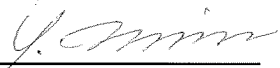
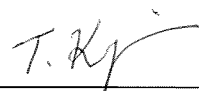



Prüfbericht - Nr.: 50016223 003			Seite 1 von 8 Page 1 of 8		
<i>Test Report No.:</i>					
Auftraggeber:			KYOCERA Document Solutions Inc.		
<i>Client:</i>			1-2-28 Tamatsukuri, Chuo-ku ,Osaka-shi,Osaka,540-8585 Japan		
Gegenstand der Prüfung: Multi Function Printer					
<i>Test item:</i>					
Bezeichnung:		ECOSYS M6535cidn		Serien-Nr.:	
<i>Identification:</i>				<i>Serial No.:</i>	
Wareneingangs-Nr.:		A000115322-001		Eingangsdatum:	
<i>Receipt No.:</i>				<i>Date of receipt:</i>	
Zustand des Prüfgegenstandes bei Anlieferung:				Prüfmuster vollständig und unbeschädigt	
<i>Condition of the test item at delivery:</i>				<i>Test item complete and undamaged</i>	
Prüfort:		TÜV Rheinland Japan Ltd.			
<i>Testing location:</i>		4-25-2, Kita-Yamata, Tuzuki-ku, Yokohama 224-0021, Japan Phone:+81-45-914-0239 Fax:+81-45-914-3347 e-mail: telecom-lab@jpn.tuv.com			
Prüfgrundlage:		EG 201 120 V1.1.1 (1998 - 01)			
<i>Test specification:</i>					
Prüfergebnis:		Der Prüfgegenstand entspricht oben genannter Prüfgrundlage(n).			
<i>Test Result:</i>		<i>The test item passed the test specification(s).</i>			
Prüflaboratorium:		TÜV Rheinland Japan Ltd.			
<i>Testing Laboratory:</i>		4-25-2, Kita-Yamata, Tuzuki-ku, Yokohama 224-0021, Japan Phone:+81-45-914-0239 Fax:+81-45-914-3347 e-mail: telecom-lab@jpn.tuv.com			
geprüft/ tested by:			kontrolliert/ reviewed by:		
2014-11-05, Y.Miura 			2014-11-05, T.Kuriyama 		
Datum	Name/Stellung	Unterschrift	Datum	Name/Stellung	Unterschrift
<i>Date</i>	<i>Name/Position</i>	<i>Signature</i>	<i>Date</i>	<i>Name/Position</i>	<i>Signature</i>
Sonstiges/ Other Aspects:					
Accredited Testing Laboratory under the terms of ISO 17025 D-PL-12059-01-03					
 Deutsche Akkreditierungsstelle					
* Legende: 1 = sehr gut 2 = gut 3 = befriedigend 4 = ausreichend 5 = mangelhaft P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet Legend: 1 = very good 2 = good 3 = satisfactory 4 = sufficient 5 = poor P(ass) = passed a.m. test specification(s) F(ail) = failed a.m. test specification(s) N/A = not applicable N/T = not tested					
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.</i>					

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Appliance documentation	3	
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Test Sample Configuration	3	
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Summary Report	6	
Appendix A: Measurement results	31	pages
Appendix B: Description of the equipment	0	pages
Appendix C: Circuit Diagrams.....	0	pages
Appendix D: Photographs	0	pages

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Test result:

No deviations have been found from the technical requirements during the tests. ☒

The deviations from the technical requirements found during the tests are enclosed this report. ☐

Climatic conditions during testing

Temperature: 23 - 25 °C
Air pressure: 1020 - 1020 hPa
Humidity: 45 - 55 %

Appliance documentation

Hardware: -
Software: -
User manual: ECOSYS M6535cidn Specifications
Circuit diagram: FAX SUB PCB(1/1)

Test system configuration

Hardware: ECOSYS M6535cidn
Software: 004.001

Test Sample Configuration

☐ One - Port - TE (only a1/b1)
☒ Two - Port TE (a1/b1 and a2/b2)

☒ DTMF dialling function
☐ Decadic pulse dialling function

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Test Report No.:

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Measurement equipment list

Measuring instrument	Identification	Calibration Date
ESP Automatic Measurement System AMS	TL-9000	2014-01-21
ESP Outband Receiver and Ringer Amplifier ARE1000	TL-9001	2014-01-21
ESP International Feeding Bridge ISB1000	TL-9002	2014-01-21
Fluke Digital True RMS Multimeter	TL-9122	2014-10-14
Tektronix Oscilloscope TDS210	TL-9008	2014-05-22
Tektronix/ Voltage Probe I / II	TL-9036, TL-9037	2014-05-22
TRJ Connector Box	TL-9010	2014-02-28
TRJ Resistor Box	TL-9011	2014-02-28
ESP Reference Impedance Zref-quer TBR21, Type28	TL-9020, TL-9021	2014-02-28
ESP Reference Impedance Zref-längs TBR21, Type 29	TL-9022	2014-02-28
ESP Reference Impedance 150 Ohm crosswise, Type 50	TL-9033	2014-01-15
ESP Polarity Switch	TL-9042	2014-02-28
ESP Reference Impedance Z-Ref.\EG201120 - 4k Ohm crosswise	TL-9047	2014-01-15
ESP Reference Impedance Z-Ref.\EG201120 - 4k Ohm length balanced	TL-9048	2014-01-15

Measurement uncertainties

	Measuring	Measurement Uncertainty K=2
6.2-1	Resistance to earth	Resistance : $\pm 0.19 \text{ M}\Omega$
6.2-2	Impedance to earth at 50 Hz	Impedance Z : $\pm 2 \%$
6.2-3	DC resistance	DC Voltage : $\pm 0.81 \text{ V}$ Current : $\pm 1.5 \mu\text{A}$
6.2-4	Lowest impedance at 25Hz and 50Hz	Impedance : $\pm 54 \Omega$
6.2 - 5 a	Lowest impedance 0.3 – 3.4kHz, Z(f)	Impedance : $\pm 35 \Omega$
6.2 - 5 b	Lowest impedance at 12kHz and 16kHz	Impedance : $\pm 35 \Omega$
6.2 - 6	DC current during ringing	DC Voltage : $\pm 0.55 \text{ V}$ DC current : $\pm 0.094 \text{ mA}$
6.2 - 7-1	Lowest unbalance loss about earth 50-3400Hz (Quiescent, Loop)	Impedance unbalance: $\pm 1.1 \text{ dB}$
6.2 - 7-2	Lowest unbalance loss about earth 50-3400Hz (Transferred)	Impedance unbalance: $\pm 1.1 \text{ dB}$
6.2 - 8-1	Noise (Quiescent)	"Limit = -80dB: Voltage: $\pm 0.02 \text{ mV}$ Limit = -37dB: Voltage: $\pm 1.56 \text{ mV}$ "
6.2 - 8-2	Noise (Transferred)	"Limit = -80dB Voltage: $\pm 0.02 \text{ mV}$ Limit = -37dB Voltage: $\pm 1.56 \text{ mV}$ "
6.3.2 – 1	DC series resistance	DC current : $\pm 0.2 \text{ mA}$ Resistance : $\pm 1.0 \Omega$
6.3.2 – 2	Insertion loss at 25Hz and 50Hz	Insertion loss : $\pm 0.095 \text{ dB}$
6.3.2 – 2	Insertion loss 0.3 – 3.4 kHz	Insertion loss : $\pm 0.095 \text{ dB}$
	Insertion loss 12kHz and 16kHz	Insertion loss : $\pm 0.095 \text{ dB}$

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Summary Report: EG 201 120

Table 1 : Parallel aspects of parallel/series connection						
Requirements					N/A N/T fail OK	Appendix A
Resistance to earth - TBR 21, A.4.4.4					<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	1
Measurement results:						
Wire	U	I	R	LF (1,000/R)		
1	100 V	< 2 µA	> 50 MΩ	20 LU		
2	100 V	< 2 µA	> 50 MΩ	20 LU		
Impedance to earth at 50 Hz - ETS 300 001, A.9.2.2.1					<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	-
Measurement results:						
Wire	U	I	Z	LF (20,000/Z)		
1	100 Vrms	< 5 µA	>20 kΩ	10 LU		
2	100 Vrms	< 5 µA	>20 kΩ	10 LU		
DC resistance - TBR 21, A.4.4.1					<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	2
Measurement results:						
U _{DC} (Normal)		I _{max}	R _{TE}	LF (100/R)		
25 V		< 2.5 µA	> 10 MΩ	10 LU		
100 V		< 10.0 µA	> 10 MΩ	10 LU		
U _{DC} (Inverse)		I _{max}	R _{TE}	LF (100/R)		
25 V		< 2.5 µA	> 10 MΩ	10 LU		
100 V		< 10.0 µA	> 10 MΩ	10 LU		
Lowest Impedance at 25 Hz and 50 Hz - TBR 21, A.4.4.2.1					<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	3
Measurement results:						
f	U		Z _{TE}	LF (400/Z _{TE})		
25 Hz	> 30 Vrms		49.5 kΩ	8.1 LU		
50 Hz	> 30 Vrms		48.4 kΩ	8.3 LU		
Lowest Impedance in the range 0.3 - 3.4 kHz - ETS 300 001, A.4.1.1					<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	4-5
Measurement results:						
frequency range	U		Z (min.)	LF (1,000/Z)		
300 Hz – 3400 Hz	1.0 Vrms		39.5 kΩ	25.3 LU		
Lowest Impedance at 12 kHz and 16 kHz ± 1% - ETS 300 001, A.4.1.1					<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	6-9
Measurement results:						
frequency range	U		Z (min.)	LF (1,000/Z)		
11.88 kHz - 12.12 kHz	1.0 Vrms		14.4 kΩ	69.4		
15.84 kHz - 16.16 kHz	1.0 Vrms		10.8 kΩ	92.6		

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Test Report No.:

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Table 1 : Parallel aspects of parallel/series connection				
Requirements			N/A N/T fail OK	Appendix A
DC current during ringing - TBR 21, A.4.4.2.3 Measurement results: f I _{DC} (max.) LF (100×I _{DC} /0.6) 25 Hz < 0.06 mA 10 LU 50 Hz < 0.06 mA 10 LU			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	10
Lowest unbalance loss about earth - TBR 21, A.4.4.3 Quiescent state Measurement results: frequency range LCL (min.) LF (100×10 ^{(46-LCL)/20}) 50 Hz - 3,400 Hz 58.5 dB 23.7 LU			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	11-13
Lowest unbalance loss about earth - TBR 21, A.4.7.4 Loop state Measurement results: frequency range LCL (min.) LF (100×10 ^{(46-LCL)/20}) 50 Hz - 3,400 Hz 64.0 dB 12.6 LU			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	14-16
Lowest unbalance loss about earth – ETS 300 001, A.4.2.2.2 Transferred state Measurement results: frequency range LCL (min.) LF (100×10 ^{(46-LCL)/20}) 50 Hz - 3,400 Hz 61.0 dB 17.8 LU			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	17-20
Inband Noise (Psophometrically weighted) - ETS 300 001, A.4.5.1 Measurement results: Quiescent state N LF (100×10 ^{(64+N)/20}) -102.8 dBmp 0.01 LU Loop state -93.2 dBmp 0.12 LU			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	21-22
Maximum Loading factor: 92.6 LU			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	-

