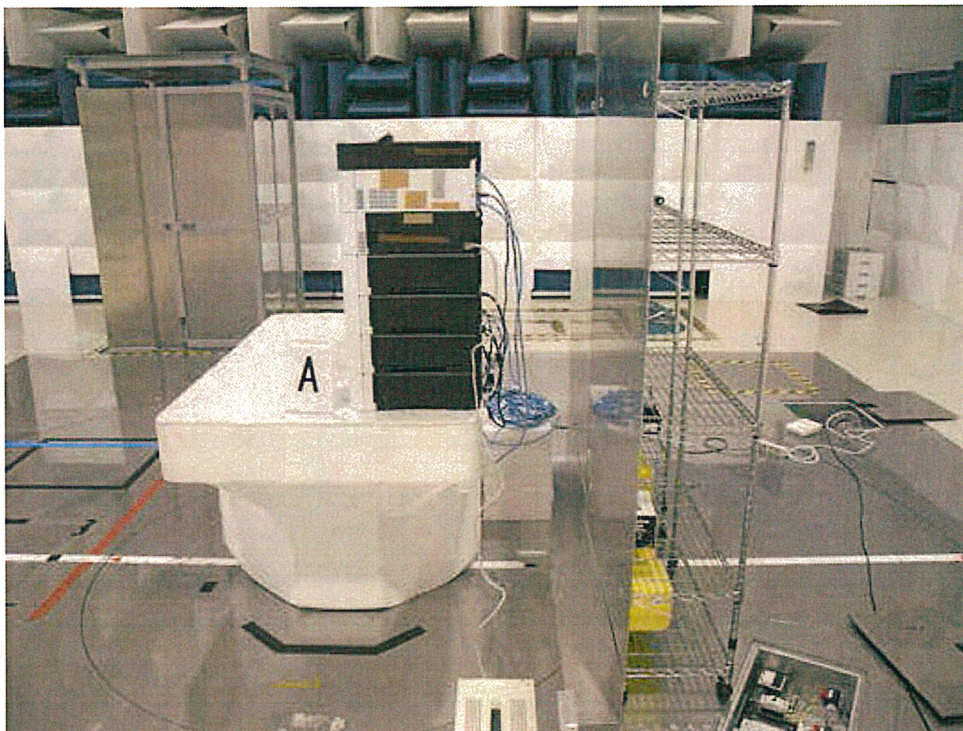
Radiated disturbance (1000 – 6000 MHz)

System A



Conducted disturbance

System A



EN61000-3-2/2006+A1/2009+A2/2009
(EN 301 489-1 V1.9.2 <8.5>)
Harmonic Current Measurement

<i>Equipment</i>	<i>Model</i>	<i>Serial No.</i>
Printer	ECOSYS P3060dn	Z9T6500001
Paper Feeder	PF-320	NUR6507786
	PF-320	NUR6507183
	PF-320	NUR6507766
	PF-320	NUR6507763
	PF-3100	ZQT6700012
Paper Feeder Base	PB-325	NYV6601798
Printer NIC	IB-50	TEST-1
	IB-51	TEST-1
	IB-32B	TEST-1
HDD	HD-6	TEST-1
	HD-7	TEST-1
Wireless Network Unit	IB-36	TEST-1

Date : 1 August, 2016

Temperature : 26°C

Humidity : 60%

Atom. Pressure : 1016hPa

Testing Place : Kyocera Document Solutions CE Test Room

Power Input : AC230V, 50Hz

Tested by : Shinya Fujimoto

藤本真也

This test was applied as follows.

Odd-harmonics			Even-harmonics		
<i>Order (n)</i>	<i>Limit</i>	<i>Result</i>	<i>Order (n)</i>	<i>Limit</i>	<i>Result</i>
3	2.30 A	Pass			Pass
5	1.14 A				
7	0.77 A		2	1.08 A	
9	0.40 A		4	0.43 A	
11	0.33 A		6	0.30 A	
13	0.21 A		8 ≤ n ≤ 40	0.23 x 8 / n A	
15 ≤ n < 40	0.15 x 8 / n A				

Test equipment used : Analyzing System : WT3000 (Yokogawa Electric Corporation)

ECOSYS P3060dn (Average)

