SECTION 3

Test Reports for the Connection to the Analog PSTN

(TBR21/1998)

Prüfbericht - Nr.: *Test Report No.:*	**12608299 001**		**Seite 1 von 9** *Page 1 of 9*
Auftraggeber: *Client:*	**Kyocera Mita Corp.** **1-2-28 Tamatsukuri, Chuo-ku ,Osaka-shi,Osaka,540-8585 Japan**		
Gegenstand der Prüfung: *Test item:*	**Facsimile Kit for MFP**		
Bezeichnung: *Identification:*	**FAX System(V)**	**Serien-Nr.:** *Serial No.:*	**Prototype**
Wareneingangs-Nr.: *Receipt No.:*	**PT0214007008-1-1**	**Eingangsdatum:** *Date of receipt:*	**2010-12-14**
Prüfort: *Testing location:*	TÜV Rheinland Japan Ltd. 4-25-2, Kita-Yamata, Tsuzuki-ku, Yokohama 224-0021, Japan		
Prüfgrundlage: *Test specification:*	**TBR 21 January 1998**		
Prüfergebnis: *Test Result:*	**Der Prüfgegenstand entspricht oben genannter Prüfgrundlage(n).** *The test item passed the test specification(s).*		
Prüflaboratorium: *Testing Laboratory:*	TÜV Rheinland Japan Ltd. 4-25-2, Kita-Yamata, Tsuzuki-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:*		
2011-01-07,	**Y.Miura**	Y. Miura	**2011-01-07,**	**K. Nakajima**	K. Nakajima
Datum *Date*	**Name/Stellung** *Name/Position*	**Unterschrift** *Signature*	**Datum** *Date*	**Name/Stellung** *Name/Position*	**Unterschrift** *Signature*

Sonstiges/ *Other Aspects:*

Clause4.7.1 was applied without 60mA current limit.

Accredited Testing Laboratory under the terms of ISO 17025

Deutscher Akkreditierungs Rat
DAR
DAT-PL-069/97-03

Abkürzungen:	*P(ass)*	=	*entspricht Prüfgrundlage*	*Abbreviations:*	*P(ass)*	=	*passed*
	F(ail)	=	*entspricht nicht Prüfgrundlage*		*F(ail)*	=	*failed*
	N/A	=	*nicht anwendbar*		*N/A*	=	*not applicable*
	N/T	=	*nicht getestet*		*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.
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.

Contents

Contents **2**

Climatic conditions during test **3**

Appliance documentation **3**

Test system configuration **3**

Measurement equipment list **4**

Measurement uncertainties **5**

Summary Report **6**

Appendix A: Measurement results ..... **69 pages**

Appendix B: Description of the equipment ..... **6 pages**

Appendix C: Circuit Diagrams ..... **1 pages**

Appendix D: Photographs ..... **2 pages**

Climatic conditions during testing

Temperature: 23 - 25 °C
Air pressure: 1020 - 1020 hPa
Humidity: 40 - 50 %

Appliance documentation

Hardware: -

Software: -

User manual: FAX System(V) OPERATION GUIDE First edition 2010.12 XXXX(Draft)

Circuit diagram: FAX SUB PCB(1/1)

Test system configuration

Hardware: FAX System(V)

Software: 001.006

☒ During testing feeding conditions according to TBR21 where applied
☐ Relaxation of feeding condition was applied: 3200Ω replaced by 2800Ω where applicable
☐ Relaxation of feeding condition was applied: 2800Ω replaced by 2300Ω where applicable

Ref.	Condition	Status	Support (Y / N)	Comment
C.1.	Is the TE controlled by external device for origination and/or the reception of a call?	If Yes then M else N	No	
C.2.	Is the TE intended to have a connection to earth?	If Yes then M else N	Yes	Main
C.3.	Is the TE intended to be in loop state?	If Yes then M else N	Yes	Communication state
C.4.	Is the TE intended for call answer?	If Yes then M else N	Yes	
C.5.	Is the TE intended for call set-up?	If Yes then M else N	Yes	
C.6.	Is the TE intended for dialling with DTMF?	If Yes then M else N	Yes	
C.7.	Is the TE intended for automatic dialling without dial tone detection?	If Yes then M else N	Yes	
C.8.	Is the TE intended for automatic dialling with dial tone detection?	If Yes then M else N	Yes	
C.9.	Is the TE intended for use in receiving mode?	If Yes then M else N	Yes	
C.10.	Is the TE intended for use in transmitting mode?	If Yes then M else N	Yes	
C.11.	Is the TE intended for making internally generated automatically repeated call attempts?	If Yes then M else N	Yes	
C.12.	Is the TE intended for automatically controlled signalling tone duration?	If Yes then M else N	Yes	
C.13.	Is the TE intended for automatically controlled signalling pause duration?	If Yes then M else N	Yes	

Measurement equipment list

Measurement instrument	Identification	Measurement accuracy / Standard
Automatic Measurement System AMS from ESP-Telekom	TL-9000	
Outband Receiver and Ringer Amplifier ARE1000 from ESP-Telekom	TL-9001	
International Feeding Bridge ISB1000 from ESP-Telekom	TL-9002	
Automatic Measurement System AMS from ESP-Telekom	TL-9100	
Outband Receiver and Ringer Amplifier ARE1000 from ESP-Telekom	TL-9101	
International Feeding Bridge ISB1000 from ESP-Telekom	TL-9102	
Digital Multimeter Fluke	TL-9108	
Oscilloscope Tektronix TDS210	TL-9008	
Tastköpfe I / II / Voltage Probe I / II	TL-9036, TL-9037	
Anschaltebox / Connection Box Systel 104 000	TL-9038	
Connector Box	TL-9010	
Resistor Box	TL-9011	
Reference Impedance Zref-längs TBR21, Type 29	TL-9022, TL-9110	
Reference Impedance 150 Ohm crosswise, Type 50	TL-9033, TL-9112	
Reference Impedance Zref-quer TBR21, Type28	TL-9020, TL-9021 TL-9109, TL-9111	

Measurement uncertainties

	Measuring	**Measurement Uncertainity** **k=2**
4.4	Test methods	
4.4.1	DC resistance in quiescent state	DC Voltage : ±0.81V Current : ±1.5 µA
4.4.2.1	Impedance of ringing devices	Impedance : ±54 Ω
4.4.2.2	Transient response	Time : ±0.12 ms Current : ±0.28 mA
4.4.2.3	DC current during ringing	DC Voltage : ±0.55 V DC Current : ±0.094 mA
4.4.3/4.7.4.1	Longitudinal conversion loss	Impedance unbalance: ±1.1 dBV
4.4.4	Resistance to earth	Resistance : ±0.19 MΩ
4.5	Ringing signal detector sensitivity	$Voltage_{RMS}$: ±0.28 V
4.6	Transition from quiescent to loop state	
4.6.1	Acceptance of breaks	Time : ±5.8 µs Current : ±0.17 mA
4.6.2	Loop current characteristics	Time : ±5.8 µs Current : ±0.17 mA
4.7	General loop steady state requirements	
4.7.1.1	DC characteristics	Voltage : ±0.61 mV Current : ±0.82 mA
4.7.2	Return loss	Return loss : ±0.36 dB
	Impedance Z (f)	Impedance : ±35 Ω
4.7.3.1	Maximum mean sending level	Level : ±1.0 dB
4.7.3.2	Maximum instantaneous voltage	Level : ±0.8 V
4.7.3.3	Maximum voltage in 10Hz bandwidth	30Hz – 200Hz: Level: ±1.8 dBV 200Hz – 4.3kHz: Level: ±1.6 dBV
4.7.3.4	Sending level above 4.3kHz	Level : ±1.4 dBV
4.7.4.1	Longitudinal conversion loss	LCL : ±1.2 dBV
4.7.4.2	Output Signal Balance	Level : ±0.28dBV
4.7.5	Resistance to earth	Resistance : ±120 kΩ
4.8	Call attempt	
4.8.1.1/4.8.1.2	Dialing with / without dialtone detection	Time : ±0.24 ms
4.8.2	DTMF signaling	
4.8.2.1/4.8.2.2	DTMF levels and frequencies	Frequency : ±0.33 Hz Voltage : ±5.2 mV
4.8.2.3	DTMF unwanted frequencies auto	Level : ± 1dB
4.8.2.4/4.8.2.5	DTMF Tone/Pause duration	Time : ±0.27 ms Voltage : ±3.7 mV
4.9	Transition from loop to quiescent state	Time : ±8.2µs $Current_{(10mA)}$: ±0.12 mA $Current_{(0.5mA)}$: ±0.006 mA

Summary Report

4 Requirement					
Requirements	**N/A**	**N/T**	**fail**	**Pass**	**Appendix A**
4.1 General Requirement Declaration of the manufacturer or supplier	☒	☐	☐	☐	-
4.2 Physical characteristics of the connection to the PSTN Visual inspection	☐	☐	☐	☒	-

4.3 Requirements under all conditions					
Requirements	**N/A**	**N/T**	**fail**	**Pass**	**Appendix A**
4.3.1 Independence of Polarity	☐	☐	☐	☒	-

4.4 General requirements in quiescent state					
Requirements	**N/A**	**N/T**	**fail**	**Pass**	**Appendix A**
4.4.1 DC resistance Measurement results: U_{DC} / I_{max} (Normal) / R_{TE} / I_{max} (Inverse) / R_{TE} 25 V / < 2.5 µA / > 10 MΩ / < 2.5 µA / > 10 MΩ 50 V / < 5.0 µA / > 10 MΩ / < 5.0 µA / > 10 MΩ 100V / < 10.0 µA / > 10 MΩ / < 10.0 µA / > 10 MΩ	☐	☐	☐	☒	1
4.4.2.1 Characteristics of TE for ringing signals - Impedance Measurement results: f / Z_{TE} 25 Hz / 49.9 kΩ 50 Hz / 48.7 kΩ	☐	☐	☐	☒	2
4.4.2.2 Characteristics of TE for ringing signals - Transient response	☐	☐	☐	☒	3
4.4.2.3 Characteristics of TE for ringing signals - DC current Measurement results: f / I_{DC} (Normal) / I_{DC} (Inverse) 25 Hz / < 0.06 mA / < 0.06 mA 50 Hz / < 0.06 mA / < 0.06 mA	☐	☐	☐	☒	4-5

Requirements	N/A	N/T	fail	Pass	Appendix A
4.4.3 Impedance unbalance about earth	☐	☐	☐	☒	6-7
4.4.4 Resistance to earth Measurement results: Wire U I R 1 100 V < 2 μA > 50 MΩ 2 100 V < 2 μA > 50 MΩ	☐	☐	☐	☒	8

4.5 Ringing signal detector sensitivity					
Requirements	**N/A**	**N/T**	**fail**	**Pass**	**Appendix A**
4.5 Ringing signal detector sensitivity Measurement results: f 25 Hz 1s on / 5s off Ringing signal detected: ☒ yes ☐ no 50 Hz 1s on / 5s off Ringing signal detected: ☒ yes ☐ no	☐	☐	☐	☒	9

4.6 Transition from quiescent to loop state					
Requirements	**N/A**	**N/T**	**fail**	**Pass**	**Appendix A**
4.6.1 Acceptance of breaks in the loop in a call attempt	☐	☐	☐	☒	10-11
4.6.2 Loop current characteristics	☐	☐	☐	☒	12-17

4.7 General loop steady state requirements					
Requirements	**N/A**	**N/T**	**fail**	**Pass**	**Appendix A**
4.7.1 DC characteristics	☐	☐	☐	☒	18-19
4.7.2 Impedance					
200 Hz - 4000 Hz : Return loss	☐	☐	☐	☒	20-23
200 Hz - 300 Hz : Inductive component of impedance	☐	☐	☐	☒	24-27
4.7.3.1 Sending level limitations - Mean sending level	☐	☐	☐	☒	28-32
4.7.3.2 Sending level limitations - Instantaneous voltage	☐	☐	☐	☒	28-34
4.7.3.3 Sending level limitations - Voltage level in a 10 Hz bandwidth	☐	☐	☐	☒	35-39
4.7.3.4 Sending level limitations - Sending level above 4,3 kHz	☐	☐	☐	☒	40-48
4.7.4.1 Impedance unbalance about earth - Longitudinal Conversion Loss	☐	☐	☐	☒	49-50
4.7.4.2 Impedance unbalance about earth - Output Signal Balance	☐	☐	☐	☒	51-55

4.7 General loop steady state requirements					
Requirements	**N/A**	**N/T**	**fail**	**Pass**	**Appendix A**
4.7.5 Resistance to earth Measurement results: Wire U I R 1 100 V < 2 µA > 50 MΩ 2 100 V < 2 µA > 50 MΩ	☐	☐	☐	☒	56

4.8 Call attempt					
Requirements	**N/A**	**N/T**	**fail**	**Pass**	**Appendix A**
4.8.1.1 Automatic dialling - Dialling without dial tone detection Measurement results: Start dialling after ☒ Fixed 4.10 s ☐ Adjustable s - s	☐	☐	☐	☒	57
4.8.1.2 Automatic dialling - Dialling with dial tone detection Measurement results: Start dialling after f level Test 1 - Start dialling Test 2 - Start dialling 300 Hz -0.7 dBV 0.75 s 1.14 s 300 Hz -35.7 dBV 0.79 s 1.17 s 500 Hz -35.7 dBV 0.76 s 1.16 s 500 Hz -0.7 dBV 0.75 s 1.16 s	☐	☐	☐	☒	58-59

Requirements	**N/A**	**N/T**	**fail**	**Pass**	**Appendix A**
4.8.2.1 DTMF signalling - Frequency combinations	☐	☐	☐	☒	60-61
4.8.2.2.1 DTMF signalling - Signalling levels - Absolute levels	☐	☐	☐	☒	60-61
4.8.2.2.2 DTMF signalling - Signalling levels - Level difference	☐	☐	☐	☒	60-61
4.8.2.3 DTMF signalling - Unwanted frequency components	☐	☐	☐	☒	62-63
4.8.2.4 DTMF signalling - Tone duration	☐	☐	☐	☒	64-67
4.8.2.5 DTMF signalling - Pause duration	☐	☐	☐	☒	64-67
4.8.3 Automatically repeated call attempts Measuring result: Time interval between two call attempts : 68.10 s Number of repeated call attempts : 14 times	☐	☐	☐	☒	68

4.9 Transition from loop to quiescent state					
Requirements	**N/A**	**N/T**	**fail**	**Pass**	**Appendix A**
4.9 Transition from loop to quiescent state Measuring result: I_f < 0.5 mA after 0 ms Automatic re-seizure for a new call I_f < 0.5 mA for 1.5 s	☐	☐	☐	☒	69

Anlage A
Appendix A

Messergebnisse
Measuring results

Protocol for DC resistance quiescent condition

TBR21 - 4.4.1 DC resistance in quiescent state

Model No. : FAX System(V)
TEUT : Facsimile Kit for MFP Gain (internal) : +20.0 dB
Number of TEUT: 214007009
Manufacturer : Kyocera Mita Corp.
Date : 27.12.10
Time : 15:49.45

Data set : TBR21-4.4.1
Requirement : The current drawn by the TE shall not exeed that which would be drawn by a 1 MOhm resistor replacing the TE.

Remark : -

Verdict : PASS

Vt [V]	Rt [Ohm]	Polarity	R1< [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

TBR21-4.4.2.1 Impendance of ringing devices
==========

Model No. : FAX System(V) Feeding voltage : 50.0 V
TEUT : Facsimile Kit for MFP Feeding resistor: 2050.0 Ohm
Number of TEUT: 214007009
Manufacturer : Kyocera Mita Corp.
Date : 27.12.10
Time : 15:52.21

Data set : TBR21-4.4.2.1
Requirement : The impendance Z of the TE at frequencies of 25 Hz and 50 Hz shall not be less than 4.0 ... 999.0 kOhmwhen tested at 30 V rms.

Remark : -

Verdict : PASS

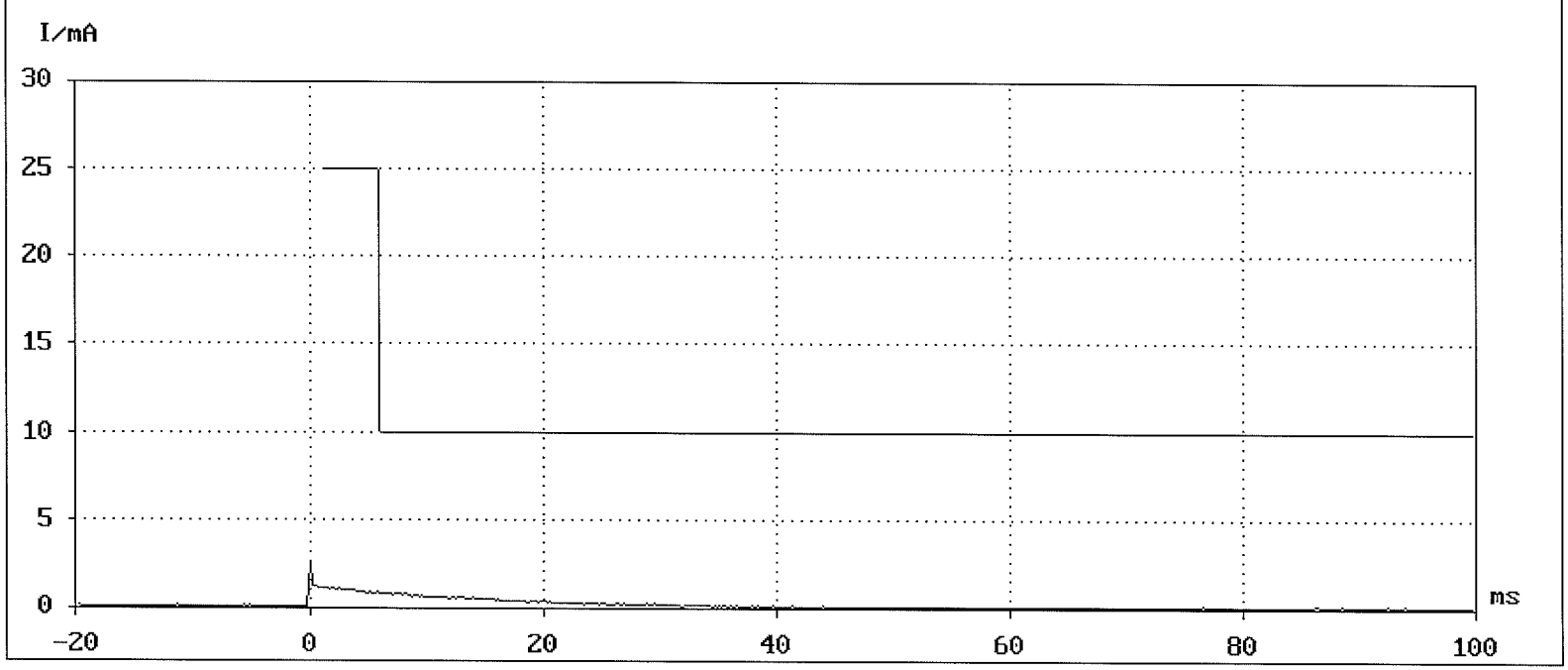
f Hz	Ute V	Z kΩ
25	30.0	49.9
50	30.0	48.7

TBR21 - 4.4.2.2 Transient response

Model No.	: FAX System(V)	Feeding voltage	: 60.0 V	Trigger	: OK
TEUT	: Facsimile Kit for M[illegible]	Current limitation	: 80.0 mA	I [mA]	: 0.5
Number of TEUT	: 214007009	Polarity	: Normal	Event	: 1. pos. Edge
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 200.0 Ohm	Delay [ms]	: - 20
Date	: 27.12.10	Requirement	: Current curve	Sample [ms]	: 0.2
Time	: 15:54.24	shall be <= limit curve			
		Data set	: TBR21-4.4.2.2		
Remark	: -				

Mask violations : 0

Verdict : PASS



Protocol for DC current during ringing

TBR21 - 4.4.2.3 DC current during ringing state

Model No. : FAX System(V)
TEUT : Facsimile Kit for MFP
Number of TEUT: 214007009
Manufacturer : Kyocera Mita Corp.
Date : 4.01.11
Time : 18:04.14

Feeding voltage : 60.0 V
Feeding resistor: 850 Ohm
Polarity : Normal

Data set : TBR21-4.4.2.3
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

Protocol for DC current during ringing

TBR21 - 4.4.2.3 DC current during ringing state

Model No. : FAX System(V)
TEUT : Facsimile Kit for MFP
Number of TEUT: 214007009
Manufacturer : Kyocera Mita Corp.
Date : 30.12.10
Time : 13:27.34

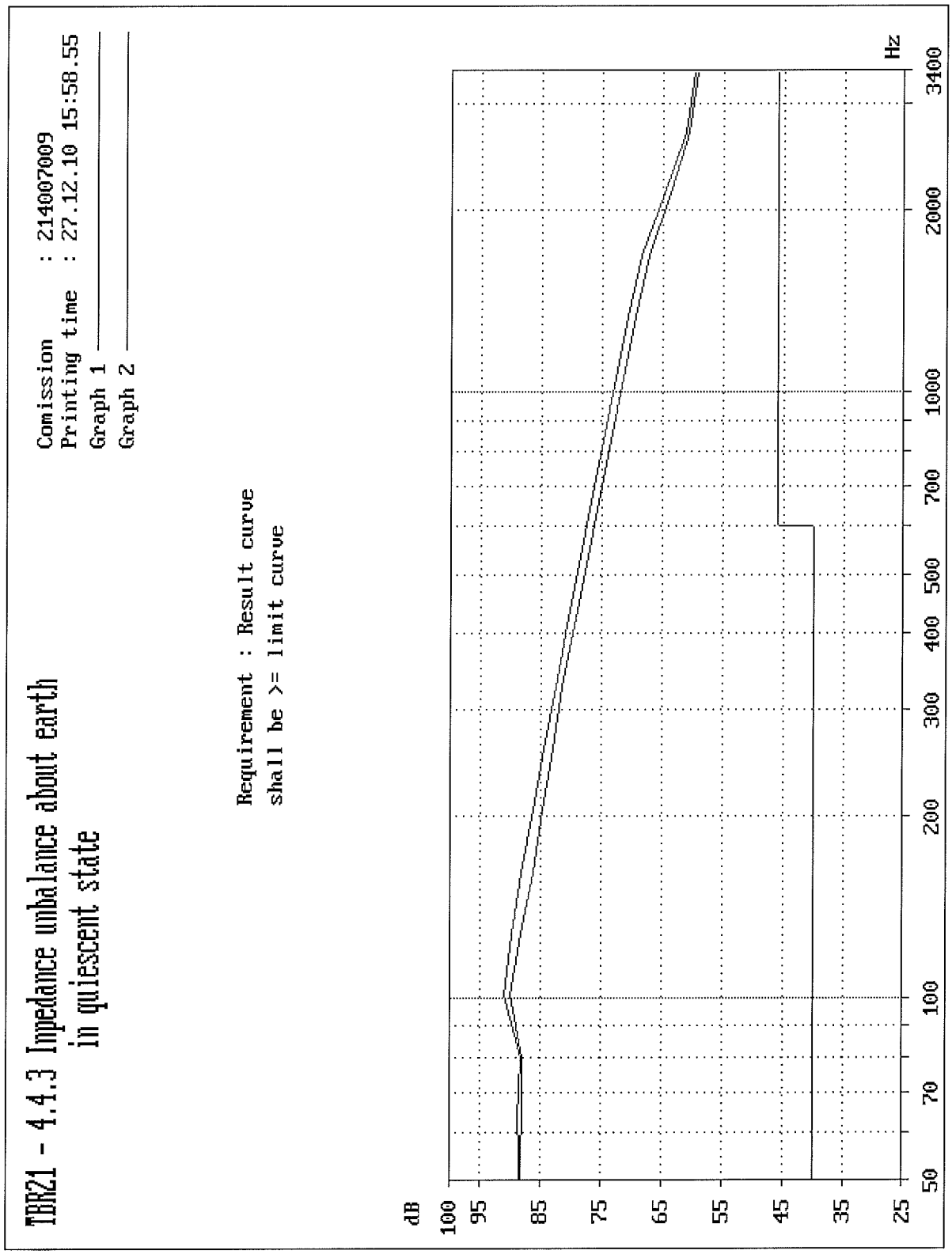
Feeding voltage : 60.0 V
Feeding resistor: 850 Ohm
Polarity : Inverted

Data set : TBR21-4.4.2.3
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


TBR21 - 4.4.3 Impedance unbalance about earth
in quiescent state
Comission : 214007009
Printing time : 27.12.10 15:58.55
Graph 1
Graph 2
Requirement : Result curve
shall be >= limit curve
dB
100
95
85
75
65
55
45
35
25
Hz
50
70
100
200
300
400
500
700
1000
2000
3400

Longitudinal conversion loss
Comission : 214007009 Printing time : 27.12.10 15:58.55

	Graph 1	Graph 2
Model No.	FAX System(V)	FAX System(V)
TEUT	Facsimile Kit for MFP	Facsimile Kit for MFP
Number of TEUT	214007009	214007009
Manufacturer	Kyocera Mita Corp.	Kyocera Mita Corp.
Date	27.12.10	27.12.10
Time	15:58.00	15:58.25
Feeding Voltage	50.0 V	50.0 V
Current Limitation	80.0 mA	80.0 mA
Polarity	Normal	Inverted
Feeding resistor	230 Ohm	230 Ohm
Data set	TBR21-4.4.3	TBR21-4.4.3
Feeding Bridge	TBR21	TBR21
Level	+0.0 dB(0.775 V)	+0.0 dB(0.775 V)
Call setup	outgoing	outgoing
Verdict	PASS	PASS
Remark	-	-

Protocol for Resistance to earth

TBR21 - 4.4.4 Resistance to earth in quiescent state

Model No. : FAX System(V)
TEUT : Facsimile Kit for MFP Feeding bridge : TBR21
Number of TEUT: 214007009
Manufacturer : Kyocera Mita Corp.
Date : 27.12.10
Time : 15:59.29
Data Set : TBR21-4.4.4

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.
("E" means the socket "Plane" on the front side of the ARE1000.)

Remark : -

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 Automatic answering function Auto

TBR21 - 4.5 Ringing signal detector sensitivity (Automatic answering)

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V
TEUT	: Facsimile Kit for MFP	Current limitation	: 40.0 mA
Number of TEUT	: 214007009	Polarity	: Normal
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 850.0 Ohm
		Trigger Event	: 1. pos. Edge
Date	: 4.01.11	Gain (internal)	: -30.0 dB
Time	: 18:06.04		

Data set : TBR21-4.5
Requirement : The TE shall be able to respond to ringing signals of 30 Vrms at 25 Hz and 50 Hz with a cadence of 1 s ON and 5 s OFF, superimposed on a 50 VDC feeding voltage.

Remark : -

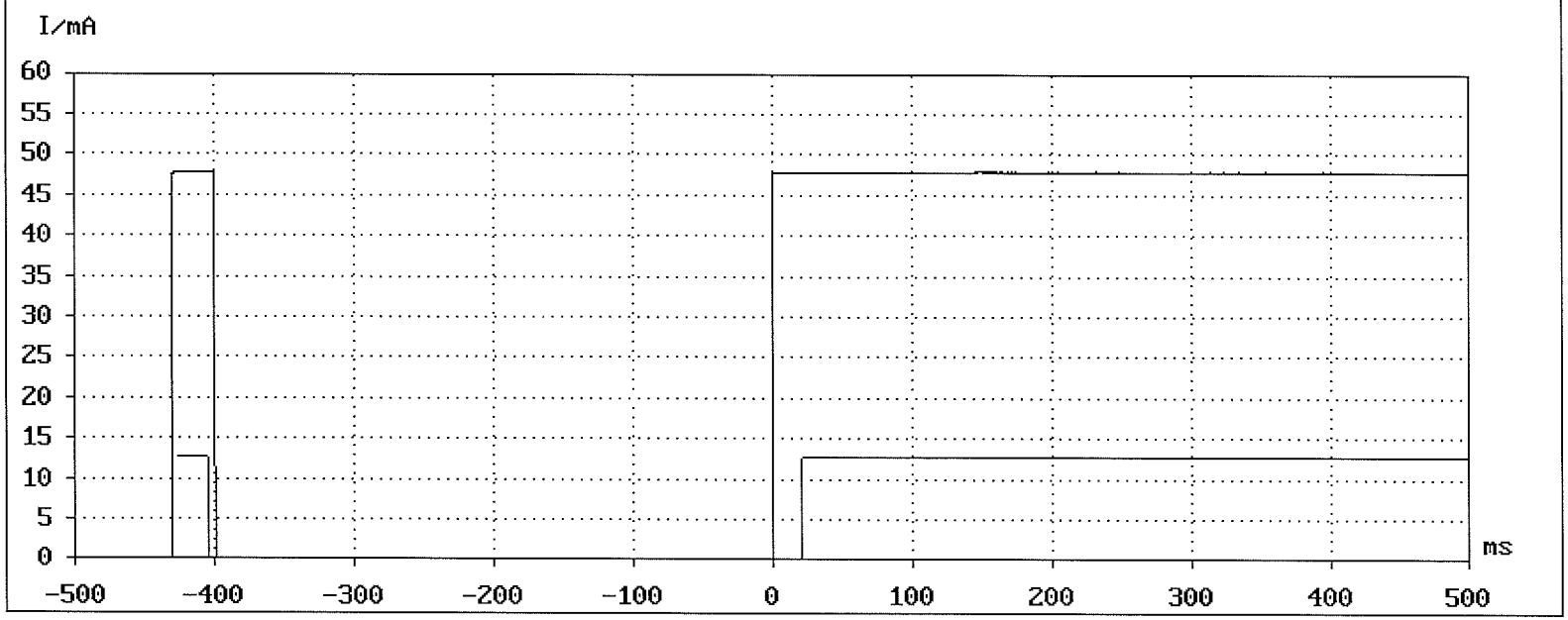
Verdict : PASS

Cycles	Frequency Hz	Ute V	1.Pulse ms	Pulse ms	Pause ms	Answering s
13	25.0	30.0	1000	1000	5000	7.12
13	50.0	30.0	1000	1000	5000	7.11

TBR21 - 4.6.1 Acceptance of breaks in the loop state after 30ms feeding

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Trigger	: OK
TEUT	: Facsimile Kit for M	Polarity	: Normal	I [mA]:	13 mA
Number of TEUT:	214007009	Feeding resistor	: 850.0 Ohm	Event	: 2. pos. Edge
Manufacturer	: Kyocera Mita Corp.	Break in the loop:	after 30 ms for 400 ms		
Date	: 27.12.10	Requirement	: Current curve	Delay [ms]:	- 500
Time	: 16:11.09	shall be >= limit curve		Sample [ms]:	0.2
		Data set	: TBR21-4.6.1 30ms		
Remark	: -				

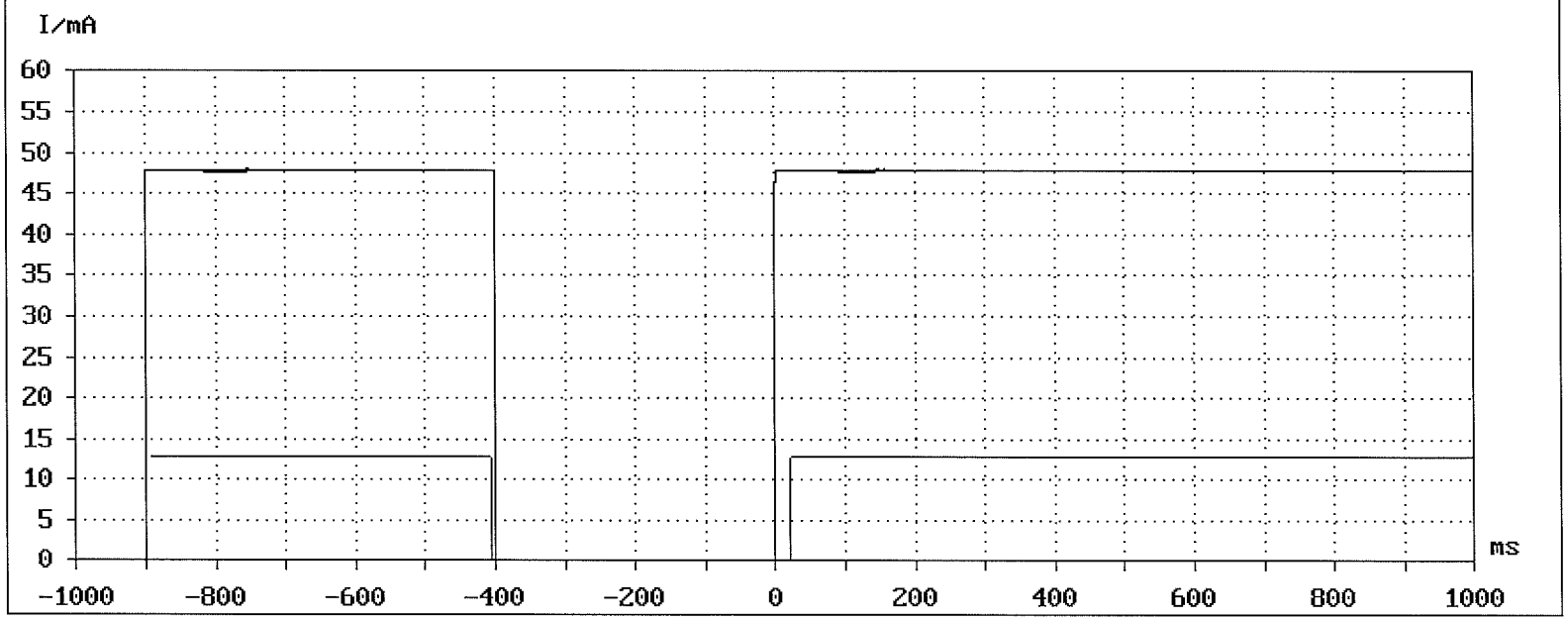
Mask violations : 0.0 ms **Verdict : PASS**