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Table 2 : Recommended maximum values for series connected TEs			
Requirements	N/A N/T fail OK	Appendix A	
DC series resistance - ETS 300 001, A.2.5 Recommended maximum value: 50 Ω (DC feeding voltage: 50 Vdc, RL = 360 Ω) Measurement results: U 50 Vdc R 50 Ω	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	23	
Insertion loss at 25 Hz and 50 Hz - ETS 300 001, A.4.3 Recommended maximum value: 0.4 dB (Z = 4 k Ω) Measurement results: U ₁ 30 Vrms IL (20×logU ₁ /U ₂) 0.28 dB	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	24-25	
Insertion loss in the range 0.3 - 3.4 kHz - ETS 300 001, A.4.3 Recommended maximum value: 0.4 dB (Z = ZR) Measurement results: frequency range 300 Hz - 3400 Hz IL (max.) (20×logU ₁ /U ₂) 0.38 dB	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	26-27	
Insertion loss at 12 kHz and 16 kHz ± 1% - ETS 300 001, A.4.3 Recommended maximum value: 0.4 dB (Z = 200 Ω) Measurement results: frequency range 11.88 kHz - 12.12 kHz 15.84 kHz - 16.16 kHz IL (max.) (20×logU ₁ /U ₂) 0.31 dB 0.06 dB	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	28-31	

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Anlage A
Appendix A

Messergebnisse
Measuring results

Protocol for Resistance to earth

EG201120 - 6.2 Resistance to earth in quiescent and transfer state

=====

Model No. : M6535cidn
 TEUT : MFP Feeding bridge : TBR21
 Number of TEUT: 214054091
 Manufacturer : KYOCERA DS Inc.
 Date : 28.10.14
 Time : 13:19.53
 Data Set : EG201120-6.2
 Requirement : If a connection to earth is intended, the DC resistance between each line terminal of TE and earth shall be not less than 10 MOhm.
 Remark : ("E" means the socket "Plane" on the front side of the ARE1000.)

Verdict : PASS

Uf V	Rf Ω	Polarity	Ut V	Rt Ω	Measure	Limit MΩ	Current uA	Resistance MΩ
50.0	230	Normal	100.0	10000	b - E	10	< 2.0	> 50
50.0	230	Normal	-100.0	10000	b - E	10	< 2.0	> 50
50.0	230	Normal	100.0	10000	a - E	10	< 2.0	> 50
50.0	230	Normal	-100.0	10000	a - E	10	< 2.0	> 50
50.0	230	Inverted	100.0	10000	b - E	10	< 2.0	> 50
50.0	230	Inverted	-100.0	10000	b - E	10	< 2.0	> 50
50.0	230	Inverted	100.0	10000	a - E	10	< 2.0	> 50
50.0	230	Inverted	-100.0	10000	a - E	10	< 2.0	> 50

Protocol for DC resistance quiescent condition

EG201120 - 6.2 DC resistance in quiescent and transfer state

Model No. : M6535cidn

TEUT : MFP

Gain (internal) : +20.0 dB

Number of TEUT: 214054091

Manufacturer : KYOCERA DS Inc.

Date : 28.10.14

Time : 13:26.23

Data set : EG201120-6.2

Requirement : The current drawn by the TE shall not exceed that which would be drawn by a 1 MOhm resistor replacing the TE.

Remark : -

Verdict : PASS

Vt [V]	Rt [Ohm]	Polarity	Rl< [MOhm]	R [MOhm]			
25.0	1000	Normal	1.0	> 10	<	2.5	uA
25.0	1000	Inverted	1.0	> 10	<	2.5	uA
50.0	1000	Normal	1.0	> 10	<	5.0	uA
50.0	1000	Inverted	1.0	> 10	<	5.0	uA
100.0	1000	Normal	1.0	> 10	<	10.0	uA
100.0	1000	Inverted	1.0	> 10	<	10.0	uA

Protocol for Impedance of ringing devices

EG201120 - 6.2 Impedance of ringing devices

Model No. : M6535cidn Feeding voltage : 50.0 V
TEUT : MFP Feeding resistor: 2050.0 Ohm
Number of TEUT: 214054091
Manufacturer : KYOCERA DS Inc.
Date : 28.10.14
Time : 13:31.02

Data set : EG201120-6.2

Requirement : The impedance Z of the TE at frequencies of 25 Hz and 50 Hz shall not be less than 4.0 ... 999.0 kOhm when tested at 30 V rms.

Remark : -

Verdict : PASS

f Hz	Ute V	Z kΩ
---------	----------	---------

25	30.0	49.5
50	30.0	48.4

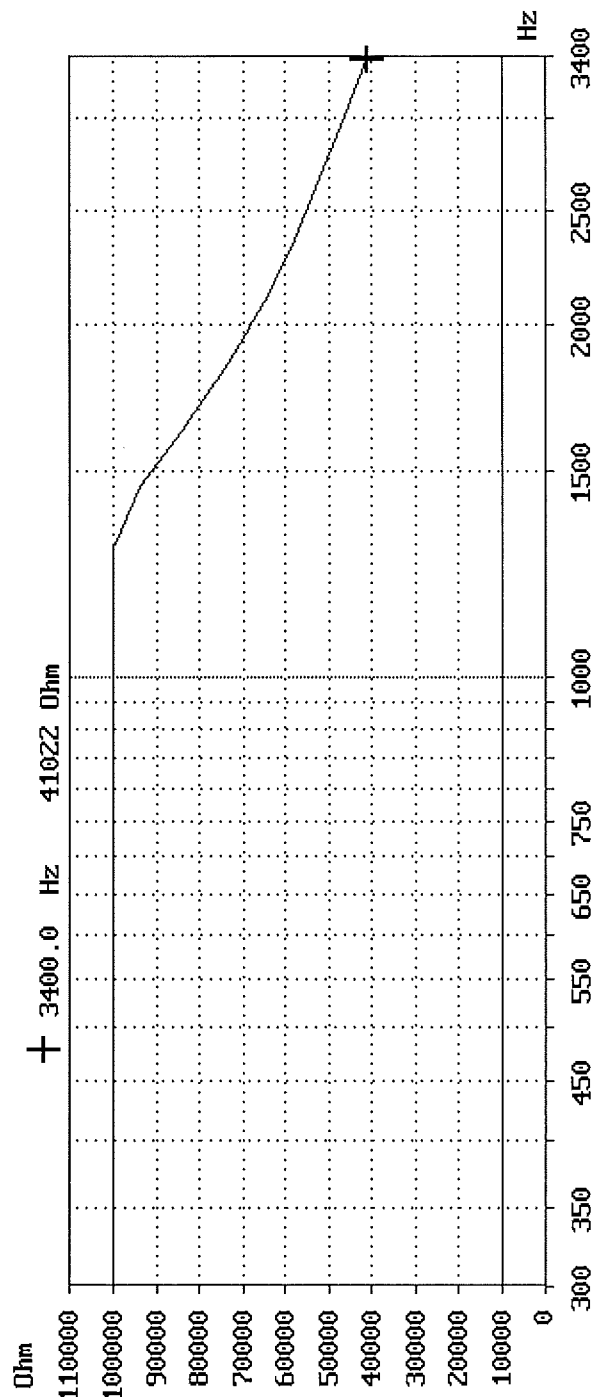
Modulus of impedance Z(f)

EG 201 120/6.2

Test Job : 214054091
 TEUT : MFP
 Manufacturer : KYOCERA DS Inc.
 Operator : Y. Miura
 Date : 28.10.14
 Time : 13:33.38

Current Limitation : 100.0 mA
 Feeding Voltage : 50.0 V
 Dropping Resistor : 2050.0 Ohm
 Polarity : Normal
 Level : +0.0 dBV

Remark : -
 Mask violations : 0
 Verdict : PASS

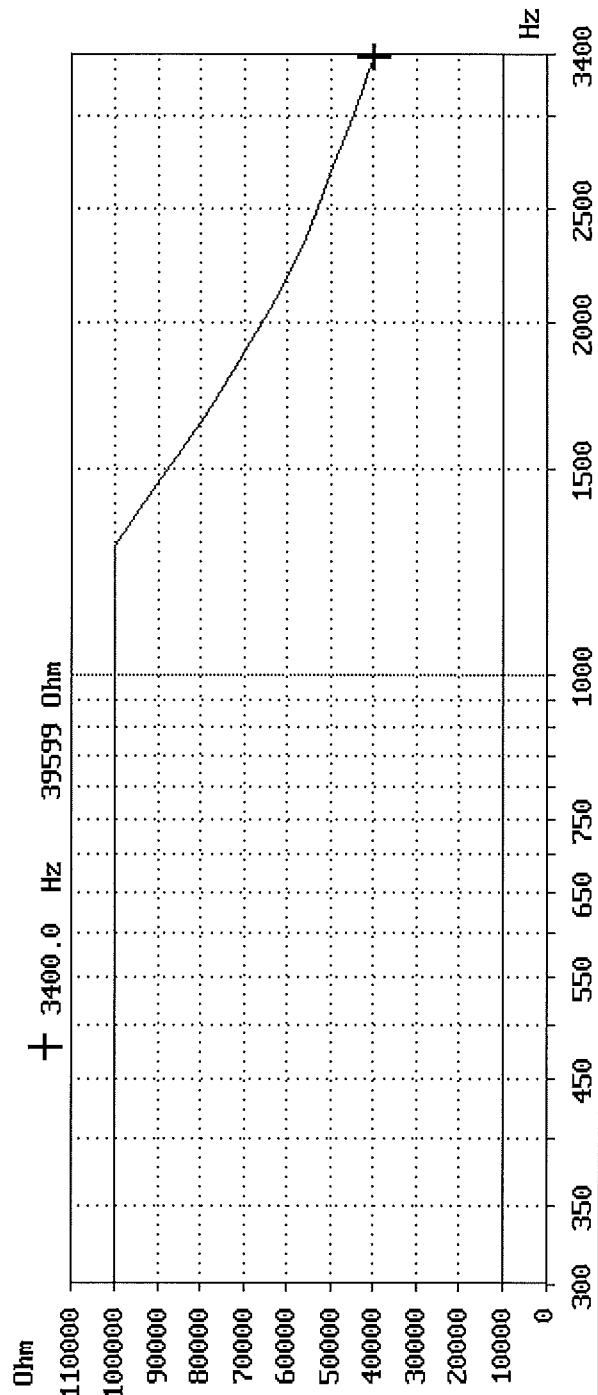


Modulus of impedance Z(f)

EG 201 120/6.2

Test Job	: 214054091	Current Limitation	: 100.0 mA
TEUT	: MFP	Feeding Voltage	: 50.0 V
Manufacturer	: KYOCERA DS Inc.	Dropping Resistor	: 2050.0 Ohm
Operator	: Y. Miura	Polarity	: Inverted
Date	: 28.10.14		
Time	: 13:42.17	Level	: +0.0 dBu