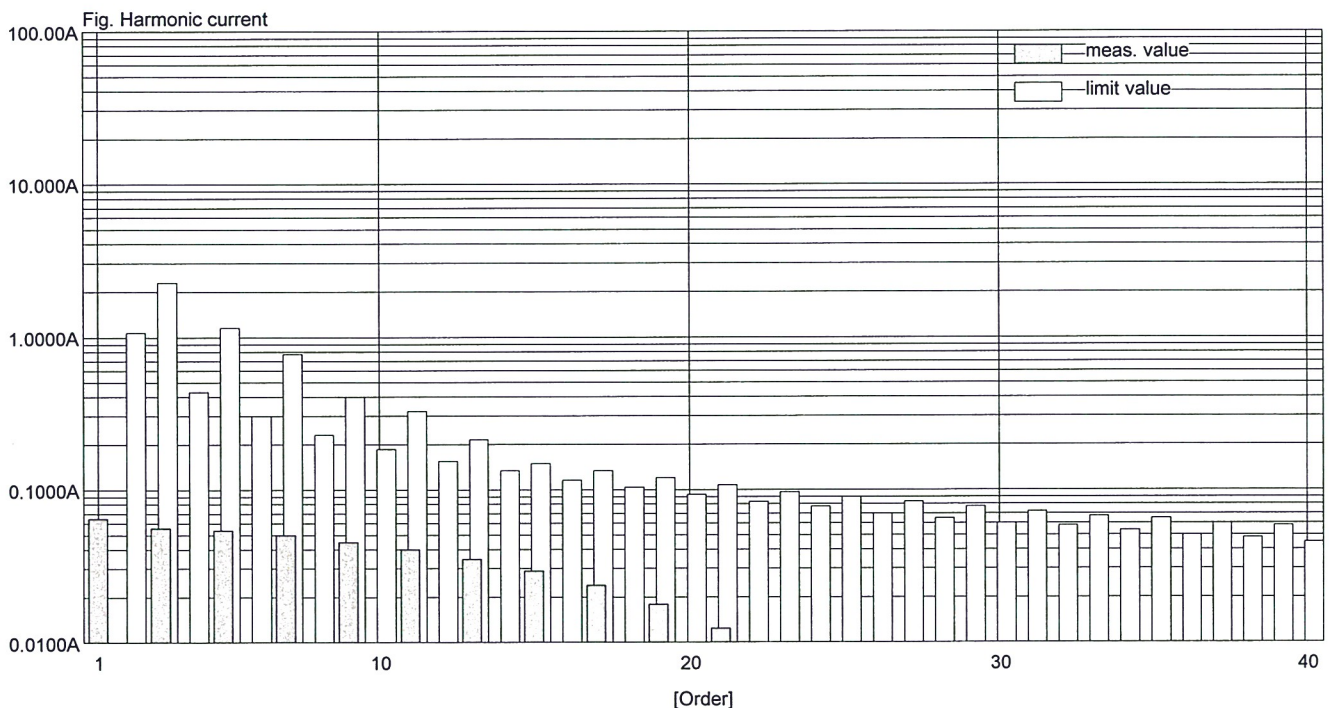
Print Date : Mon Aug 01 17:14:24 2016
MeasureDate : Mon Aug 01 17:14:01 2016
Comment : Option:PF-320*4
Ready

Regulation : IEC61000-3-2 Ed3.0 am2
CLASS A
MeasureTime : 149.80sec
Model : YOKOGAWA WT3000
Rating Voltage : 230.00 V
Wiring : single-phase 2-wire
Element : 1
Range : 300V/30A
Current(rms) : 0.1402 A
Voltage(rms) : 229.76 V
Frequency : 50.000 Hz
Power Factor : 0.4293
POHC Limit : 0.2514 A
POHC Max : 0.0183 A
THC : 0.1245 A

PASS

Set Fundamental I : -----
Set Power Factor : -----
Set P : -----
Sigma W Max : 13.8420 W
Sigma PF : 0.4293
Distortion factor(V) : 0.06 %
V THDS : 0.06 %
V THDG : 0.06 %
Distortion factor(A) : 193.14 %
A THDS : 193.15 %
A THDG : 193.23 %
P THD : 0.04 %
Power Limit : 75 W

Order	Measure[A]	Limit[A]	Margin[%]	Order	Measure[A]	Limit[A]	Margin[%]
1	0.0644			2	0.0028	1.0800	99.7
3	0.0559	2.3000	97.6	4	0.0027	0.4300	99.4
5	0.0535	1.1400	95.3	6	0.0025	0.3000	99.2
7	0.0500	0.7700	93.5	8	0.0023	0.2300	99.0
9	0.0456	0.4000	88.6	10	0.0021	0.1840	98.9
11	0.0405	0.3300	87.7	12	0.0018	0.1533	98.8
13	0.0350	0.2100	83.3	14	0.0015	0.1314	98.8
15	0.0292	0.1500	80.6	16	0.0013	0.1150	98.9
17	0.0233	0.1324	82.4	18	0.0010	0.1022	99.0
19	0.0177	0.1184	85.0	20	0.0009	0.0920	99.0
21	0.0125	0.1071	88.3	22	0.0008	0.0836	99.1
23	0.0079	0.0978	91.9	24	0.0007	0.0767	99.1
25	0.0040	0.0900	95.5	26	0.0007	0.0708	99.0
27	0.0012	0.0833	98.6	28	0.0007	0.0657	99.0
29	0.0019	0.0776	97.5	30	0.0006	0.0613	99.0
31	0.0034	0.0726	95.3	32	0.0006	0.0575	99.0
33	0.0043	0.0682	93.7	34	0.0005	0.0541	99.0
35	0.0046	0.0643	92.9	36	0.0005	0.0511	99.0
37	0.0043	0.0608	92.9	38	0.0004	0.0484	99.1
39	0.0037	0.0577	93.6	40	0.0004	0.0460	99.1



ECOSYS P3060dn (Maximum)