TBR21 - 4.6.1 Acceptance of breaks in the loop state after 500ms feeding

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Trigger	: OK
TEUT	: Facsimile Kit for M	Polarity	: Normal	I [mA]:	13 mA
Number of TEUT:	214007009	Feeding resistor	: 850.0 Ohm	Event	: 2. pos. Edge
Manufacturer	: Kyocera Mita Corp.	Break in the loop:	after 500 ms for 400 ms		
Date	: 27.12.10	Requirement	: Current curve	Delay [ms]:	- 1000
Time	: 16:14.06	shall be >= limit curve		Sample [ms]:	0.2
		Data set	: TBR21-4.6.1 500ms		
Remark	: -				

Mask violations : 0.0 ms **Verdict : PASS**

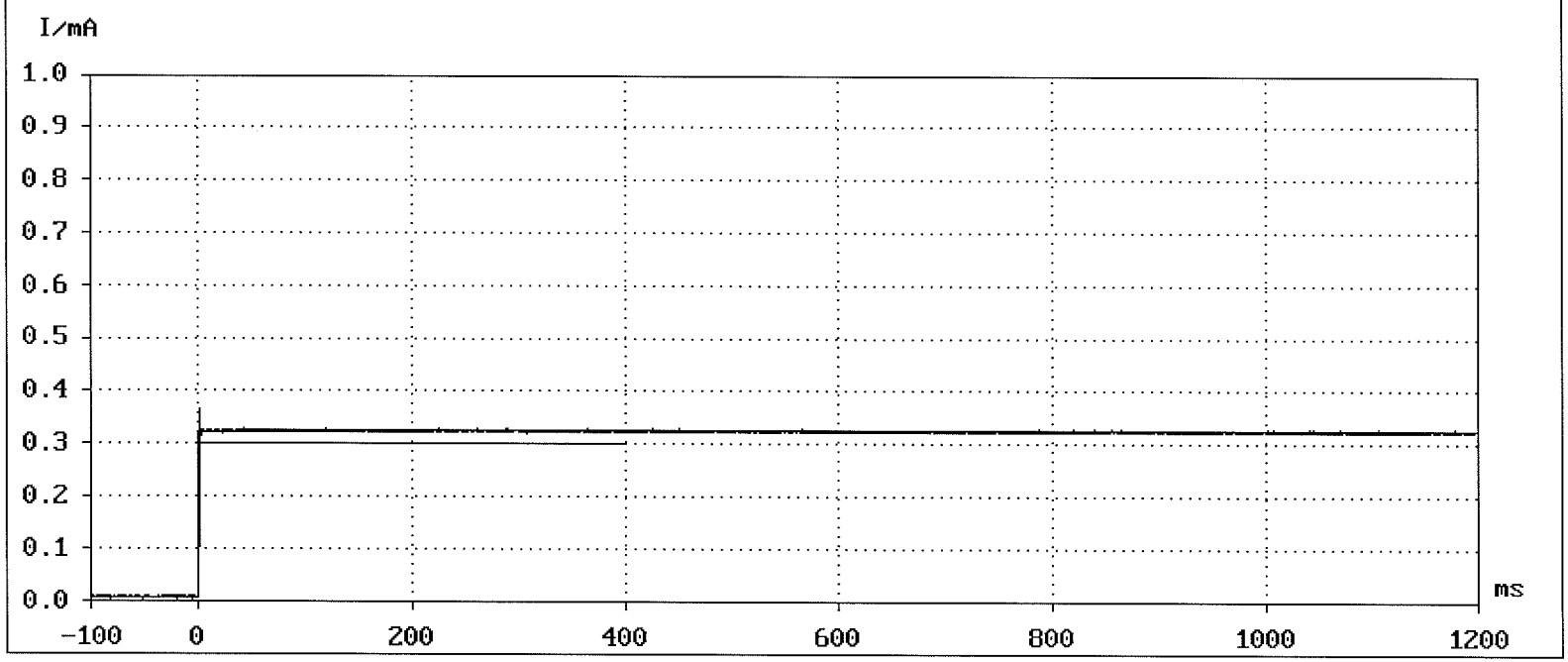


TBR21-4.6.2 Loop current characteristics

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Trigger	: OK
TEUT	: Facsimile Kit for M[illegible]rrent limitation		: 100.0 mA	I [mA]	: 0.1
Number of TEUT	: 214007009	Polarity	: Normal	Event	: 1. pos. Edge
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 150000.0 Ohm	Delay [ms]	: - 100
Date	: 27.12.10	Requirement: Current curve		Sample [ms]	: 0.2
Time	: 16:17.25	shall fulfil values of table 3		Limit td	: 7.0 ms
		Data set	: TBR21-4.6.2 150k		
Remark	: -				

Tolerance mask violat: 0.0 ms

Verdict : PASS

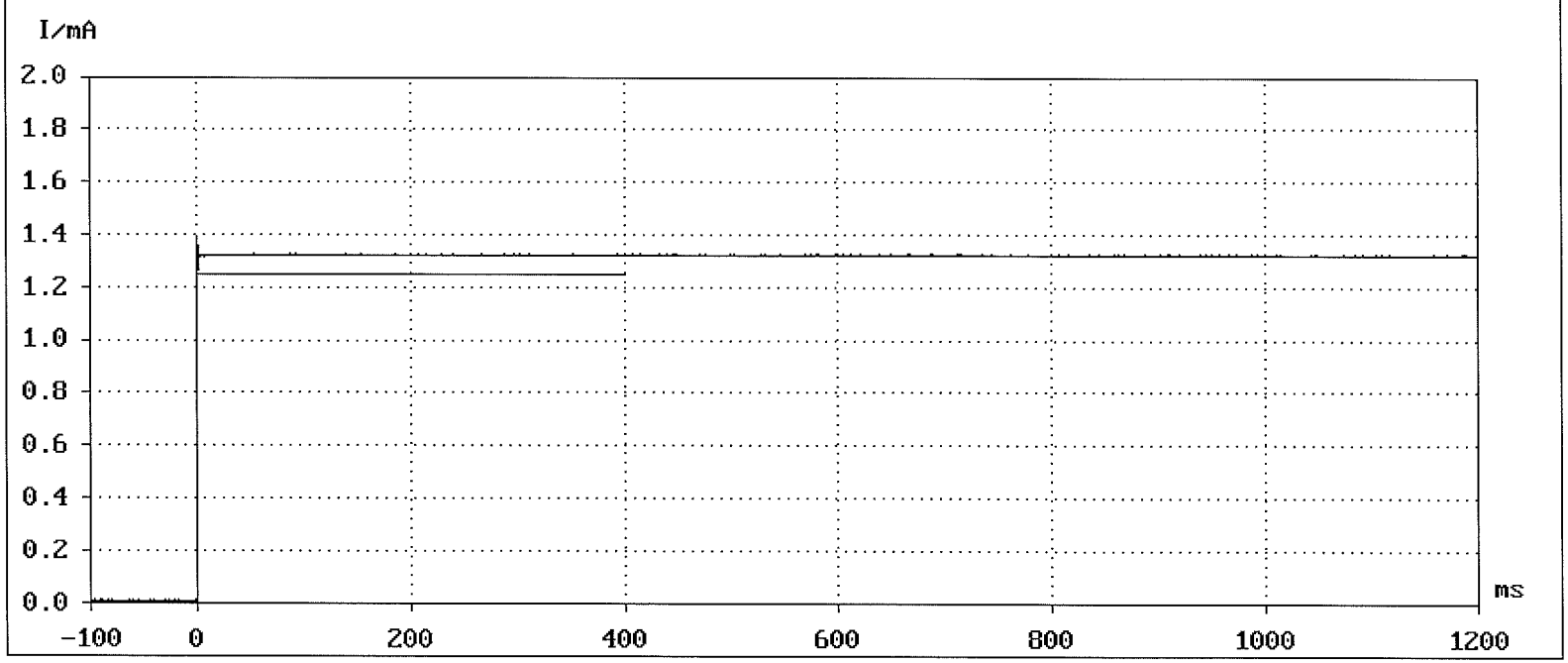


TBR21 - 4.6.2 Loop current characteristics

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Trigger	: OK
TEUT	: Facsimile Kit for M[illegible]rrent limitation	: 100.0 mA		I [mA]	: 0.1
Number of TEUT	: 214007009	Polarity	: Normal	Event	: 1. pos. Edge
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 36000.0 Ohm	Delay [ms]	: - 100
Date	: 27.12.10	Requirement: Current curve		Sample [ms]	: 0.2
Time	: 16:18.50	shall fulfil values of table 3		Limit td	: 7.0 ms
		Data set	: TBR21-4.6.2 36k		
Remark	: -				

Tolerance mask violat: 0.0 ms

Verdict : PASS

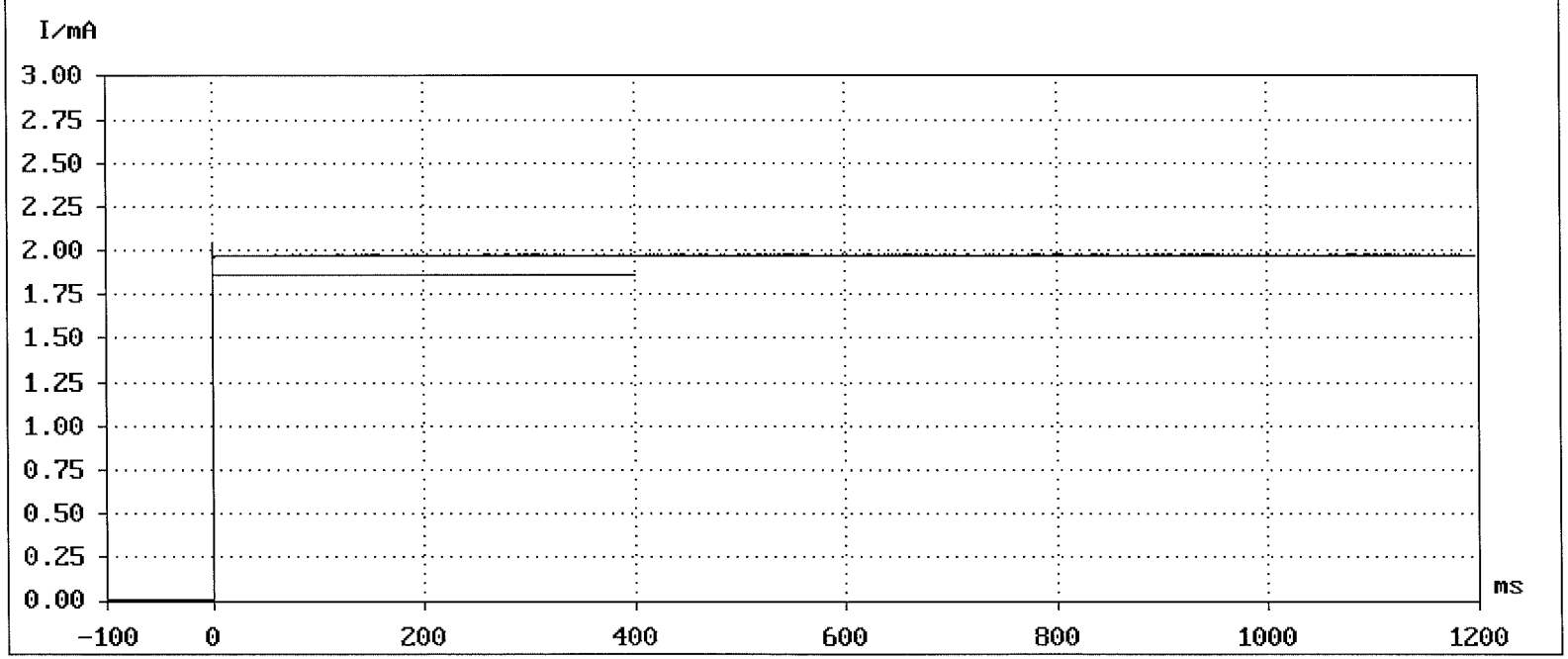


TBR21 - 4.6.2 Loop current characteristics

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Trigger	: OK
TEUT	: Facsimile Kit for M[illegible]rrent limitation		: 100.0 mA	I [mA]	: 0.1
Number of TEUT	: 214007009	Polarity	: Normal	Event	: 1. pos. Edge
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 24000.0 Ohm	Delay [ms]	: - 100
Date	: 27.12.10	Requirement: Current curve		Sample [ms]	: 0.2
Time	: 16:20.00	shall fulfil values of table 3		Limit td	: 7.0 ms
		Data set	: TBR21-4.6.2 24k		
Remark	: -				

Tolerance mask violat.: 0.0 ms

Verdict : PASS

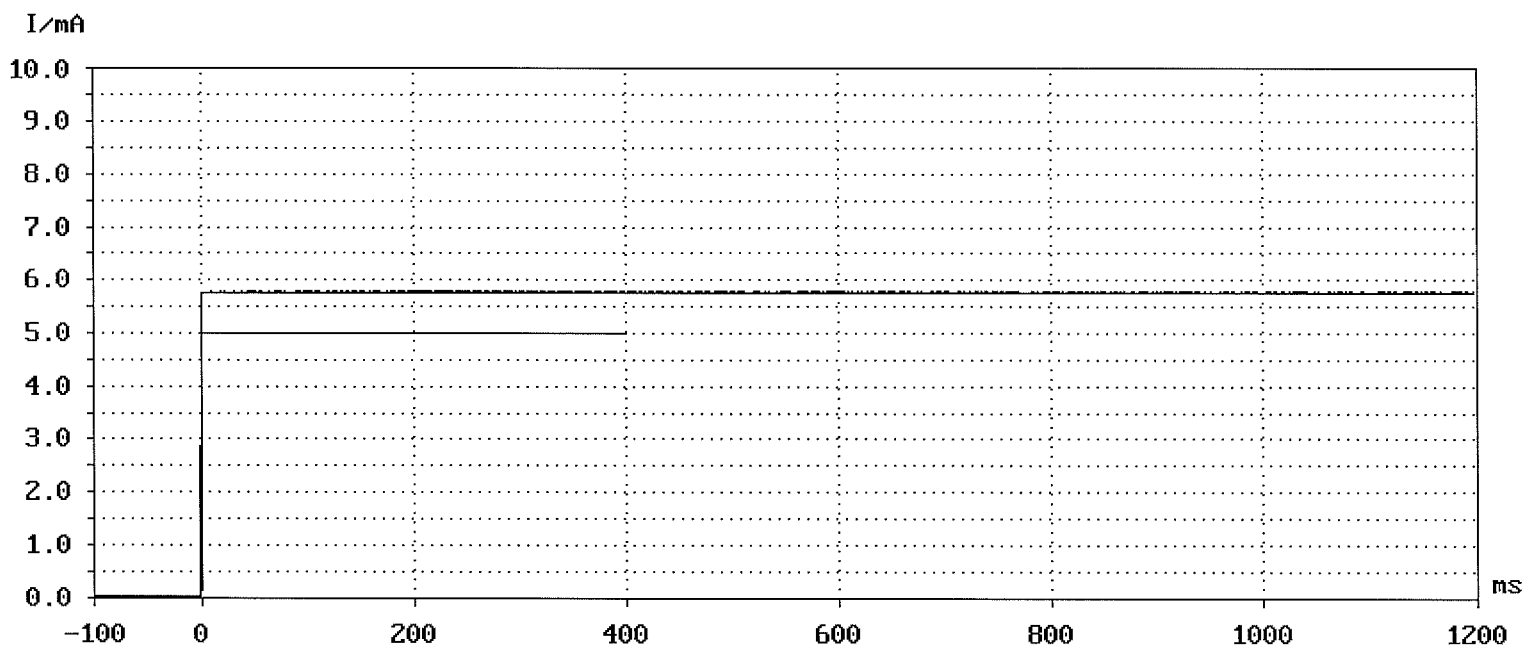


TBR21 - 4.6.2 Loop current characteristics

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Trigger	: OK
TEUT	: Facsimile Kit for M[illegible]rrent limitation		: 100.0 mA	I [mA]	: 0.1
Number of TEUT	: 214007009	Polarity	: Normal	Event	: 1. pos. Edge
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 8000.0 Ohm	Delay [ms]	: - 100
Date	: 27.12.10	Requirement: Current curve		Sample [ms]	: 0.2
Time	: 16:21.17	shall fulfil values of table 3		Limit td	: 7.0 ms
		Data set	: TBR21-4.6.2 8k		
Remark	: -				

Tolerance mask violat.: 0.0 ms

Verdict : PASS

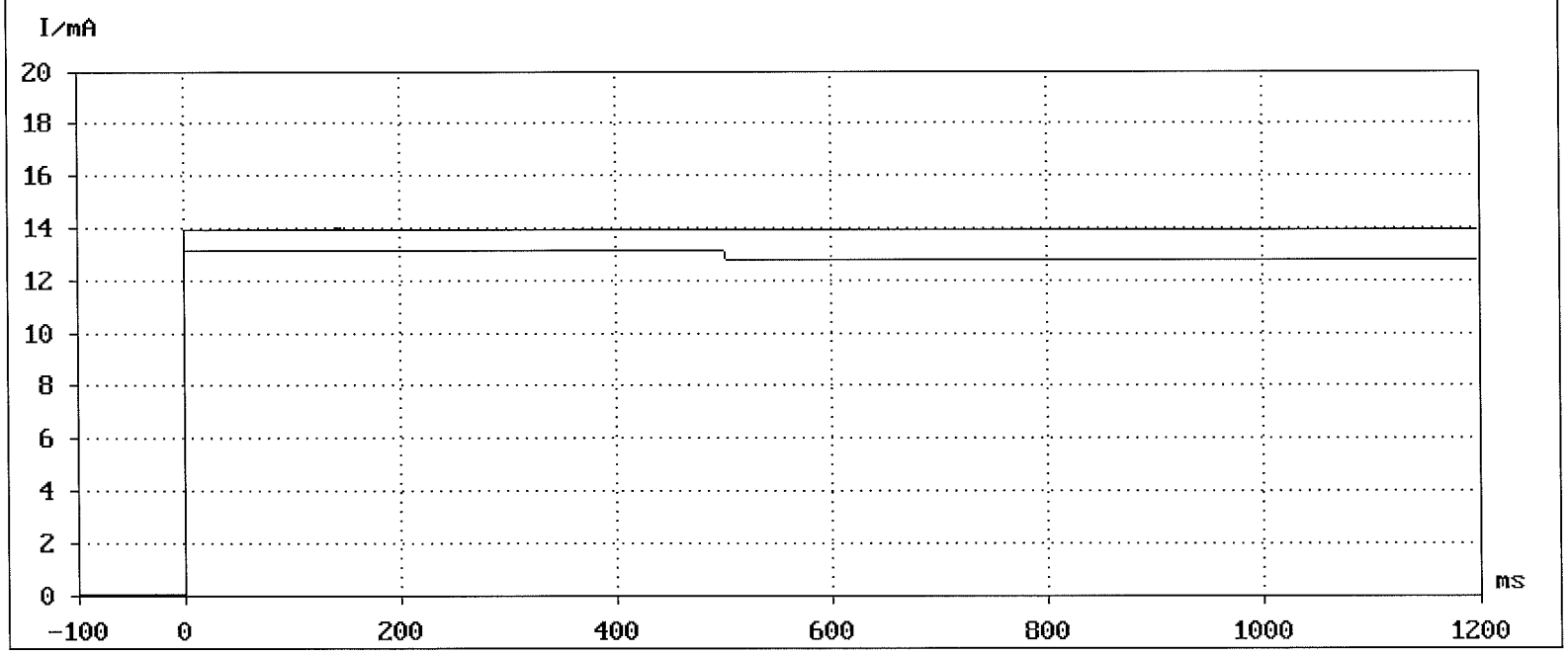


TBR21 - 4.6.2 Loop current characteristics

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Trigger	: OK
TEUT	: Facsimile Kit for [illegible]rrent limitation		: 100.0 mA	I [mA]	: 0.1
Number of TEUT	: 214007009	Polarity	: Normal	Event	: 1. pos. Edge
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 3200.0 Ohm	Delay [ms]	: - 100
Date	: 27.12.10	Requirement: Current curve		Sample [ms]	: 0.2
Time	: 16:22.34	shall fulfil values of table 4		Limit td	: 7.0 ms
		Data set	: TBR21-4.6.2 3k2		
Remark	: -				

Tolerance mask violat.: 0.0 ms

Verdict : PASS

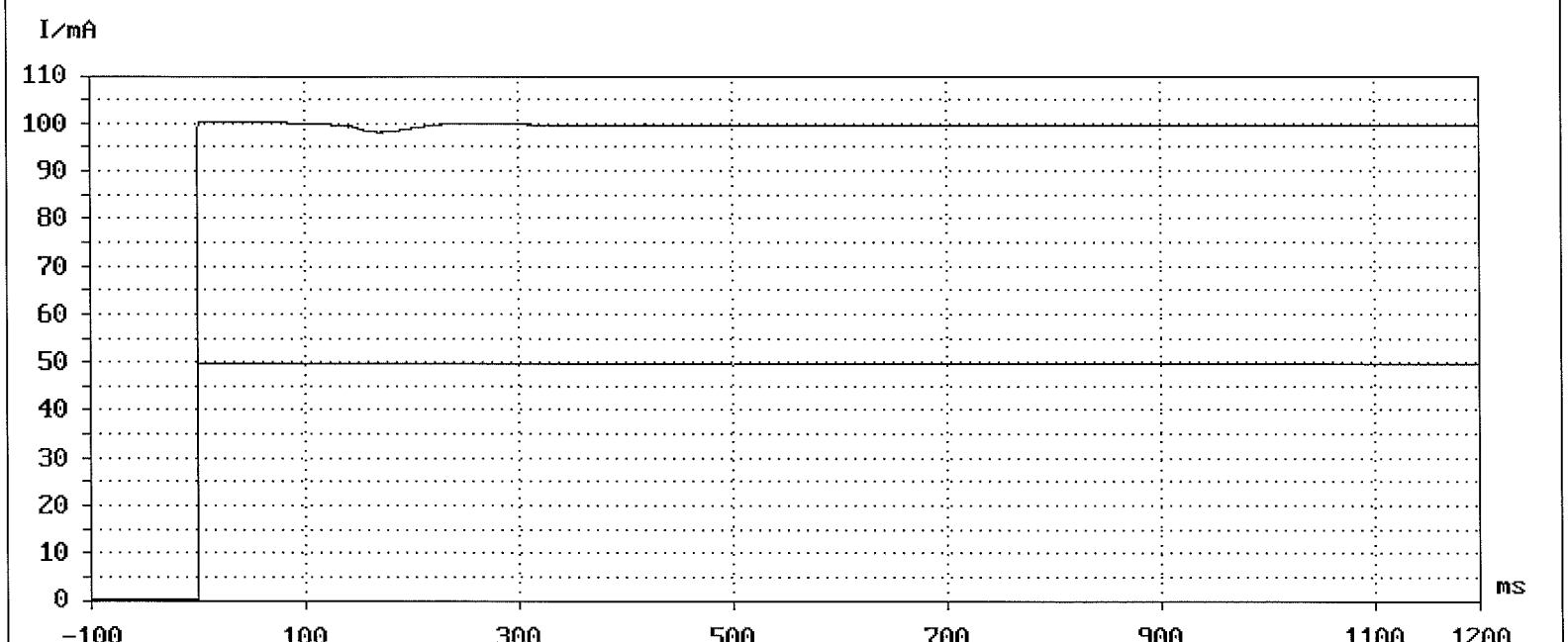


TBR21 - 4.6.2 Loop current characteristics

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Trigger	: OK
TEUT	: Facsimile Kit for M[illegible]rrent limitation		: 100.0 mA	I [mA]	: 0.1
Number of TEUT	: 214007009	Polarity	: Normal	Event	: 1. pos. Edge
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 230.0 Ohm	Delay [ms]	: - 100
Date	: 27.12.10	Requirement: Current curve		Sample [ms]	: 0.2
Time	: 16:23.53	shall fulfil values of table 4		Limit td	: 7.0 ms
		Data set	: TBR21-4.6.2 230		
Remark	: -				

Tolerance mask violat.: 0.0 ms

Verdict : PASS

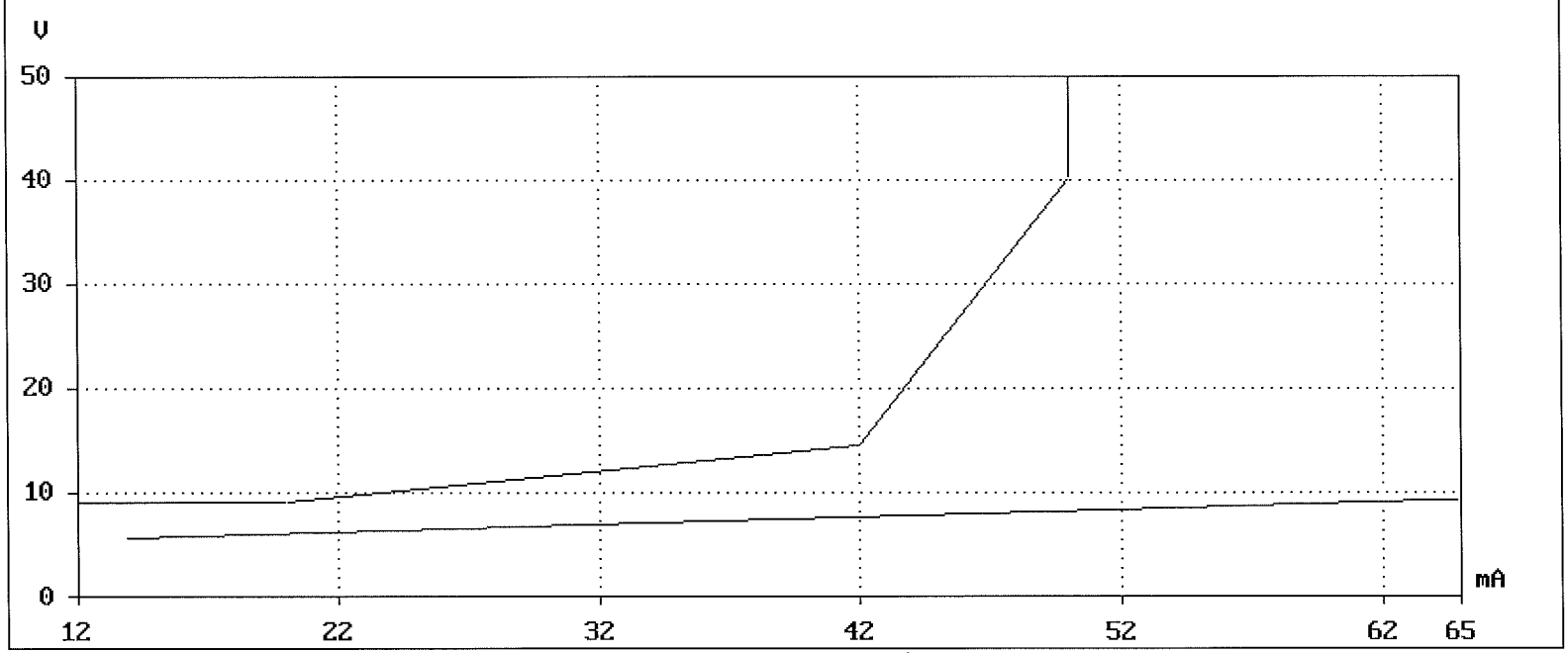


TBR21 - 4.7.1 DC characteristics

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V
TEUT	: Facsimile Kit for M	Settling Time	: 3.0 sec
Number of TEUT	: 214007009	Feeding	: 230/850/2050/3200 Ohm normal/inverted
Manufacturer	: Kyocera Mita Corp.	Requirement	: The DC characteristics
Date	: 27.12.10	shall not exceed the limits	
Time	: 16:30.49	Data set	: TBR-21 Except 60mA N
Remark	: -		

Mask violations: 0

Verdict : PASS

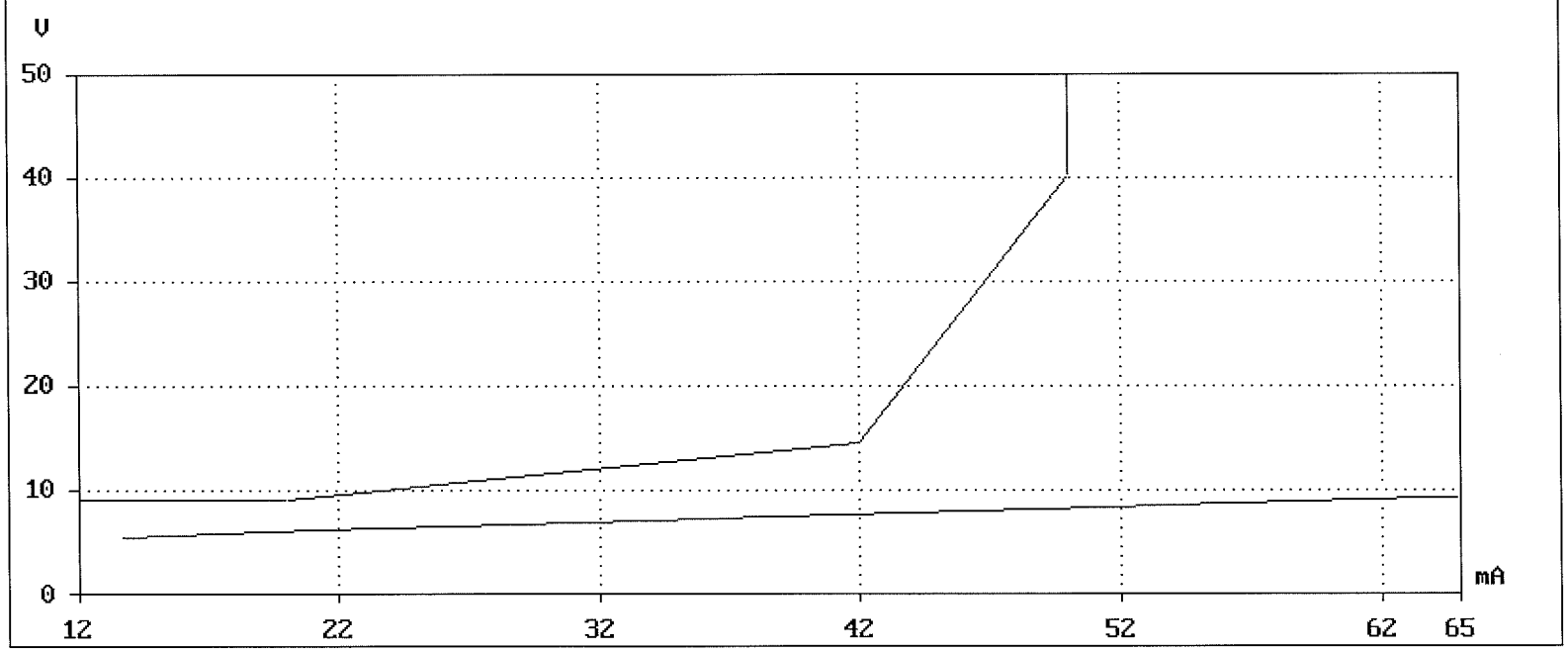


TBR21 - 4.7.1 DC characteristics

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V
TEUT	: Facsimile Kit for	Settling Time	: 3.0 sec
Number of TEUT	: 214007009	Feeding	: 230/850/2050/3200 Ohm normal/inverted
Manufacturer	: Kyocera Mita Corp.	Requirement	: The DC characteristics
Date	: 27.12.10	shall not exceed the limits	
Time	: 16:35.09	Data set	: TBR-21 Except 60mA I
Remark	: -		