Remark : -
Mask violations : 0
Verdict : PASS

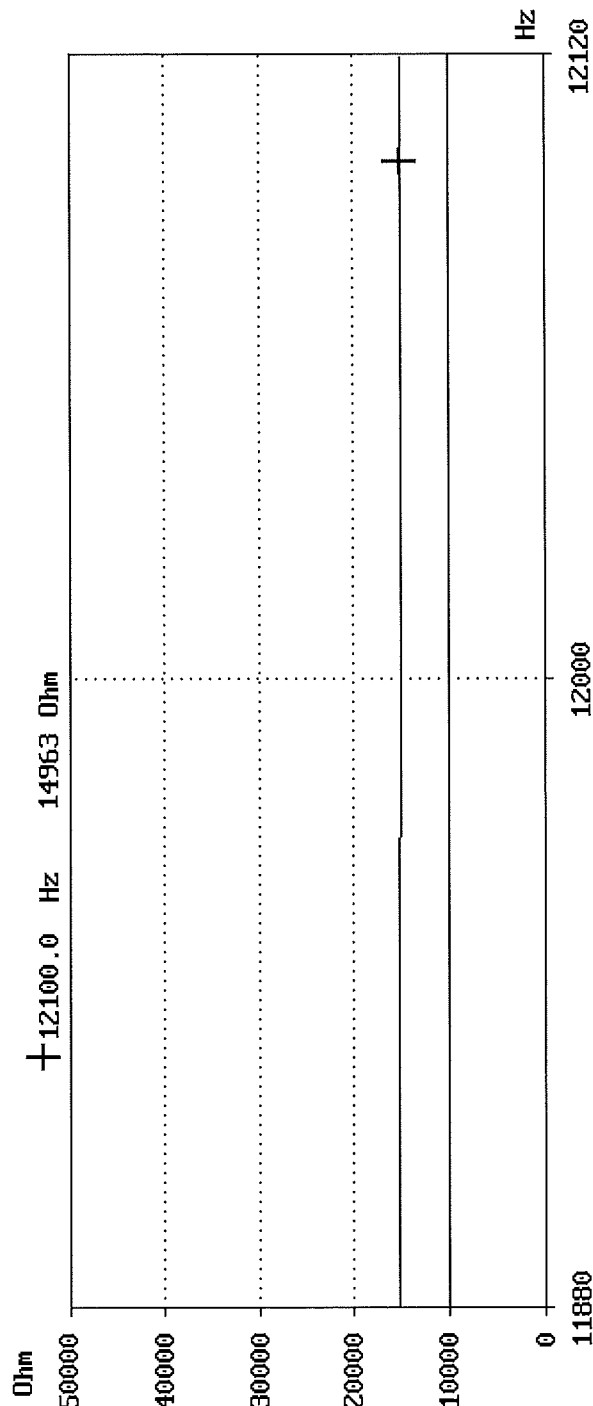


Modulus of impedance Z(f)

EG 201 120/6.2

Test Job	: 214054091	Current Limitation	: 100.0 mA
TEUT	: MFP	Feeding Voltage	: 50.0 V
Manufacturer	: KYOCERA DS Inc.	Dropping Resistor	: 2050.0 Ohm
Operator	: Y. Miura	Polarity	: Normal
Date	: 28.10.14	Level	: +0.0 dBV
Time	: 14:29.02		

Remark : -
Mask violations : 0
Verdict : PASS

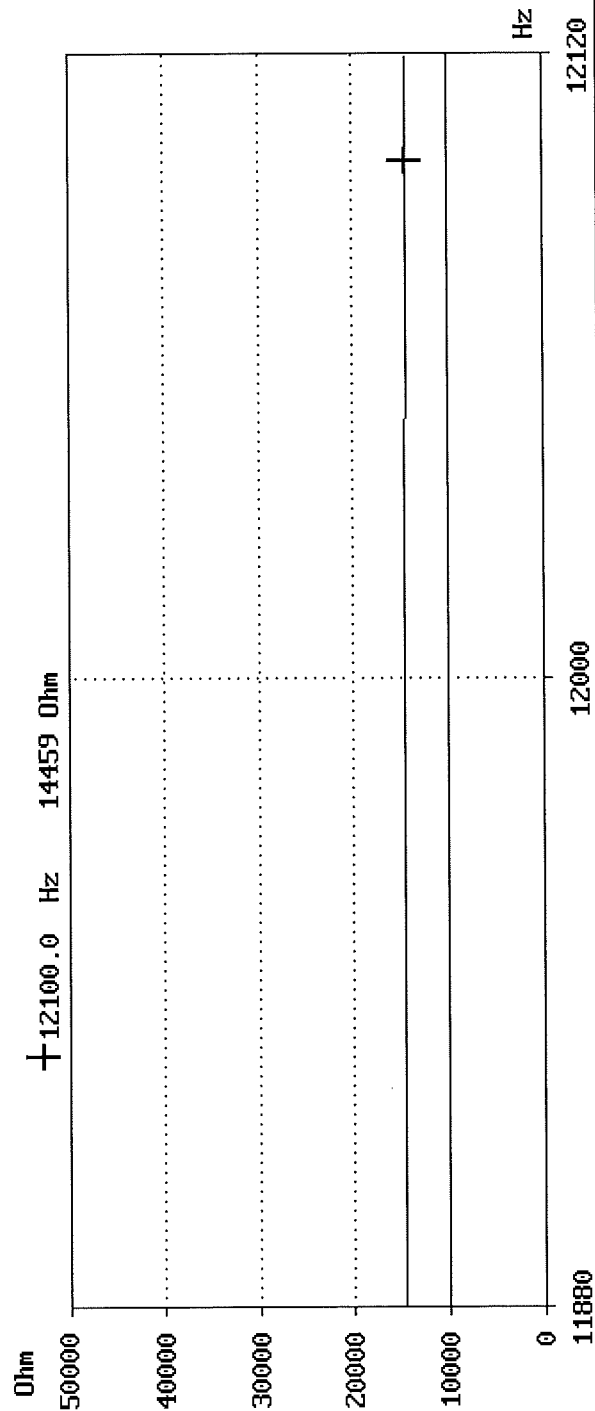


Modulus of impedance Z(f)

EG 201 120/6.2

Test Job	: 214054091	Current Limitation	: 100.0 mA
TEUT	: MFP	Feeding Voltage	: 50.0 V
Manufacturer	: KYOCERA DS Inc.	Dropping Resistor	: 2050.0 Ohm
Operator	: Y. Miura	Polarity	: Inverted
Date	: 28.10.14	Level	: +0.0 dBV
Time	: 14:30.28		

Remark : -
Mask violations : 0
Verdict : PASS

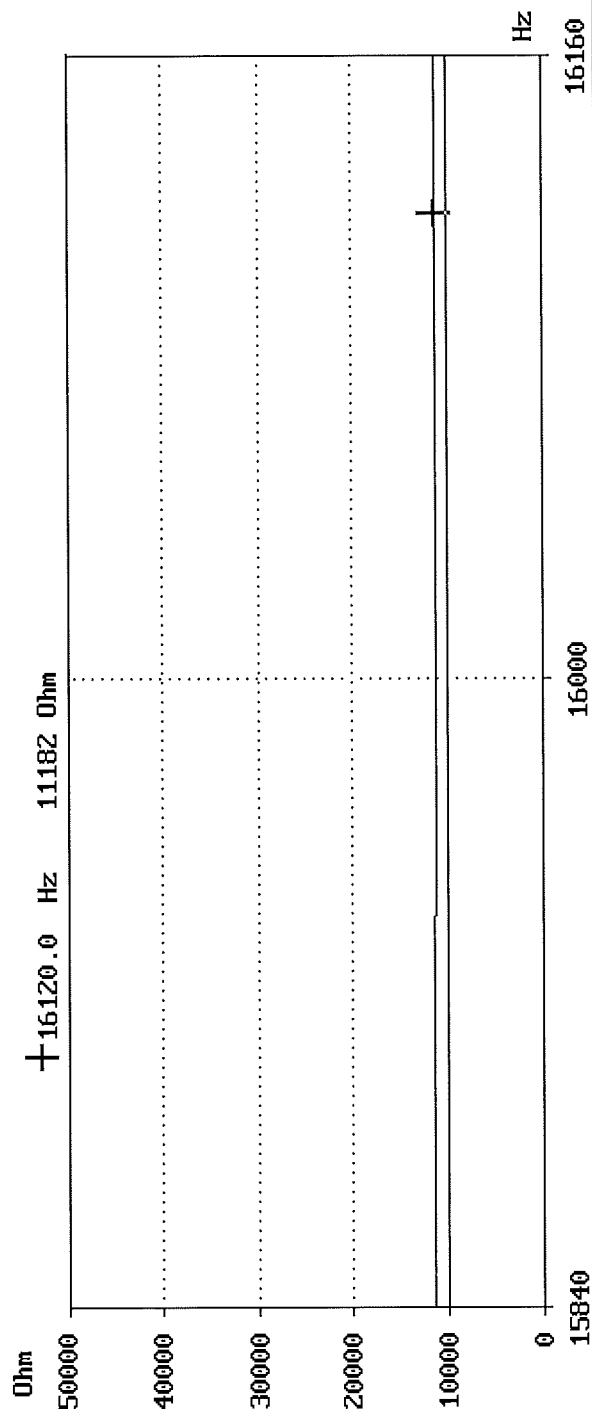


Modulus of impedance Z(f)

EG 201 120/6.2

Test Job	: 214054091	Current Limitation	: 100.0 mA
TEUT	: MFP	Feeding Voltage	: 50.0 V
Manufacturer	: KYOCERA DS Inc.	Dropping Resistor	: 2050.0 Ohm
Operator	: Y. Miura	Polarity	: Normal
Date	: 28.10.14	Level	: +0.0 dBV
Time	: 14:31.39		