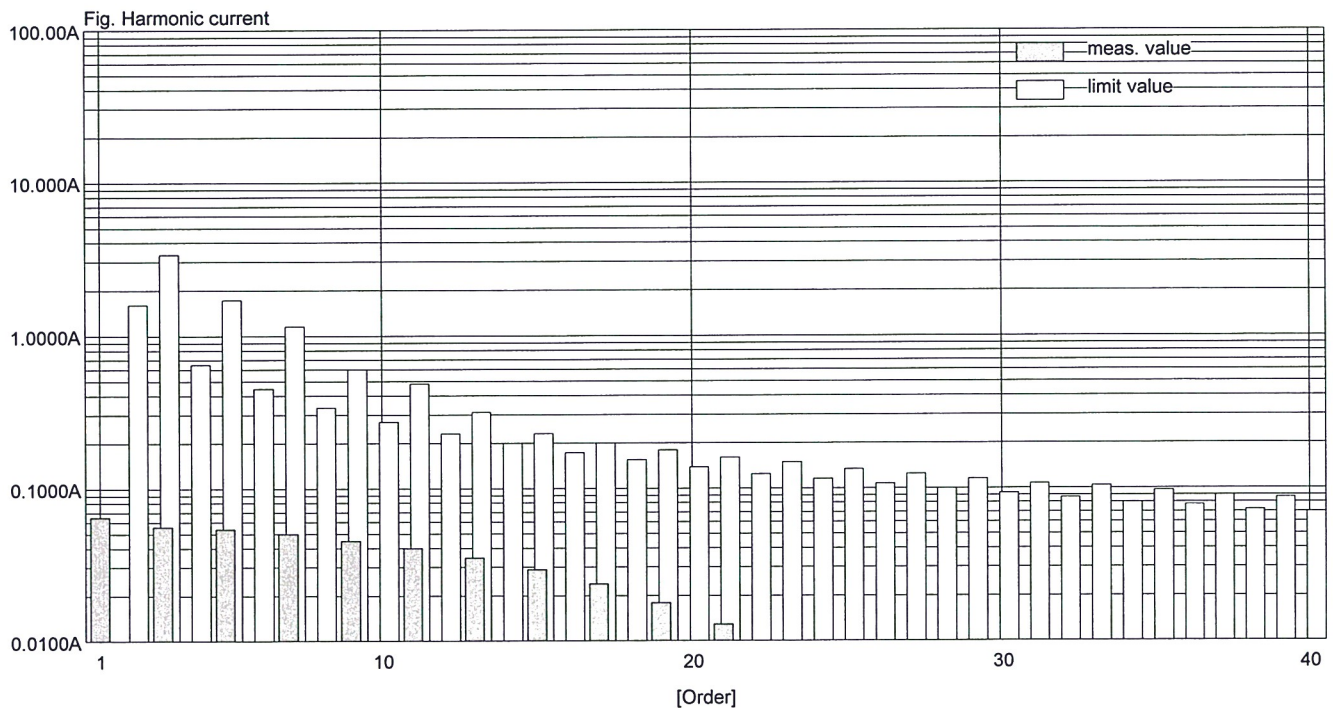
Print Date : Mon Aug 01 17:14:24 2016
MeasureDate : Mon Aug 01 17:14:01 2016
Comment : Option:PF-320*4
Ready

Regulation : IEC61000-3-2 Ed3.0 am2
Class : CLASS A
MeasureTime : 149.80sec
Model : YOKOGAWA WT3000
Rating Voltage : 230.00 V
Wiring : single-phase 2-wire
Element : 1
Range : 300V/30A
Current(rms) : 0.1405 A
Voltage(rms) : 229.76 V
Frequency : 50.008 Hz
Power Factor : 0.4298
Beyond Limit Time : 14.9799 s
Beyond Total Time : 0.0000 s
THC : 0.1249 A

PASS

Set Fundamental I : -----
Set Power Factor : -----
Set P : -----
Sigma W Max : 13.8420 W
Sigma PF : 0.4298
Distortion factor(V) : 0.06 %
V THDS : 0.06 %
V THDG : 0.07 %
Distortion factor(A) : 194.31 %
A THDS : 194.32 %
A THDG : 194.41 %
P THD : 0.04 %
Power Limit : 75 W

Order	Measure[A]	Limit[A]	Margin[%]	Order	Measure[A]	Limit[A]	Margin[%]
1	0.0645			2	0.0029	1.6200	99.8
3	0.0559	3.4500	98.4	4	0.0028	0.6450	99.6
5	0.0536	1.7100	96.9	6	0.0027	0.4500	99.4
7	0.0501	1.1550	95.7	8	0.0024	0.3450	99.3
9	0.0458	0.6000	92.4	10	0.0022	0.2760	99.2
11	0.0407	0.4950	91.8	12	0.0019	0.2300	99.2
13	0.0352	0.3150	88.8	14	0.0016	0.1971	99.2
15	0.0294	0.2250	87.0	16	0.0013	0.1725	99.2
17	0.0236	0.1985	88.1	18	0.0011	0.1533	99.3
19	0.0180	0.1776	89.9	20	0.0009	0.1380	99.3
21	0.0128	0.1607	92.1	22	0.0008	0.1255	99.3
23	0.0081	0.1467	94.5	24	0.0008	0.1150	99.3
25	0.0042	0.1350	96.9	26	0.0007	0.1062	99.3
27	0.0013	0.1250	98.9	28	0.0007	0.0986	99.3
29	0.0020	0.1164	98.3	30	0.0007	0.0920	99.3
31	0.0035	0.1089	96.8	32	0.0006	0.0862	99.3
33	0.0043	0.1023	95.7	34	0.0006	0.0812	99.3
35	0.0046	0.0964	95.2	36	0.0005	0.0767	99.3
37	0.0044	0.0912	95.2	38	0.0005	0.0726	99.3
39	0.0038	0.0865	95.6	40	0.0005	0.0690	99.3



ECOSYS P3060dn (Average)