Mask violations: 0

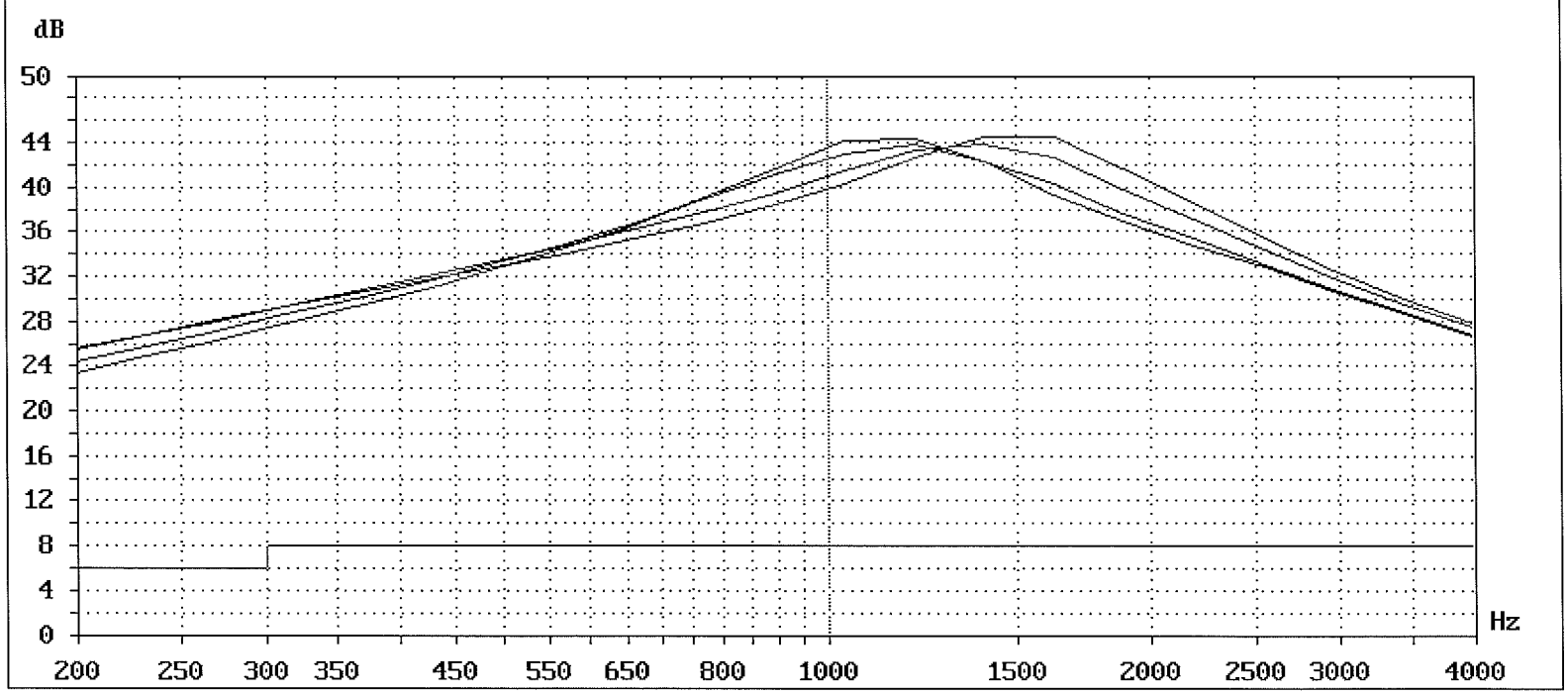
Verdict : PASS



TBR21 - 4.7.2 Impedance - Return loss

Comission : 214007009
Printing time : 27.12.10 16:40.18
Graph 1
Graph 2
Graph 3
Graph 4

Requirement : The result curve
shall not be less than the limits



Return loss
Comission : 214007009 Printing time : 27.12.10 16:40.18

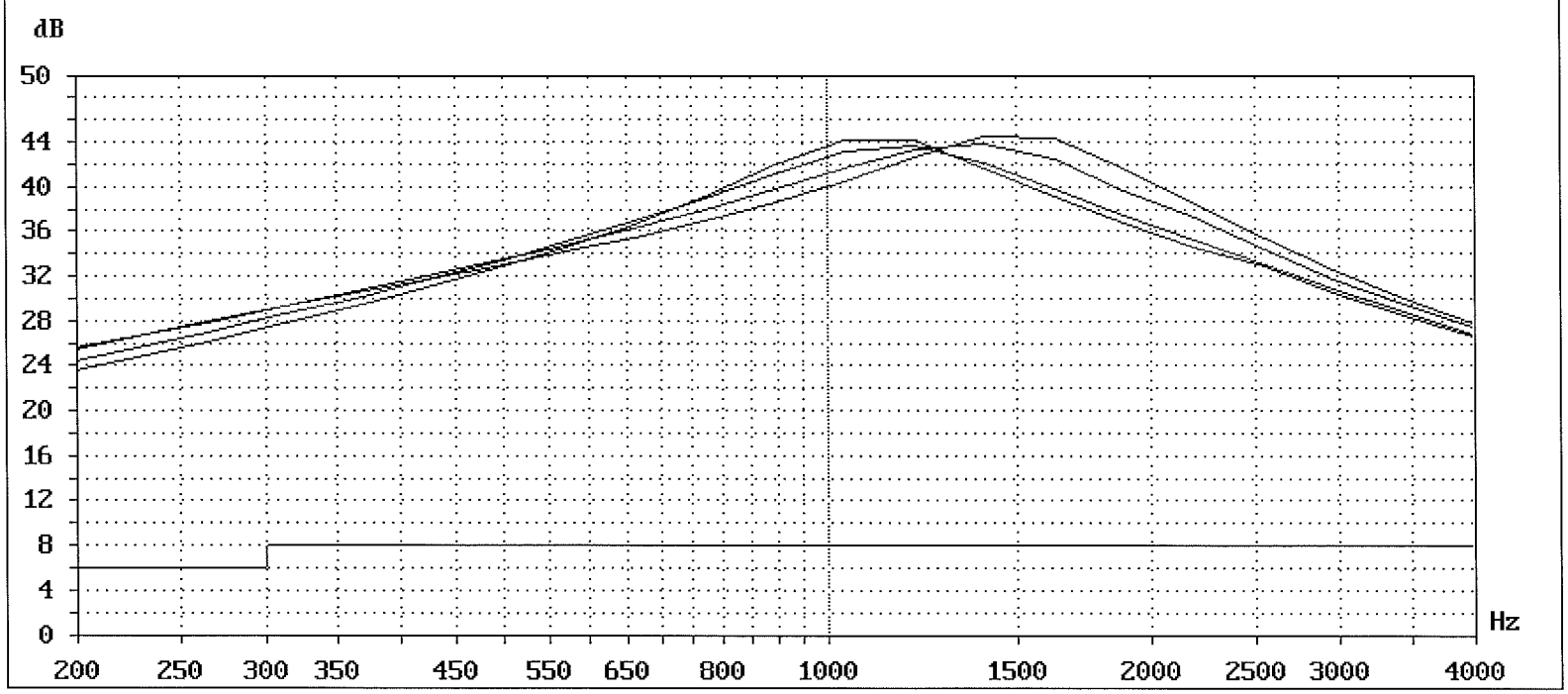
	Graph 1	Graph 2
Model No.	FAX System(V)	FAX System(V)
TEUT	Facsimile Kit for MFP	Facsimile Kit for MFP
Number of TEUT	214007009	214007009
Manufacturer	Kyocera Mita Corp.	Kyocera Mita Corp.
Date	27.12.10	27.12.10
Time	16:37.36	16:38.08
Feeding Voltage	50.0 V	50.0 V
Current Limitation	80.0 mA	80.0 mA
Polarity	Normal	Normal
Feeding Resistor	230 Ω	850 Ω
Data set	TBR21-4.7.2 N	TBR21-4.7.2 N
Feeding bridge	TBR21	TBR21
Level	-10.0 dBV	-10.0 dBV
Ref.-imp. Zr	Zr TBR21	Zr TBR21
Call setup	outgoing	outgoing
Verdict	PASS	PASS
Remark	-	-

	Graph 3	Graph 4
Model No.	FAX System(V)	FAX System(V)
TEUT	Facsimile Kit for MFP	Facsimile Kit for MFP
Number of TEUT	214007009	214007009
Manufacturer	Kyocera Mita Corp.	Kyocera Mita Corp.
Date	27.12.10	27.12.10
Time	16:38.38	16:39.08
Feeding Voltage	50.0 V	50.0 V
Current Limitation	80.0 mA	80.0 mA
Polarity	Normal	Normal
Feeding Resistor	2050 Ω	3200 Ω
Data set	TBR21-4.7.2 N	TBR21-4.7.2 N
Feeding bridge	TBR21	TBR21
Level	-10.0 dBV	-10.0 dBV
Ref.-imp. Zr	Zr TBR21	Zr TBR21
Call setup	outgoing	outgoing
Verdict	PASS	PASS
Remark	-	-

TBR21 - 4.7.2 Impedance - Return loss

Comission : 214007009
Printing time : 27.12.10 16:43.13
Graph 1
Graph 2
Graph 3
Graph 4

Requirement : The result curve
shall not be less than the limits



Return loss
Comission : 214007009 Printing time : 27.12.10 16:43.13

	Graph 1	Graph 2
Model No.	FAX System(V)	FAX System(V)
TEUT	Facsimile Kit for MFP	Facsimile Kit for MFP
Number of TEUT	214007009	214007009
Manufacturer	Kyocera Mita Corp.	Kyocera Mita Corp.
Date	27.12.10	27.12.10
Time	16:41.09	16:41.36
Feeding Voltage	50.0 V	50.0 V
Current Limitation	80.0 mA	80.0 mA
Polarity	Inverted	Inverted
Feeding Resistor	230 Ω	850 Ω
Data set	TBR21-4.7.2 N	TBR21-4.7.2 N
Feeding bridge	TBR21	TBR21
Level	-10.0 dBV	-10.0 dBV
Ref.-imp. Zr	Zr TBR21	Zr TBR21
Call setup	outgoing	outgoing
Verdict	PASS	PASS
Remark	-	-

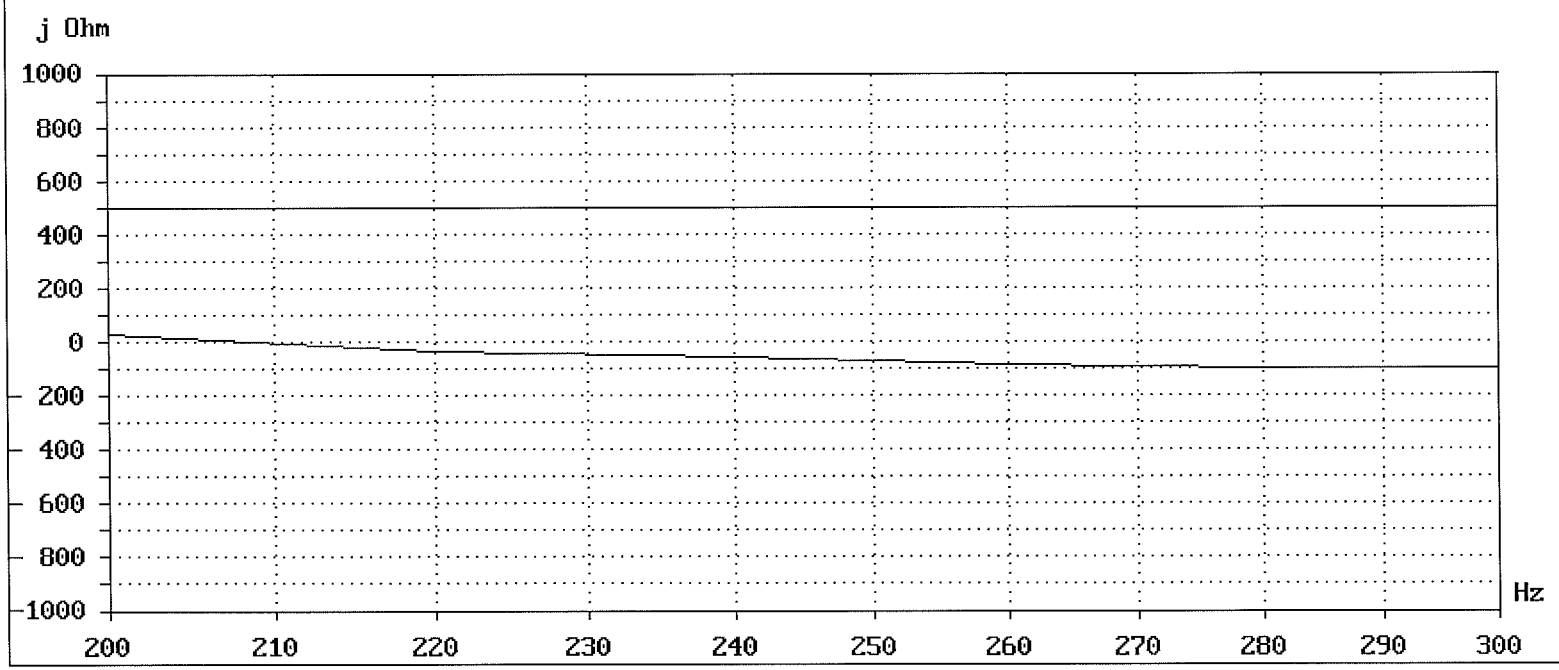
	Graph 3	Graph 4
Model No.	FAX System(V)	FAX System(V)
TEUT	Facsimile Kit for MFP	Facsimile Kit for MFP
Number of TEUT	214007009	214007009
Manufacturer	Kyocera Mita Corp.	Kyocera Mita Corp.
Date	27.12.10	27.12.10
Time	16:42.07	16:42.34
Feeding Voltage	50.0 V	50.0 V
Current Limitation	80.0 mA	80.0 mA
Polarity	Inverted	Inverted
Feeding Resistor	2050 Ω	3200 Ω
Data set	TBR21-4.7.2 N	TBR21-4.7.2 N
Feeding bridge	TBR21	TBR21
Level	-10.0 dBV	-10.0 dBV
Ref.-imp. Zr	Zr TBR21	Zr TBR21
Call setup	outgoing	outgoing
Verdict	PASS	PASS
Remark	-	-

TBR21 - 4.7.2 Impedance - inductive component of impedance

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Feeding bridge	: TBR21 Lf=5H
TEUT	: Facsimile Kit for [illegible]rrent limitation		: 80.0 mA	Level	: -10.0 dBV
Number of TEUT	: 214007009	Polarity	: Normal	Call setup	: outgoing
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 230.0 Ohm	Display	: Reactance
Date	: 27.12.10	Requirement : The result curve			
Time	: 16:44.01	shall not be less the limits			
		Data set	: TBR21-4.7.2 230 N		
Remark	: -				

Mask violations : 0

Verdict : PASS

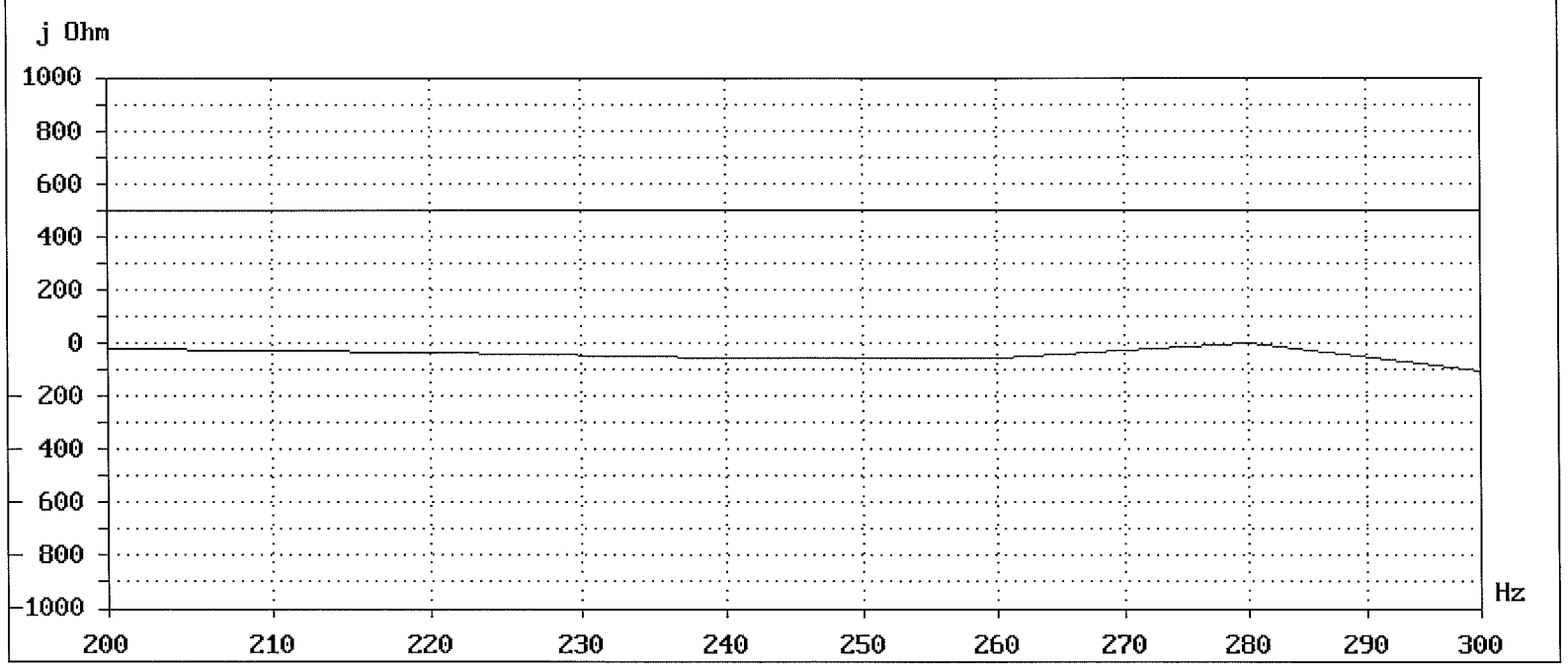


TBR21 - 4.7.2 Impedance - inductive component of impedance

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Feeding bridge	: TBR21
TEUT	: Facsimile Kit for	Current limitation	: 80.0 mA	Level	: -10.0 dBV
Number of TEUT	: 214007009	Polarity	: Inverted	Call setup	: outgoing
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 850.0 Ohm	Display	: Reactance
Date	: 27.12.10	Requirement	: The result curve		
Time	: 16:46.18	shall not be less the limits			
		Data set	: TBR21-4.7.2 850 I		
Remark	: -				

Mask violations : 0

Verdict : PASS

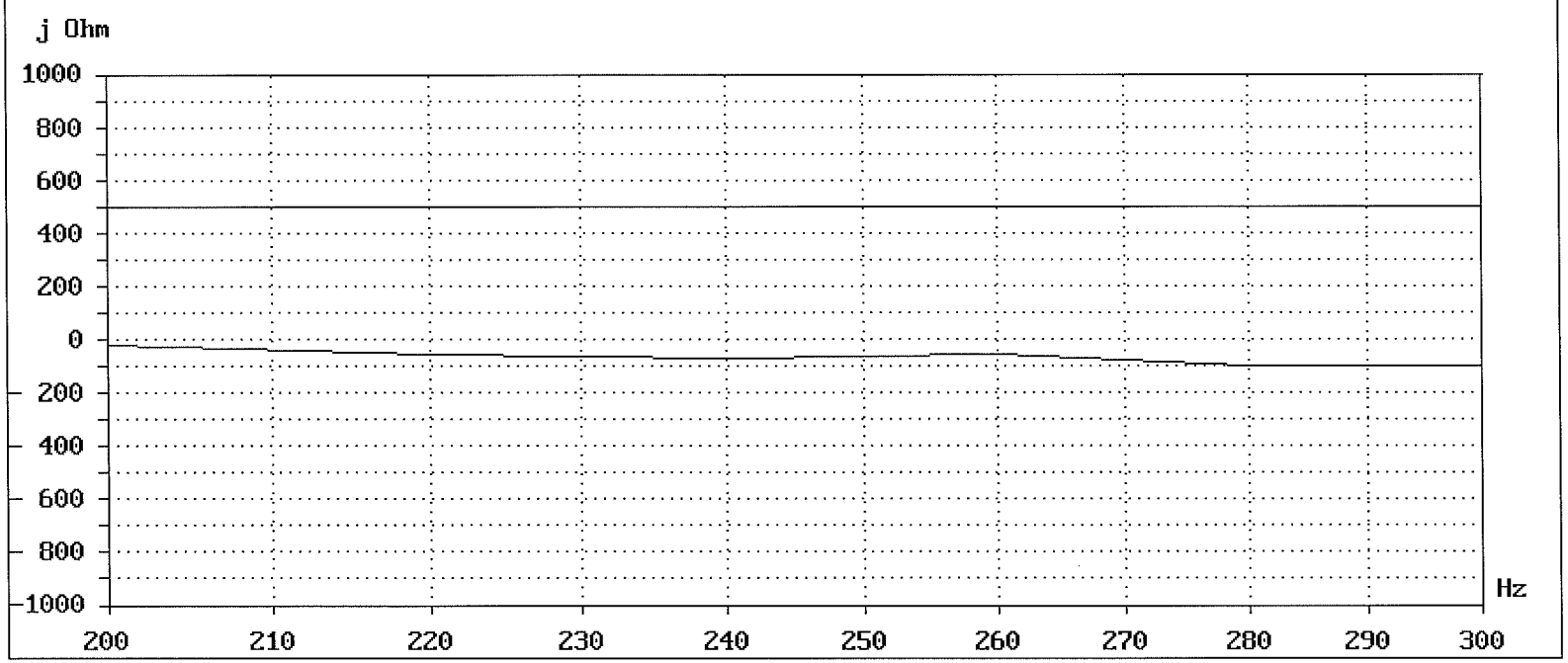


TBR21 - 4.7.2 Impedance - inductive component of impedance

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Feeding bridge	: TBR21
TEUT	: Facsimile Kit for [illegible]	Current limitation	: 80.0 mA	Level	: -10.0 dBV
Number of TEUT	: 214007009	Polarity	: Normal	Call setup	: outgoing
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 2050.0 Ohm	Display	: Reactance
Date	: 27.12.10	Requirement	: The result curve		
Time	: 16:49.26	shall not be less the limits			
		Data set	: TBR21-4.7.2 2050 N		
Remark	: -				

Mask violations : 0

Verdict : PASS

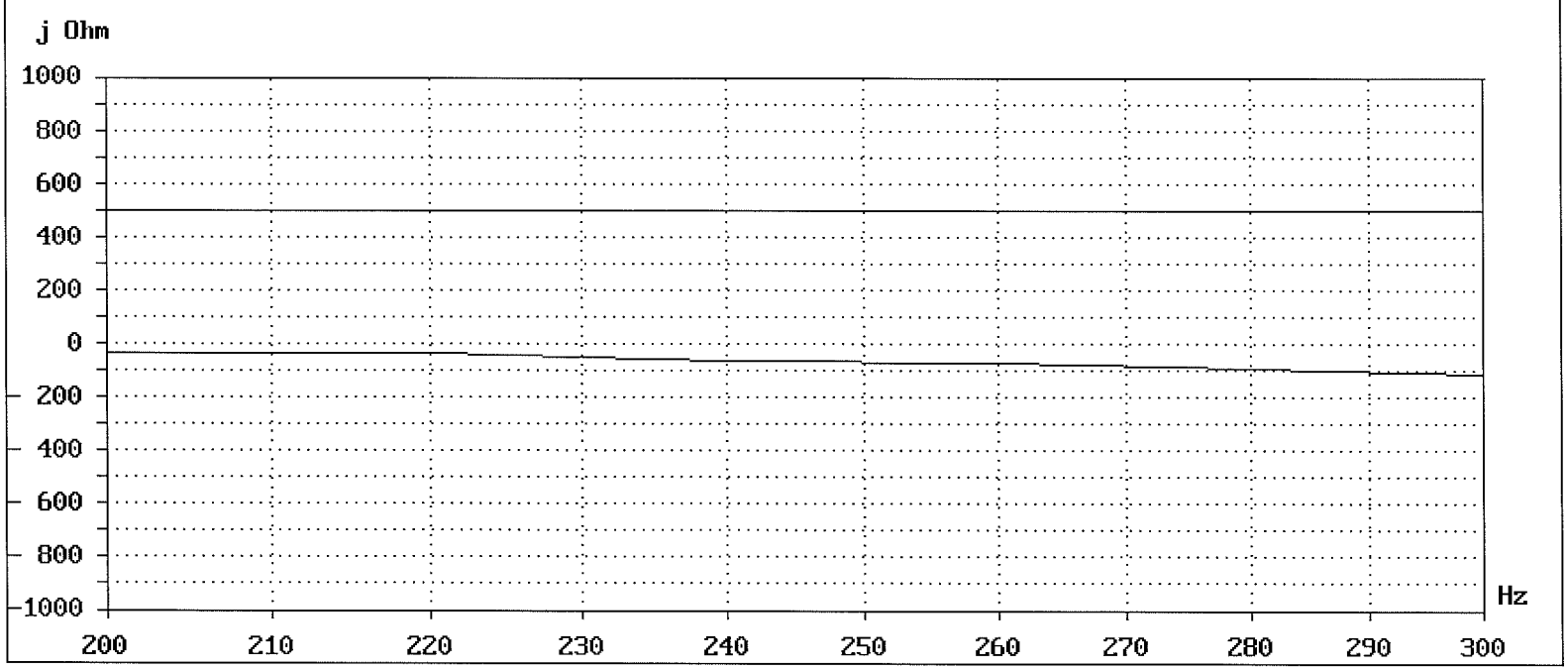


TBR21 - 4.7.2 Impedance - inductive component of impedance

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Feeding bridge	: TBR21
TEUT	: Facsimile Kit for M[illegible]rrent limitation		: 80.0 mA	Level	: -10.0 dBV
Number of TEUT	: 214007009	Polarity	: Inverted	Call setup	: outgoing
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 3200.0 Ohm	Display	: Reactance
Date	: 27.12.10	Requirement : The result curve			
Time	: 16:51.51	shall not be less the limits			
		Data set	: TBR21-4.7.2 3200 I		
Remark	: -				

Mask violations : 0

Verdict : PASS



Protocol for Maximum mean sending level

TBR21-4.7.3.1 Mean sending level / TBR21-4.7.3.2 Instantaneous voltage

Model No.	: FAX System(V)	Feeding voltage	: 50 V
TEUT	: Facsimile Kit for MFP	Current limitation	: 80 mA
Number of TEUT	: 214007009	Polarity	: Normal
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 230 Ω
Date	: 27.12.10	Trigger lev./delay	: -12.0 dBV 10 msec
Time	: 17:08.06	Receiver impedance	: Zr TBR21
		Receiver filter	: BP 200-3800 Hz
		Call setup	: outgoing
		Gain (internal)	: -6.0 dB

Data set : TBR21-4.7.3.1 230 N
Requirement : The mean sending level shall not be greater than -9.7 dBV
The instantaneous voltage shall not exceed 5.0 Vpp.

Comm. Signal : V.34 33600bps

Instantaneous Volt: 1.20 Vpp

Verdict : PASS

Mean level
dBV

Protocol for Maximum mean sending level

TBR21-4.7.3.1 Mean sending level / TBR21-4.7.3.2 Instantaneous voltage

Model No.	: FAX System(V)	Feeding voltage	: 50 V
TEUT	: Facsimile Kit for MFP	Current limitation	: 80 mA
Number of TEUT	: 214007009	Polarity	: Inverted
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 230 Ω
Date	: 27.12.10	Trigger lev./delay	: -12.0 dBV 10 msec
Time	: 17:19.09	Receiver impedance	: Zr TBR21
		Receiver filter	: BP 200-3800 Hz
		Call setup	: outgoing
		Gain (internal)	: -6.0 dB

Data set : TBR21-4.7.3.1 230 I
Requirement : The mean sending level shall not be greater than -9.7 dBV
The instantaneous voltage shall not exceed 5.0 Vpp.

Comm. Signal : V.17 14400bps

Instantaneous Volt: 1.12 Vpp

Verdict : PASS

	Mean level dBV
.	- 13.0

Protocol for Maximum mean sending level

TBR21-4.7.3.1 Mean sending level / TBR21-4.7.3.2 Instantaneous voltage

Model No.	: FAX System(V)	Feeding voltage	: 50 V
TEUT	: Facsimile Kit for MFP	Current limitation	: 80 mA
Number of TEUT	: 214007009	Polarity	: Normal
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 3200 Ω
Date	: 27.12.10	Trigger lev./delay	: -12.0 dBV 10 msec
Time	: 17:29.37	Receiver impedance	: Zr TBR21
		Receiver filter	: BP 200-3800 Hz
		Call setup	: outgoing
		Gain (internal)	: -6.0 dB

Data set : TBR21-4.7.3.1 3200 N
Requirement : The mean sending level shall not be greater than -9.7 dBV
The instantaneous voltage shall not exceed 5.0 Vpp.

Comm. Signal : V.29 9600bps Instantaneous Volt: 1.12 Vpp

Verdict : PASS

	Mean level dBV
.	- 13.0

Protocol for Maximum mean sending level

TBR21-4.7.3.1 Mean sending level / TBR21-4.7.3.2 Instantaneous voltage

Model No.	: FAX System(V)	Feeding voltage	: 50 V
TEUT	: Facsimile Kit for MFP	Current limitation	: 80 mA
Number of TEUT	: 214007009	Polarity	: Inverted
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 3200 Ω
Date	: 27.12.10	Trigger lev./delay	: -12.0 dBV 10 msec
Time	: 17:44.56	Receiver impedance	: Zr TBR21
		Receiver filter	: BP 200-3800 Hz
		Call setup	: outgoing
		Gain (internal)	: -6.0 dB

Data set : TBR21-4.7.3.1 3200 I
Requirement : The mean sending level shall not be greater than -9.7 dBV
The instantaneous voltage shall not exceed 5.0 Vpp.

Comm. Signal : V.27ter 4800bps Instantaneous Volt: 0.88 Vpp

Verdict : PASS

	Mean level dBV
.	- 13.0

Protocol for Maximum mean sending level

TBR21-4.7.3.1 Mean sending level / TBR21-4.7.3.2 Instantaneous voltage

Model No.	: FAX System(V)	Feeding voltage	: 50 V
TEUT	: Facsimile Kit for MFP	Current limitation	: 80 mA
Number of TEUT	: 214007009	Polarity	: Normal
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 230 Ω
Date	: 27.12.10	Trigger lev./delay	: -12.0 dBV 10 msec
Time	: 17:55.46	Receiver impedance	: Zr TBR21
		Receiver filter	: BP 200-3800 Hz
		Call setup	: outgoing
		Gain (internal)	: -6.0 dB

Data set : TBR21-4.7.3.1 230 N
Requirement : The mean sending level shall not be greater than -9.7 dBV
The instantaneous voltage shall not exceed 5.0 Vpp.