Remark : -
Mask violations : 0
Verdict : PASS

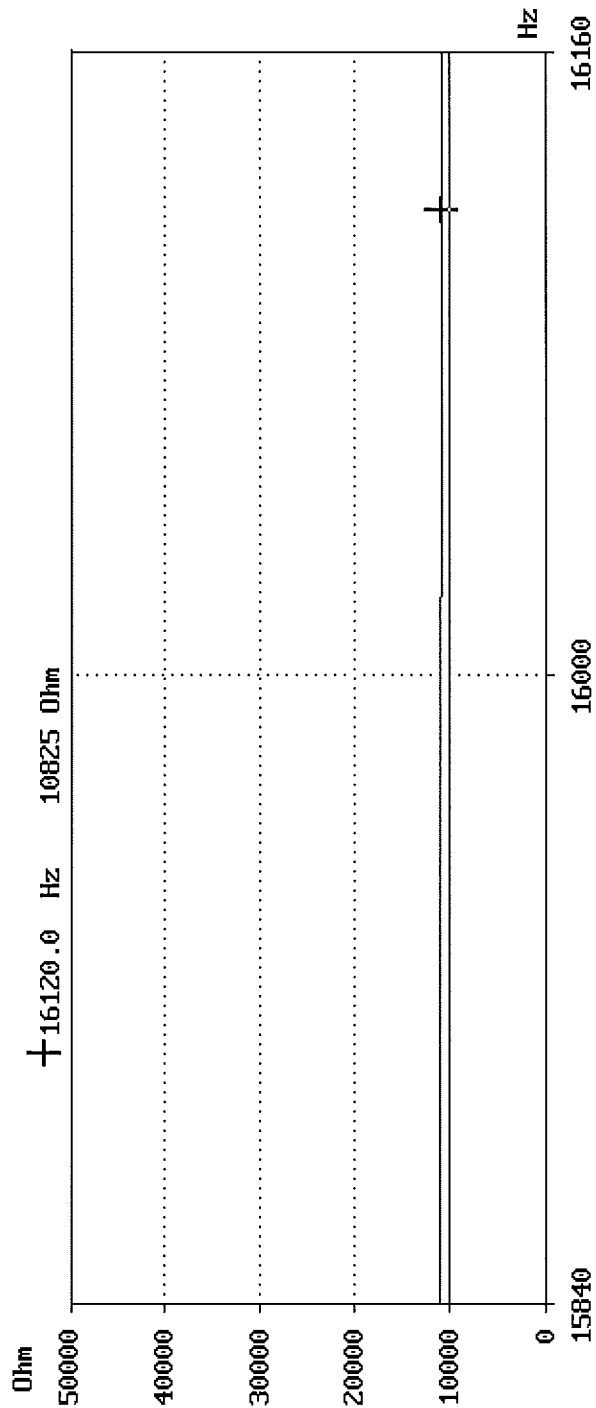


Modulus of impedance Z(f)

EG 201 120/6.2

Test Job	: 214054091	Current Limitation	: 100.0 mA
TEUT	: MFP	Feeding Voltage	: 50.0 V
Manufacturer	: KYOCERA DS Inc.	Dropping Resistor	: 2050.0 Ohm
Operator	: Y. Miura	Polarity	: Inverted
Date	: 28.10.14	Level	: +0.0 dBu
Time	: 14:32.49		

Remark : -
Mask violations : 0
Verdict : PASS



Protocol for DC current during ringing

EG201120 - 6.2 DC current during ringing

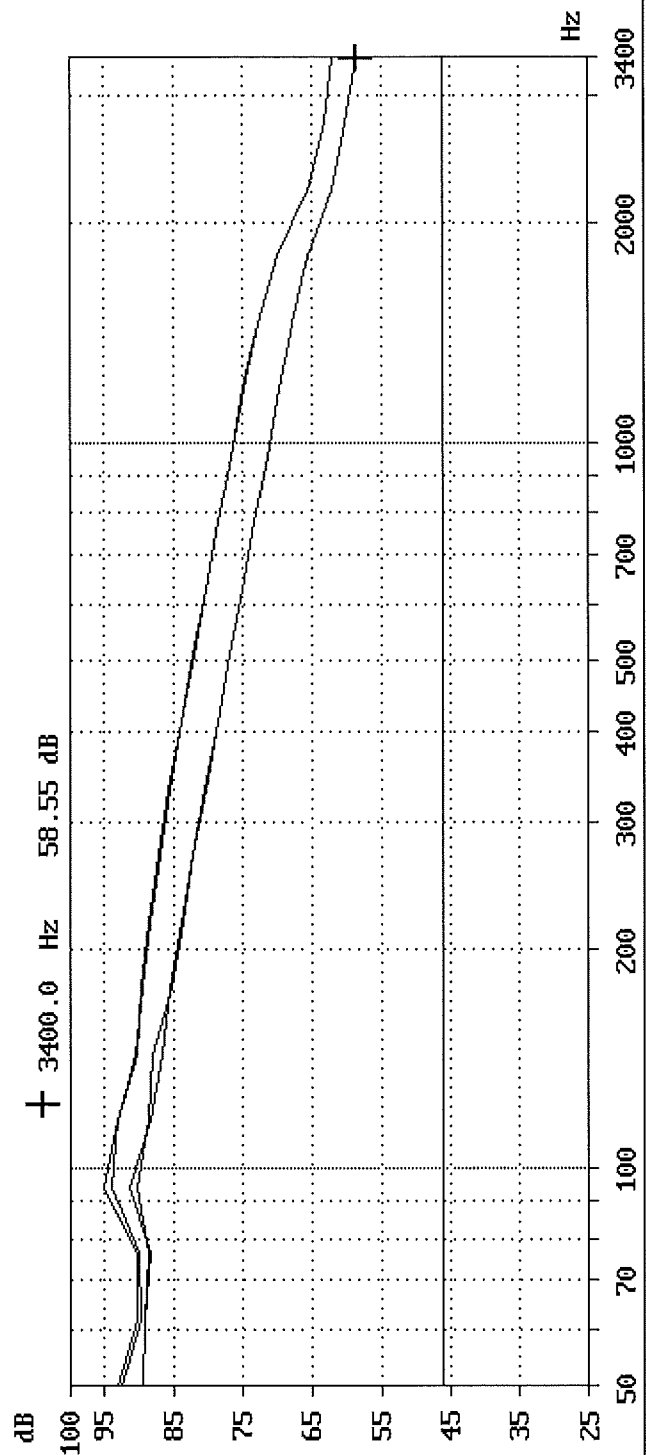
=====

Model No.	: M6535cidn	Feeding voltage :	60.0 V
TEUT	: MFP	Feeding resistor:	850 Ohm
Number of TEUT:	214054091	Polarity	: Normal
Manufacturer	: KYOCERA DS Inc.		
Date	: 28.10.14		
Time	: 15:12.05		
Data set	: EG201120-6.2		
Requirement	: The resulting DC current during the ringing signal shall be less 0.60 mA.		
Remark	: -		

Verdict : PASS

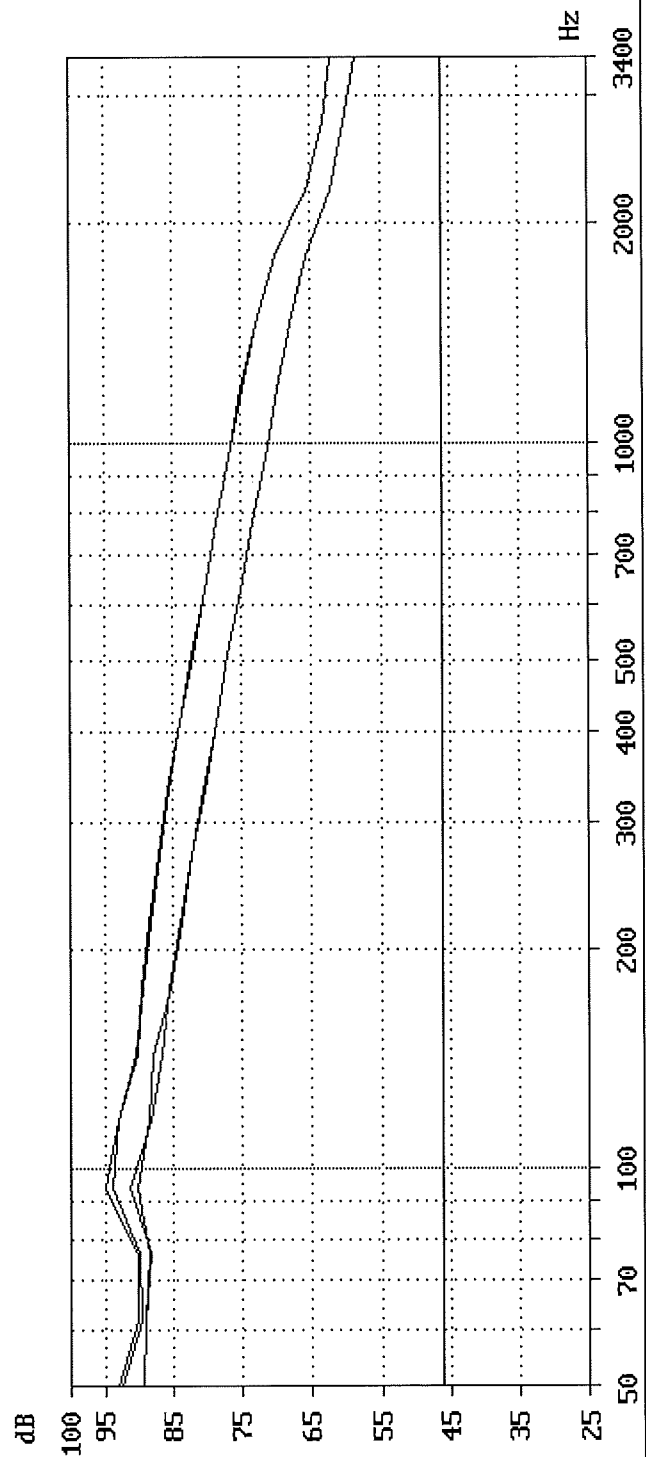
f Hz	Uac V	R kΩ	I mA
25	90.0	> 1Meg	< 0.06
50	90.0	> 1Meg	< 0.06

EG 201 120



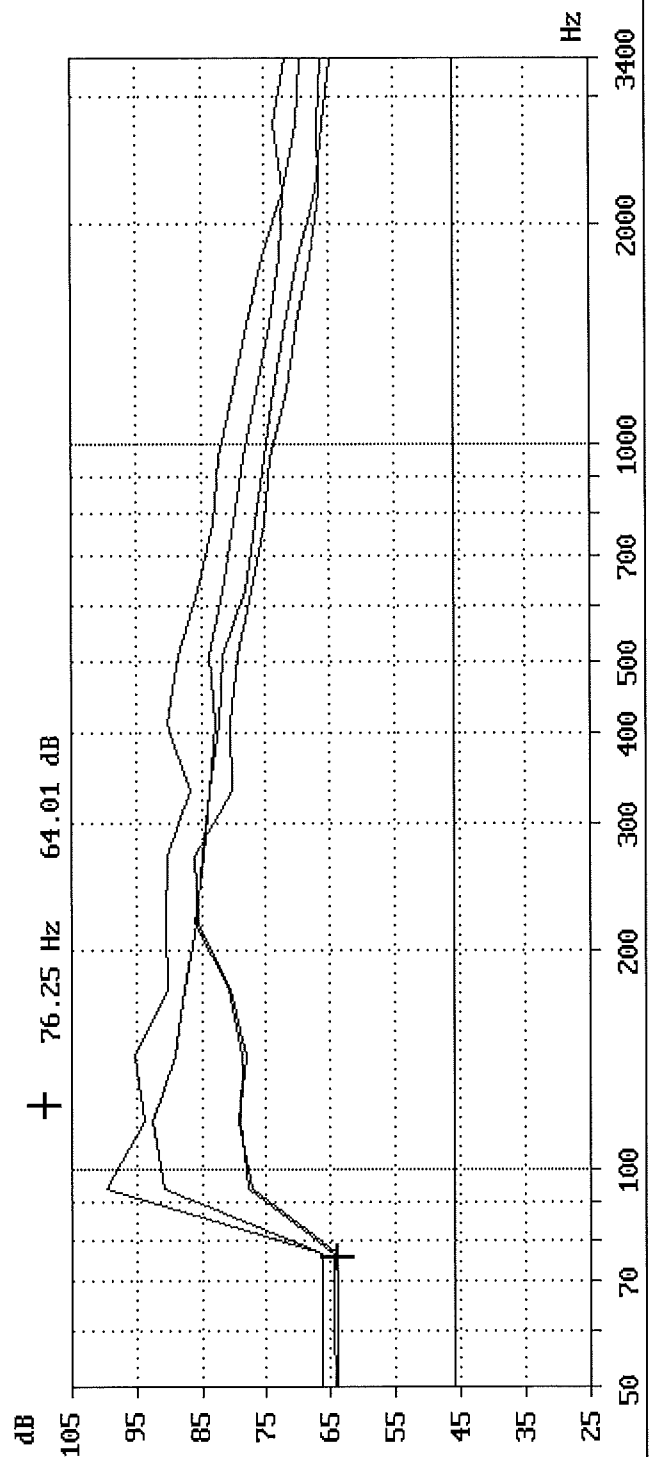
EG 201 120

Comission : 214054091
 Printing time : 28.10.14 15:20.06
 Graph 1 _____
 Graph 2 _____
 Graph 3 _____
 Graph 4 _____