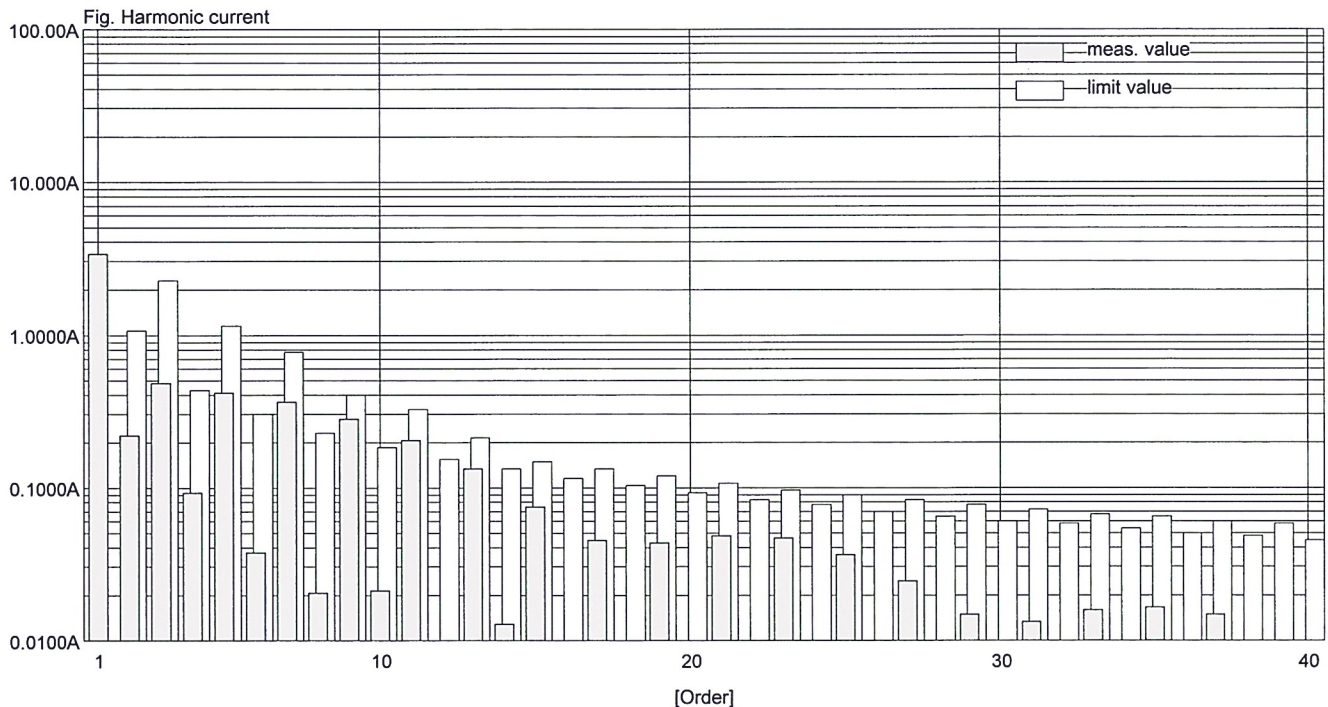
Print Date : Mon Aug 01 17:19:53 2016
MeasureDate : Mon Aug 01 17:19:27 2016
Comment : Option:PF-320*4
1side print

Regulation : IEC61000-3-2 Ed3.0 am2
IEC61000-4-7 Ed2.0 A1
Class : CLASS A
MeasureTime : 150.00sec
Model : YOKOGAWA WT3000
Rating Voltage : 230.00 V
Wiring : single-phase 2-wire
Element : 1
Range : 300V/30A
Current(rms) : 3.5694 A
Voltage(rms) : 229.41 V
Frequency : 50.000 Hz
Power Factor : 0.9663
POHC Limit : 0.2514 A
POHC Max : 0.0913 A
THC : 0.8804 A

PASS

Set Fundamental I : -----
Set Power Factor : -----
Set P : -----
Sigma W Max : 1046.470 W
Sigma PF : 0.9663
Distortion factor(V) : 0.08 %
V THDS : 0.08 %
V THDG : 0.08 %
Distortion factor(A) : 25.55 %
A THDS : 26.00 %
A THDG : 26.76 %
P THD : 0.01 %
Power Limit : 75 W

Order	Measure[A]	Limit[A]	Margin[%]	Order	Measure[A]	Limit[A]	Margin[%]
1	3.4534			2	0.2196	1.0800	79.7
3	0.4892	2.3000	78.7	4	0.0934	0.4300	78.3
5	0.4287	1.1400	62.4	6	0.0379	0.3000	87.4
7	0.3638	0.7700	52.8	8	0.0204	0.2300	91.1
9	0.2842	0.4000	29.0	10	0.0211	0.1840	88.5
11	0.2059	0.3300	37.6	12	0.0062	0.1533	96.0
13	0.1330	0.2100	36.7	14	0.0130	0.1314	90.1
15	0.0758	0.1500	49.5	16	0.0079	0.1150	93.1
17	0.0460	0.1324	65.3	18	0.0065	0.1022	93.6
19	0.0436	0.1184	63.1	20	0.0084	0.0920	90.9
21	0.0485	0.1071	54.7	22	0.0038	0.0836	95.4
23	0.0462	0.0978	52.7	24	0.0060	0.0767	92.1
25	0.0367	0.0900	59.2	26	0.0045	0.0708	93.7
27	0.0250	0.0833	70.0	28	0.0034	0.0657	94.8
29	0.0148	0.0776	80.9	30	0.0047	0.0613	92.3
31	0.0134	0.0726	81.6	32	0.0027	0.0575	95.3
33	0.0162	0.0682	76.3	34	0.0035	0.0541	93.6
35	0.0165	0.0643	74.4	36	0.0031	0.0511	93.9
37	0.0146	0.0608	75.9	38	0.0021	0.0484	95.6
39	0.0101	0.0577	82.5	40	0.0029	0.0460	93.6



ECOSYS P3060dn (Maximum)