Comm. Signal : V.21 300bps

Instantaneous Volt: 0.72 Vpp

Verdict : PASS

Mean level
dBV

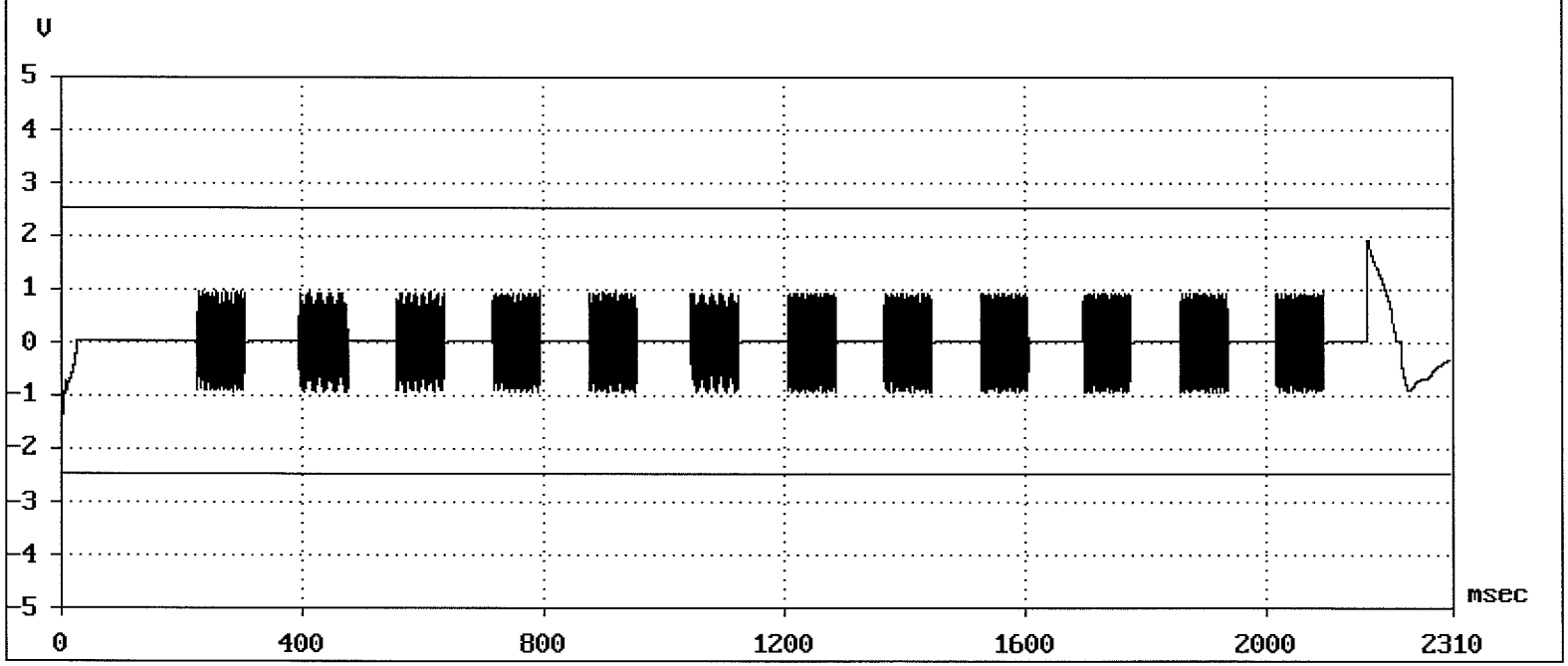
. - 13.1

TBR21 - 4.7.3.2 Instantaneous voltage during DTMF signalling

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Feeding bridge	: TBR21
TEUT	: Facsimile Kit for M	Polarity	: Normal	Trigger	: OK
Number of TEUT	: 214007009	Feeding resistor	: 230.0 Ohm	Trigger level	: -12 dBV min. 1
Manufacturer	: Kyocera Mita Corp.	Receiver imped.	: Zr TBR21	Gain (internal)	: -12.0 dB
Date	: 28.12.10	Requirement: The results shall		Filter	: BP 200-3800 Hz
Time	: 11:44.35	be <= 5.0 Vpp for 0.0 msec		Dialtone	: yes
Remark	: -	Data set	: TBR21-4.7.3.2 DTMF 230 N		

Mask violation : 0

Verdict : PASS

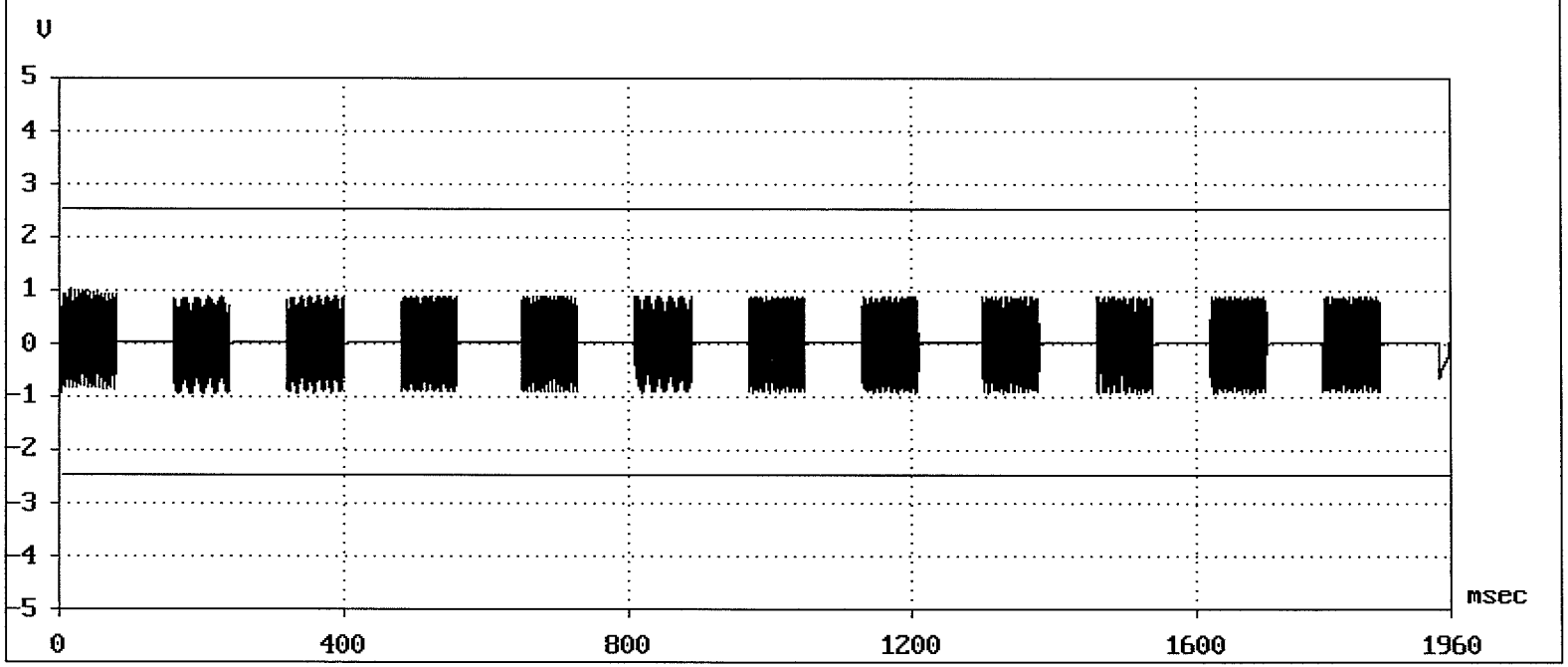


TBR21 - 4.7.3.2 Instantaneous voltage during DTMF signalling

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Feeding bridge	: TBR21
TEUT	: Facsimile Kit for M	Polarity	: Inverted	Trigger	: OK
Number of TEUT	: 214007009	Feeding resistor	: 3200.0 Ohm	Trigger level	: -12 dBV min. 1
Manufacturer	: Kyocera Mita Corp.	Receiver imped.	: Zr TBR21	Gain (internal)	: -12.0 dB
Date	: 28.12.10	Requirement: The results shall		Filter	: BP 200-3800 Hz
Time	: 11:48.10	be <= 5.0 Vpp for 0.0 msec		Dialtone	: yes
Remark	: -	Data set	: TBR21-4.7.3.2 DTMF 3200 I		

Mask violation : 0

Verdict : PASS

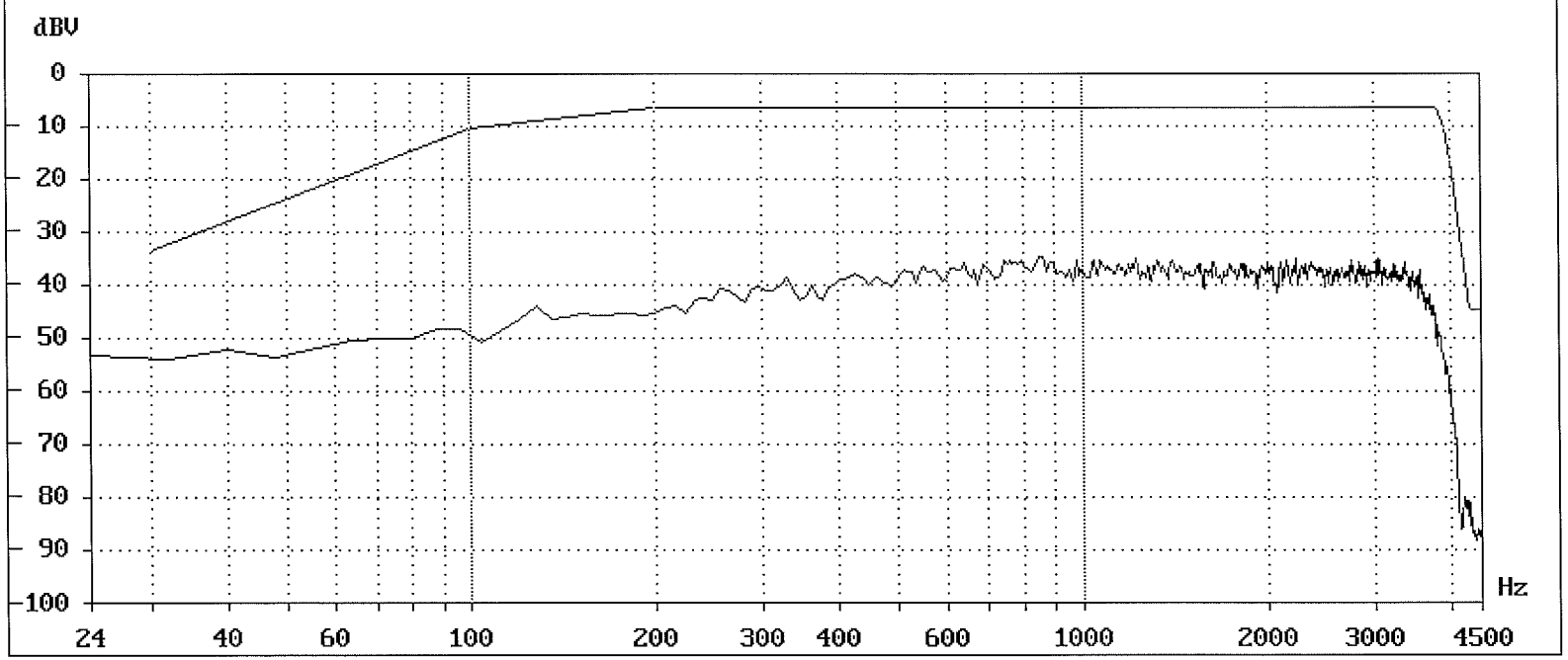


TBR21 - 4.7.3.3 Sending level in a 10 Hz bandwidth

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Feeding bridge	: TBR21
TEUT	: Facsimile Kit for	Current limitation	: 80.0 mA	Max. Level	: - 34.9 dBV
Number of TEUT	: 214007009	Polarity	: Normal	Frequency	: 857 Hz
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 230.0 Ohm	Rx impedance	: Zr TBR21
Date	: 27.12.10	Requirement: The voltage		Call setup	: outgoing
Time	: 17:10.11	shall not exceed the limits			
		Data set	: TBR21-4.7.3.3 230 N		
Remark	: V.34 33600bps				

Mask violation: 0

Verdict : PASS

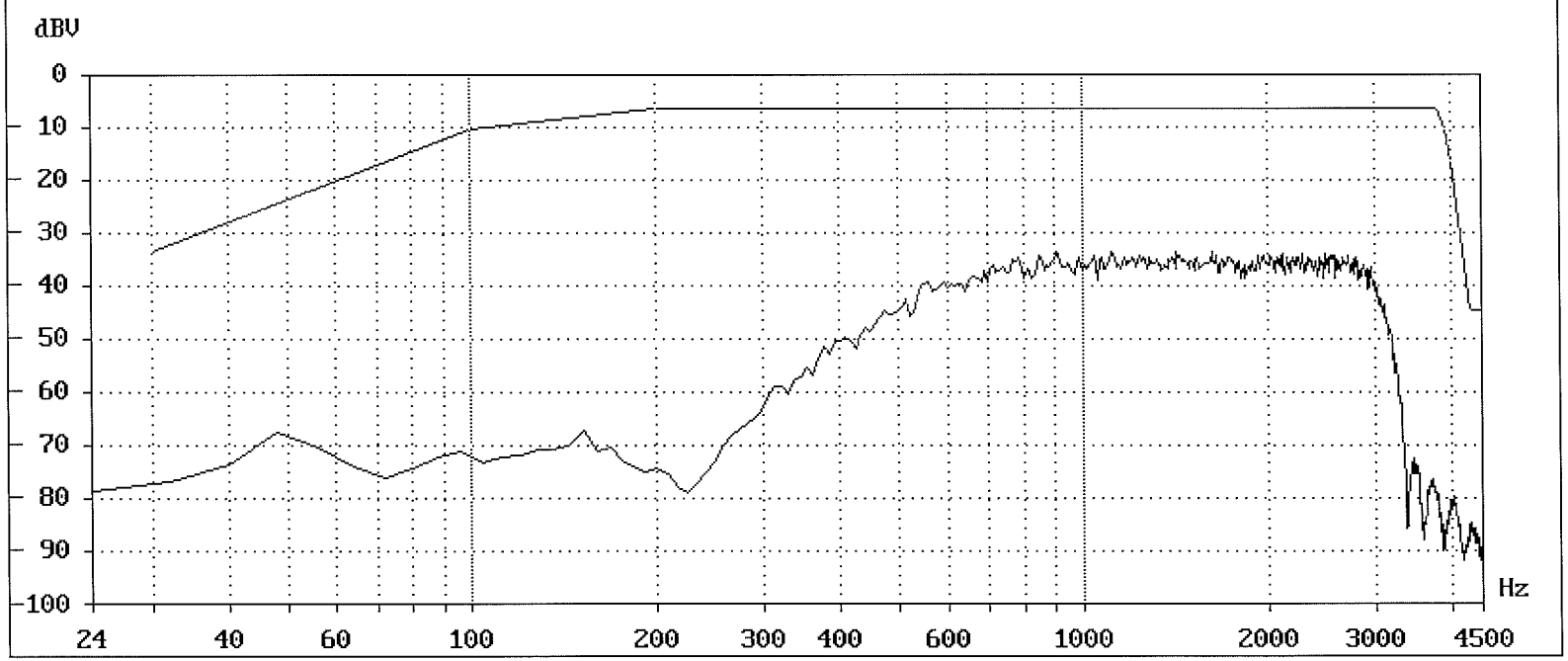


TBR21 - 4.7.3.3 Sending level in a 10 Hz bandwidth

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Feeding bridge	: TBR21
TEUT	: Facsimile Kit for M[illegible]	Current limitation	: 80.0 mA	Max. Level	: - 33.7 dBV
Number of TEUT	: 214007009	Polarity	: Inverted	Frequency	: 1627 Hz
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 230.0 Ohm	Rx impedance	: Zr TBR21
Date	: 27.12.10	Requirement: The voltage		Call setup	: outgoing
Time	: 17:20.35	shall not exceed the limits			
		Data set	: TBR21-4.7.3.3 230 I		
Remark	: V.17 14400bps				

Mask violation: 0

Verdict : PASS

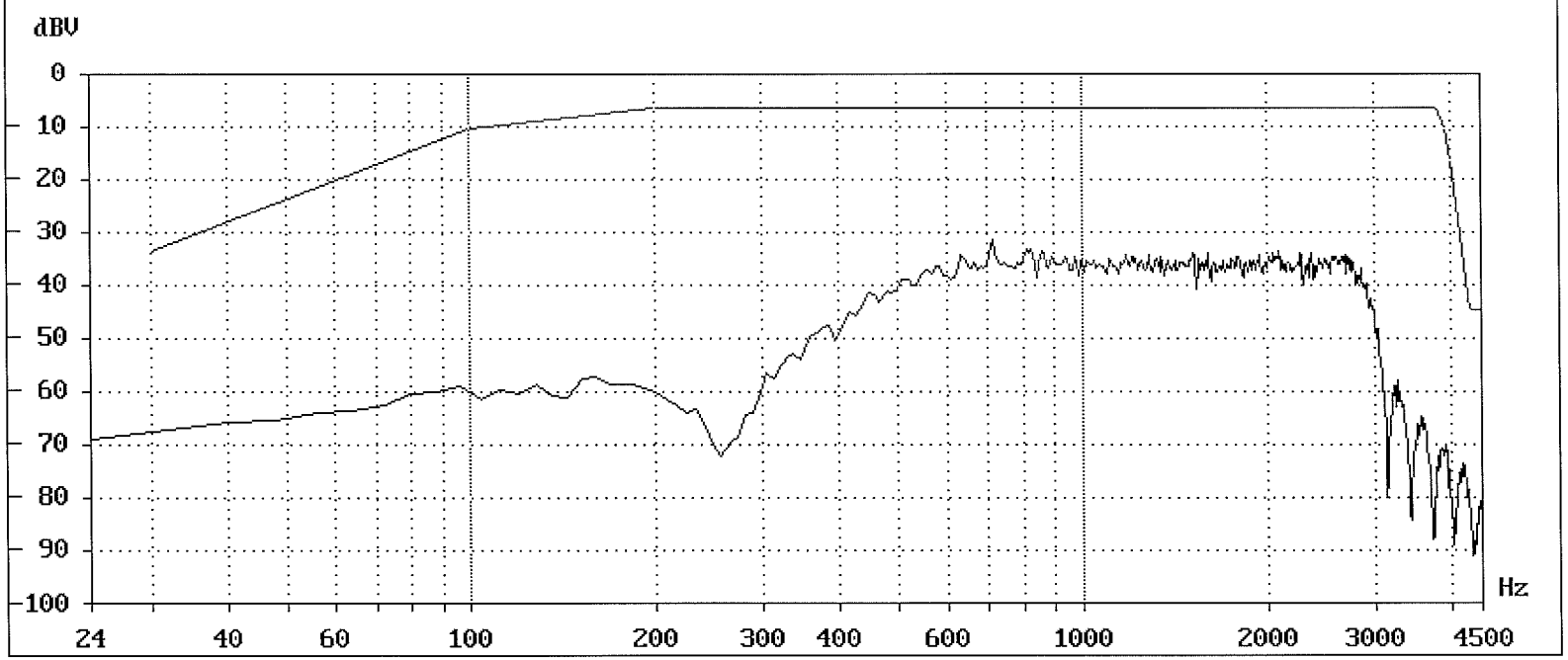


TBR21 - 4.7.3.3 Sending level in a 10 Hz bandwidth

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Feeding bridge	: TBR21
TEUT	: Facsimile Kit for M[illegible]rrent limitation		: 80.0 mA	Max. Level	: - 31.8 dBV
Number of TEUT	: 214007009	Polarity	: Normal	Frequency	: 713 Hz
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 3200.0 Ohm	Rx impedance	: Zr TBR21
Date	: 27.12.10	Requirement: The voltage		Call setup	: outgoing
Time	: 17:31.03	shall not exceed the limits			
		Data set	: TBR21-4.7.3.3 3200 N		
Remark	: V.29 9600bps				

Mask violation: 0

Verdict : PASS

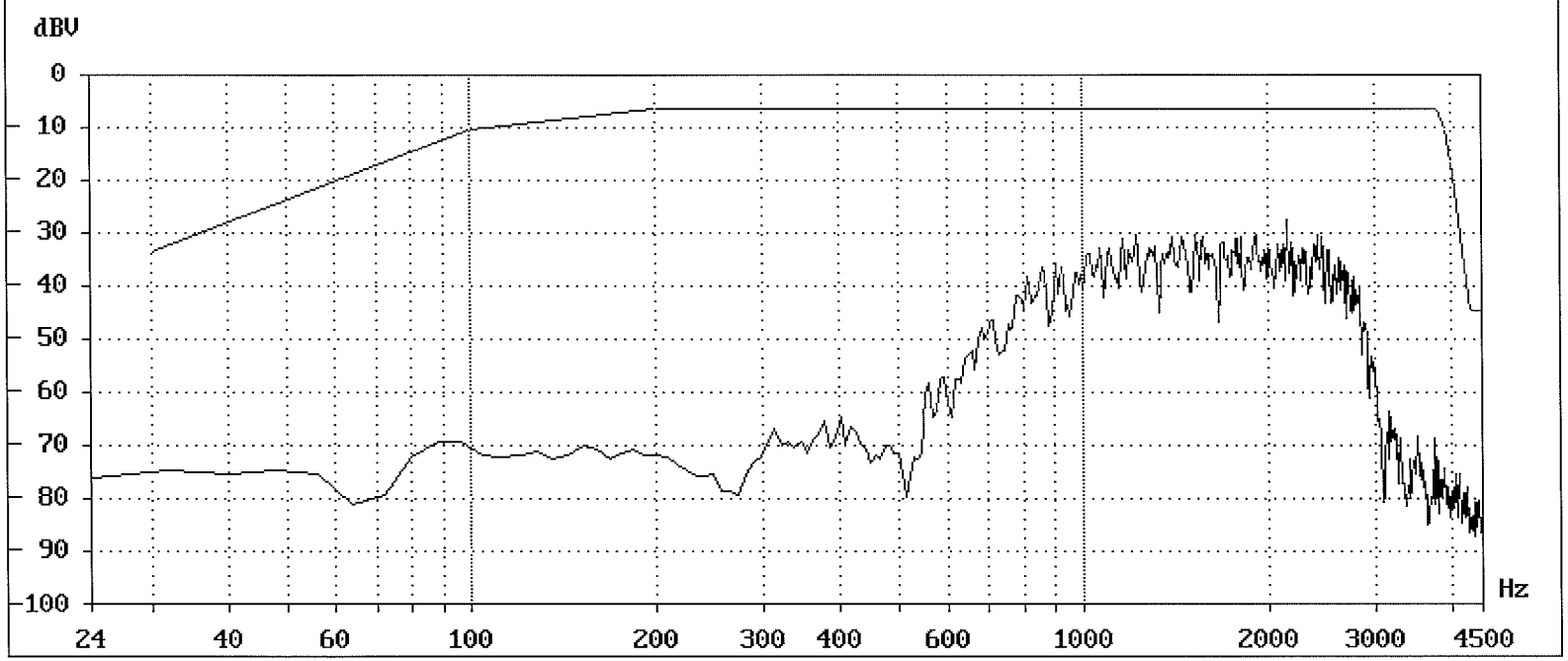


TBR21 - 4.7.3.3 Sending level in a 10 Hz bandwidth

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Feeding bridge	: TBR21
TEUT	: Facsimile Kit for M[illegible]rrent limitation		: 80.0 mA	Max. Level	: - 27.8 dBV
Number of TEUT	: 214007009	Polarity	: Inverted	Frequency	: 2155 Hz
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 3200.0 Ohm	Rx impedance	: Zr TBR21
Date	: 27.12.10	Requirement: The voltage		Call setup	: outgoing
Time	: 17:46.12	shall not exceed the limits			
		Data set	: TBR21-4.7.3.3 3200 I		
Remark	: V.27ter 4800bps				

Mask violation: 0

Verdict : PASS

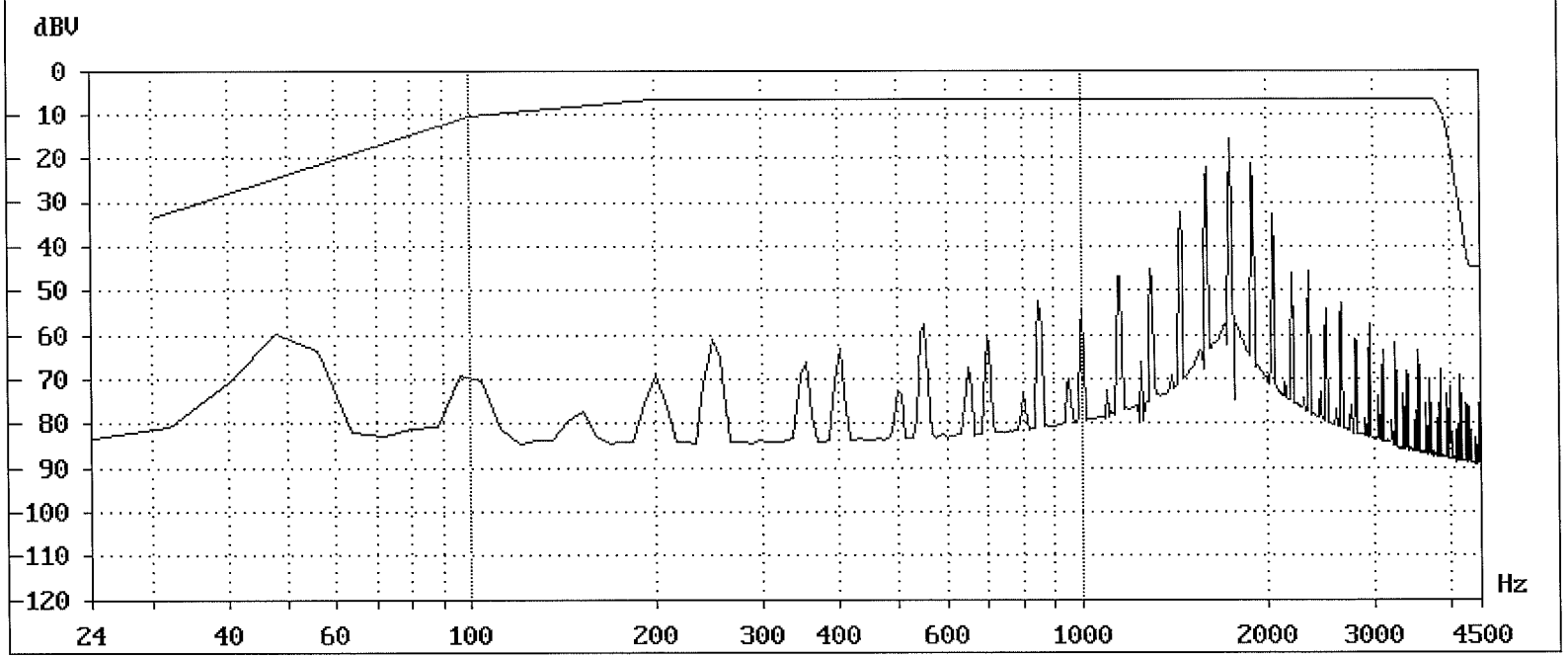


TBR21 - 4.7.3.3 Sending level in a 10 Hz bandwidth

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Feeding bridge	: TBR21
TEUT	: Facsimile Kit for M[illegible]rrent limitation		: 80.0 mA	Max. Level	: - 15.7 dBV
Number of TEUT	: 214007009	Polarity	: Normal	Frequency	: 1747 Hz
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 230.0 Ohm	Rx impedance	: Zr TBR21
Date	: 27.12.10	Requirement: The voltage		Call setup	: outgoing
Time	: 17:57.11	shall not exceed the limits			
		Data set	: TBR21-4.7.3.3 230 N		
Remark	: V.21 300bps				

Mask violation: 0

Verdict : PASS

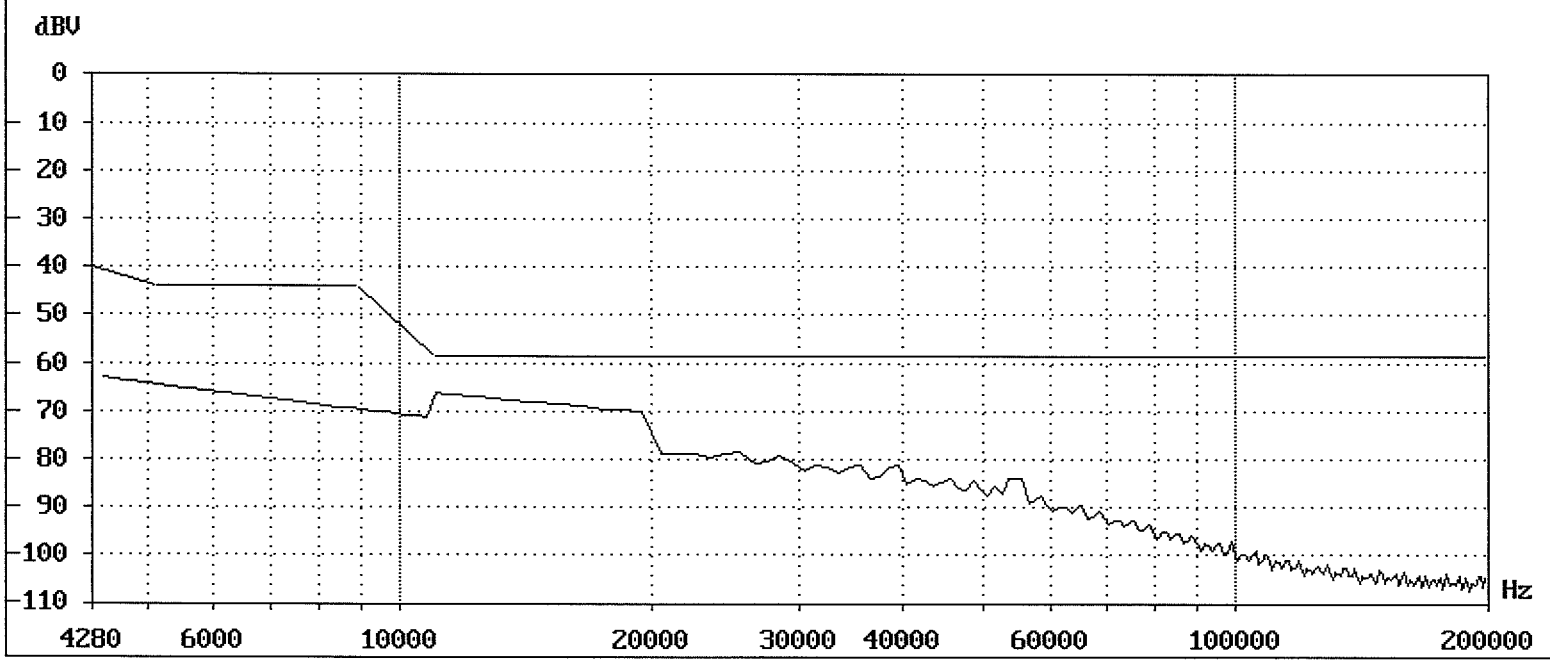


TBR21 - 4.7.3.4.2 Sending level above 4.3 kHz during communication

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Max. Level	: - 68.9 dBV
TEUT	: Facsimile Kit for M	Polarity	: Normal	at Frequency:	4279 Hz
Number of TEUT:	214007009	Feeding Resistor:	230.0 Ohm	Max. Level	: - 62.4 dBV
Manufacturer	: Kyocera Mita Corp.	Feeding Bridge	: TBR21	Frequency	: 4279 Hz
Date	: 4.01.11	Requirement : The voltage level		Rx impedance:	Zr TBR21
Time	: 14:50.21	shall not exceed the limits			
Signal	: \user3	Data set	: TBR21-4.7.3.4.2 230 N		
Remark	: DTMF 3				

Mask violations: 0

Verdict : PASS

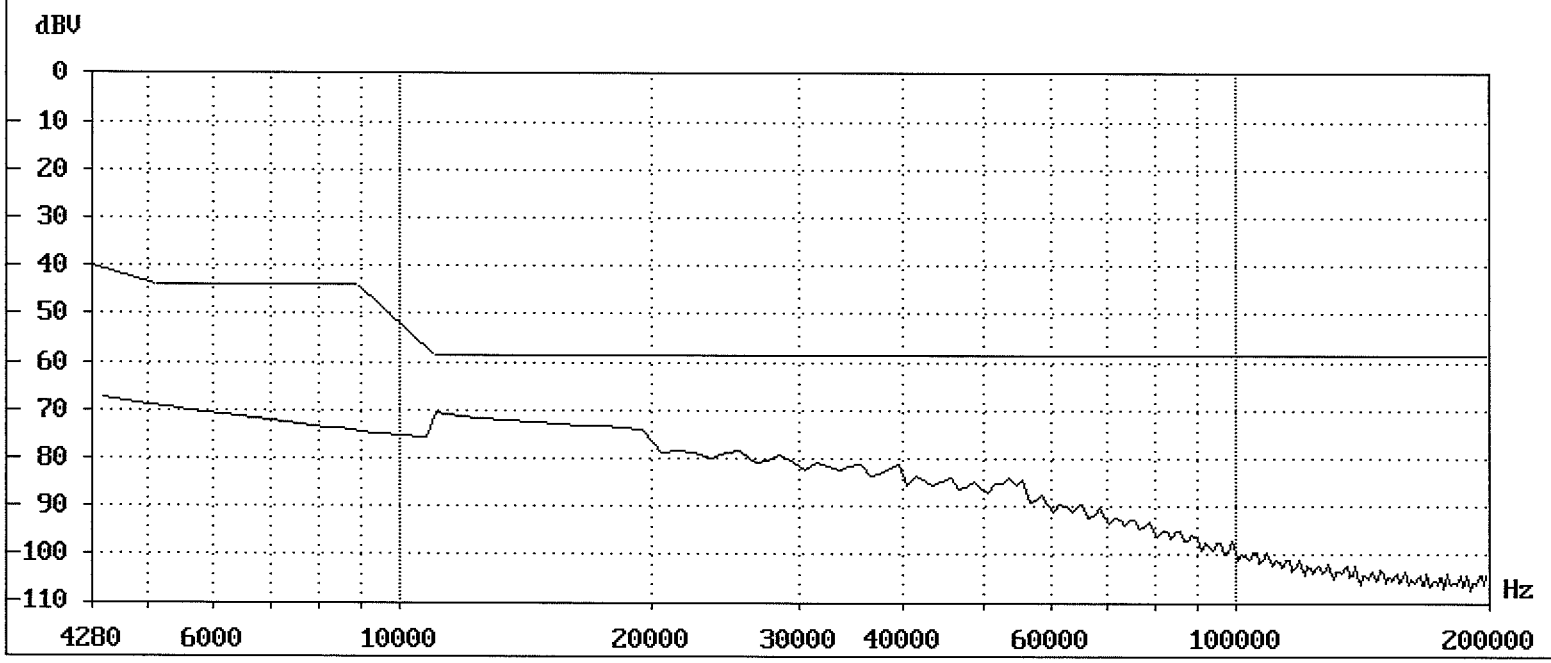


TBR21 - 4.7.3.4.2 Sending level above 4.3 kHz during communication

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Max. Level	: - 73.3 dBV
TEUT	: Facsimile Kit for M	Polarity	: Inverted	at Frequency:	4375 Hz
Number of TEUT:	214007009	Feeding Resistor:	230.0 Ohm	Max. Level	: - 67.0 dBV
Manufacturer	: Kyocera Mita Corp.	Feeding Bridge	: TBR21	Frequency	: 4279 Hz
Date	: 4.01.11	Requirement : The voltage level		Rx impedance:	Zr TBR21
Time	: 14:55.45	shall not exceed the limits			
Signal	: \user3	Data set	: TBR21-4.7.3.4.2 230 I		
Remark	: DTMF 5				

Mask violations: 0

Verdict : PASS

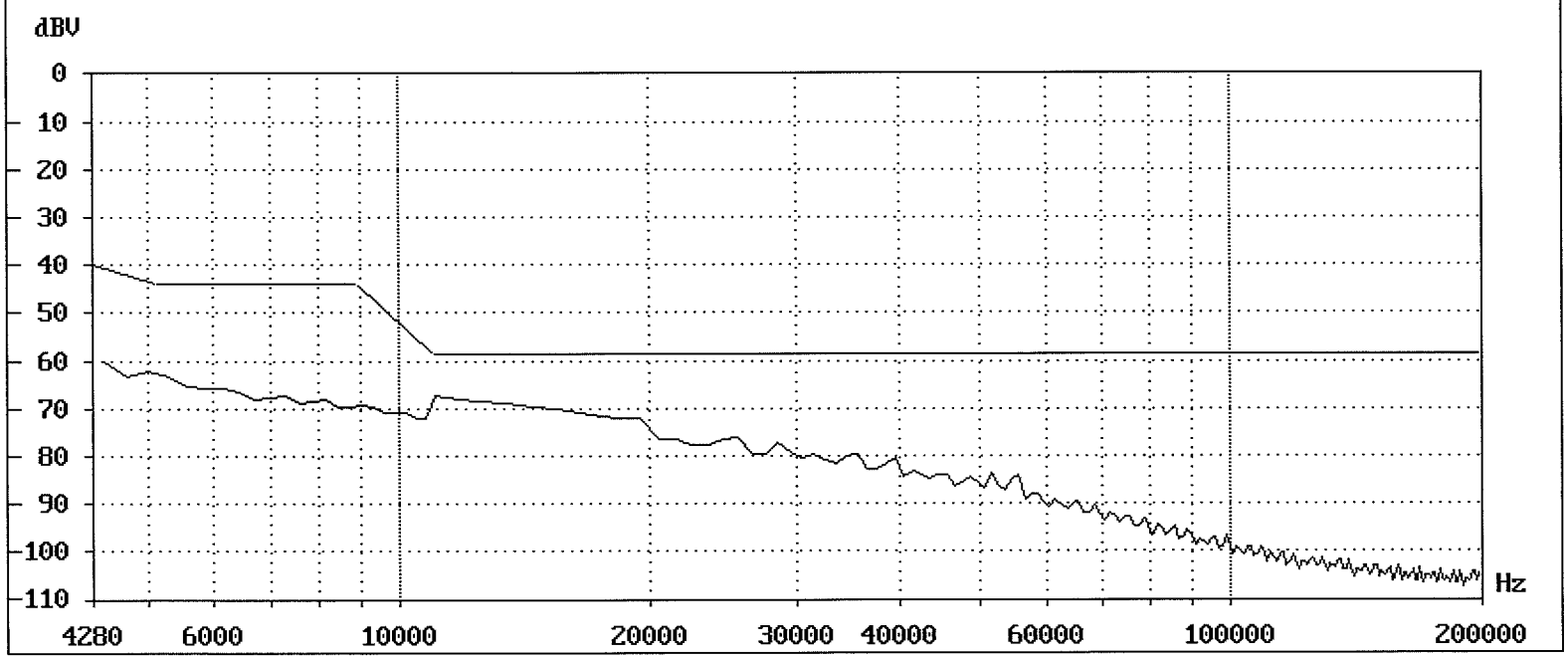


TBR21 - 4.7.3.4.2 Sending level above 4.3 kHz during communication

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Max. Level	: - 61.3 dBV
TEUT	: Facsimile Kit for M[illegible]larity		: Normal	at Frequency:	4471 Hz
Number of TEUT:	214007009	Feeding Resistor:	3200.0 Ohm	Max. Level	: - 59.6 dBV
Manufacturer	: Kyocera Mita Corp.	Feeding Bridge	: TBR21	Frequency	: 4279 Hz
Date	: 4.01.11	Requirement	: The voltage level	Rx impedance:	Zr TBR21
Time	: 15:02.10	shall not exceed the limits			
Signal	: \user3	Data set	: TBR21-4.7.3.4.2 3200 N		
Remark	: DTMF 7				