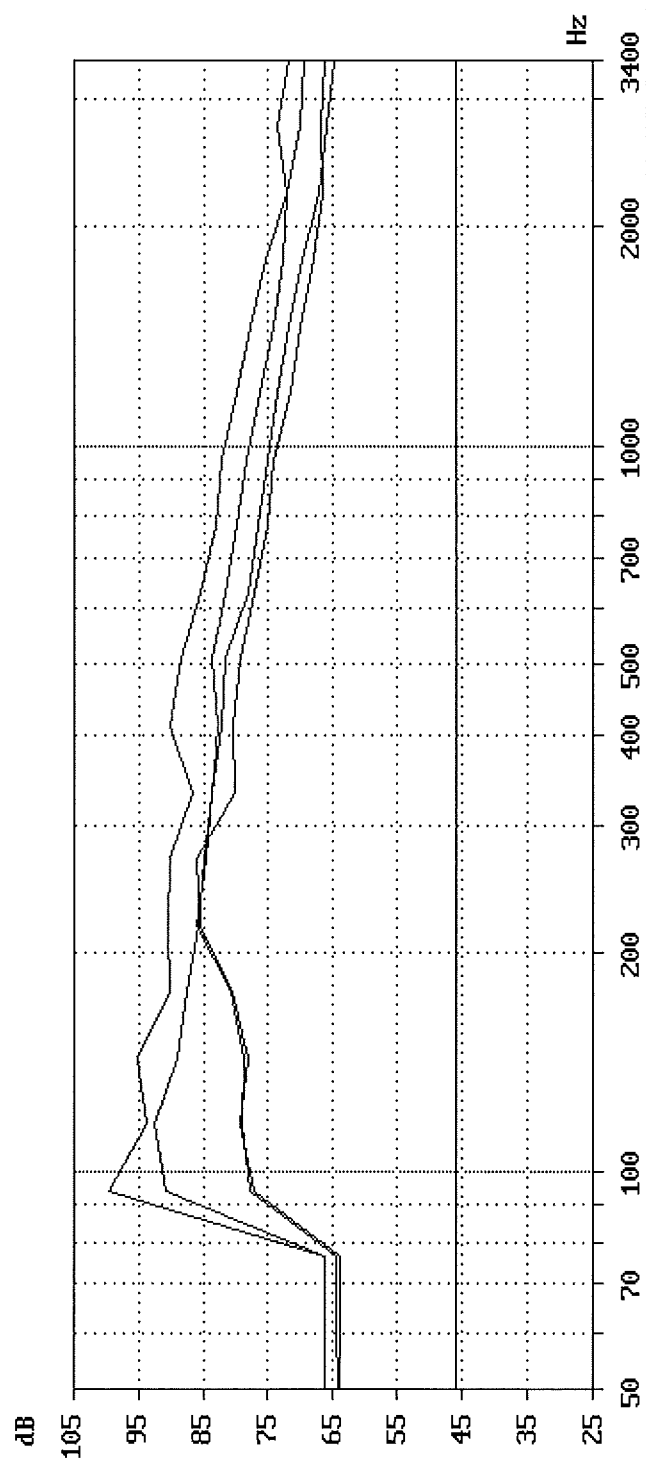
Longitudinal conversion loss Comission : 214054091		Printing time : 28.10.14 15:20.06	
Graph 1		Graph 2	
Test Job	Longitudinal conversion loss 214054091	Longitudinal conversion loss	Longitudinal conversion loss 214054091
TEUT	MFP		MFP
Manufacturer	KYOCERA DS Inc.		KYOCERA DS Inc.
Operator	Y. Miura		Y. Miura
Date	28.10.14		28.10.14
Time	15:18.10		15:18.36
Tol.mask violations	0		0
Verdict	PASS		PASS
Current Limitation	60.0 mA		60.0 mA
Feeding Voltage	50.0 V		50.0 V
Feeding Bridge	TBR21		TBR21
Feeding resistor	3200 Ohm		2050 Ohm
Level	+0.0 dB(0.775 V)		+0.0 dB(0.775 V)
Remark	-		-
Graph 3		Graph 4	
Test Job	Longitudinal conversion loss 214054091	Longitudinal conversion loss	Longitudinal conversion loss 214054091
TEUT	MFP		MFP
Manufacturer	KYOCERA DS Inc.		KYOCERA DS Inc.
Operator	Y. Miura		Y. Miura
Date	28.10.14		28.10.14
Time	15:19.01		15:19.24
Tol.mask violations	0		0
Verdict	PASS		PASS
Current Limitation	60.0 mA		60.0 mA
Feeding Voltage	50.0 V		50.0 V
Feeding Bridge	TBR21		TBR21
Feeding resistor	850 Ohm		230 Ohm
Level	+0.0 dB(0.775 V)		+0.0 dB(0.775 V)
Remark	-		-

EG 201 120



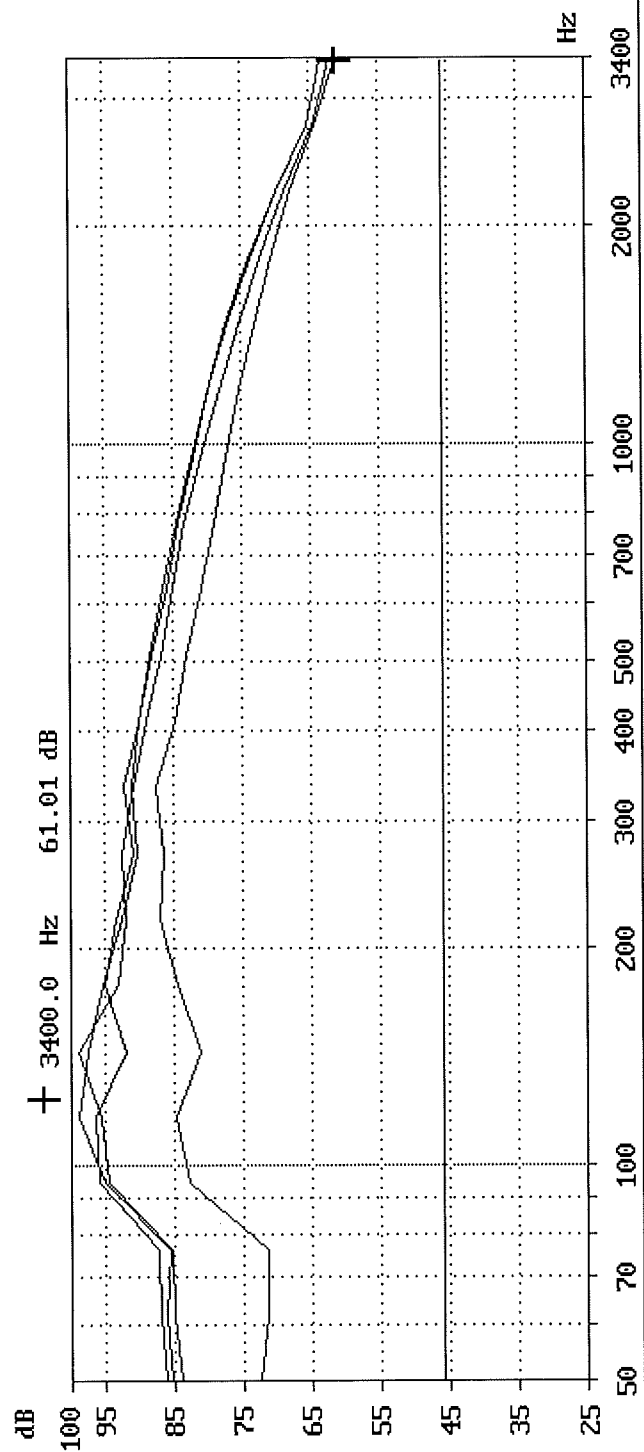
EG 201 120

Comission : 214054091
Printing time : 28.10.14 15:22.49
Graph 1 _____
Graph 2 _____
Graph 3 _____
Graph 4 _____