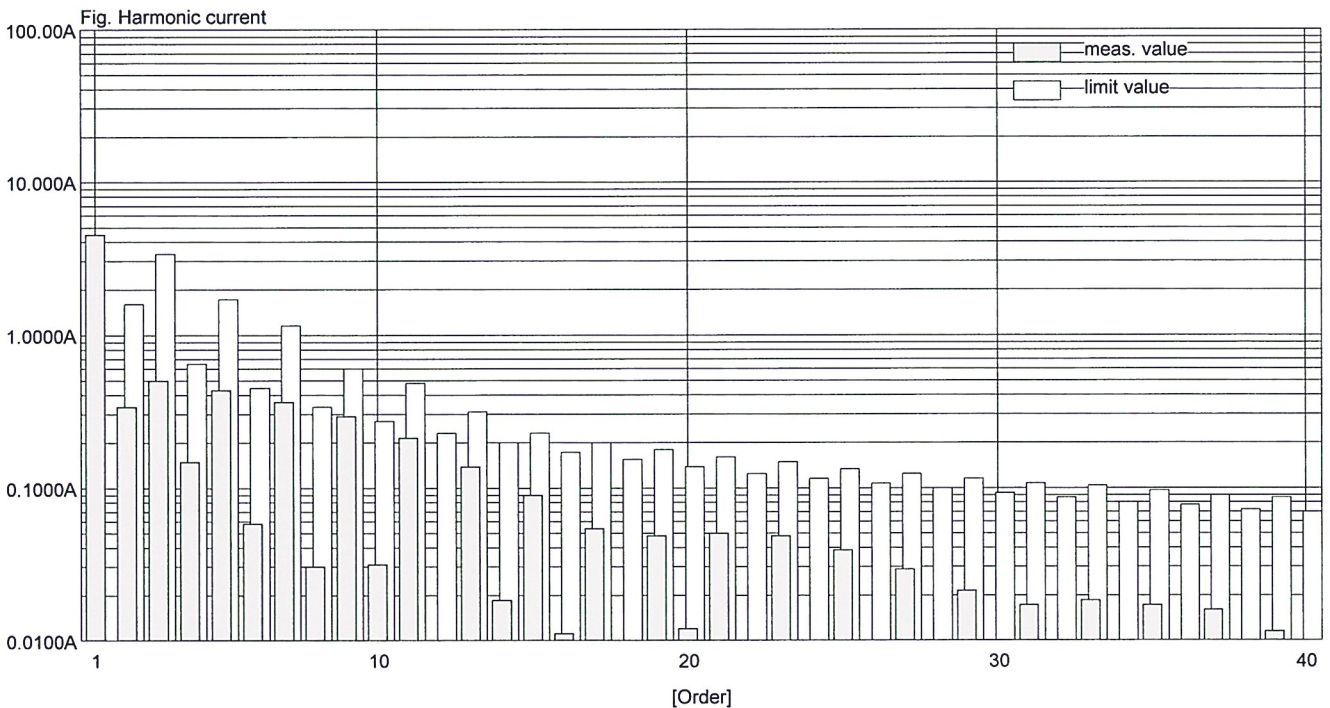
Print Date : Mon Aug 01 17:19:53 2016
MeasureDate : Mon Aug 01 17:19:27 2016
Comment : Option:PF-320*4
1side print

Regulation : IEC61000-3-2 Ed3.0 am2
CLASS A
MeasureTime : 150.00sec
Model : YOKOGAWA WT3000
Rating Voltage : 230.00 V
Wiring : single-phase 2-wire
Element : 1
Range : 300V/30A
Current(rms) : 4.6458 A
Voltage(rms) : 229.51 V
Frequency : 50.008 Hz
Power Factor : 0.9824
Beyond Limit Time : 14.9999 s
Beyond Total Time : 0.0000 s
THC : 0.9287 A

PASS

Set Fundamental I : -----
Set Power Factor : -----
Set P : -----
Sigma W Max : 1046.470 W
Sigma PF : 0.9824
Distortion factor(V) : 0.09 %
V THDS : 0.09 %
V THDG : 0.09 %
Distortion factor(A) : 57.75 %
A THDS : 58.36 %
A THDG : 60.91 %
P THD : 0.03 %
Power Limit : 75 W

Order	Measure[A]	Limit[A]	Margin[%]	Order	Measure[A]	Limit[A]	Margin[%]
1	4.5654			2	0.3387	1.6200	79.1
3	0.5047	3.4500	85.4	4	0.1481	0.6450	77.0
5	0.4391	1.7100	74.3	6	0.0588	0.4500	86.9
7	0.3713	1.1550	67.9	8	0.0305	0.3450	91.2
9	0.2913	0.6000	51.4	10	0.0317	0.2760	88.5
11	0.2127	0.4950	57.0	12	0.0083	0.2300	96.4
13	0.1394	0.3150	55.7	14	0.0187	0.1971	90.5
15	0.0887	0.2250	60.6	16	0.0111	0.1725	93.6
17	0.0538	0.1985	72.9	18	0.0089	0.1533	94.2
19	0.0480	0.1776	73.0	20	0.0119	0.1380	91.4
21	0.0509	0.1607	68.3	22	0.0047	0.1255	96.2
23	0.0482	0.1467	67.1	24	0.0084	0.1150	92.7
25	0.0390	0.1350	71.1	26	0.0061	0.1062	94.2
27	0.0291	0.1250	76.8	28	0.0046	0.0986	95.3
29	0.0215	0.1164	81.5	30	0.0065	0.0920	92.9
31	0.0173	0.1089	84.1	32	0.0035	0.0862	95.9
33	0.0187	0.1023	81.7	34	0.0048	0.0812	94.1
35	0.0174	0.0964	82.0	36	0.0042	0.0767	94.5
37	0.0158	0.0912	82.7	38	0.0030	0.0726	95.9
39	0.0116	0.0865	86.6	40	0.0040	0.0690	94.1



ECOSYS P3060dn (Average)