Mask violations: 0

Verdict : PASS

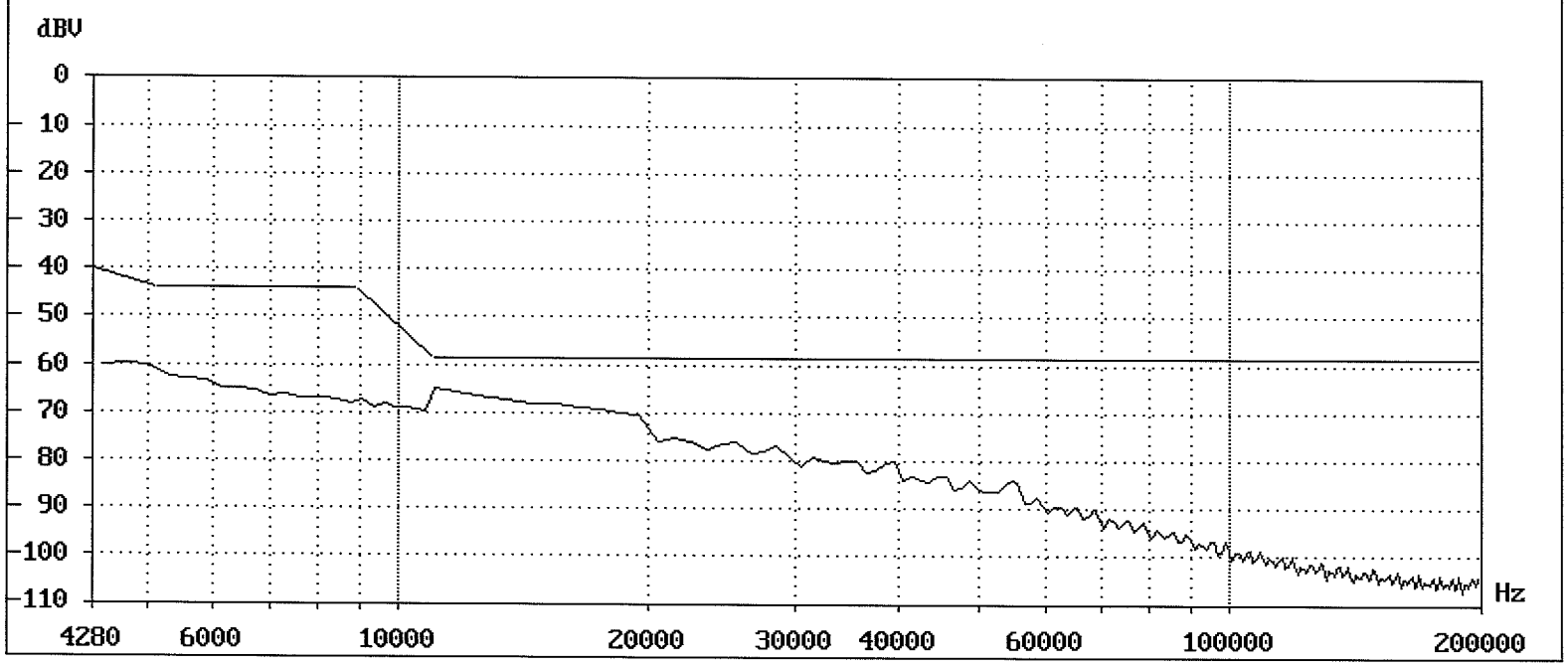


TBR21 - 4.7.3.4.2 Sending level above 4.3 kHz during communication

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Max. Level	: - 60.8 dBV
TEUT	: Facsimile Kit for M	Polarity	: Inverted	at Frequency:	4567 Hz
Number of TEUT:	214007009	Feeding Resistor:	3200.0 Ohm	Max. Level	: - 58.2 dBV
Manufacturer	: Kyocera Mita Corp.	Feeding Bridge	: TBR21	Frequency	: 4519 Hz
Date	: 4.01.11	Requirement : The voltage level		Rx impedance:	Zr TBR21
Time	: 15:26.11	shall not exceed the limits			
Signal	: \user3	Data set	: TBR21-4.7.3.4.2 3200 N		
Remark	: DTMF 0				

Mask violations: 0

Verdict : PASS

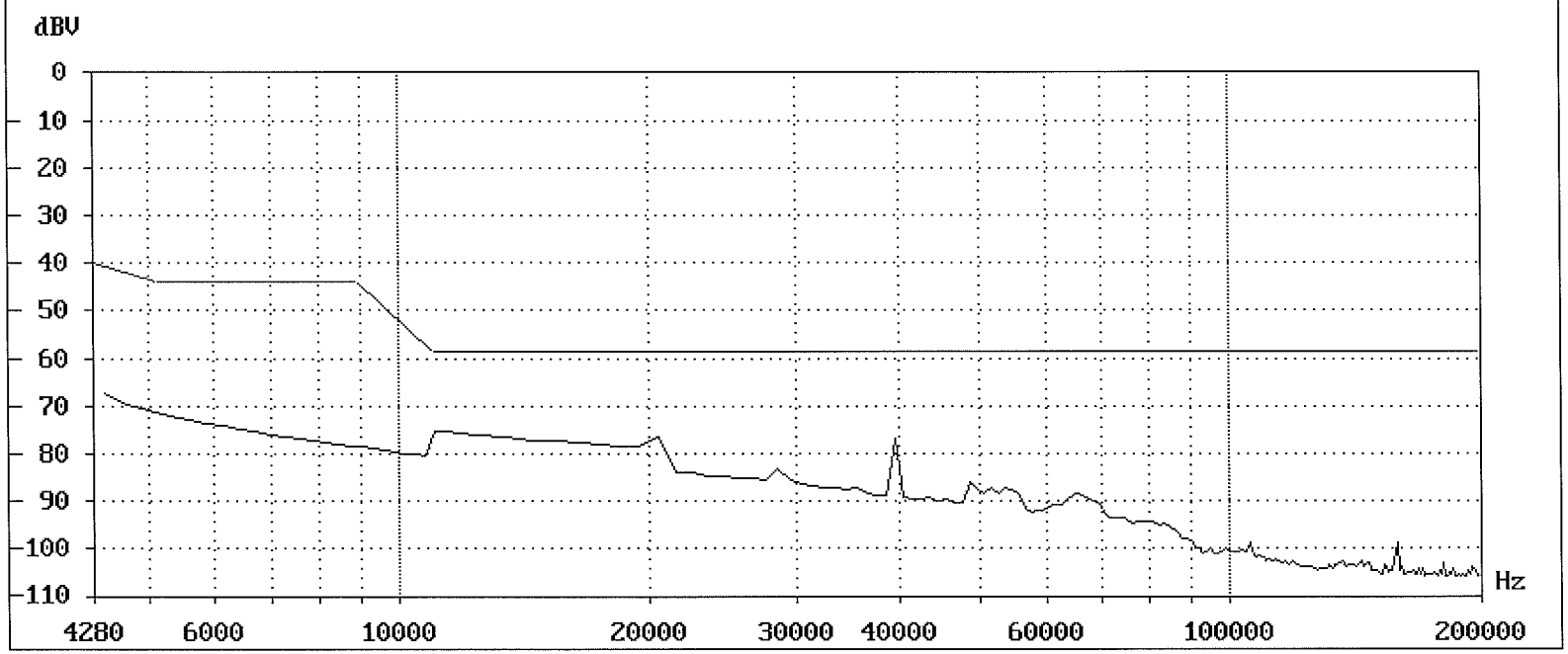


TBR21 - 4.7.3.4.2 Sending level above 4.3 kHz during communication

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Max. Level	: - 72.2 dBV
TEUT	: Facsimile Kit for M[illegible]	Polarity	: Normal	at Frequency:	4279 Hz
Number of TEUT:	214007009	Feeding Resistor:	230.0 Ohm	Max. Level	: - 65.8 dBV
Manufacturer	: Kyocera Mita Corp.	Feeding Bridge	: TBR21	Frequency	: 4279 Hz
Date	: 27.12.10	Requirement : The voltage level		Rx impedance:	Zr TBR21
Time	: 17:15.52	shall not exceed the limits			
Signal	: V.34 33600bps	Data set	: TBR21-4.7.3.4.2 230 N		
Remark	: -				

Mask violations: 0

Verdict : PASS

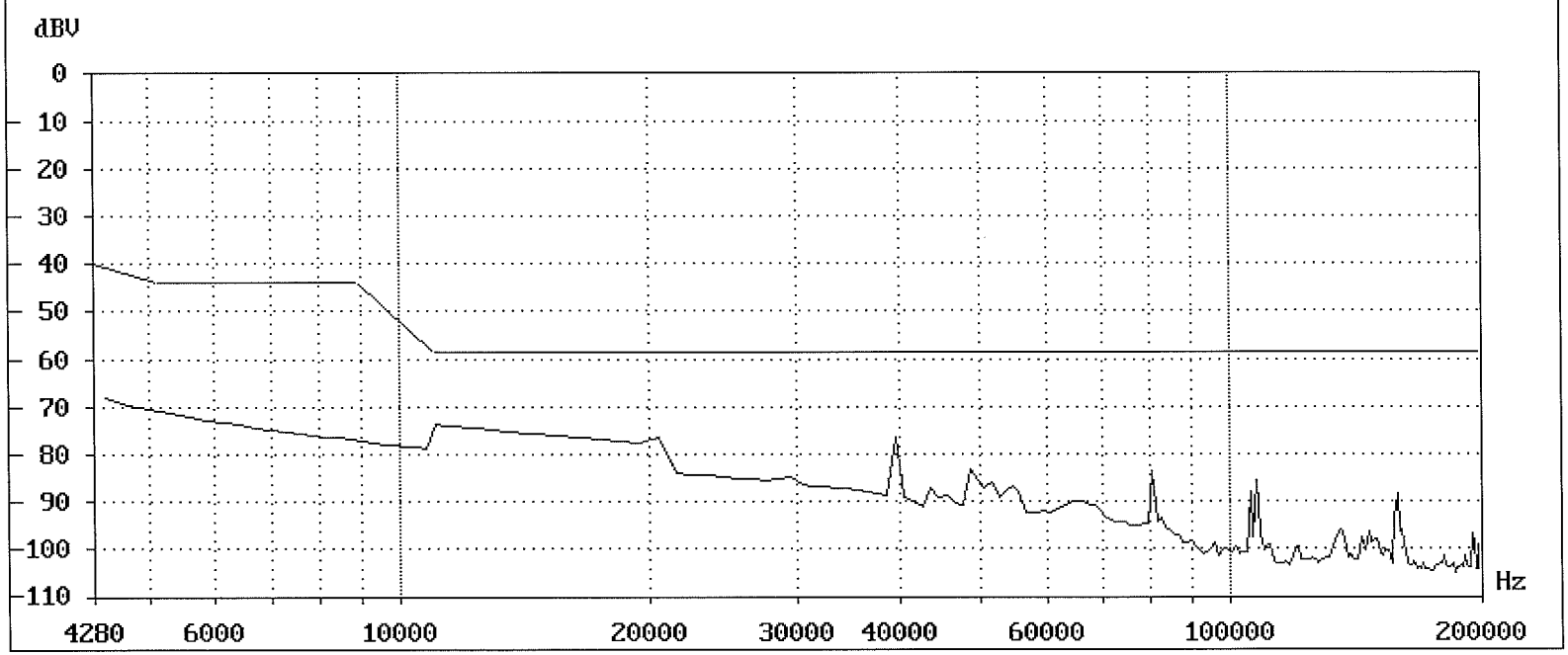


TBR21 - 4.7.3.4.2 Sending level above 4.3 kHz during communication

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Max. Level	: - 73.3 dBV
TEUT	: Facsimile Kit for M	Parity	: Inverted	at Frequency:	4327 Hz
Number of TEUT:	214007009	Feeding Resistor:	230.0 Ohm	Max. Level	: - 67.6 dBV
Manufacturer	: Kyocera Mita Corp.	Feeding Bridge	: TBR21	Frequency	: 4279 Hz
Date	: 27.12.10	Requirement : The voltage level		Rx impedance:	Zr TBR21
Time	: 17:26.18	shall not exceed the limits			
Signal	: V.17 14400bps	Data set	: TBR21-4.7.3.4.2 230 I		
Remark	: -				

Mask violations: 0

Verdict : PASS

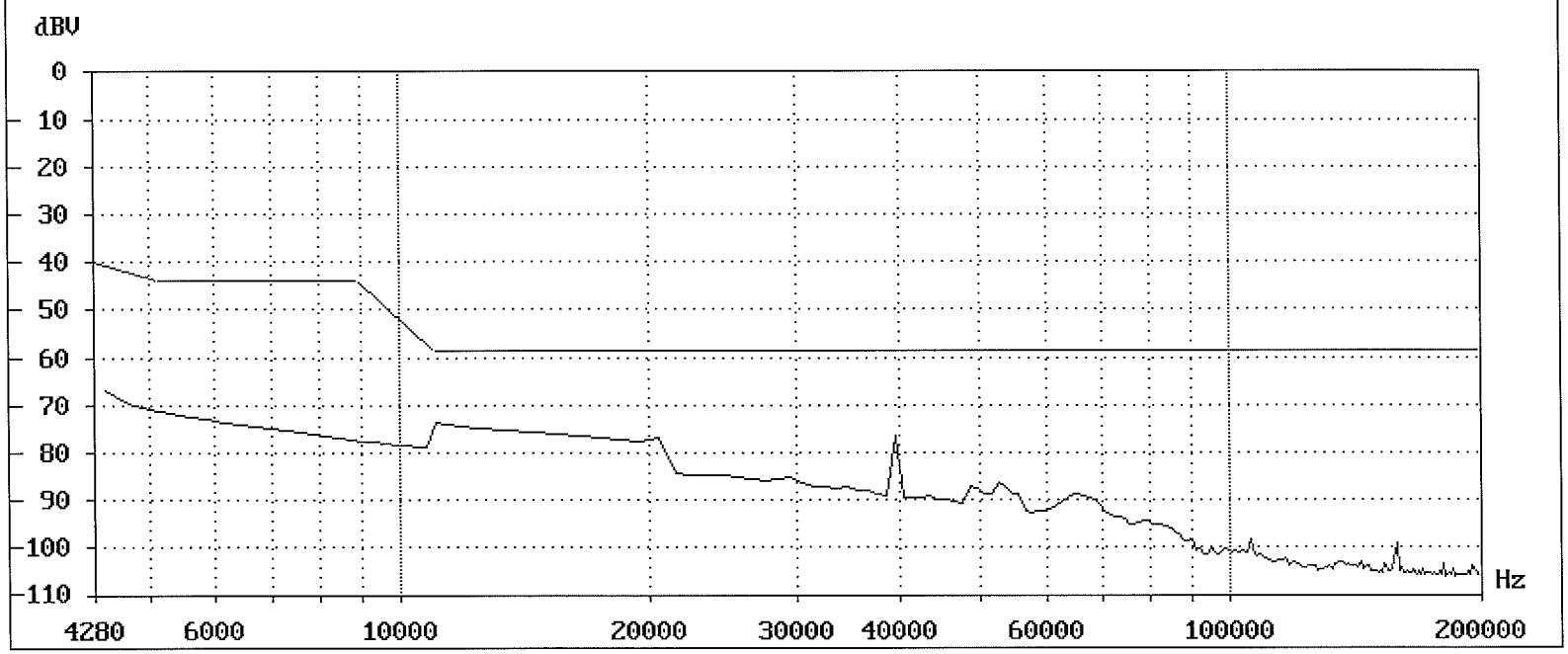


TBR21 - 4.7.3.4.2 Sending level above 4.3 kHz during communication

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Max. Level	: - 71.7 dBV
TEUT	: Facsimile Kit for M	Polarity	: Normal	at Frequency:	4279 Hz
Number of TEUT:	214007009	Feeding Resistor:	3200.0 Ohm	Max. Level	: - 63.4 dBV
Manufacturer	: Kyocera Mita Corp.	Feeding Bridge	: TBR21	Frequency	: 4279 Hz
Date	: 27.12.10	Requirement : The voltage level		Rx impedance:	Zr TBR21
Time	: 17:36.43	shall not exceed the limits			
Signal	: V.29 9600bps	Data set	: TBR21-4.7.3.4.2 3200 N		
Remark	: -				

Mask violations: 0

Verdict : PASS

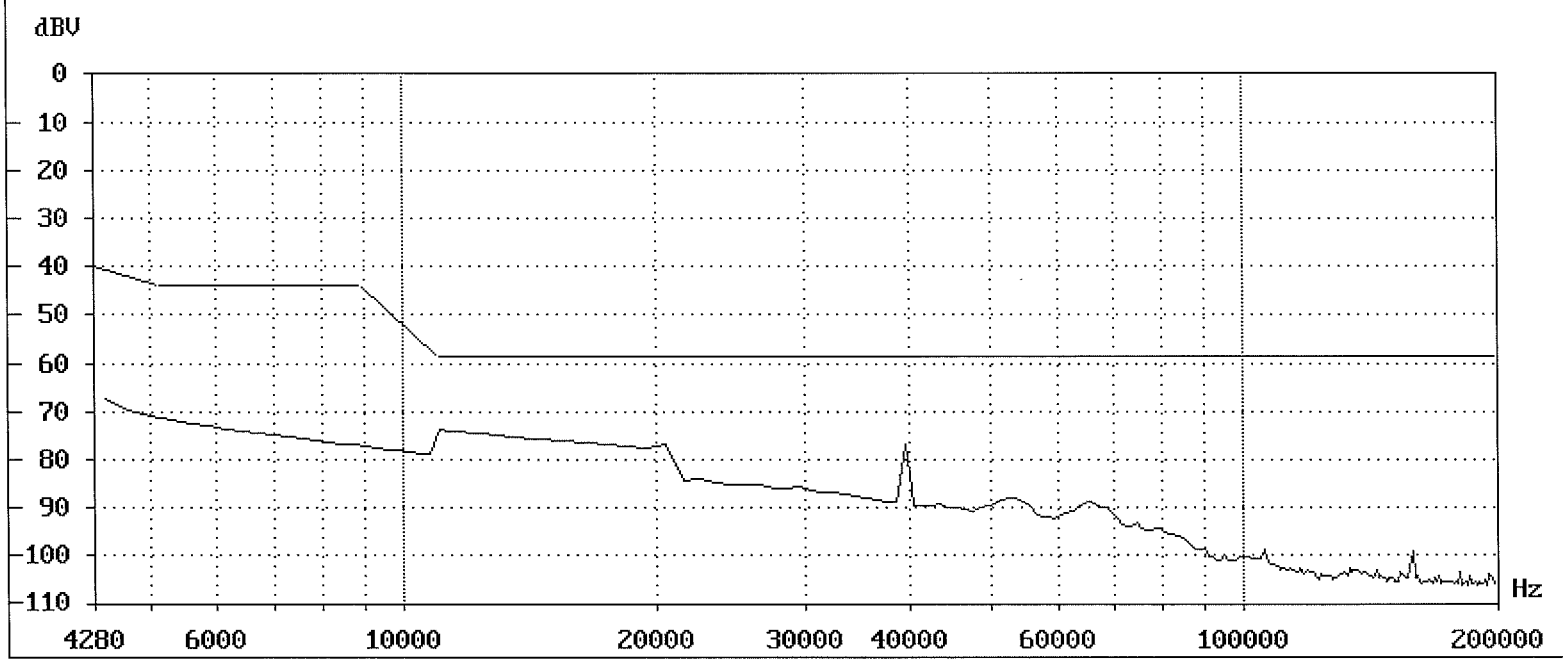


TBR21 - 4.7.3.4.2 Sending level above 4.3 kHz during communication

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Max. Level	: - 73.1 dBV
TEUT	: Facsimile Kit for M	Polarity	: Inverted	at Frequency:	4279 Hz
Number of TEUT:	214007009	Feeding Resistor:	3200.0 Ohm	Max. Level	: - 65.9 dBV
Manufacturer	: Kyocera Mita Corp.	Feeding Bridge	: TBR21	Frequency	: 4279 Hz
Date	: 27.12.10	Requirement : The voltage level		Rx impedance:	Zr TBR21
Time	: 17:51.42	shall not exceed the limits			
Signal	: V.27ter 4800bps	Data set	: TBR21-4.7.3.4.2 3200 I		
Remark	: -				

Mask violations: 0

Verdict : PASS

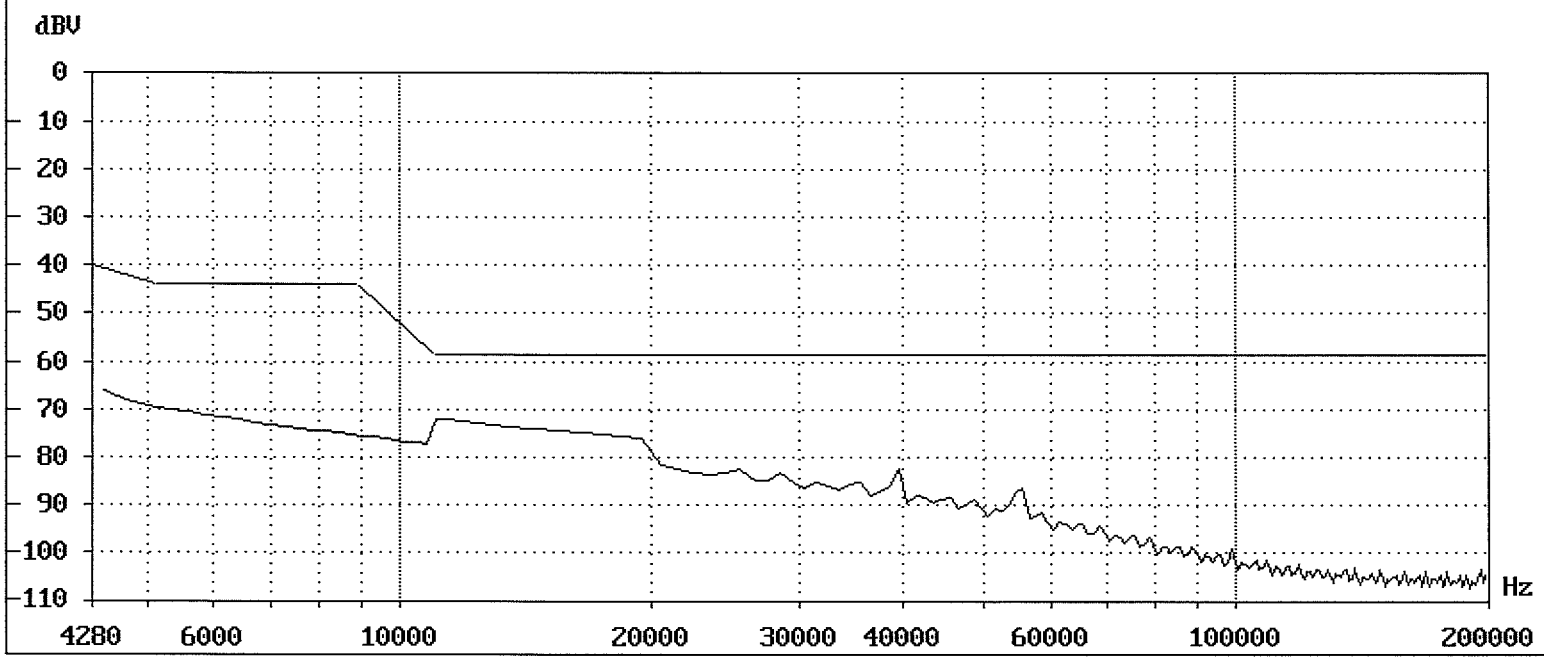


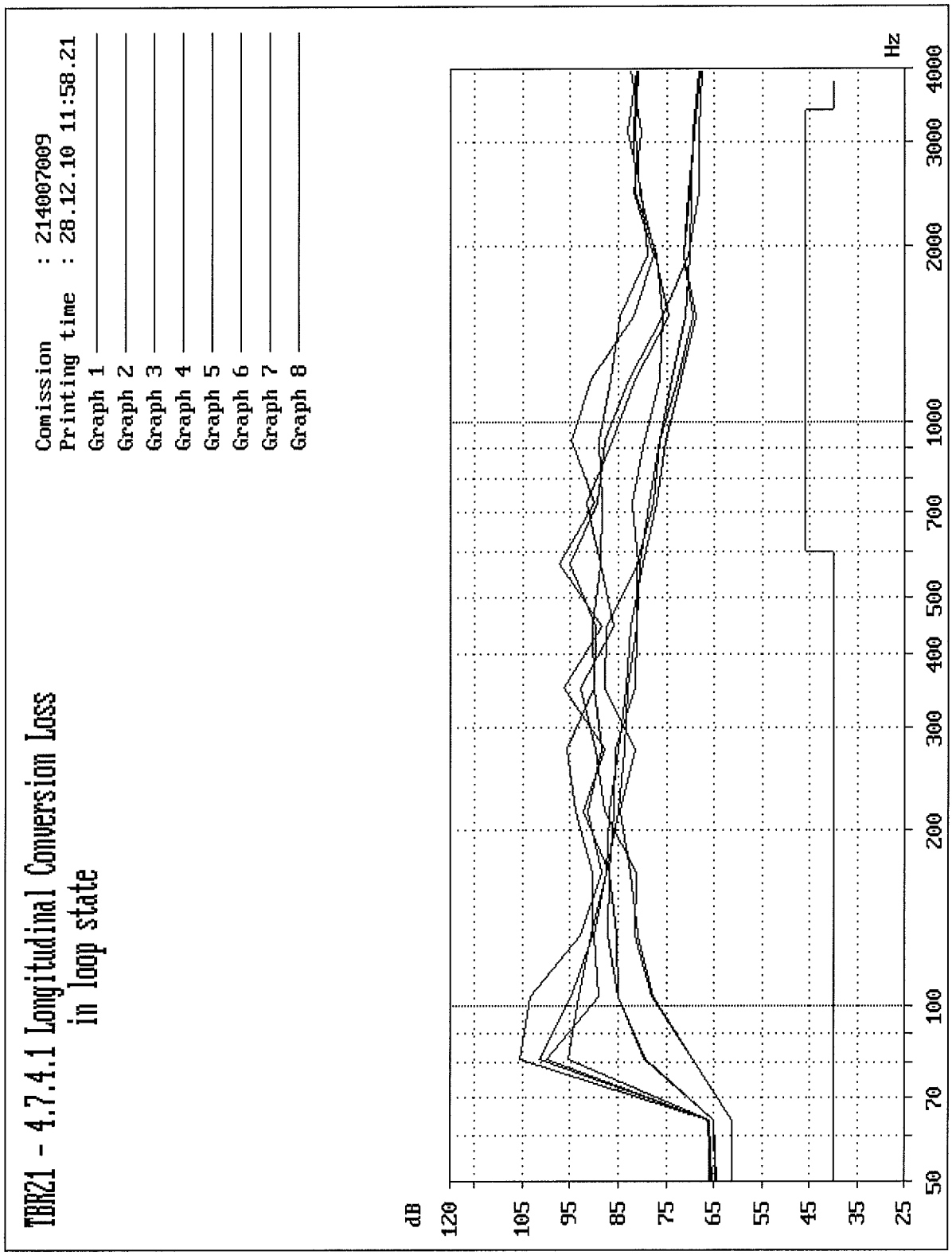
TBR21 - 4.7.3.4.2 Sending level above 4.3 kHz during communication

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Max. Level	: - 71.3 dBV
TEUT	: Facsimile Kit for M	Polarity	: Normal	at Frequency:	4279 Hz
Number of TEUT:	214007009	Feeding Resistor:	230.0 Ohm	Max. Level	: - 64.6 dBV
Manufacturer	: Kyocera Mita Corp.	Feeding Bridge	: TBR21	Frequency	: 4279 Hz
Date	: 28.12.10	Requirement : The voltage level		Rx impedance:	Zr TBR21
Time	: 11:43.00	shall not exceed the limits			
Signal	: V.21 300bps	Data set	: TBR21-4.7.3.4.2 230 N		
Remark	: -				

Mask violations: 0

Verdict : PASS




TBR21 - 4.7.4.1 Longitudinal Conversion Loss
in loop state
Comission : 214007009
Printing time : 28.12.10 11:58.21
Graph 1
Graph 2
Graph 3
Graph 4
Graph 5
Graph 6
Graph 7
Graph 8
dB
120
105
95
85
75
65
55
45
35
25
Hz
50
70
100
200
300
400
500
700
1000
2000
3000
4000

Longitudinal conversion loss
Comission : 214007009 Printing time : 28.12.10 11:58.21

	Graph 1	Graph 2
Model No.	FAX System(V)	FAX System(V)
TEUT	Facsimile Kit for MFP	Facsimile Kit for MFP
Number of TEUT	214007009	214007009
Manufacturer	Kyocera Mita Corp.	Kyocera Mita Corp.
Date	28.12.10	28.12.10
Time	11:55.25	11:55.46
Feeding voltage	50.0 V	50.0 V
Polarity	Normal	Inverted
Feeding resistor	230 Ohm	230 Ohm
Feeding Bridge	TBR21	TBR21
Data set	TBR21-4.7.4.1	TBR21-4.7.4.1
Level	+0.0 dB(0.775 V)	+0.0 dB(0.775 V)
Call setup	outgoing	outgoing
Verdict	PASS	PASS
Remark	-	-

	Graph 3	Graph 4
Model No.	FAX System(V)	FAX System(V)
TEUT	Facsimile Kit for MFP	Facsimile Kit for MFP
Number of TEUT	214007009	214007009
Manufacturer	Kyocera Mita Corp.	Kyocera Mita Corp.
Date	28.12.10	28.12.10
Time	11:56.05	11:56.24
Feeding voltage	50.0 V	50.0 V
Polarity	Normal	Inverted
Feeding resistor	850 Ohm	850 Ohm
Feeding Bridge	TBR21	TBR21
Data set	TBR21-4.7.4.1	TBR21-4.7.4.1
Level	+0.0 dB(0.775 V)	+0.0 dB(0.775 V)
Call setup	outgoing	outgoing
Verdict	PASS	PASS
Remark	-	-