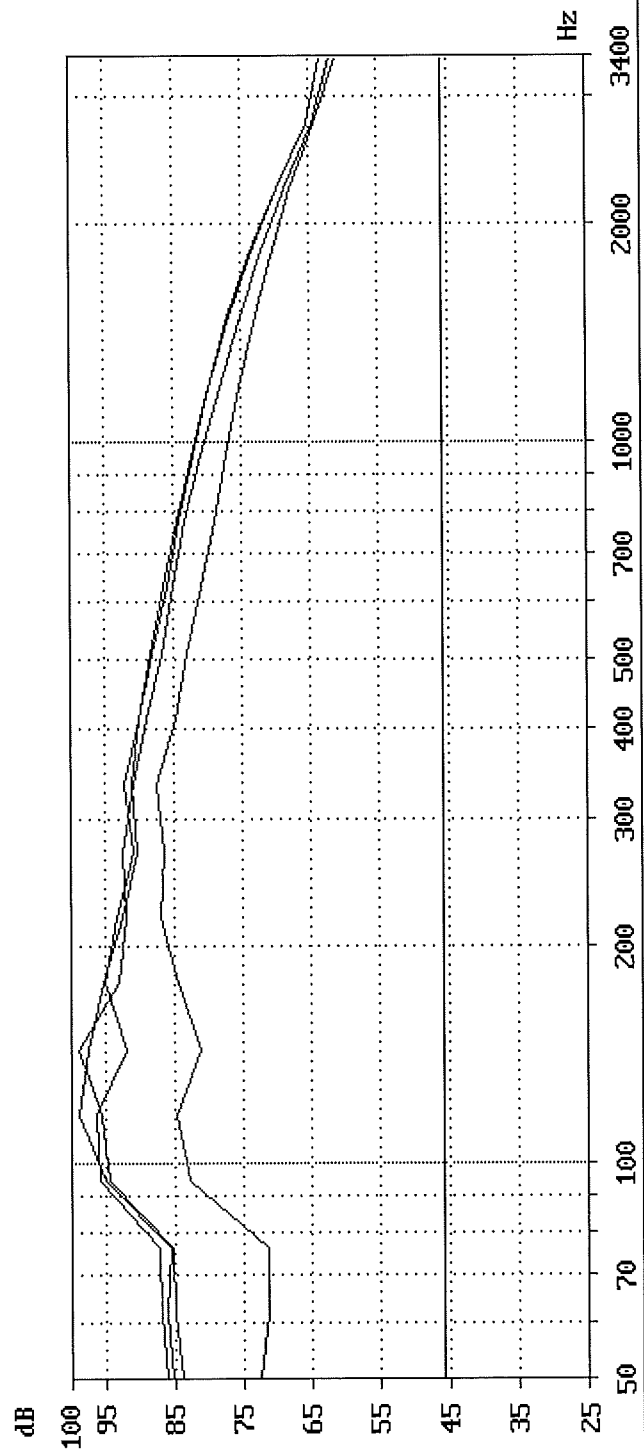
Longitudinal conversion loss Comission : 214054091		Printing time : 28.10.14 15:22.49	
Graph 1		Graph 2	
Test Job	Longitudinal conversion loss 214054091	Longitudinal conversion loss	214054091
TEUT	MFP	MFP	
Manufacturer	KYOCERA DS Inc.	KYOCERA DS Inc.	
Operator	Y. Miura	Y. Miura	
Date	28.10.14	28.10.14	
Time	15:20.46	15:21.08	
Tol.mask violations	0	0	
Verdict	PASS	PASS	
Current Limitation	60.0 mA	60.0 mA	
Feeding Voltage	50.0 V	50.0 V	
Feeding Bridge	TBR21	TBR21	
Feeding resistor	3200 Ohm	2050 Ohm	
Level	+0.0 dB(0.775 V)	+0.0 dB(0.775 V)	
Remark	-	-	
Graph 3		Graph 4	
Test Job	Longitudinal conversion loss 214054091	Longitudinal conversion loss	214054091
TEUT	MFP	MFP	
Manufacturer	KYOCERA DS Inc.	KYOCERA DS Inc.	
Operator	Y. Miura	Y. Miura	
Date	28.10.14	28.10.14	
Time	15:21.29	15:21.50	
Tol.mask violations	0	0	
Verdict	PASS	PASS	
Current Limitation	60.0 mA	60.0 mA	
Feeding Voltage	50.0 V	50.0 V	
Feeding Bridge	TBR21	TBR21	
Feeding resistor	850 Ohm	230 Ohm	
Level	+0.0 dB(0.775 V)	+0.0 dB(0.775 V)	
Remark	-	-	

EG 201 120



EG 201 120

Comission : 214054091
 Printing time : 28.10.14 15:26.16
 Graph 1 _____
 Graph 2 _____
 Graph 3 _____
 Graph 4 _____



Longitudinal conversion loss 4-wire		Printing time : 28.10.14 15:26.16
Comission : 214054091		
Graph 1		
Test Job	Longitudinal conversion loss 4-wire	
TEUT	214054091	
Manufacturer	MFP	
Operator	KYOCERA DS Inc.	
Date	Y. Miura	
Time	28.10.14	
Tol.mask violations	15:24.05	
Verdict	0	
Current Limitation	PASS	
Feeding Voltage	100.0 mA	
Feeding Bridge	50.0 V	
Feeding resistor	germany	
Drop resistor HC	3200 Ohm	
Termination	300 Ohm	
Level	600 Ohm	
Remark	+0.0 dB(0.775 V)	
	-	
Graph 2		
Test Job	Longitudinal conversion loss 4-wire	
TEUT	214054091	
Manufacturer	MFP	
Operator	KYOCERA DS Inc.	
Date	Y. Miura	
Time	28.10.14	
Tol.mask violations	15:24.31	
Verdict	0	
Current Limitation	PASS	
Feeding Voltage	100.0 mA	
Feeding Bridge	50.0 V	
Feeding resistor	germany	
Drop resistor HC	2050 Ohm	
Termination	300 Ohm	
Level	600 Ohm	
Remark	+0.0 dB(0.775 V)	
	-	
Graph 3		
Test Job	Longitudinal conversion loss 4-wire	
TEUT	214054091	
Manufacturer	MFP	
Operator	KYOCERA DS Inc.	
Date	Y. Miura	
Time	28.10.14	
Tol.mask violations	15:24.55	
Verdict	0	
Current Limitation	PASS	
Feeding Voltage	100.0 mA	
Feeding Bridge	50.0 V	
Feeding resistor	germany	
Drop resistor HC	850 Ohm	
Termination	300 Ohm	
Level	600 Ohm	
Remark	+0.0 dB(0.775 V)	
	-	

Longitudinal conversion loss 4-wire
Comission : 214054091

Printing time : 28.10.14 15:26.16

Graph 4

Test Job	Longitudinal conversion loss 4-wire
TEUT	214054091
Manufacturer	MFP
Operator	KYOCERA DS Inc.
Date	Y. Miura
Time	28.10.14
Tol.mask violations	15:25.16
Verdict	0
Current Limitation	PASS
Feeding Voltage	100.0 mA
Feeding Bridge	50.0 V
Feeding resistor	germany
Drop resistor HC	230 Ohm
Termination	300 Ohm
Level	600 Ohm
Remark	+0.0 dB(0.775 V)
	-

Protocol for Noise level sending 2-wire

Noise level sending 2-wire
EG 201 120, 6.2

Date : 28.10.14
Time : 15:27.06
Operator : Y. Miura
Commission : 214054091
TEUT : MFP
Manufacturer: KYOCERA DS Inc.

Current Limitation : 100.0 mA
Feeding Voltage : 50.0 V
Feeding Bridge : TBR21
Receiver Impedance : 600 Ohm
Filter : Psophometric
Time Constant : $\tau = 200$ msec
Limit : ≤ -64.0 dBmp

Remark : -

Verdict : PASS

ps
[dBmp]

Rf
[Ω]

Polarity

-105.4	3200	Inverted
-102.8	2050	Normal
-105.1	850	Inverted
-103.0	230	Normal

Protocol for Noise level sending 4-wire

Noise level sending 4-wire
EG 201 120, 6.2

Date	: 28.10.14	Current Limitation	: 100.0 mA
Time	: 15:28.08	Feeding Voltage	: 50.0 V
Operator	: Y. Miura	Feeding Bridge	: TBR21
Commission	: 214054091	Termination Za	: 600 Ohm
TEUT	: MFP	Drop resistor of HC	: 300 Ohm
Manufacturer: KYOCERA DS Inc.		Filter	: Psophometric
		Time Constant	: $\tau = 200$ msec
		Receiver Impedance	: 600 Ohm
		Limit	: ≤ -64.0 dBmp
Remark	: -	Verdict	: PASS

ps [dBmp]	Rf [Ω]	Polarity
-100.6	3200	Inverted
-101.6	2050	Normal
-102.9	850	Inverted
-93.2	230	Normal

Protocol for Series DC resistance

Series DC resistance
EG 201120, 6.3.1

Date	: 28.10.14	Feeding Voltage	: 50.0 V
Time	: 15:31.08	Feed current/limit	: 100.0 mA
Operator	: Y. Miura	Trigger I [mA]	: 5 mA
Test Job	: 214054091	Termination	: 600 Ohm
TEUT	: MFP	Verdict	: PASS
Parameter set	: EG 201120, 6.3.1		
Remark	: -		

Limit		Rs1 < 50 Ohm	Rs2 < 50 Ohm	Rs < 50 Ohm			
Rf Ohm	Polarity	I mA	Vs1 V	Vs2 V	Rs1 Ohm	Rs2 Ohm	Rs Ohm
230	Inverted	56.339	2.61	0.227	46	4	50

Insertion loss 4-wire

EG 201 120/6.3.1

Test job : 214054091

TEUT : MFP

Manufacturer: KYOCERA DS Inc.