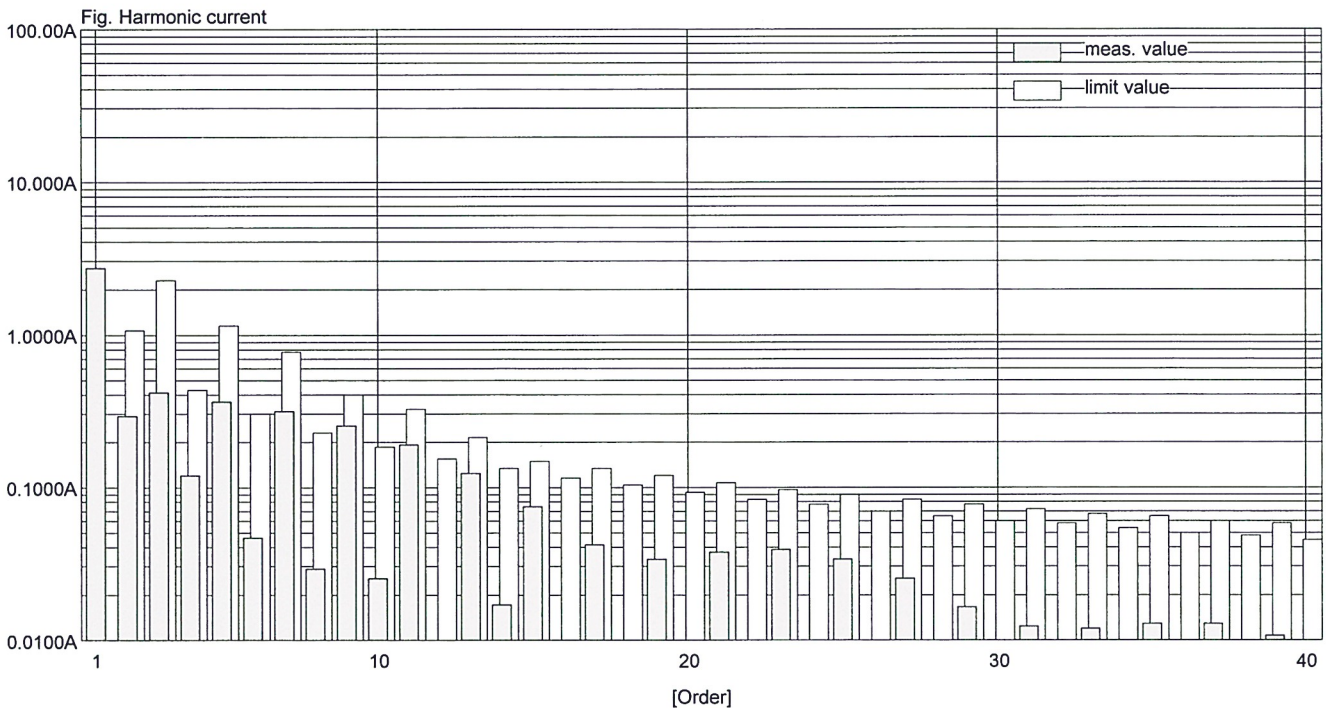
Print Date : Mon Aug 01 17:34:46 2016
MeasureDate : Mon Aug 01 17:34:32 2016
Comment : Option:PF-320*4
2side print

Regulation : IEC61000-3-2 Ed3.0 am2
CLASS A
MeasureTime : 149.80sec
Model : YOKOGAWA WT3000
Rating Voltage : 230.00 V
Wiring : single-phase 2-wire
Element : 1
Range : 300V/30A
Current(rms) : 2.8359 A
Voltage(rms) : 229.48 V
Frequency : 50.000 Hz
Power Factor : 0.9522
POHC Limit : 0.2514 A
POHC Max : 0.0812 A
THC : 0.8101 A

PASS

Set Fundamental I : -----
Set Power Factor : -----
Set P : -----
Sigma W Max : 760.0463 W
Sigma PF : 0.9522
Distortion factor(V) : 0.08 %
V THDS : 0.08 %
V THDG : 0.08 %
Distortion factor(A) : 29.52 %
A THDS : 31.28 %
A THDG : 32.66 %
P THD : 0.01 %
Power Limit : 75 W

Order	Measure[A]	Limit[A]	Margin[%]	Order	Measure[A]	Limit[A]	Margin[%]
1	2.7054			2	0.2936	1.0800	72.8
3	0.4253	2.3000	81.5	4	0.1201	0.4300	72.1
5	0.3718	1.1400	67.4	6	0.0468	0.3000	84.4
7	0.3183	0.7700	58.7	8	0.0295	0.2300	87.2
9	0.2528	0.4000	36.8	10	0.0259	0.1840	85.9
11	0.1882	0.3300	43.0	12	0.0098	0.1533	93.6
13	0.1257	0.2100	40.2	14	0.0169	0.1314	87.1
15	0.0751	0.1500	50.0	16	0.0088	0.1150	92.3
17	0.0429	0.1324	67.6	18	0.0098	0.1022	90.4
19	0.0341	0.1184	71.2	20	0.0097	0.0920	89.4
21	0.0380	0.1071	64.5	22	0.0053	0.0836	93.7
23	0.0388	0.0978	60.4	24	0.0079	0.0767	89.7
25	0.0341	0.0900	62.1	26	0.0049	0.0708	93.1
27	0.0255	0.0833	69.4	28	0.0054	0.0657	91.8
29	0.0168	0.0776	78.4	30	0.0055	0.0613	91.0
31	0.0126	0.0726	82.7	32	0.0037	0.0575	93.5
33	0.0118	0.0682	82.6	34	0.0049	0.0541	90.9
35	0.0128	0.0643	80.0	36	0.0035	0.0511	93.1
37	0.0128	0.0608	79.0	38	0.0035	0.0484	92.7
39	0.0106	0.0577	81.6	40	0.0036	0.0460	92.1