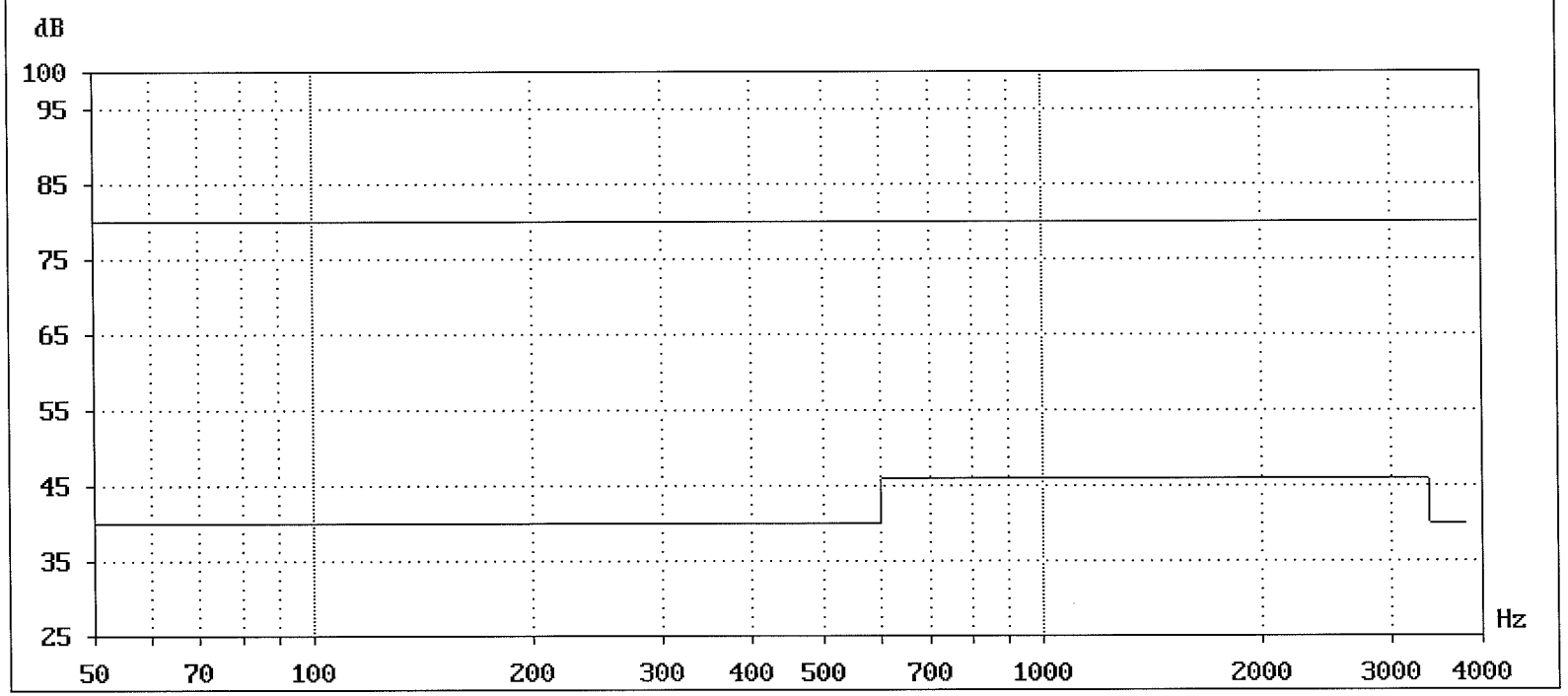
	Graph 5	Graph 6
Model No.	FAX System(V)	FAX System(V)
TEUT	Facsimile Kit for MFP	Facsimile Kit for MFP
Number of TEUT	214007009	214007009
Manufacturer	Kyocera Mita Corp.	Kyocera Mita Corp.
Date	28.12.10	28.12.10
Time	11:56.43	11:57.02
Feeding voltage	50.0 V	50.0 V
Polarity	Normal	Inverted
Feeding resistor	2050 Ohm	2050 Ohm
Feeding Bridge	TBR21	TBR21
Data set	TBR21-4.7.4.1	TBR21-4.7.4.1
Level	+0.0 dB(0.775 V)	+0.0 dB(0.775 V)
Call setup	outgoing	outgoing
Verdict	PASS	PASS
Remark	-	-

	Graph 7	Graph 8
Model No.	FAX System(V)	FAX System(V)
TEUT	Facsimile Kit for MFP	Facsimile Kit for MFP
Number of TEUT	214007009	214007009
Manufacturer	Kyocera Mita Corp.	Kyocera Mita Corp.
Date	28.12.10	28.12.10
Time	11:57.21	11:57.40
Feeding voltage	50.0 V	50.0 V
Polarity	Normal	Inverted
Feeding resistor	3200 Ohm	3200 Ohm
Feeding Bridge	TBR21	TBR21
Data set	TBR21-4.7.4.1	TBR21-4.7.4.1
Level	+0.0 dB(0.775 V)	+0.0 dB(0.775 V)
Call setup	outgoing	outgoing
Verdict	PASS	PASS
Remark	-	-

TBR21 - 4.7.4.2 Output Signal Balance

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Feeding Bridge	: TBR21
TEUT	: Facsimile Kit for	Current limitation	: 80.0 mA	Mask violation	: 0
Number of TEUT	: 214007009	Polarity	: Normal	Min. level Uo	: -70.0 dBV
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 230.0 Ohm	Call setup	: outgoing
Date	: 27.12.10	Requirement : The curve of results			
Time	: 17:16.35	shall be greater than the limits			
		Data set	: TBR21-4.7.4.2 230 N		
Remark	: V.34 33600bps				

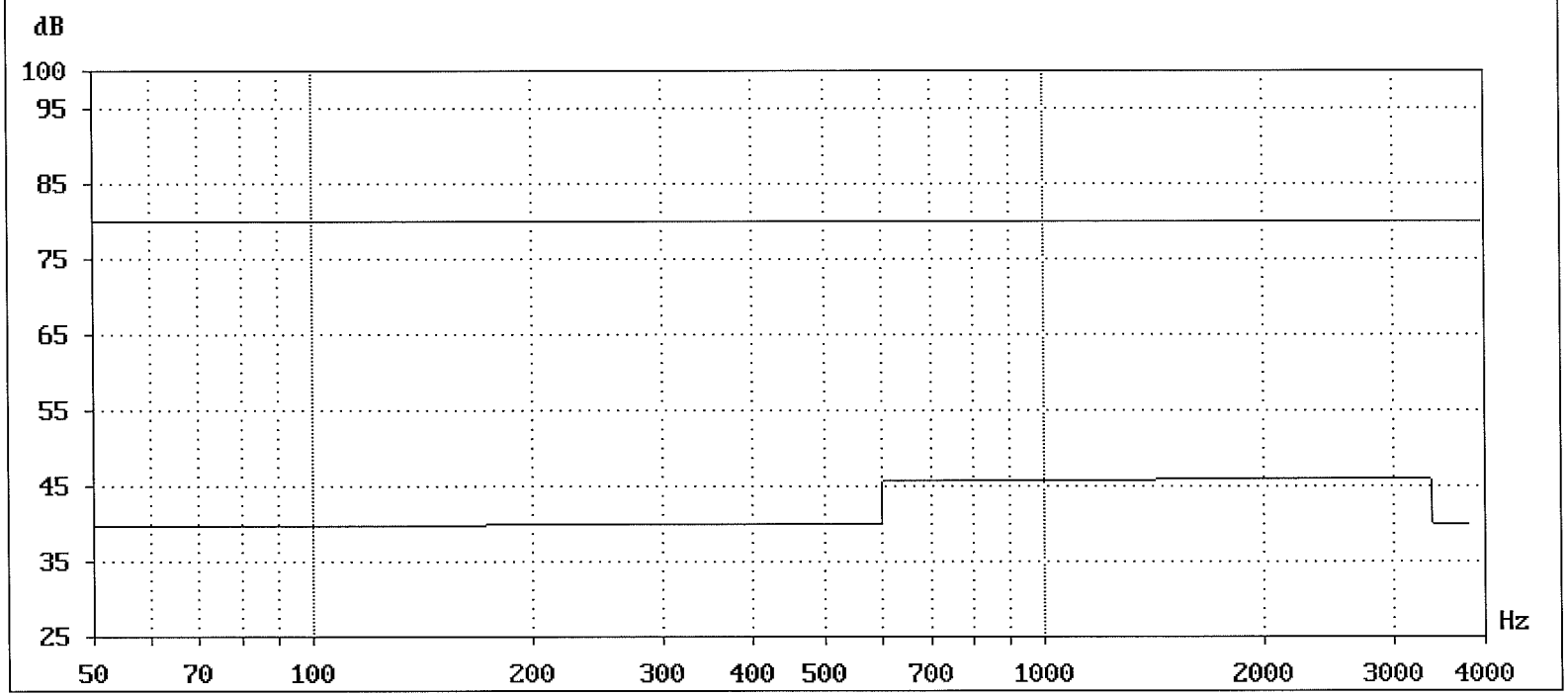
Verdict : PASS



TBR21 - 4.7.4.2 Output Signal Balance

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Feeding Bridge	: TBR21
TEUT	: Facsimile Kit for M	Current limitation	: 80.0 mA	Mask violation	: 0
Number of TEUT	: 214007009	Polarity	: Inverted	Min. level Uo	: -70.0 dBV
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 850.0 Ohm	Call setup	: outgoing
Date	: 27.12.10	Requirement : The curve of results			
Time	: 17:27.19	shall be greater than the limits			
		Data set	: TBR21-4.7.4.2 850 I		
Remark	: V.17 14400bps				

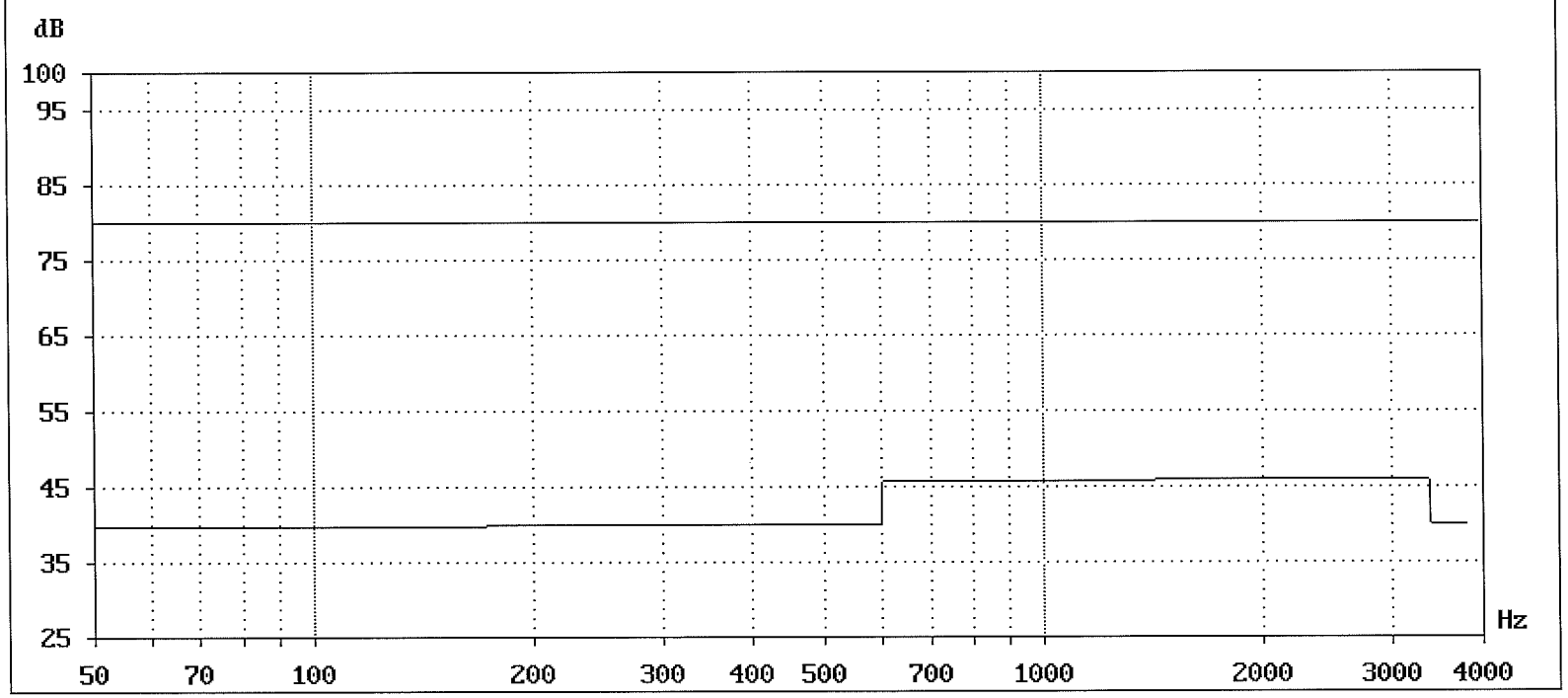
Verdict : PASS



TBR21 - 4.7.4.2 Output Signal Balance

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Feeding Bridge	: TBR21
TEUT	: Facsimile Kit for M[illegible]	Current limitation	: 80.0 mA	Mask violation	: 0
Number of TEUT	: 214007009	Polarity	: Normal	Min. level Uo	: -70.0 dBV
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 2050.0 Ohm	Call setup	: outgoing
Date	: 27.12.10	Requirement : The curve of results			
Time	: 17:42.44	shall be greater than the limits			
		Data set	: TBR21-4.7.4.2 2050 N		
Remark	: V.29 9600bps				

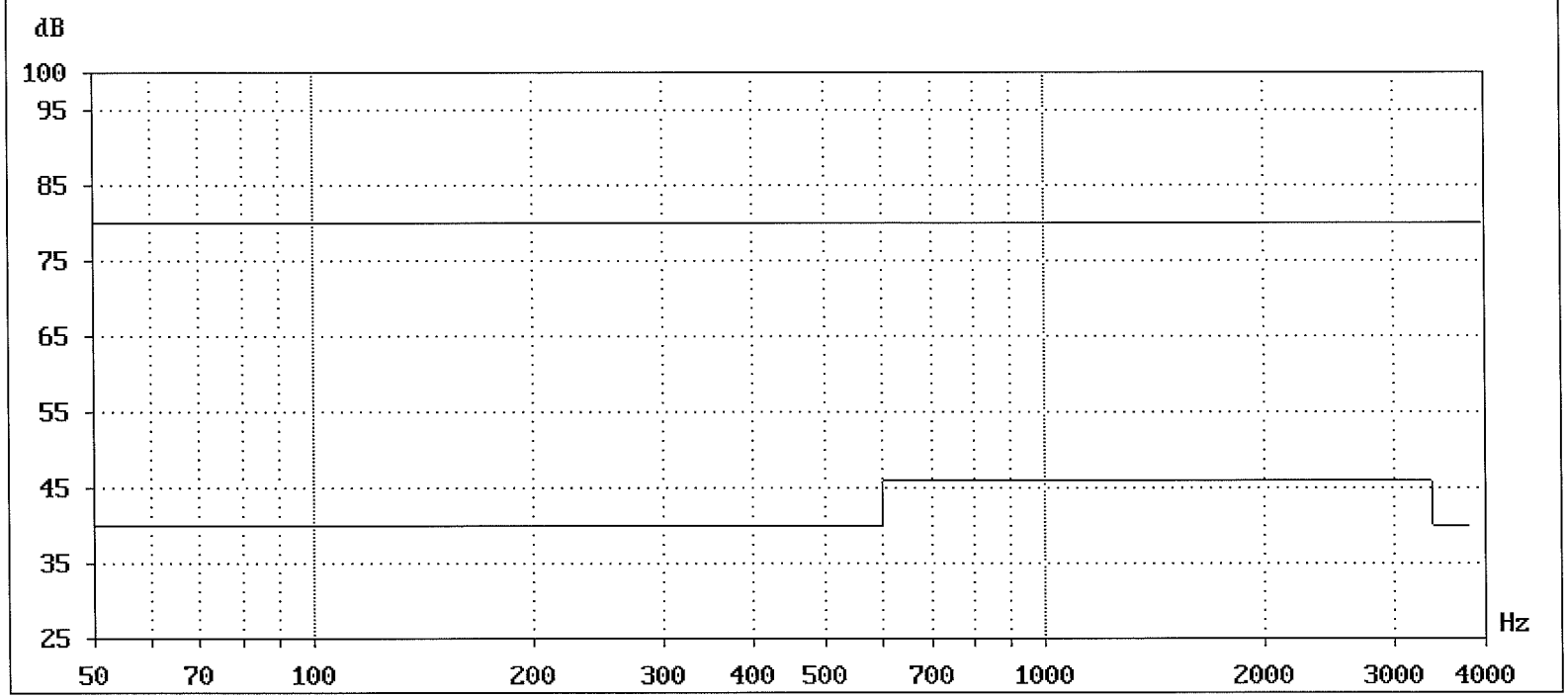
Verdict : PASS



TBR21 - 4.7.4.2 Output Signal Balance

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Feeding Bridge	: TBR21
TEUT	: Facsimile Kit for M[illegible]	Current limitation	: 80.0 mA	Mask violation	: 0
Number of TEUT	: 214007009	Polarity	: Inverted	Min. level Uo	: -70.0 dBV
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 3200.0 Ohm	Call setup	: outgoing
Date	: 27.12.10	Requirement : The curve of results			
Time	: 17:53.54	shall be greater than the limits			
		Data set	: TBR21-4.7.4.2 3200 I		
Remark	: V.27ter 4800bps				

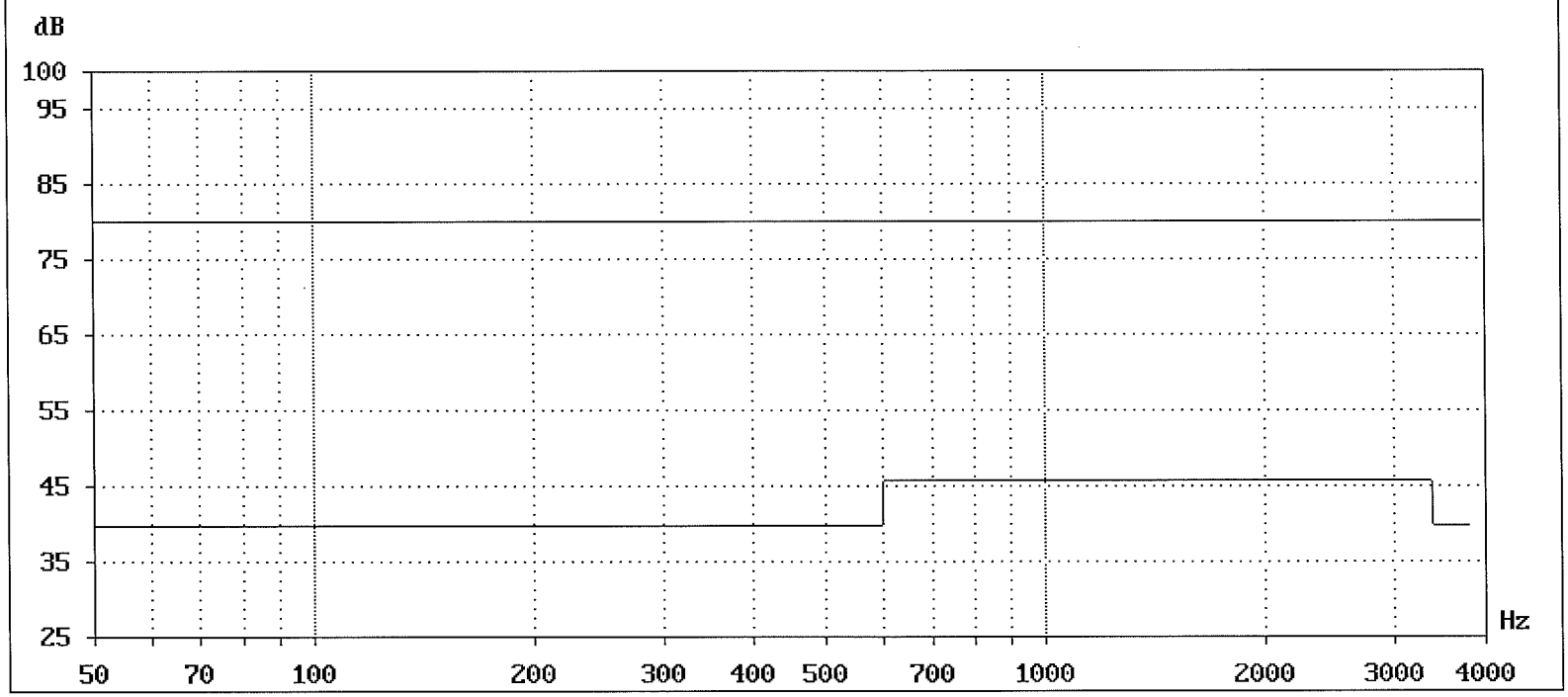
Verdict : PASS



TBR21 - 4.7.4.2 Output Signal Balance

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Feeding Bridge	: TBR21
TEUT	: Facsimile Kit for M[illegible]	Current limitation	: 80.0 mA	Mask violation	: 0
Number of TEUT	: 214007009	Polarity	: Normal	Min. level Uo	: -70.0 dBV
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 230.0 Ohm	Call setup	: outgoing
Date	: 27.12.10	Requirement : The curve of results			
Time	: 17:58.15	shall be greater than the limits			
		Data set	: TBR21-4.7.4.2 230 N		
Remark	: V.21 300bps				

Verdict : PASS



Protocol for Resistance to earth

TBR21 - 4.7.5 Resistance to earth in loop state

Model No. : FAX System(V)
TEUT : Facsimile Kit for MFP Feeding bridge : TBR21
Number of TEUT: 214007009 Current limit. : 60.0 mA
Manufacturer : Kyocera Mita Corp.
Date : 28.12.10
Time : 11:59.00

Data Set : TBR21-4.7.5

Requirement : If a connection to earth is intended, the DC resistance between each line terminal of TE and earth shall be not less than 1 MOhm.
("E" means the socket "Plane" on the front side of the ARE1000.)

Remark : -

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 Automatic dialling

TBR21 - 4.8.1.1 Dialling without dial tone detection

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V
TEUT	: Facsimile Kit for MFP	Polarity	: Normal
Number of TEUT	: 214007009	Feeding resistor	: 850.0 Ohm
Manufacturer	: Kyocera Mita Corp.	Feeding bridge	: TBR21
Date	: 28.12.10	Receiver impedance	: Zr TBR21
Time	: 12:03.43	Gain (internal)	: +0.0 dB

Data set : TBR21-4.8.1.1
Requirement : The TE shall start dialling in the limits of 2.7 s ... 8.0s

Remark : -

Verdict : PASS

Frequency Hz	Level dBV	T seize s	T dial s	Dialled
No dial tone		4.10	-	123?

Protocol for Automatic dialling

TBR21-4.8.1.2 Dialling with dial tone detection - Continous dial tone -

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V
TEUT	: Facsimile Kit for MFP	Polarity	: Normal
Number of TEUT	: 214007009	Feeding resistor	: 850.0 Ohm
Manufacturer	: Kyocera Mita Corp.	Feeding bridge	: TBR21
Date	: 28.12.10	Receiver impedance	: Zr TBR21
Time	: 12:05.41	Gain (internal)	: +0.0 dB

Data set : TBR21-4.8.1.2 continous
Requirement : The TE shall start dialling in the limits of 0.0 s ... 8.0s

Remark : -

Verdict : PASS

Frequency Hz	Level dBV	T seize s	T dial s	Dialled
300	- 0.7	3.72	0.75	123?
300	-35.7	3.76	0.79	123?
500	-35.7	3.73	0.76	123?
500	- 0.7	3.72	0.75	123?

Protocol for Automatic dialling

TBR21-4.8.1.2 Dialling with dial tone detection - Cadenced dial tone -

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V
TEUT	: Facsimile Kit for MFP	Polarity	: Normal
Number of TEUT	: 214007009	Feeding resistor	: 850.0 Ohm
Manufacturer	: Kyocera Mita Corp.	Feeding bridge	: TBR21
Date	: 28.12.10	Receiver impedance	: Zr TBR21
Time	: 12:10.11	Gain (internal)	: +0.0 dB

Data set : TBR21-4.8.1.2 cadenced
Requirement : The TE shall start dialling in the limits of 0.0 s ... 8.0s

Remark : -

Verdict : PASS

Frequency Hz	Level dBV	T seize s	T dial s	Dialled
300	- 0.7	4.11	1.14	123?
300	-35.7	4.14	1.17	123?
500	-35.7	4.13	1.16	123?
500	- 0.7	4.13	1.16	123?

Protocol for DTMF Levels and Frequencies Auto

TBR21 - 4.8.2.1 / 2 DTMF-Signalling frequencies and levels

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V
TEUT	: Facsimile Kit for MFP	Current limitation	: 80.0 mA
Number of TEUT	: 214007009	Polarity	: Normal
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 230.0 Ohm
Date	: 28.12.10	Trigger lev./delay	: -12.0 dBV 0 msec
Time	: 12:14.31	Receiver impedance	: Zr TBR21
		Gain (internal)	: +0.0 dB

Data set : TBR21-4.8.2.1/2 230 N

Requirement : The dial signal shall be in the following limits:
Limits of level f low : -13.0 ... -8.5
Limits of level f high : -11.5 ... -7.0
Limits Preemphasis : 1.0 ... 4.0 dB
(Limit Frequency deviation: 1.5 %)

Remark : -

Verdict : PASS

F.lo Hz	Dev. %	P.lo dBV	F.hi Hz	Dev. %	P.hi dBV	P.tot dBV	Preemp. dB	Digit
697.0	+ 0.0	- 10.58	1208.9	+ 0.0	- 8.64	- 6.49	1.94	1
697.0	+ 0.0	- 10.58	1335.9	+ 0.0	- 8.65	- 6.5	1.93	2
697.0	+ 0.0	- 10.58	1477.0	+ 0.0	- 8.71	- 6.53	1.87	3
769.9	+ 0.0	- 10.62	1208.9	+ 0.0	- 8.64	- 6.51	1.98	4
769.9	+ 0.0	- 10.62	1335.9	+ 0.0	- 8.65	- 6.51	1.97	5
769.9	+ 0.0	- 10.62	1477.0	+ 0.0	- 8.71	- 6.55	1.91	6
852.0	+ 0.0	- 10.66	1208.9	+ 0.0	- 8.64	- 6.52	2.02	7
852.0	+ 0.0	- 10.66	1335.9	+ 0.0	- 8.65	- 6.53	2.01	8
852.0	+ 0.0	- 10.66	1477.0	+ 0.0	- 8.71	- 6.57	1.95	9
940.9	+ 0.0	- 10.68	1208.9	+ 0.0	- 8.64	- 6.53	2.04	*
940.9	+ 0.0	- 10.68	1335.9	+ 0.0	- 8.65	- 6.54	2.03	0
940.9	+ 0.0	- 10.68	1477.0	+ 0.0	- 8.71	- 6.57	1.97	#

Protocol for DTMF Levels and Frequencies Auto

TBR21 - 4.8.2.1 / 2 DTMF-Signalling frequencies and levels

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V
TEUT	: Facsimile Kit for MFP	Current limitation	: 80.0 mA
Number of TEUT	: 214007009	Polarity	: Inverted
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 3200.0 Ohm
Date	: 28.12.10	Trigger lev./delay	: -12.0 dBV 0 msec
Time	: 12:20.41	Receiver impedance	: Zr TBR21
		Gain (internal)	: +0.0 dB

Data set : TBR21-4.8.2.1/2 3200 I

Requirement : The dial signal shall be in the following limits:

Limits of level f low	: -13.0 ... -8.5
Limits of level f high	: -11.5 ... -7.0
Limits Preemphasis	: 1.0 ... 4.0 dB
(Limit Frequency deviation	: 1.5 %)

Remark : -

Verdict : PASS

F.lo Hz	Dev. %	P.lo dBV	F.hi Hz	Dev. %	P.hi dBV	P.tot dBV	Preemp. dB	Digit
697.0	+ 0.0	- 10.73	1208.9	+ 0.0	- 8.75	- 6.62	1.98	1
697.0	+ 0.0	- 10.73	1335.9	+ 0.0	- 8.75	- 6.62	1.98	2
697.0	+ 0.0	- 10.73	1477.0	+ 0.0	- 8.81	- 6.65	1.92	3
769.9	+ 0.0	- 10.77	1208.9	+ 0.0	- 8.75	- 6.63	2.02	4
769.9	+ 0.0	- 10.78	1335.9	+ 0.0	- 8.76	- 6.64	2.02	5
769.9	+ 0.0	- 10.77	1477.0	+ 0.0	- 8.81	- 6.67	1.96	6
852.0	+ 0.0	- 10.8	1208.9	+ 0.0	- 8.75	- 6.64	2.05	7
852.0	+ 0.0	- 10.81	1335.9	+ 0.0	- 8.75	- 6.65	2.06	8
852.0	+ 0.0	- 10.8	1477.0	+ 0.0	- 8.81	- 6.68	1.99	9
940.9	+ 0.0	- 10.81	1209.0	+ 0.0	- 8.75	- 6.65	2.06	*
940.9	+ 0.0	- 10.81	1335.9	+ 0.0	- 8.75	- 6.65	2.06	0
940.9	+ 0.0	- 10.81	1477.0	+ 0.0	- 8.81	- 6.69	2.0	#

Protocol for DTMF unwanted frequencies Auto

TBR21 - 4.8.2.3 DTMF-Unwanted frequency components

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V
TEUT	: Facsimile Kit for MFP	Current limitation	: 80.0 mA
Number of TEUT	: 214007009	Polarity	: Normal
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 230.0 Ohm
Date	: 28.12.10	Trigger lev./delay	: -12.0 dBV 30 msec
Time	: 12:31.46	Receiver impedance	: Zr TBR21
		Gain (internal)	: +6.0 dB

Data set : TBR21-4.8.2.3 230 N
Requirement : The loss shall be at least 20.0 dB
with selected digits 3570

Remark : -

Verdict : PASS

p low dBV	p total dBV	Loss dB	Digit
- 10.6	- 6.7	30 dB	3
- 10.6	- 6.7	30 dB	5
- 10.9	- 6.7	24 dB	7
- 10.7	- 6.7	29 dB	0

Protocol for DTMF unwanted frequencies Auto

TBR21 - 4.8.2.3 DTMF-Unwanted frequency components

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V
TEUT	: Facsimile Kit for MFP	Current limitation	: 80.0 mA
Number of TEUT	: 214007009	Polarity	: Inverted
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 3200.0 Ohm
Date	: 28.12.10	Trigger lev./delay	: -12.0 dBV 30 msec
Time	: 12:33.55	Receiver impedance	: Zr TBR21
		Gain (internal)	: +6.0 dB

Data set : TBR21-4.8.2.3 3200 I
Requirement : The loss shall be at least 20.0 dB
with selected digits 3570

Remark : -

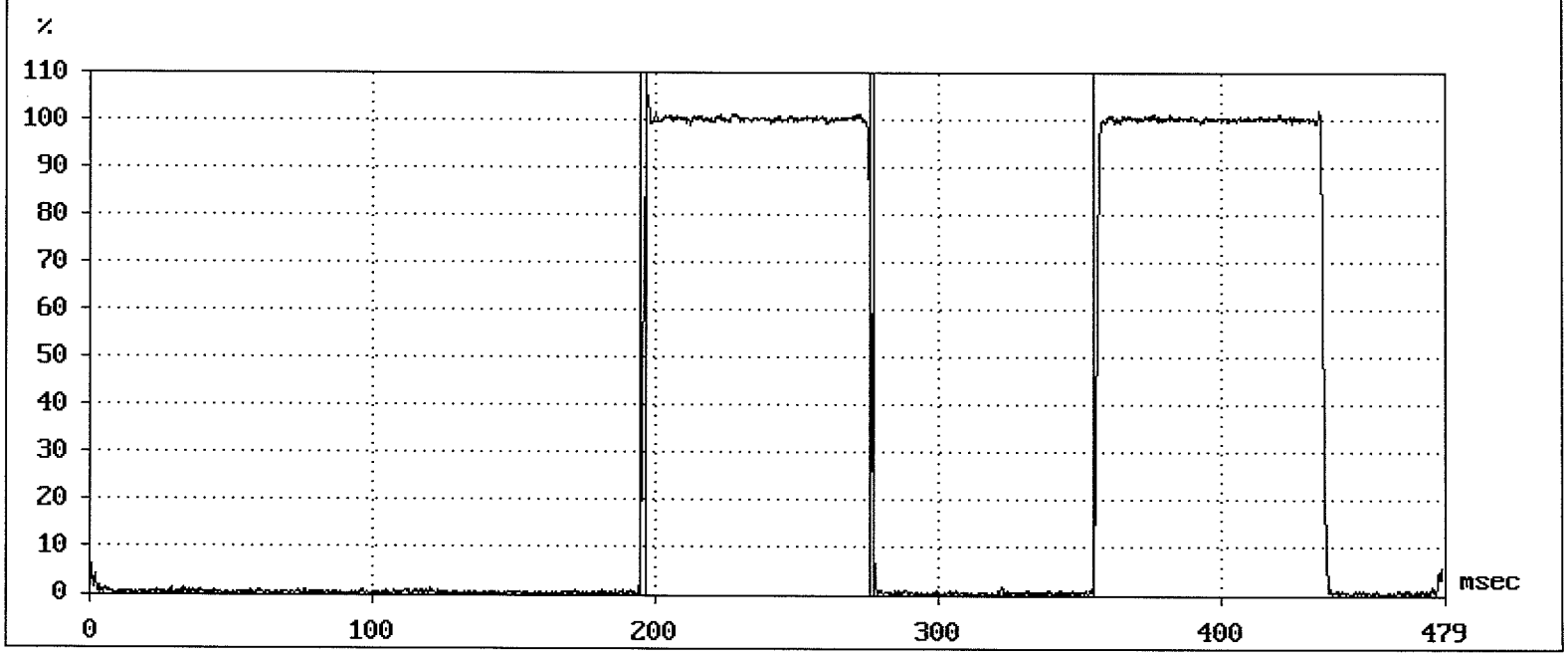
Verdict : PASS

p low dBV	p total dBV	Loss dB	Digit
- 10.7	- 6.8	28 dB	3
- 10.8	- 6.8	28 dB	5
- 11.1	- 6.9	23 dB	7
- 10.8	- 6.8	27 dB	0

TBR21 - 4.8.2.4/5 DTMF-Tone and Pause duration

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Trigger	: OK
TEUT	: Facsimile Kit for N[illegible]	Polarity	: Normal	Level	: -64 dBV
Number of TEUT	: 214007009	Feeding resistor	: 850.0 Ohm	(of Pause)	(-40.0 dBV)
Manufacturer	: Kyocera Mita Corp.	Feeding bridge	: TBR21	tr :	2 ms (99.0 ms)
Date	: 29.12.10	Requirement: The limits		tf :	2 ms (99.0 ms)
Time	: 11:35.08	are given in the brackets		tp :	78 ms (65.0 ... 6500.0 m
		Frequency group	: upper	ts :	81 ms (65.0 ... 9999.0 m
Data set	: TBR21-4.8.2.4/5 digit 3			Rx impedance:	Zr TBR21
Remark	: -				