Operator : Y. Miura

Date : 28.10.14

Time : 15:32.29

Remark : -

Tol.mask violations: 0

Verdict : PASS

Level : +20.0 dBu

Generator imp. : 4 kOhm symmetrical

Input impedance : 4 kOhm

Feeding voltage : 50.0 V

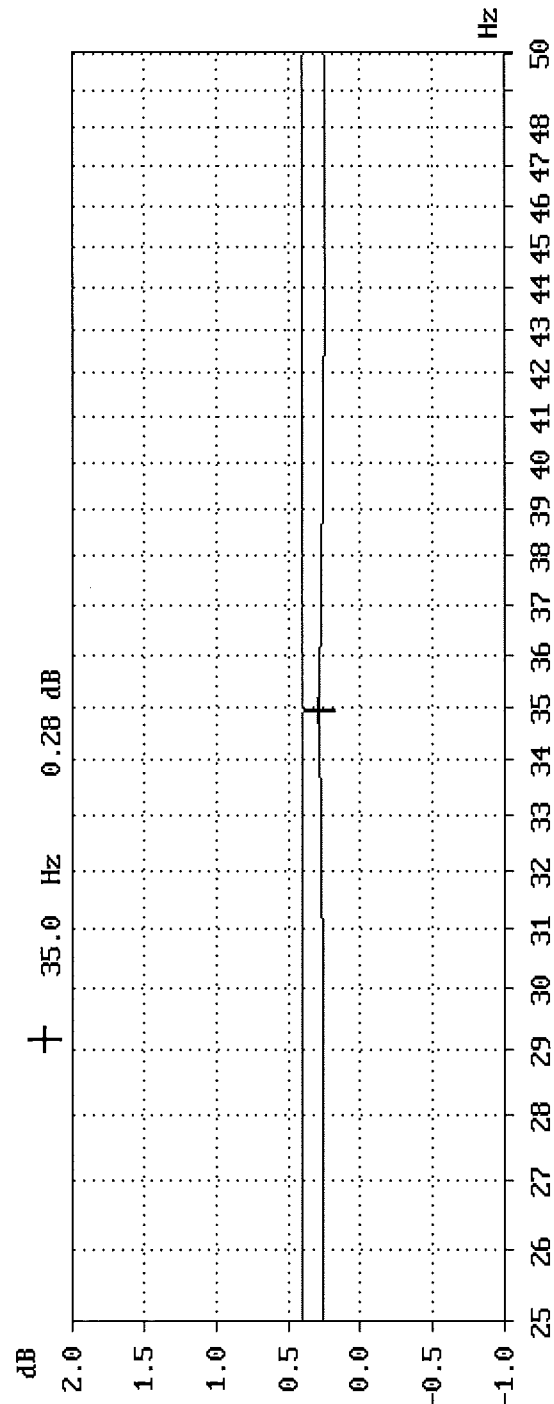
Feeding current: 100.0 mA

Feeding resistor Rf: 2050.0 Ohm

Polarity : Normal

Drop resistor of HC: 300 Ohm

Direction : Normal



Insertion loss 4-wire

EG 201 120/6.3.1

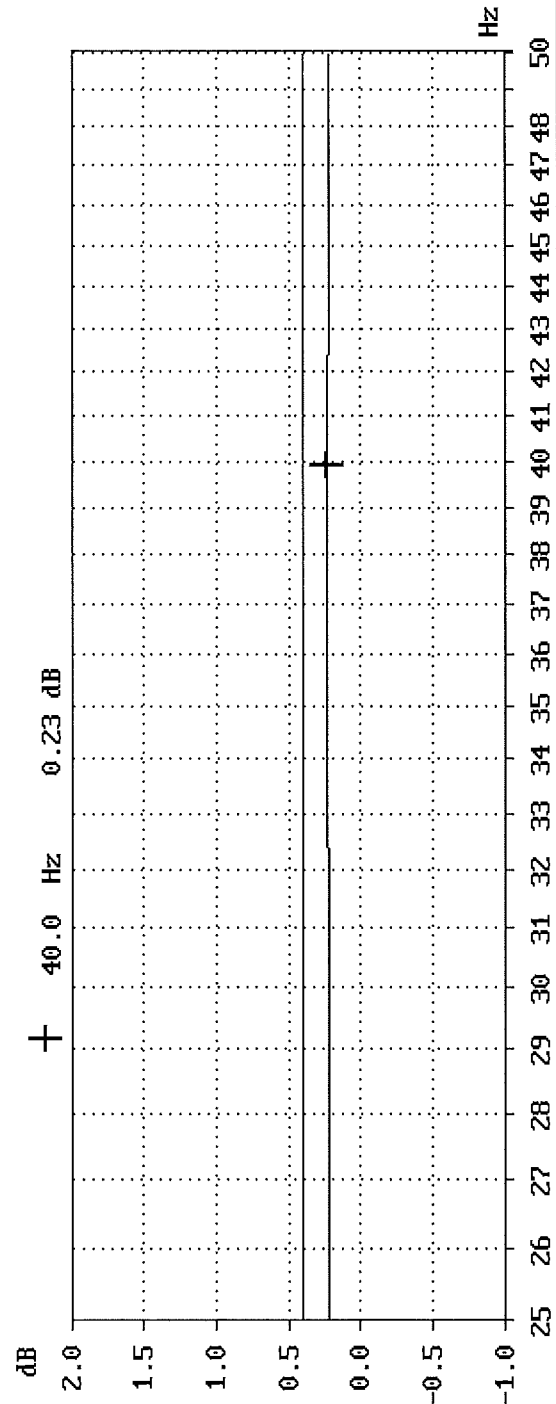
Test job : 214054091
 TEUT : MFP
 Manufacturer: KYOCERA DS Inc.
 Operator : Y. Miura
 Date : 28.10.14
 Time : 15:33.46

Level : +20.0 dBV
 Generator imp. : 4 kOhm symmetrical
 Input impedance : 4 kOhm
 Feeding voltage : 50.0 V Feeding current: 100.0 mA
 Feeding resistor Rf: 2050.0 Ohm Polarity : Inverted
 Drop resistor of HC: 300 Ohm
 Direction : Normal

Remark : -

Tol.mask violations: 0

Verdict : PASS



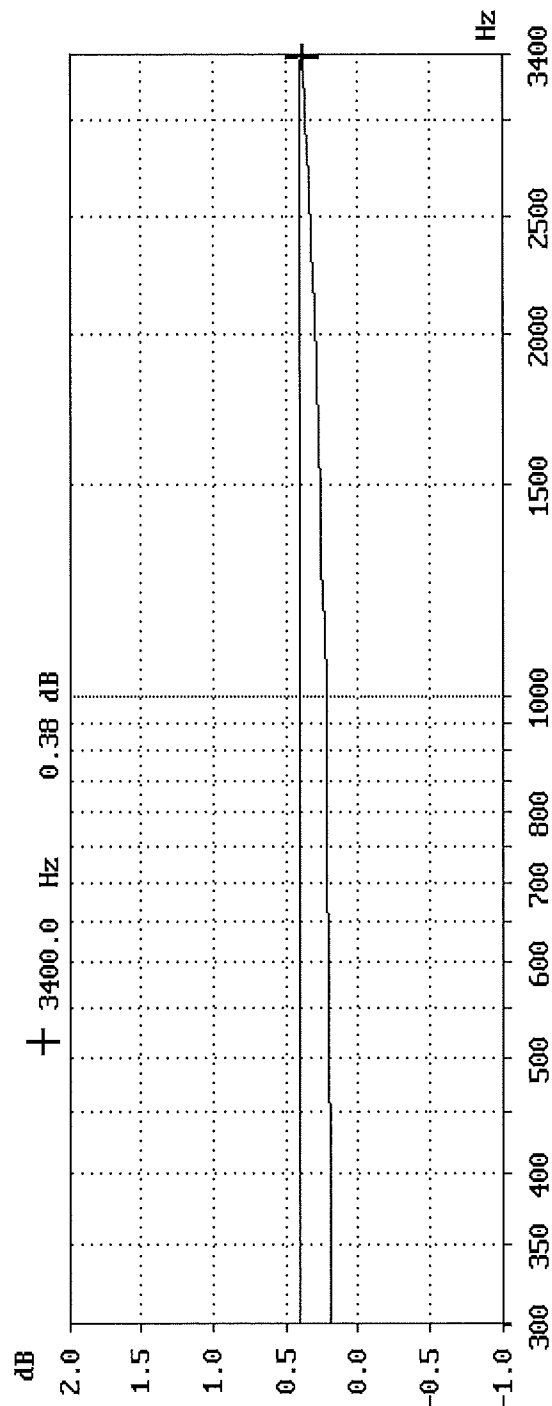
Insertion loss 4-wire

EG 201 120/6.3.1

Test job	: 214054091	Level	: +0.0 dBV
TEUT	: MFP	Generator imp.	: Zr TBR21 symmetrical
Manufacturer:	KYOCERA DS Inc.	Input impedance	: Zr TBR21
Operator	: Y. Miura	Feeding voltage	: 50.0 V
Date	: 28.10.14	Feeding current:	100.0 mA
Time	: 15:34.35	Feeding resistor Rf:	2050.0 Ohm
		Drop resistor of HC:	300 Ohm
		Polarity	: Normal
Remark	: -	Direction	: Normal

Tol.mask violations: 0

Verdict : PASS



Insertion loss 4-wire

EG 201 120/6.3.1

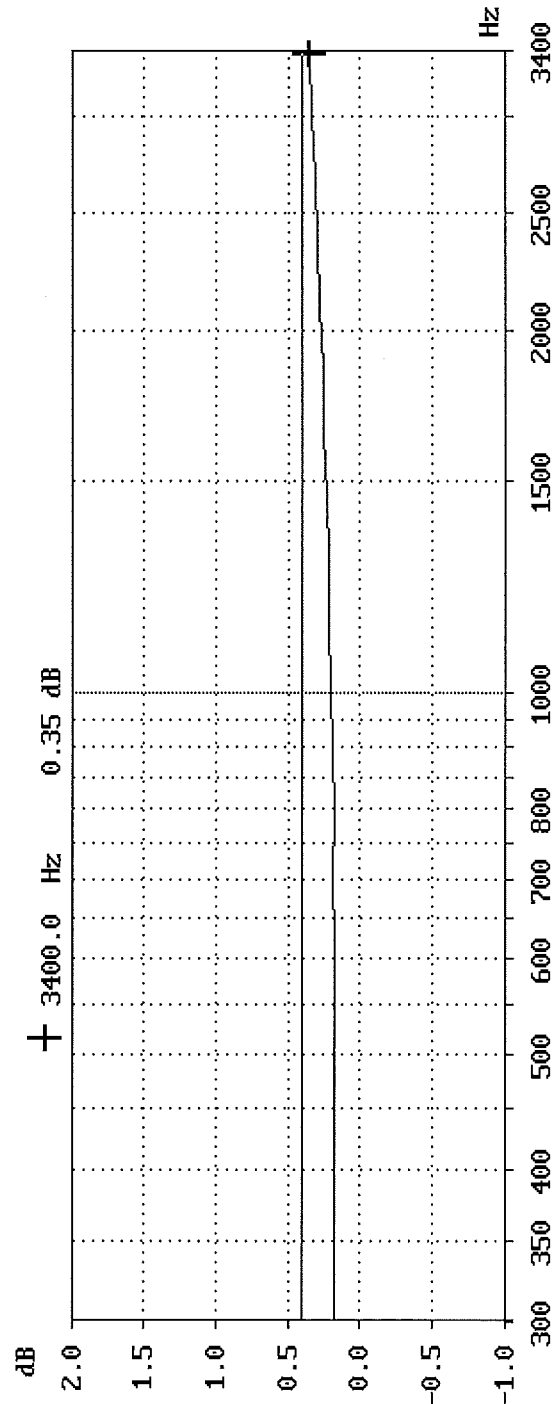
Test job : 214054091
TEUT : MFP
Manufacturer: KYOCERA DS Inc.
Operator : Y. Miura
Date : 28.10.14
Time : 15:35.54

Level : +0.0 dBu
Generator imp. : Zr TBR21 symmetrical
Input impedance : Zr TBR21
Feeding voltage : 50.0 V Feeding current: 100.0 mA
Feeding resistor Rf: 2050.0 Ohm Polarity : Inverted
Drop resistor of HC: 300 Ohm
Direction : Normal

Remark : -

Tol.mask violations: 0

Verdict : PASS



Insertion loss 4-wire

EG 201 120/6.3.1

Test job : 214054091

TEUT : MFP

Manufacturer: KYOCERA DS Inc.

Operator : Y. Miura

Date : 28.10.14

Time : 15:37.44

Level

: +0.0 dBV

Generator imp.

: 200 Ohm symmetrical

Input impedance

: 200 Ohm

Feeding voltage

: 50.0 V

Feeding current: 100.0 mA

Feeding resistor Rf: 2050.0 Ohm Polarity

: Normal

Drop resistor of HC: 300 Ohm

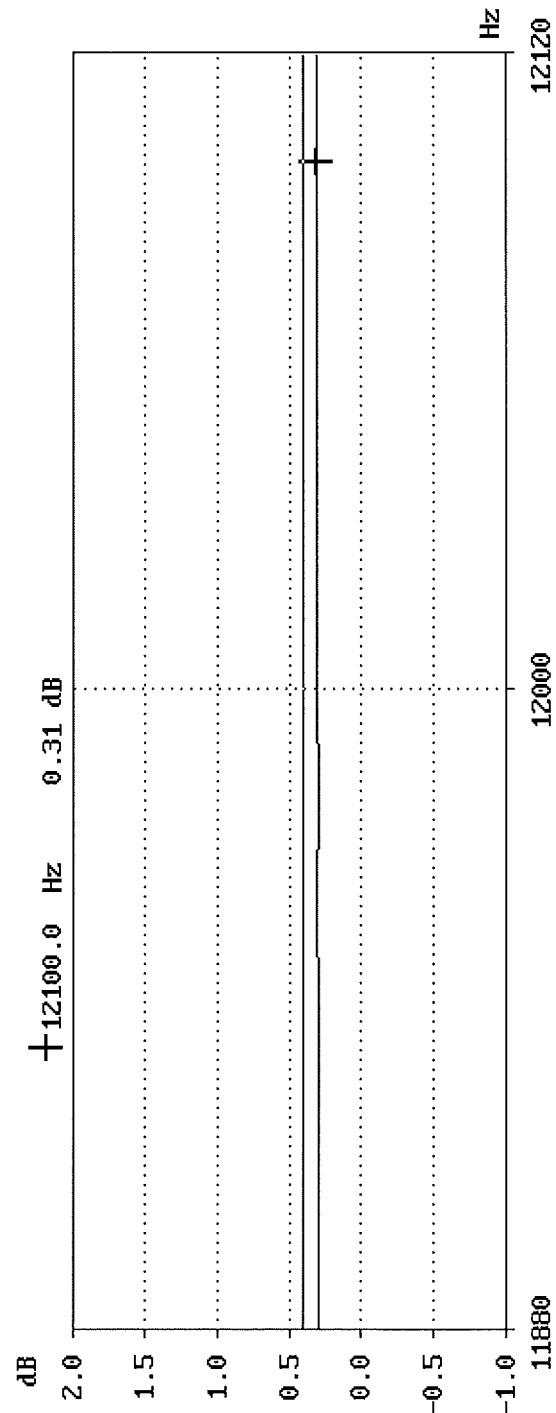
Direction

: Normal

Remark : -

Tol.mask violations: 0

Verdict : PASS



Insertion loss 4-wire

EG 201 120/6.3.1

Test job : 214054091

TEUT : MFP

Manufacturer: KYOCERA DS Inc.