ECOSYS P3060dn (Maximum)

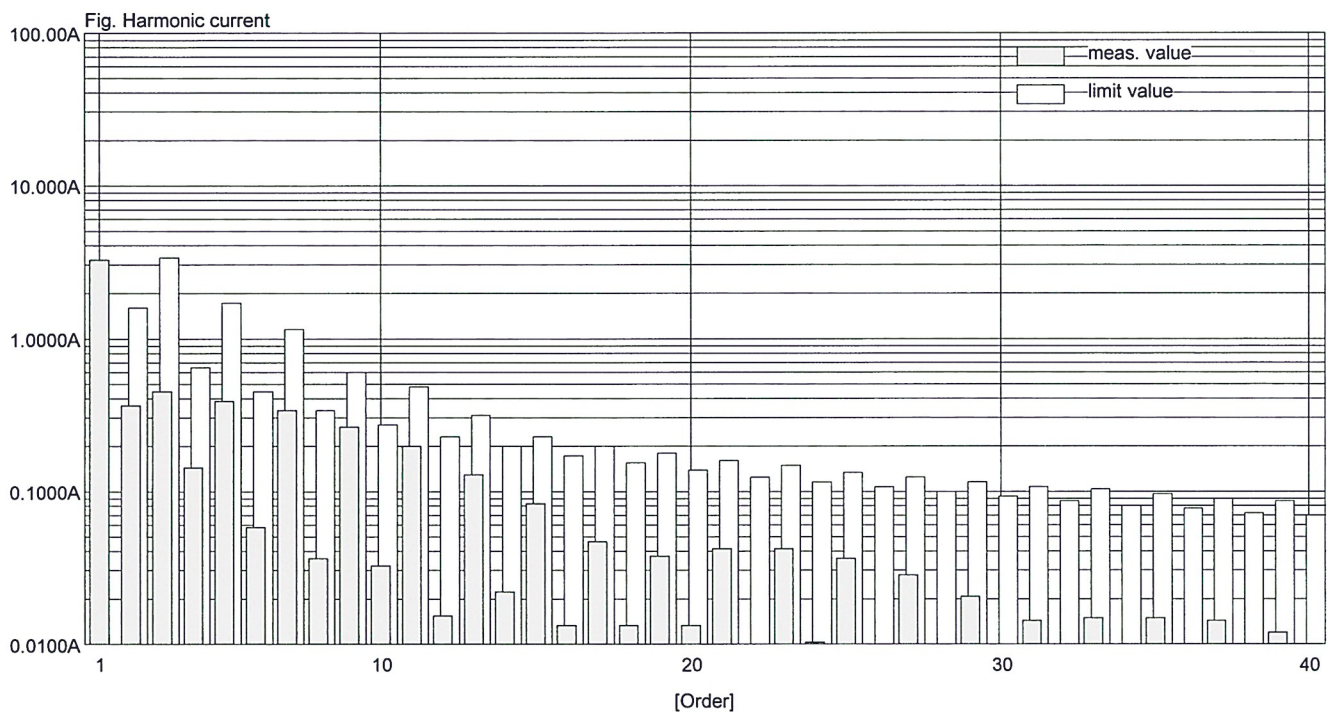
Print Date : Mon Aug 01 17:34:46 2016
MeasureDate : Mon Aug 01 17:34:32 2016
Comment : Option:PF-320*4
2side print

Regulation : IEC61000-3-2 Ed3.0 am2
CLASS A
MeasureTime : 149.80sec
Model : YOKOGAWA WT3000
Rating Voltage : 230.00 V
Wiring : single-phase 2-wire
Element : 1
Range : 300V/30A
Current(rms) : 3.4082 A
Voltage(rms) : 229.56 V
Frequency : 50.008 Hz
Power Factor : 0.9725
Beyond Limit Time : 14.9799 s
Beyond Total Time : 0.0000 s
THC : 0.8582 A

PASS

Set Fundamental I : -----
Set Power Factor : -----
Set P : -----
Sigma W Max : 760.0463 W
Sigma PF : 0.9725
Distortion factor(V) : 0.09 %
V THDS : 0.09 %
V THDG : 0.09 %
Distortion factor(A) : 56.29 %
A THDS : 56.91 %
A THDG : 59.56 %
P THD : 0.03 %
Power Limit : 75 W

Order	Measure[A]	Limit[A]	Margin[%]	Order	Measure[A]	Limit[A]	Margin[%]
1	3.3143			2	0.3670	1.6200	77.3
3	0.4548	3.4500	86.8	4	0.1454	0.6450	77.5
5	0.3944	1.7100	76.9	6	0.0583	0.4500	87.1
7	0.3357	1.1550	70.9	8	0.0365	0.3450	89.4
9	0.2653	0.6000	55.8	10	0.0330	0.2760	88.0
11	0.1961	0.4950	60.4	12	0.0154	0.2300	93.3
13	0.1299	0.3150	58.8	14	0.0217	0.1971	89.0
15	0.0825	0.2250	63.3	16	0.0134	0.1725	92.2
17	0.0478	0.1985	75.9	18	0.0131	0.1533	91.4
19	0.0381	0.1776	78.6	20	0.0132	0.1380	90.5
21	0.0429	0.1607	73.3	22	0.0081	0.1255	93.5
23	0.0419	0.1467	71.5	24	0.0104	0.1150	90.9
25	0.0361	0.1350	73.3	26	0.0074	0.1062	93.0
27	0.0280	0.1250	77.6	28	0.0074	0.0986	92.5
29	0.0207	0.1164	82.2	30	0.0077	0.0920	91.6
31	0.0144	0.1089	86.8	32	0.0056	0.0862	93.5
33	0.0150	0.1023	85.4	34	0.0068	0.0812	91.7
35	0.0151	0.0964	84.3	36	0.0055	0.0767	92.8
37	0.0142	0.0912	84.4	38	0.0054	0.0726	92.6
39	0.0119	0.0865	86.2	40	0.0055	0.0690	92.0