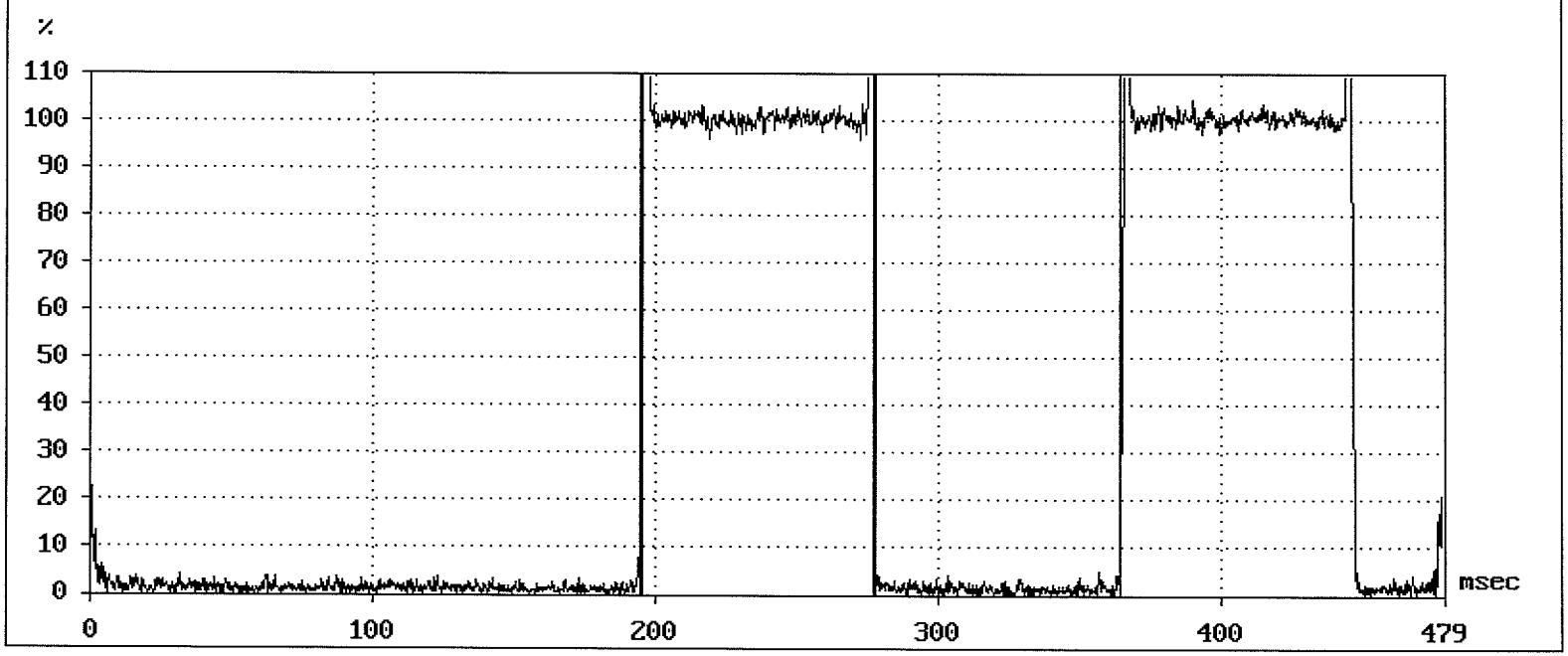
Verdict : PASS



TBR21 - 4.8.2.4/5 DTMF-Tone and Pause duration

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Trigger	: OK
TEUT	: Facsimile Kit for M[illegible]	Polarity	: Normal	Level	: -63 dBV
Number of TEUT	: 214007009	Feeding resistor	: 850.0 Ohm	(of Pause)	(-40.0 dBV)
Manufacturer	: Kyocera Mita Corp.	Feeding bridge	: TBR21	tr :	1 ms (99.0 ms)
Date	: 29.12.10	Requirement:	The limits	tf :	1 ms (99.0 ms)
Time	: 11:36.31	are given in the brackets		tp :	87 ms (65.0 ... 6500.0 m
		Frequency group	: upper	ts :	83 ms (65.0 ... 9999.0 m
Data set	: TBR21-4.8.2.4/5 digit 5			Rx impedance:	Zr TBR21
Remark	: -				

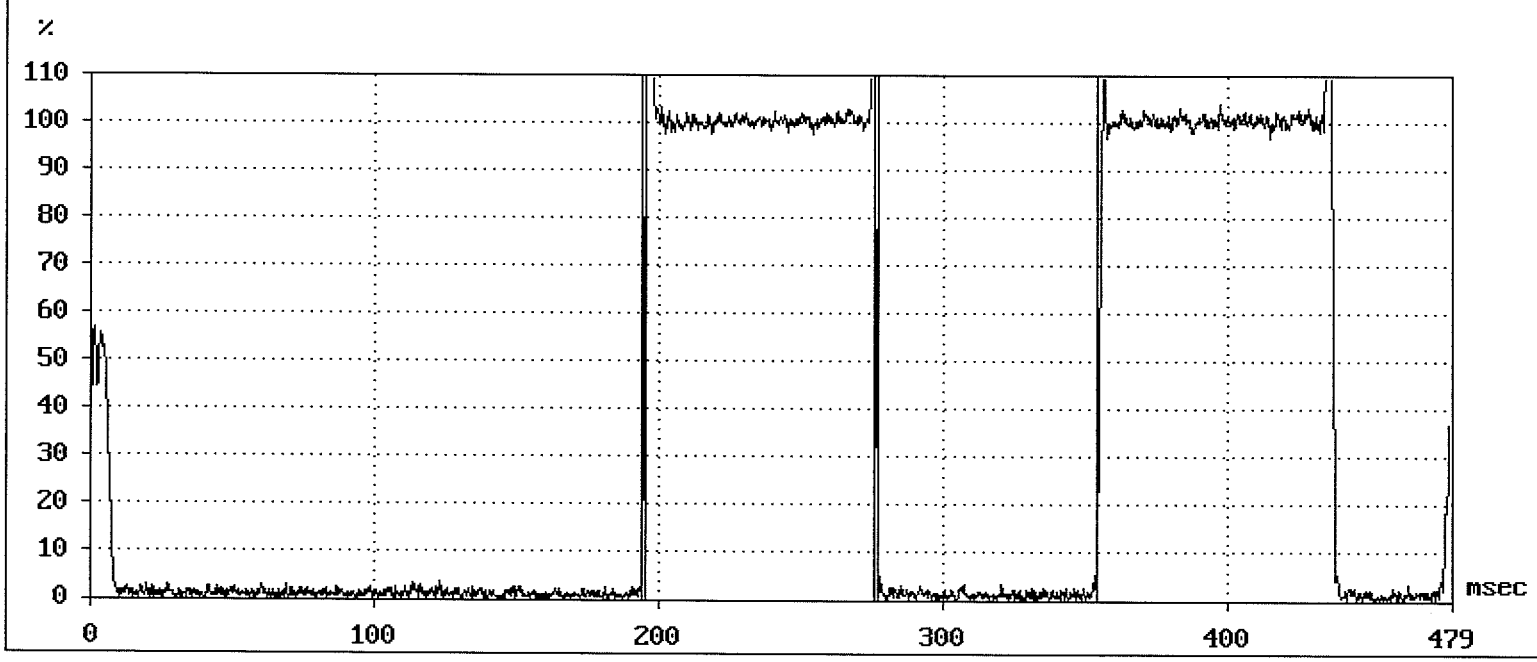
Verdict : PASS



TBR21 - 4.8.2.4/5 DTMF-Tone and Pause duration

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Trigger	: OK
TEUT	: Facsimile Kit for M[illegible]	Polarity	: Normal	Level	: -64 dBV
Number of TEUT	: 214007009	Feeding resistor	: 850.0 Ohm	(of Pause)	(-30.0 dBV)
Manufacturer	: Kyocera Mita Corp.	Feeding bridge	: TBR21	tr :	1 ms (99.0 ms)
Date	: 29.12.10	Requirement:	The limits	tf :	1 ms (99.0 ms)
Time	: 11:38.57	are given in the brackets		tp :	77 ms (65.0 ... 6500.0 m
		Frequency group	: lower	ts :	82 ms (65.0 ... 9999.0 m
Data set	: TBR21-4.8.2.4/5 digit 7			Rx impedance:	Zr TBR21
Remark	: -				

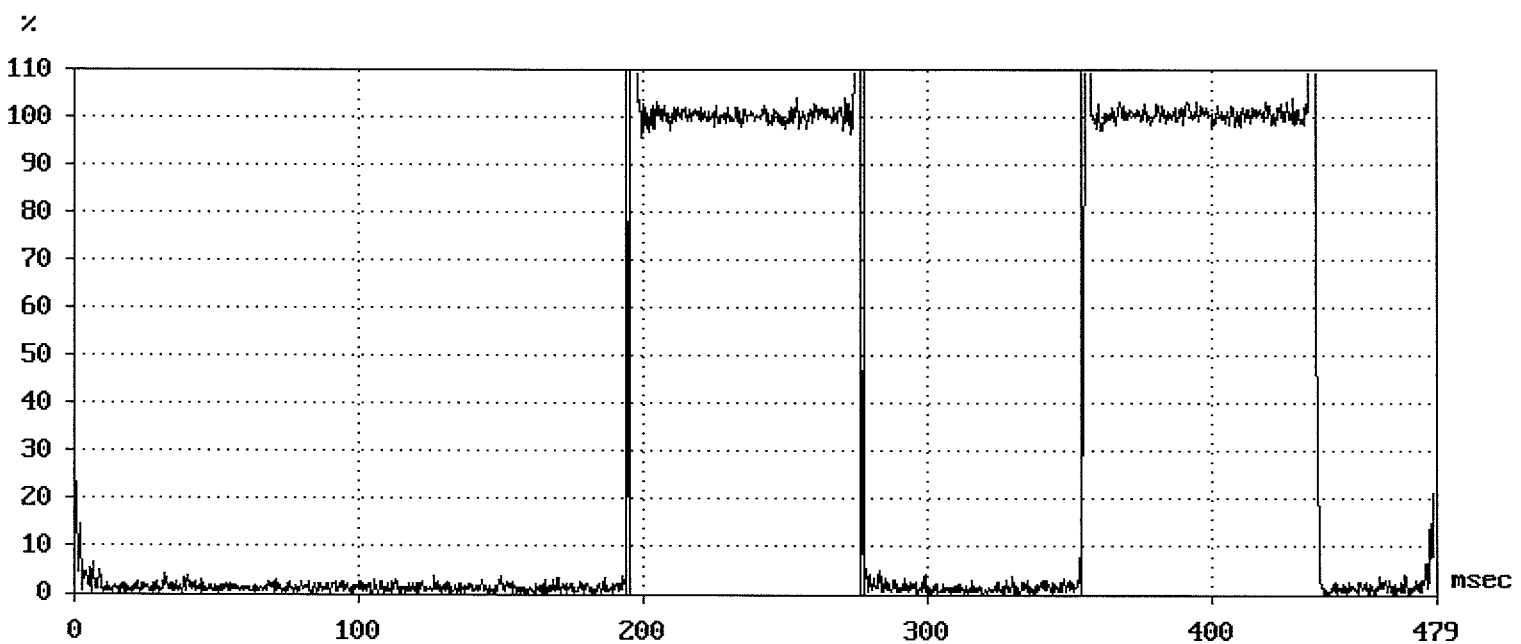
Verdict : PASS



TBR21 - 4.8.2.4/5 DTMF-Tone and Pause duration

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Trigger	: OK
TEUT	: Facsimile Kit for M	Polarity	: Normal	Level	: -64 dBV
Number of TEUT	: 214007009	Feeding resistor	: 850.0 Ohm	(of Pause)	(-40.0 dBV)
Manufacturer	: Kyocera Mita Corp.	Feeding bridge	: TBR21	tr :	1 ms (99.0 ms)
Date	: 29.12.10	Requirement: The limits		tf :	1 ms (99.0 ms)
Time	: 11:40.30	are given in the brackets		tp :	76 ms (65.0 ... 6500.0 m
		Frequency group	: upper	ts :	82 ms (65.0 ... 9999.0 m
Data set	: TBR21-4.8.2.4/5 digit 0			Rx impedance:	Zr TBR21
Remark	: -				

Verdict : PASS



Protocol for Automatically repeated call attempts

TBR21 - 4.8.3 Automatically repeated call attempts

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V
TEUT	: Facsimile Kit for MFP	Polarity	: Normal
Number of TEUT	: 214007009	Feeding resistor	: 850.0 Ohm
Manufacturer	: Kyocera Mita Corp.	Feeding bridge	: TBR21
Date	: 28.12.10	Receiver impedance	: Zr TBR21
Time	: 12:54.51	Gain (internal)	: +0.0 dB

Data set : TBR21-4.8.3
Requirement : The TE shall not initiate a call attempts less than 5 s after the termination of the previous call attempt.

Remark : PASS

Verdict : PASS

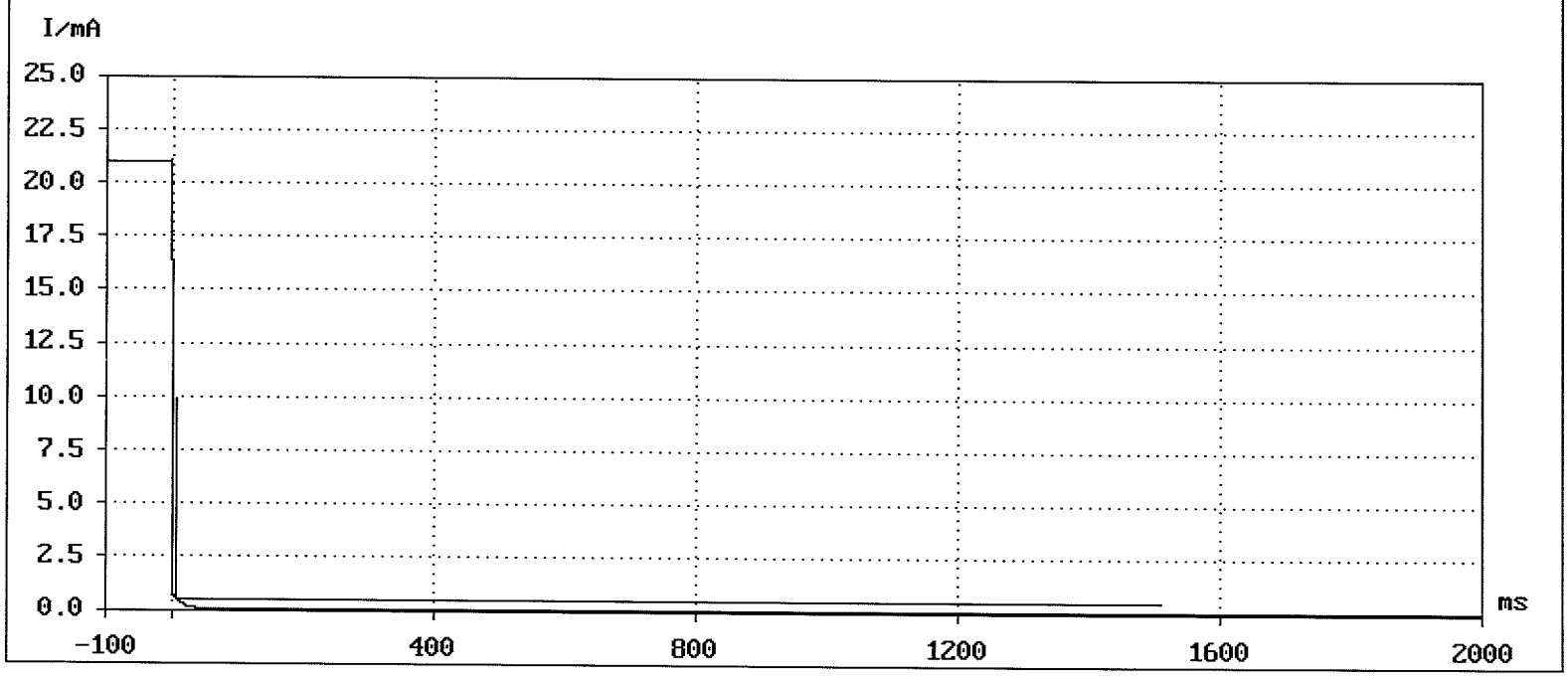
Call No.	Call expected	Call received	Network tone	Limit [s]	Condition established	tq [s]
1	1	1?	BusyTone	0	Quiescent	22.40
2	1	1?	BusyTone	0	Quiescent	68.10
3	1	1?	CongestionTone	5	Quiescent	68.05

TBR21 - 4.9 Transition from loop to quiescent state

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Trigger	: OK
TEUT	: Facsimile Kit for M[illegible]	Polarity	: Normal	I [mA]	: 10.0
Number of TEUT	: 214007009	Drop resistor	: 2050.0 Ohm	Event	: 1. neg. Edge
Manufacturer	: Kyocera Mita Corp.			Delay [ms]	: - 100
Date	: 28.12.10	Requirement	: The current shall	Sample [ms]	: 0.2
Time	: 12:59.19	drop not later than 20 ms			
		Data set	: TBR21-4.9		
Remark	: -				

Transient times : 0.0 ms

Verdict : PASS



Prüfbericht - Nr.: **12608299 001**
Test Report No.:

Anlage B
Appendix B

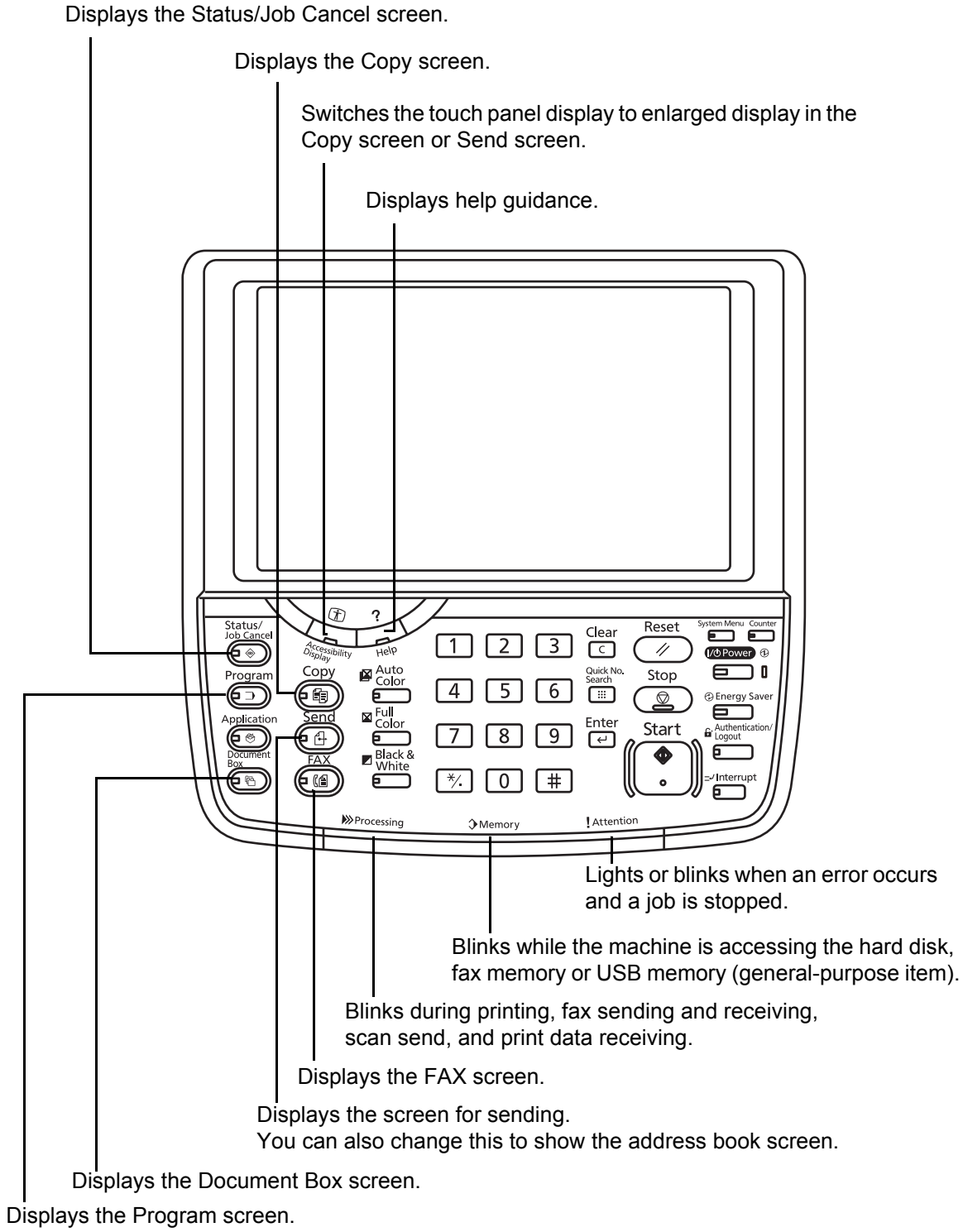
Produktbeschreibung
Description of Equipment

FAX System(V)

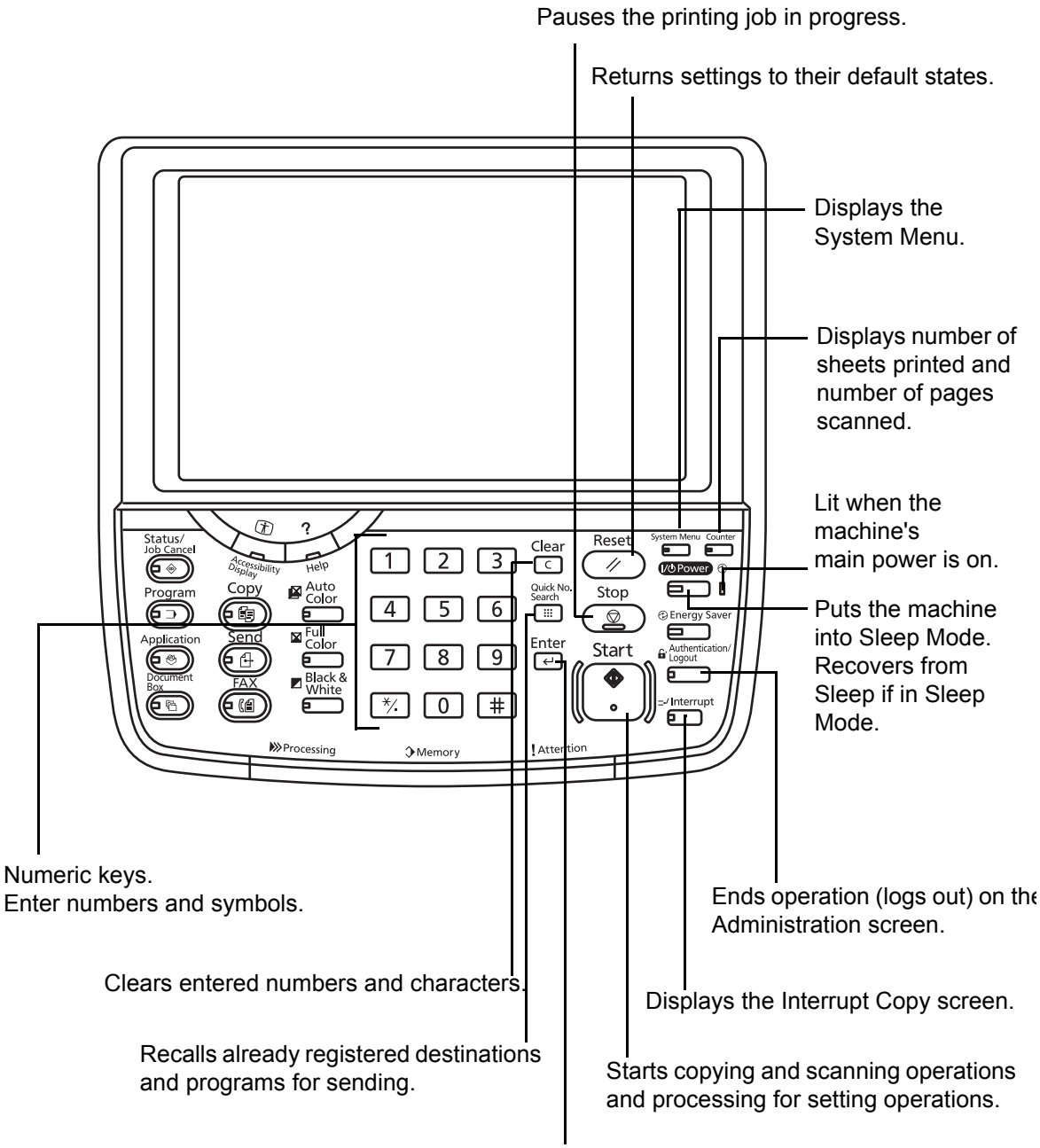
OPERATION GUIDE

Operation Panel

For the names of keys and indicators required when functions other than FAX are used, refer to the machine's *Operation Guide*.



* The operation panel may differ from the above illustration depending on the type of your machine.

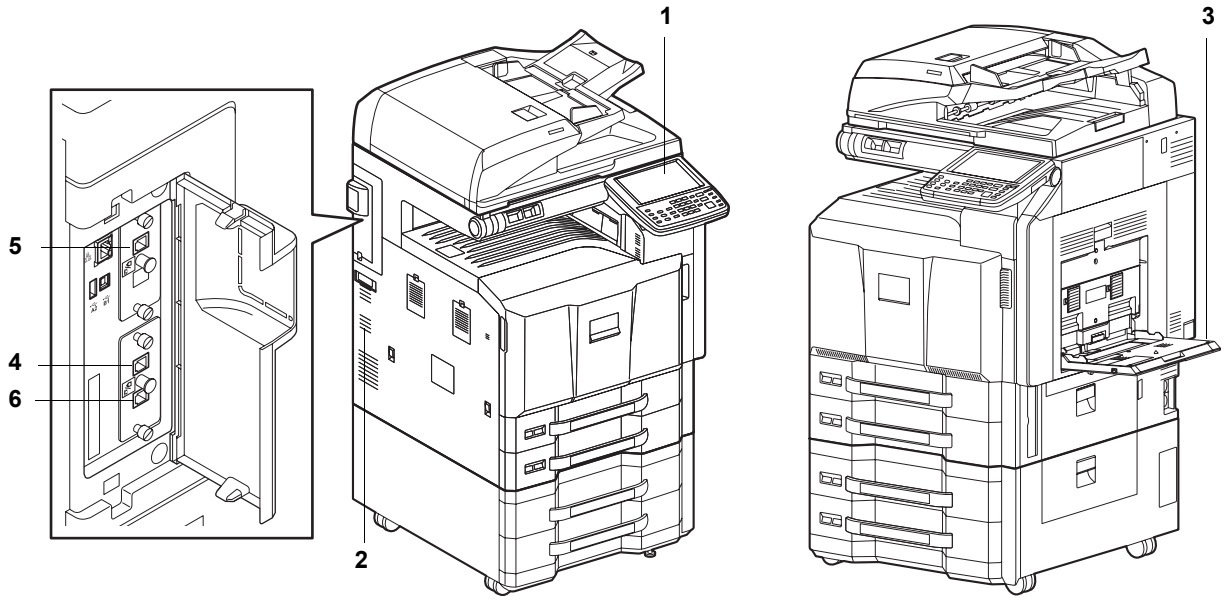


* The operation panel may differ from the above illustration depending on the type of your machine.

Machine

This chapter explains the names of parts when the machine is used as a fax machine.

For the parts required when functions other than FAX are used, refer to the machine's *Operation Guide*.



* The operation panel may differ from the above illustration depending on the type of your machine.

1	Operation panel	Perform the fax operation with this panel.
2	Main power switch	Set this switch to the ON (|) side when performing the fax or copier operation. The touch panel lights to enable operation.
3	MP (Multi Purpose) tray	Set the paper in this tray when using a type of paper other than the cassette (e.g., when using special paper).
4	LINE connector (L1)	Connect the modular cord for the telephone line to this connector. This connector is Port 1.
5	LINE connector (L2)	If you install 2 optional FAX Kits (Dual FAX option), you can use Port 2. Connect the modular cord for the telephone line to this connector.
6	TEL connector (T1)	When using a commercially available telephone set, connect the modular cord to this connector.

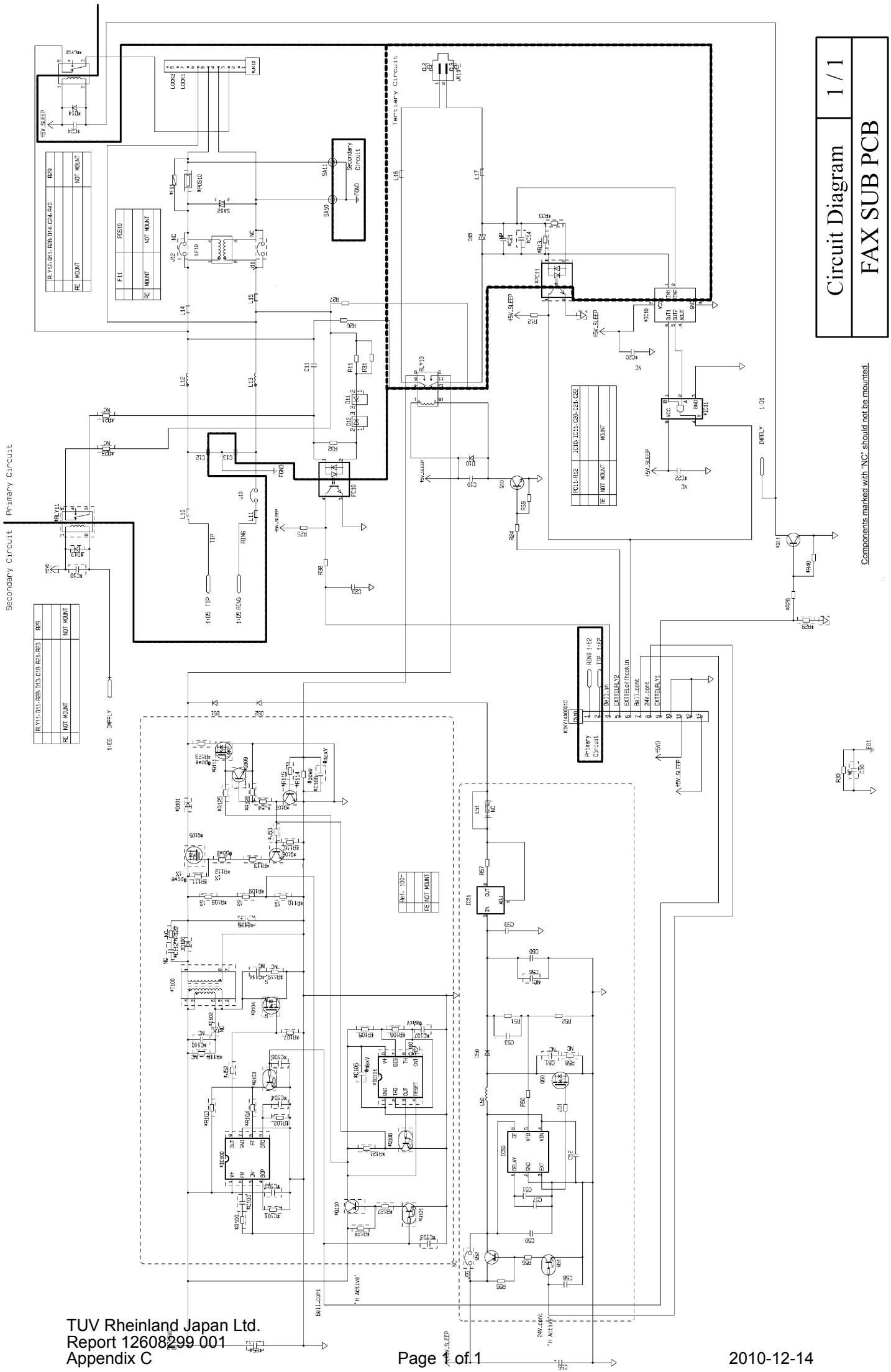
IMPORTANT: You cannot automatically receive a fax when the main power switch is turned off. To receive faxes with the power turned off, press the **Power** key on the operation panel.