Operator : Y. Miura

Date : 28.10.14

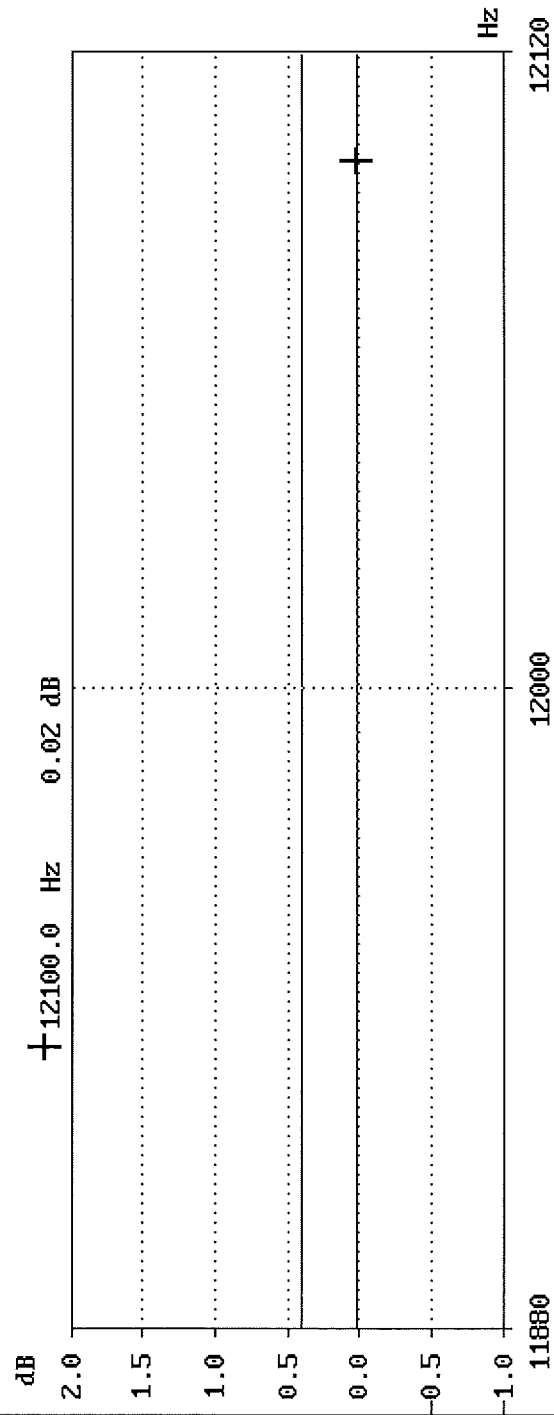
Time : 15:38.38

Remark : -

Tol.mask violations: 0

Verdict : PASS

Level : +0.0 dBu
 Generator imp. : 200 Ohm symmetrical
 Input impedance : 200 Ohm
 Feeding voltage : 50.0 V
 Feeding current: 100.0 mA
 Feeding resistor Rf: 2050.0 Ohm Polarity : Inverted
 Drop resistor of HC: 300 Ohm
 Direction : Normal



Insertion loss 4-wire

EG 201 120/6.3.1

Test job : 214054091

TEUT : MFP

Manufacturer: KYOCERA DS Inc.

Operator : Y. Miura

Date : 28.10.14

Time : 15:40.46

Remark : -

Tol.mask violations: 0

Verdict : PASS

Level : +0.0 dBu

Generator imp. : 200 Ohm symmetrical

Input impedance : 200 Ohm

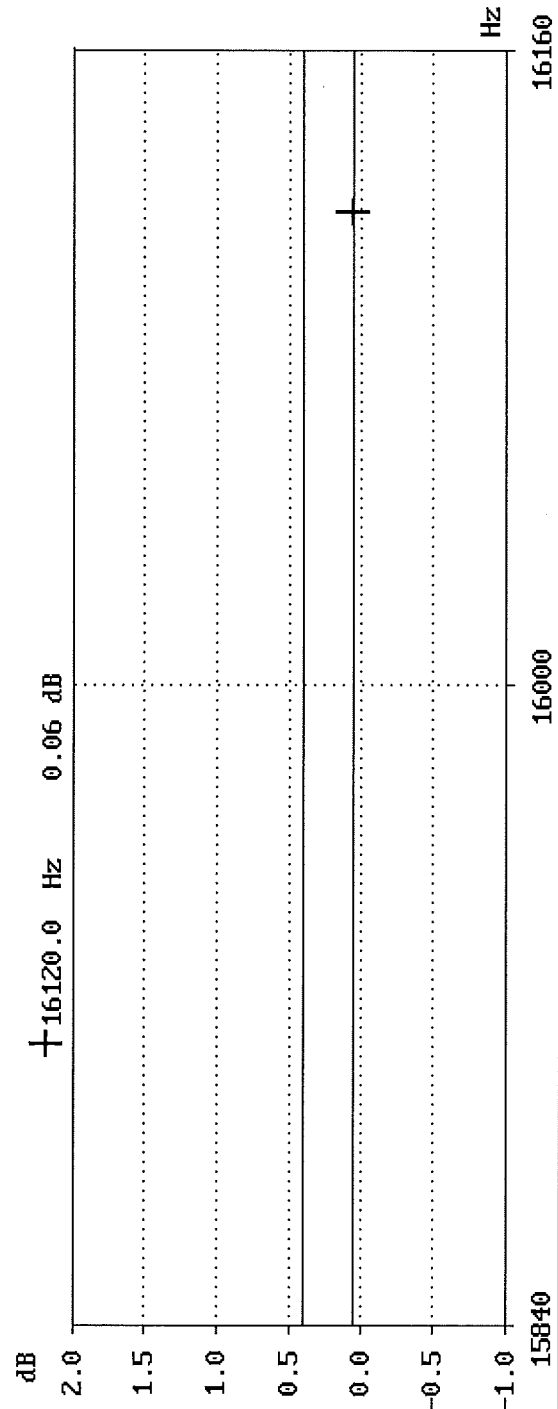
Feeding voltage : 50.0 V

Feeding resistor Rf: 2050.0 Ohm Polarity : Normal

Drop resistor of HC: 300 Ohm

Direction : Normal

Feeding current: 100.0 mA



Insertion loss 4-wire

EG 201 120/6.3.1

Test job : 214054091

TEUT : MFP

Manufacturer: KYOCERA DS Inc.

Operator : Y. Miura

Date : 28.10.14

Time : 15:41.46

Level

: +0.0 dBu

Generator imp. : 200 Ohm symmetrical

Input impedance : 200 Ohm

Feeding voltage : 50.0 V

Feeding current: 100.0 mA

Feeding resistor Rf: 2050.0 Ohm Polarity : Inverted

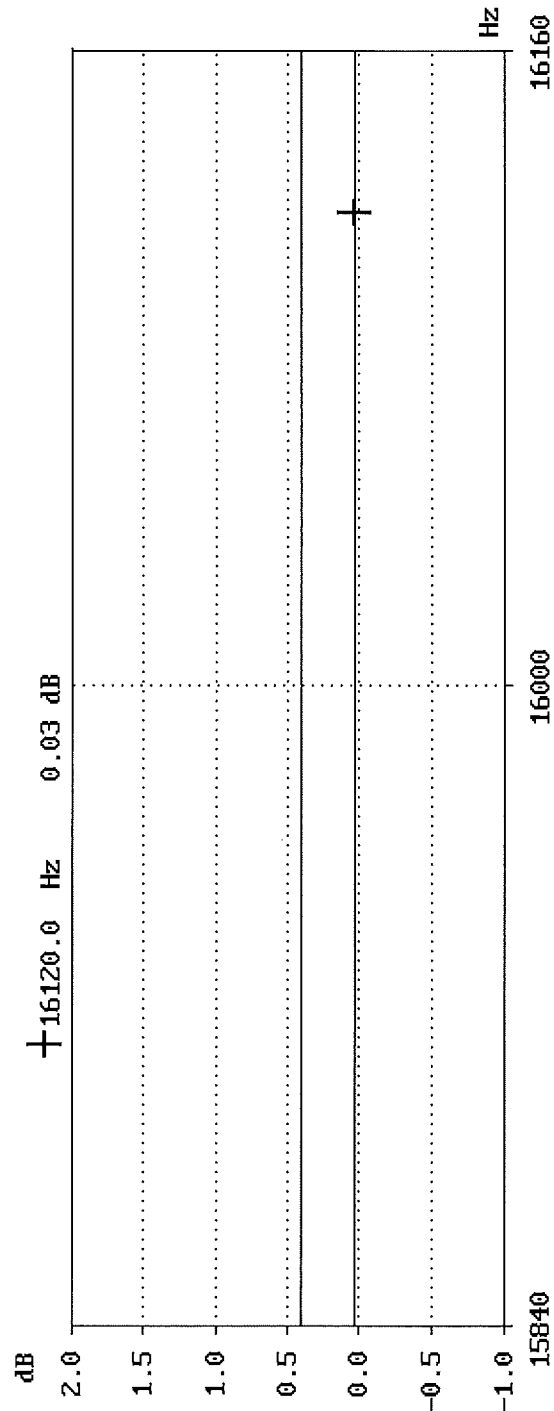
Drop resistor of HC: 300 Ohm

Direction : Normal

Remark : -

Tol.mask violations: 0

Verdict : PASS



Prüfbericht - Nr.:
Test Report No.:

50016223 003

Anlage B
Appendix B

Produktbeschreibung
Description of Equipment

Refer to test report 50016223 001

Prüfbericht - Nr.:
Test Report No.:

50016223 003

Anlage C
Appendix C

Schaltpläne
Circuit diagrams

Refer to test report 50016223 001

Prüfbericht - Nr.:
Test Report No.:

50016223 003

Anlage D
Appendix D

Fotos
Photographs

Refer to test report 50016223 001