EN61000-3-3/2013
(EN 301 489-1 V1.9.2 <8.6>)
Voltage Fluctuations/Flicker Measurement

<i>Equipment</i>	<i>Model</i>	<i>Serial No.</i>
Printer	ECOSYS P3060dn	Z9T6500001
Paper Feeder	PF-320	NUR6507786
	PF-320	NUR6507183
	PF-320	NUR6507766
	PF-320	NUR6507763
	PF-3100	ZQT6700012
Paper Feeder Base	PB-325	NYV6601798
Printer NIC	IB-50	TEST-1
	IB-51	TEST-1
	IB-32B	TEST-1
HDD	HD-6	TEST-1
	HD-7	TEST-1
Wireless Network Unit	IB-36	TEST-1

Date : 29 July, 2016
 Temperature : 25°C
 Humidity : 59%
 Atom. Pressure : 1018hPa
 Testing Place : Kyocera Document Solutions CE Test Room
 Power Input : AC230V, 50Hz
 Tested by : *Shinya Fujimoto* 藤本真也

This test was applied as follows.

<i>Evaluate item</i>	<i>Limit</i>	<i>Result</i>
Relative steady-state voltage change	$d_c \leq 3.3\%$	Pass
Maximum relative voltage change	$d_{\max} \leq 4\%$	
Relative voltage change characteristic	$dt \leq 500\text{ms}$	
Short-term flicker indicator	$P_{ST} \leq 1$	
Long-term flicker indicator	$P_{LT} \leq 0.65$	

Test equipment used : Analyzing System : WT3000 (Yokogawa Electric Corporation)

ECOSYS P3060dn

Print Date : Fri Jul 29 12:58:58 2016
MeasureDate : Fri Jul 29 12:34:50 2016
Comment : Option:PF-320/IB-51/IB-35/DDR3-DIMM-Memory
SD-Card

Ready

Regulation : IEC61000-3-3 Ed3.0
IEC61000-4-15 Ed2.0
Interval : 10Min0Sec
Model : YOKOGAWA WT3000
Wiring : single-phase 2wire
Voltage Range : 300.00V
Set Voltage : 230V
Set Frequency : 50Hz
Voltage U1 : 229.74V
Frequency U1 : 50.000Hz
Element : 1
dmin : 0.10%

PASS(Under dmin)

Element1 : Pass(Under dmin)
dc (3.30%) : Pass
dmax (4.00%) : Pass
Tmax (500ms) : Pass
Pst (1.00) : Pass
Plt (0.65) : Pass

No.	dc[%]	dmax[%]	Tmax[ms]	Pst
1	0.77	2.42	0.00	0.27
2	0.00	0.00	0.00	0.07
3	0.00	0.00	0.00	0.07
4	0.00	0.00	0.00	0.07
5	0.00	0.00	0.00	0.07
6	0.00	0.00	0.00	0.07
7	0.00	0.00	0.00	0.07
8	0.00	0.00	0.00	0.07
9	0.00	0.00	0.00	0.07
10	0.00	0.00	0.00	0.07
11	0.00	0.00	0.00	0.07
12	0.00	0.00	0.00	0.07

Plt
0.13

ECOSYS P3060dn

Print Date : Fri Jul 29 17:33:02 2016
MeasureDate : Fri Jul 29 17:31:39 2016
Comment : Simplex Print
Option:PF-320/IB-51/IB-35/DDR3-DIMM-Memory
SD-Card

Regulation : IEC61000-3-3 Ed3.0
IEC61000-4-15 Ed2.0
Interval : 10Min0Sec
Model : YOKOGAWA WT3000
Wiring : single-phase 2wire
Voltage Range : 300.00V
Set Voltage : 230V
Set Frequency : 50Hz
Voltage U1 : 227.81V
Frequency U1 : 50.000Hz
Element : 1
dmin : 0.10%

PASS

Element1 : Pass
dc (3.30%) : Pass
dmax (4.00%) : Pass
Tmax (500ms) : Pass
Pst (1.00) : Pass
Plt (0.65) : Pass

No.	dc[%]	dmax[%]	Tmax[ms]	Pst
1	0.82	2.77	0.00	0.65
				Plt
				0.28

ECOSYS P3060dn

Print Date : Fri Jul 29 17:20:02 2016
MeasureDate : Fri Jul 29 17:19:38 2016
Comment : Duplex Print
Option:PF-320/IB-51/IB-35/DDR3-DIMM-Memory
SD-Card

Regulation : IEC61000-3-3 Ed3.0
IEC61000-4-15 Ed2.0
Interval : 10Min0Sec
Model : YOKOGAWA WT3000
Wiring : single-phase 2wire
Voltage Range : 300.00V
Set Voltage : 230V
Set Frequency : 50Hz
Voltage U1 : 227.72V
Frequency U1 : 50.000Hz
Element : 1
dmin : 0.10%

PASS

Element1 : Pass
dc (3.30%) : Pass
dmax (4.00%) : Pass
Tmax (500ms) : Pass
Pst (1.00) : Pass
Plt (0.65) : Pass

No.	dc[%]	dmax[%]	Tmax[ms]	Pst
1	0.90	2.09	0.00	0.63

Plt
0.27