Fax functions

Type	Optional FAX kit
Compatibility	G3
Communication line	Subscriber telephone line
Transmission time	3 seconds or less (33600 bps, JBIG, ITU-T A4 #1 chart)
Transmission speed	33600/31200/28800/26400/24000/21600/19200/16800/14400/12000/9600/7200/4800/2400 bps
Coding scheme	JBIG/MMR/MR/MH
Error correction	ECM
Original size	Max. width: 11"/297 mm Max. length: 63"/1600 mm
Automatic document feed	Max. 175 sheets
Scanner resolution	Horizontal × Vertical 200 × 100 dpi Normal (8 dot/mm × 3.85 line/mm) 200 × 200 dpi Fine (8 dot/mm × 7.7 line/mm) 200 × 400 dpi Super fine (8 dot/mm × 15.4 line/mm) 400 × 400 dpi Ultra fine (16 dot/mm × 15.4 line/mm) 600 × 600 dpi
Printing resolution	600 × 600 dpi
Gradations	256 shades (Error diffusion)
One-Touch key	100 keys
Multi-Station transmission	Max. 500 destinations
Substitute memory reception	700 sheets or more (when using ITU-T A4 #1)
Image memory capacity	12 MB (standard) (for incoming faxed originals)
Report output	Sent result report, FAX RX result report, Activity report, Status page

Anlage C
Appendix C

Schaltpläne
Circuit diagrams


Circuit Diagram
1 / 1
FAX SUB PCB
Components marked with "NC" should not be mounted.
Secondary Circuit
Primary Circuit
Tertiary Circuit
Secondary Circuit
Primary Circuit
RLY12:Q11,R28,D14,C24,R40
RLY11:Q11,R28,D13,C18,R21,R23
PC11,R12
IC10,IC11,C20,C21,C22
Ref. 100
RE
NOT MOUNT
MOUNT
TIP
RING
1:05 TIP
1:05 RING
1:E6 IMPPLY
IMPPLY 1:D1
+5V_SLEEP
+5VD
Bell_in
EXTELALY2
EXTELoffhookin
Bell_cont
24V_cont
EXTELALY1
RING 1:E2
TIP 1:E2
'H Active'

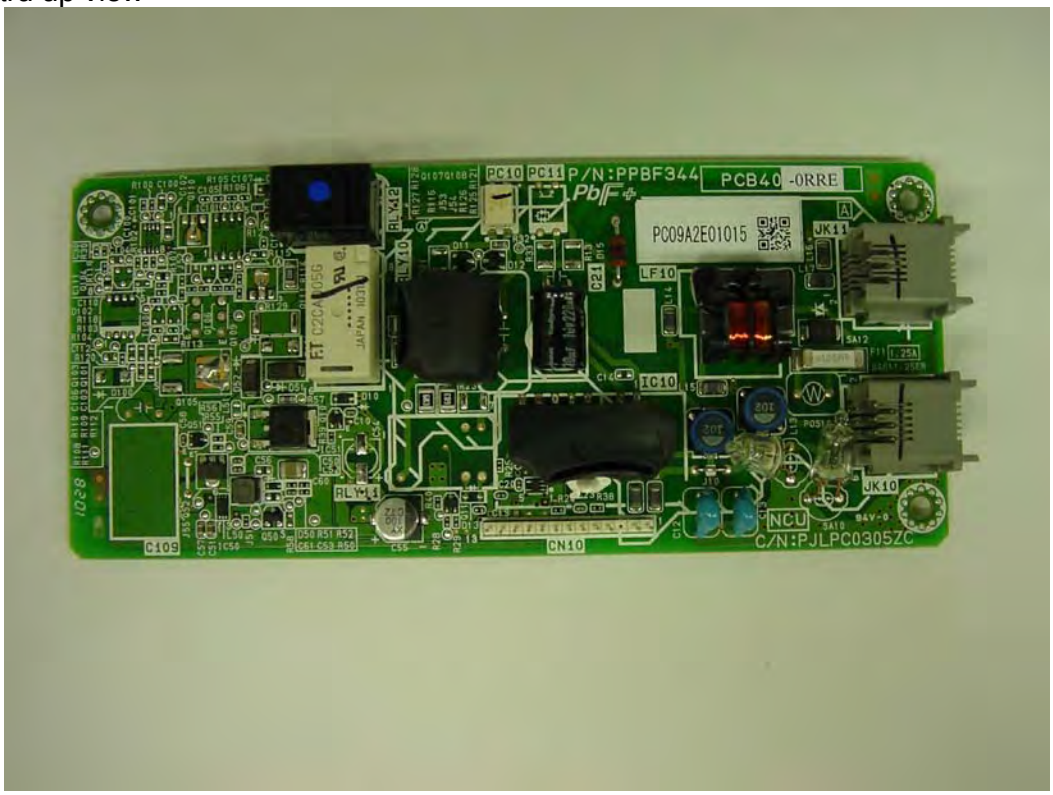
Anlage D
Appendix D

Fotos
Photographs

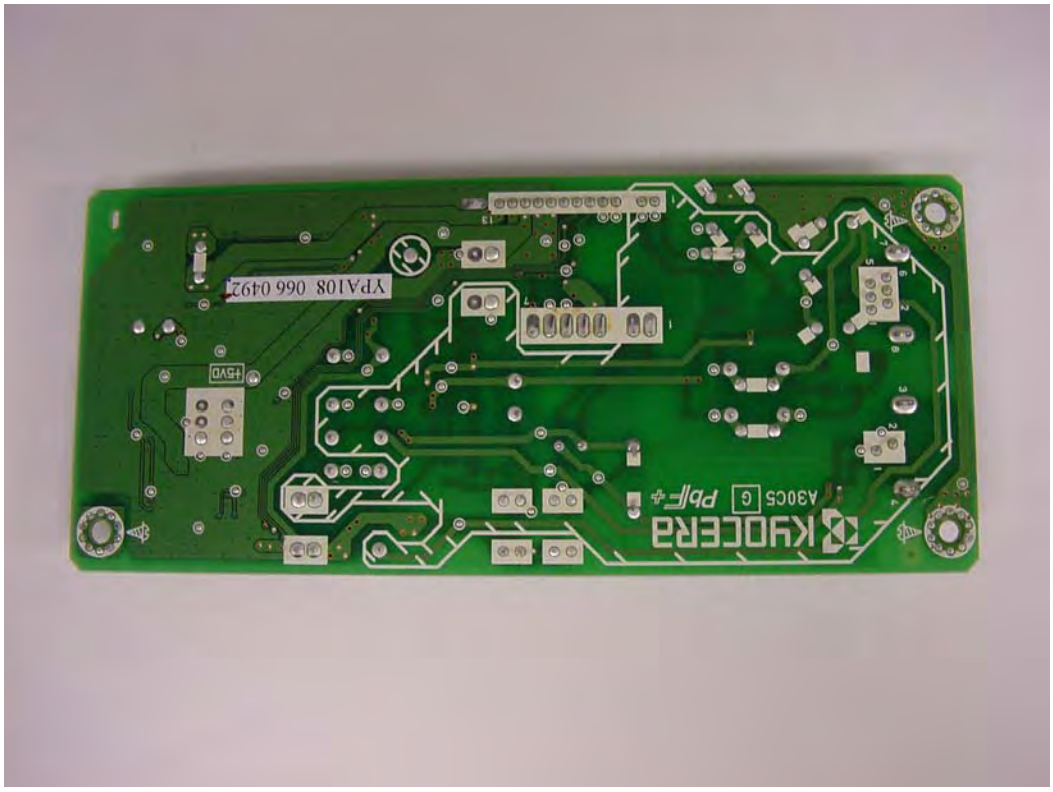
Host Front View

Host Rear View

Main Board up view



Main Board back view



Prüfbericht - Nr.: 12608299 002

Test Report No.:

Auftraggeber: *Client:*	**Kyocera Mita Corp.** **1-2-28 Tamatsukuri, Chuo-ku ,Osaka-shi,Osaka,540-8585 Japan**
Gegenstand der Prüfung: *Test item:*	**Facsimile Kit for MFP**
Bezeichnung: *Identification:*	**FAX System(V)**
Serien-Nr.: *Serial No.:*	**Prototype**
Wareneingangs-Nr.: *Receipt No.:*	**PT0214007008-1-1**
Eingangsdatum: *Date of receipt:*	**2010-12-14**
Prüfort: *Testing location:*	TÜV Rheinland Japan Ltd. 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: *Test specification:*	**EG 201 121 V1.1.3 (2000 - 02)**
Prüfergebnis: *Test Result:*	**Der Prüfgegenstand entspricht oben genannter Prüfgrundlage(n).** *The test item passed the test specification(s).*
Prüflaboratorium: *Testing Laboratory:*	TÜV Rheinland Japan Ltd. 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:*		
2011-01-07,	**Y.Miura**	Y. Miura	**2011-01-07,**	**K. Nakajima**	K. Nakajima
Datum *Date*	**Name/Stellung** *Name/Position*	**Unterschrift** *Signature*	**Datum** *Date*	**Name/Stellung** *Name/Position*	**Unterschrift** *Signature*

Sonstiges/ *Other Aspects:*

AN003, AN004, AN013, AN014, AN015, AN017, DE17 and GR02/P10 were not applied.

Deutscher Akkreditierungs Rat
DAR
DAT-PL-069/97-03

Abkürzungen:				*Abbreviations:*			
	P(ass)	=	*entspricht Prüfgrundlage*		*P(ass)*	=	*passed*
	F(ail)	=	*entspricht nicht Prüfgrundlage*		*F(ail)*	=	*failed*
	N/A	=	*nicht anwendbar*		*N/A*	=	*not applicable*
	N/T	=	*nicht getestet*		*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.

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.

Contents

Contents **2**

Climatic conditions during test **3**

Appliance documentation **3**

Test system configuration **3**

Measurement equipment list **4**

Measurement uncertainties **5**

Summary Report **6**

Appendix A: Measurement results ..... **54 pages**

Appendix B: Description of the equipment ..... **0 pages**

Appendix C: Circuit Diagrams ..... **0 pages**

Appendix D: Photographs ..... **0 pages**

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. ☐

Questions about the test report please inform Mr. M. Zietz.

Phone: +81-45-914-0239
Fax: +81-45-914-3347
e-mail: mz@jpn.tuv.com

Climatic conditions during testing

emperature: 23 - 25 °C
Air pressure: 1020 - 1020 hPa
Humidity: 40 - 50 %

Appliance Documentation

Hardware: -

Software: -

User manual: FAX System(V) OPERATION GUIDE First edition 2010.12 XXXX(Draft)

Circuit diagram: FAX SUB PCB(1/1)

Test System Configuration

Hardware: FAX System(V)
Software: 001.006

Test Sample Configuration

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

☒DTMF dialling function
☐Decadic pulse dialling function

Measurement equipment list

Measuring instrument	Identification	
Automatic Measurement System AMS from ESP-Telekom	TL-9000	
Outband Receiver and Ringer Amplifier ARE1000 from ESP-Telekom	TL-9001	
International Feeding Bridge ISB1000 from ESP-Telekom	TL-9002	
Automatic Measurement System AMS from ESP-Telekom	TL-9100	
Outband Receiver and Ringer Amplifier ARE1000 from ESP-Telekom	TL-9101	
International Feeding Bridge ISB1000 from ESP-Telekom	TL-9102	
Digital Multimeter Fluke	TL-9108	
Oscilloscope Tektronix TDS210	TL-9008	
Tastköpfe I / II / Voltage Probe I / II	TL-9036, TL-9037	
Anschaltebox / Connection Box Systel 104 000	TL-9038	
Connector Box	TL-9010	
Resistor Box	TL-9011	
Spectrum Analyzer HP 3585A	TL-9017	
Reference Impedance Zref-längs TBR21, Type 29	TL-9022, TL-9110	
Reference Impedance 150 Ohm crosswise, Type 50	TL-9033, TL-9112	
Reference Impedance Zref-quer TBR21, Type28	TL-9020, TL-9021 TL-9109, TL-9111	
Polarity Switch	TL-9042	

Measurement uncertainties

	Measuring	**Measurement Uncertainty** K=2	
AN 01	Automatic Dialling	Time : ±0.24 ms	
AN 02	Ringing signal detector sensitivity	AC Voltage : ±0.28 V	
AN 03	Variation of signals supplied by the PSTN	Time : ±0.24 ms	
AN 04	DTMF and CEPT recommendations	Level : ± 1dB	
AN 05	Automatic line clearing	Time : ±58 ms	
AN 06	Resistance to earth	Resistance : ±0.17MΩ	
AN 07	Control requirements in case of power failure	Time : ±8.2µs DC Current $_{(10mA)}$: ±0.12 mA DC Current $_{(0.5mA)}$: ±0.006 mA	
AN 09	Instantaneous voltage tested over a wider freq. Range	Voltage: ±0.8 V	
AN 10	Sending levels according to TBR 15	30Hz – 200Hz: Level: ±1.8 dBV 200Hz – 4.3kHz: Level: ±1.6 dBV	
AN 11	Establishment of loop for automatic answer	Time : ±1.2 ms Voltage : ±0.26 V	
AN 12	Transition after change to opposite polarity	Time : ±59 ms Current : ±0.74 mA	
AN 13	Test Methods of TBR21 to voice stimulated TE	Maximum mean sending level	Level : ±1.0 dB
		Maximum instantaneous voltage	Voltage : ±0.8 V
DE 03/GR 03/N 01	Sending level in quiescent state should be same as in loop state	Maximum voltage in 10Hz bandwidth	30Hz – 200Hz: Level: ±1.8 dBV 200Hz – 4.3kHz: Level: ±1.6 dBV
DE 04/GR 04/	Receiving signals having a long duration	Time : ±12 ms Voltage $_{(63V)}$: ±0.36 V Voltage $_{(85V)}$: ±0.44 V	
DE 05/GR 01/P 08	Seizing the line without making a call		
DE 08	Lower limit voltage in DC characteristics	Voltage : ±0.61 mV DC Current : ±0.82 mA	
DE 09	Return loss during DTMF dialing	Return loss : ±0.36 dB	
DE 12	Output signal balance during DTMF	Level: : ±0.28dBV	
DE 14	Improvement for transition from loop to quiescent state	Time :±8.2 µs DC Current $_{(10mA)}$: ±0.12 mA DC Current $_{(0.05mA)}$: ±0.0012 mA	
DE 17	Definition of a feeding bridge		
GR 02/P 10			
P 03	Impedance in quiescent state for voice and 12kHz signals	Impedance : ±35 Ω	
P 04	Series DC resistance	DC Current $_{(10mA)}$: ±0.2 mA Resistance : ±1.0Ω	
P 04	Insertion loss at series connection	Insertion loss : ±0.095 dB	
ES 01/NO 02	DC current and loop resistance	Voltage : ±0.61 mV DC Current : ±0.82 mA	

Summary Report: EG 201 121

All Countries								
Requirements				**N/A**	**N/T**	**fail**	**OK**	**Appendix A**
ATAAB AN 002, ATAAB AN 003 **Ringing signal detector sensitivity:** Ringing Voltage: 24Vrms - 90Vrms Ringing Frequency: 20 Hz - 62.5Hz Feeding Voltage: 48 VDC - 66VDC Ringing Cadence: 0.8s / 6s, 1.2s/4s				☐	☐	☐	☒	3-4
Dial tone detection				☐	☒	☐	☐	-
Frequency	**Level**	**Timing**	**Start dialling after**					
300 Hz	**- 35 dBm / 0 dBm**	**Continue**	**s / s**	☐	☒	☐	☐	
425 Hz	**- 35 dBm / 0 dBm**	**Continue**	**s / s**	☐	☒	☐	☐	
550 Hz	**- 35 dBm / 0 dBm**	**Continue**	**s / s**	☐	☒	☐	☐	
570 Hz	**- 35 dBm / 0 dBm**	**Continue**	**s / s**	☐	☒	☐	☐	
600 Hz	**- 35 dBm / 0 dBm**	**Continue**	**s / s**	☐	☒	☐	☐	
630 Hz	**- 35 dBm / 0 dBm**	**Continue**	**s / s**	☐	☒	☐	☐	
425 Hz	**- 35 dBm**	**1000/ 100 ms**	**s**	☐	☒	☐	☐	
425 Hz	**- 5 dBm**	**320 / 20 ms**	**s**	☐	☒	☐	☐	
ATAAB AN 004 **DTMF signalling:** Unwanted frequencies in the range 250Hz to 4300Hz in the presence of dial tone: < 20 dB Measurement Result: < dB				☐	☒	☐	☐	-

ATAAB AN 013 **Voice stimulated TE**				
Requirements	**N/A**	**N/T**	**fail**	**OK**	**Appendix A**
Mean sending level	☐	☒	☐	☐	-
Instantaneous voltage	☐	☒	☐	☐	-
Voltage level in a 10Hz bandwidth	☐	☒	☐	☐	-
Sending level above 4.3 kHz during communication	☐	☒	☐	☐	-
Output signal balance	☐	☒	☐	☐	-
Longitudinal conversion loss	☐	☒	☐	☐	-

Requirements	N/A	N/T	fail	OK	Appendix A
ATAAB AN 014 **Reduction of the range of line currents:** The resistor of 3200 Ohm shall be replaced by a resistor of 2800 Ohm. If declared by manufacturer for use only on lines providing a loop current of 18 mA or greater, the resistor of 2800 Ohm shall be replaced by a resistor of 2300 Ohm.	☐	☒	☐	☐	-
ATAAB AN 015 **Alternative connection methods:** Connection method of multi-line TE, please insert if other than socket: Type of connection	☐	☒	☐	☐	-
ATAAB AN 016 **Test for compliance of resistance to earth (On-Hook):** Resistance to earth with removed feeding bridge and test equipment directly connected to the TE under test. ☒ as tested by TBR 21, refer to report 12608299 001. ☐ with relaxation of this Advisory Note.	☐	☐	☐	☒	-
ATAAB AN 016 **Test for compliance of resistance to earth (Off-Hook):** Resistance to earth with removed feeding bridge and test equipment directly connected to the TE under test. ☒ as tested by TBR 21, refer to report 12608299 001. ☐ with relaxation of this Advisory Note.	☐	☐	☐	☒	-
ATAAB AN 017 **Test impedance for compliance above 4.3 kHz:** Applies to TBR 15, TBR 17. Replaced resistor of 120 Ohm with Zr from TBR 21, which means a resistance of 270 Ohms in series with a parallel combination of 750 Ohms and 150 nF.	☐	☒	☐	☐	-

Germany

ATAAB Advisory Notes

Requirements	N/A	N/T	fail	OK	Appendix A
ATAAB AN 005 **Automatic clearing of automatically originated or answered PSTN calls:** Limit: t < 180s Measurement Result: t = 45.9 s	☐	☐	☐	☒	6
ATAAB AN 006 **Resistance to earth:** Limit: U = 150 V DC => R > 100 kΩ Measurement Result: R > 50000 kΩ	☐	☐	☐	☒	7
ATAAB AN 007 **Liberation of Loop condition by the TE in the event of power failure:** Limit: In quiescent state within: t < 30 s Measurement Result: t < 2.98 s	☐	☐	☐	☒	8-9
ATAAB AN 009 **Instantaneous Voltage in a frequency range from 5 Hz to 4300 Hz:** Limit: Upp < 5.0 V Measurement Result: Upp < 1.20 V Refer also to test report 12608299 001.	☐	☐	☐	☒	10-16
ATAAB AN 010 **Sending level in 10 Hz bandwidth:** Limit: according TBR15	☐	☐	☐	☒	17-25

German Advisory Notes					
Requirements	**N/A**	**N/T**	**fail**	**OK**	**Appendix A**
DE03 **Control of sending level in quiescent state:**	☐	☐	☐	☒	32-34
DE04 **Inter-working after receiving ringing signal having a long duration:** $U_{TE\ eff}$ = 75 V~, 25 Hz, t = 6.5s	☐	☐	☐	☒	35
DE05 **Restriction on seizing the line without the intent of making a call:** Measurement Result: Automatically seizing the line only with the intention to make a call	☐	☐	☐	☒	-
DE08 **DC Characteristics:** Lower limit of voltage in DC Characteristics, see figure: 'DE 08.1'	☐	☐	☐	☒	36-37
DE09 **Impedance during DTMF signalling:** Limit for the frequency range from 600 Hz to 1700 Hz: > 14 dB	☐	☐	☐	☒	38-41
DE12 **Output signal balance:** Limits see figure: 'DE 12.1'	☐	☐	☐	☒	42-45
DE14 **Transition from loop to quiescent:** Limits: Decrease of the current to 0.05 mA within 1s Measurement Result: t = 0.0 ms	☐	☐	☐	☒	46
DE17 **Definition of the feeding bridge:** Measurement Result: The feeding bridge fulfills all requirements	☐	☒	☐	☐	-

Greece

ATAAB Advisory Notes

Requirements	N/A	N/T	fail	OK	Appendix A
ATAAB AN 005 **Automatic clearing of automatically originated or answered PSTN calls:** Limit: t < 360s, for different clearing conditions, see table: 'AN 05.1' Measurement Result: t = 11.3 s	☐	☐	☐	☒	5
ATAAB AN 006 **Resistance to earth:** Limit: U = 150 V DC => R > 100 kΩ Measurement Result: R > 50000 kΩ	☐	☐	☐	☒	7

Greece Advisory Notes

Requirements	N/A	N/T	fail	OK	Appendix A
GR01 **Restriction on seizing the line without the intent of making a call:** Measurement Result: Automatically seizing the line only with the intention to make a call	☐	☐	☐	☒	-

GR02 Loop disconnect signalling					
Requirements according ETS 300 001	**N/A**	**N/T**	**fail**	**OK**	**Appendix A**
Dialling pulse timing: Limit: Make time (t_e - t_i) = 38.5ms ± 3ms (I_h = 12 mA, I_g = 18 mA) Break time (t_h - t_g) = 61.5ms ± 3ms (I_e = 18 mA, I_i = 12 mA) Frequency = 10 Hz ± 1 Hz Measurement Result: Make time: $t_{M\,min}$ = ms; $t_{M\,max}$ = ms Brake time: $t_{B\,min}$ = ms; $t_{B\,max}$ = ms Frequency: f_{min} = Hz; f_{max} = ms	☐	☒	☐	☐	-
Break and make pulse period current and loop resistance: Limit: Brake time (t_e - t_i) - 6 ms; I_B < 0.5 mA Make time (t_h - t_g) - 4 ms I_M > 20, 35, 55 mA Measurement Result: t (I_B < 0.5 mA) = ms; $t_{M\,max}$ = ms Brake time: $t_{B\,min}$ = ms; $t_{B\,max}$ = ms Frequency: f_{min} = Hz; f_{max} = ms	☐	☒	☐	☐	-
Inter-digital pause: Limit: Automatic dialling: t_h - t_g = 720ms - 1000ms Manual dialling : t_h - t_g > 400ms Current t(I > 20, 35, 55mA) > t_h - t_g -80ms Measurement Result: Automatic dialling: t_h - t_g = ms Manual dialling : t_h - t_g = ms Current t(I > 20, 35, 55mA) = ms	☐	☒	☐	☐	-
Post pulsing period: Limit: t(I > 20, 35, 55mA) < 100 ms Measurement Result: t(I > 20, 35, 55mA) = ms	☐	☒	☐	☐	-
Spark quenching: Limit: R = 100Ω - 200Ω C = 1.5 µF Measurement Result: R = Ω C = µF	☐	☒	☐	☐	-

Greece Advisory Notes					
Requirements	**N/A**	**N/T**	**fail**	**OK**	**Appendix A**
GR03 **Control of sending level in quiescent state:**	☐	☐	☐	☒	32-34
GR04 **Inter-working after receiving ringing signal having a long duration:** $U_{TE\ eff}$ = 75 V~, 25 Hz, t = 6.5s	☐	☐	☐	☒	35

Portugal					
ATAAB Advisory Notes					
Requirements	**N/A**	**N/T**	**fail**	**OK**	**Appendix A**
ATAAB AN 001 **Automatic Dialling:** Limit: Dialling without dial tone: t = 2.7s - 5s Dialling with dial tone: t < 5s Measurement Result: ☒ Dialling without dial tone: t = 4.12 s ☒ Dialling with dial tone: t = 0.79 s	☐	☐	☐	☒	1-2
ATAAB AN 005 **Automatic clearing of automatically originated or answered PSTN calls:** Limit: t < 360s Measurement Result: t = 11.3 s	☐	☐	☐	☒	5
ATAAB AN 006 **Resistance to earth:** Limit: U = 150 V DC => R > 100 kΩ Measurement Result: R > 50000 kΩ	☐	☐	☐	☒	7
ATAAB AN 007 **Liberation of loop condition by the TE in the event of power failure:** Limit: Return to quiescent state within: t < 30 s Measurement Result: t < 2.98 s	☐	☐	☐	☒	8-9
ATAAB AN 011 **Establishment of loop for automatic answer:** Limit: t < 2 min Measurement Result: t = 7.11 s	☐	☐	☐	☒	26-27

Portugal Advisory Notes					
Requirements	**N/A**	**N/T**	**fail**	**OK**	**Appendix A**
P03 **Input impedance for voice band signal and billing signal in quiescent state:** Limit: (Test Signal = 1.5 Vrms) 300 Hz - 4000 Hz Z > 15 kΩ 4 kHz - 15 kHz Z > 6 kΩ Measurement Result: 300 Hz - 4000 Hz Z > 30 kΩ 4 kHz - 15 kHz Z > 8 kΩ	☐	☐	☐	☒	47-48
P04 **2 - Port - TE** **4.1 Series DC resistance in loop state:** Limit: R < 100 Ω Measurement Result: R = 26 Ω	☐	☐	☐	☒	49
P04 **2 - Port - TE** **4.2 Transition from quiescent state to loop state:** Limit: t < 100 ms Measurement Result: t = 0 ms	☐	☐	☐	☒	50
P04 **2 - Port - TE** **4.3 Insertion Loss of a Series Terminal Equipment** Limit: Insertion Loss < 1 dB (Vrms = 1.5V: 300 Hz < f < 3400 Hz) Measurement Result: Maximum Insertion Loss = 0.2 dB	☐	☐	☐	☒	51-54
P08 **Restriction on seizing the line without the intent of making a call:** Measurement Result: Automatically seizing the line only with the intention to make a call.	☐	☐	☐	☒	-

Portugal Advisory Notes					
P10 Loop disconnect signalling **Requirements according 25.01.51.001 - 5.6.1 Decimal Pulse Dialling**	**N/A**	**N/T**	**fail**	**OK**	**Appendix A**
5.6.1.1 Corresponding of digits and series of pulses Measurement Result: Each digit corresponds to a series of pulse equal to its value. Only '0' is 10 pulses.	☐	☒	☐	☐	-
5.6.1.2 / 3 Break and make pulse period ratio: Limit: Fig. 5.15 (48V; 400Ω) Measurement Result: Make time: t_M = ms Brake time: t_B = ms Frequency: f = Hz	☐	☒	☐	☐	-
5.6.1.4 Pre dialling stage Limit: Fig. 5.16 (45V - 55V; 300Ω - 1800Ω) Measurement Result: The voltage and current of the pre dialling stage are within the limit of Fig.5.16.	☐	☒	☐	☐	-
5.6.1.5 Current during loop openings: Limit: not more than 2 mA after 4 ms and fall of 0.5mA after 6ms. after 6ms the loop current I < 0.5 mA (48V; 400Ω) Measurement Result: I < 2 mA after ms I < 0.5 mA after ms	☐	☒	☐	☐	-
5.6.1.6 Current during loop closing stages: Limit: after 4ms see limit of Fig.5.16 (45V - 55V; 300Ω - 1800Ω) Measurement Result: I (Fig.5.16) after ms	☐	☒	☐	☐	-
5.6.1.7 Inter-digital pause time: Limit: t_I = 600ms - 1000ms (48V; 400Ω) Measurement Result: t_I = ms	☐	☒	☐	☐	-
5.6.1.8 Inter-digital pause current: Limit: after 4ms see limit of Fig.5.16 (45V - 55V; 300Ω - 1800Ω) Measurement Result: I (Fig.5.16) after ms	☐	☒	☐	☐	-
5.6.1.9 Inter-digital pause, Dialling with current interruption: Limit: no alteration by 110 ms loop interruption, 100 ms after the pulse train. I > 20 mA, 10 ms after the loop current interruption. (48V; 400Ω) Measurement Result: No alteration to its normal operation caused by loop current interruption	☐	☒	☐	☐	-

5.6.1.10 Post pulsing period: Limit: after 4ms of last opening see limit of Fig.5.16 (45V-55V; 300Ω-1800Ω) Measurement Result: I (Fig.5.16) after ms	☐ ☒ ☐ ☐	-

Spain		
ATAAB Advisory Notes		
Requirements	**N/A N/T fail OK**	**Appendix A**
Spain Advisory Notes		
ATAAB AN 005 **Automatic clearing of automatically originated or answered PSTN calls:** Limit: t < 360s Measurement Result: t = 11.3 s	☐ ☐ ☐ ☒	5
ATAAB AN 007 **Liberation of Loop condition by the TE in the event of power failure:** Limit: In quiescent state within: t < 30 s Measurement Result: t < 2.98 s	☐ ☐ ☐ ☒	8-9
ATAAB AN 012 **Transient after change to the opposite polarity:** Limit: see Figure AN 12.1 Measurement Result: Current within the limits of Figure AN 12.1	☐ ☐ ☐ ☒	28-31
ES 01 **DC current and loop resistance:** Limit: see Table ES 01.1	☐ ☐ ☐ ☒	36-37

Switzerland					
ATAAB Advisory Notes					
Requirements	**N/A**	**N/T**	**fail**	**OK**	**Appendix A**
Switzerland Advisory Notes					
ATAAB AN 002 **Ringing signal detector sensitivity:** Measurement Result: Detecion of 24Vrms ringing signal	☐	☐	☐	☒	3-4

Norway					
ATAAB Advisory Notes					
Requirements	**N/A**	**N/T**	**fail**	**OK**	**Appendix A**
Norwegian Advisory Notes					
ATAAB AN 002 **Ringing signal detector sensitivity:** Measurement Result: Detecion of 24Vrms ringing signal	☐	☐	☐	☒	3-4
ATAAB AN 005 **Automatic clearing of automatically originated or answered PSTN calls:** Limit: t < 180s Measurement Result: t = 45.9s	☐	☐	☐	☒	6
ATAAB AN 007 **Liberation of Loop condition by the TE in the event of power failure:** Limit: In quiescent state within: t < 30 s Measurement Result: t < 2.98 s	☐	☐	☐	☒	8-9
NO01 **Control of sending level in quiescent state:**	☐	☐	☐	☒	32-34
NO02 **DC current and loop resistance:** Limit: see Table NO 02.1	☐	☐	☐	☒	36-37

Anlage A
Appendix A

Messergebnisse
Measuring results

Protocol for Automatic dialling

AN 001 Dialling without dial tone detection

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V
TEUT	: Facsimile Kit for MFP	Polarity	: Normal
Number of TEUT	: 214007009	Feeding resistor	: 850.0 Ohm
Manufacturer	: Kyocera Mita Corp.	Feeding bridge	: TBR21
Date	: 28.12.10	Receiver impedance	: Zr TBR21
Time	: 13:37.12	Gain (internal)	: +0.0 dB

Data set : AN001
Requirement : The TE shall start dialling in the limits of 2.7 s ... 5.0s

Remark : -

Verdict : PASS

Frequency Hz	Level dBV	T seize s	T dial s	Dialled
No dial tone		4.12	-	1?

Protocol for Automatic dialling

AN 001 Dialling with dial tone detection - Continous dial tone -

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V
TEUT	: Facsimile Kit for MFP	Polarity	: Normal
Number of TEUT	: 214007009	Feeding resistor	: 850.0 Ohm
Manufacturer	: Kyocera Mita Corp.	Feeding bridge	: TBR21
Date	: 28.12.10	Receiver impedance	: Zr TBR21
Time	: 13:39.05	Gain (internal)	: +0.0 dB

Data set : AN001 with dial tone
Requirement : The TE shall start dialling in the limits of 0.0 s ... 5.0s

Remark : -

Verdict : PASS

Frequency Hz	Level dBV	T seize s	T dial s	Dialled
300	- 0.7	3.73	0.76	1??
300	-35.7	3.75	0.79	1?
500	-35.7	3.73	0.76	1?
500	- 0.7	3.72	0.76	1?

Protocol for Automatic answering function Auto

AN 002 Ringing signal detector sensitivity (24V) - Auto answer

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V
TEUT	: Facsimile Kit for MFP	Current limitation	: 40.0 mA
Number of TEUT	: 214007009	Polarity	: Normal
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 850.0 Ohm
		Trigger event	: 1. pos. Edge
Date	: 28.12.10	Gain (internal)	: -30.0 dB
Time	: 13:42.08		

Data set : AN-02-03 N
Requirement : The TE shall be able to respond to ringing signals of 24 Vrms.

Remarks : Tested were also further ringing signals as advised in AN 003 and listed below.
-

Verdict : PASS

Cycles	Frequency	Ute	1.Pulse	Pulse	Pause	Answering
13	20.0	24.0	800	800	6000	7.90
13	60.0	24.0	1200	1200	4000	6.30
13	20.0	90.0	1200	1200	4000	6.31
13	60.0	90.0	800	800	6000	7.90

Protocol for Automatic answering function Auto

AN 002 Ringing signal detector sensitivity (24V) - Auto answer

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V
TEUT	: Facsimile Kit for MFP	Current limitation	: 40.0 mA
Number of TEUT	: 214007009	Polarity	: Inverted
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 850.0 Ohm
		Trigger event	: 1. pos. Edge
Date	: 29.12.10	Gain (internal)	: -30.0 dB
Time	: 11:52.15		

Data set : AN-02-03 I
Requirement : The TE shall be able to respond to ringing signals of 24 Vrms.

Remarks : Tested were also further ringing signals as advised in AN 003 and listed below.
-

Verdict : PASS

Cycles	Frequency	Ute	1.Pulse	Pulse	Pause	Answering
13	20.0	24.0	800	800	6000	7.88
13	60.0	24.0	1200	1200	4000	6.31
13	20.0	90.0	1200	1200	4000	6.31
13	60.0	90.0	800	800	6000	7.90

Protocol for Liberation of loop condition

Liberation of loop condition
EG 201 121/AN-05

Date	: 28.12.10	Feeding Voltage	: 50.0 V
Time	: 13:52.01	Polarity	: Normal
Operator	: Y. Miura	Current limitation	: 100.0 mA
Commission	: 214007009	Feeding Bridge	: TBR21
TEUT	: Facsimile Kit for MFP		
Manufacturer	: Kyocera Mita Corp.		
Parameter set	: AN-05,A.3.1 2050 Ohm N		
Remark	: -		
Verdict	: PASS	Requirement [s]	: 0.0 .. 360.0 s

Frequency Hz	Level dBm	td s	ton ms	toff ms	Disconnect after s
425	- 30.0	360.0	200	200	2.5
425	- 30.0	360.0	200	200	
			200	600	2.6
425	- 30.0	360.0	200	200	
			200	200	
			200	600	2.1
0	- 30.0	0.0	0	0	11.3

Protocol for Liberation of loop condition

Liberation of loop condition
EG 201 121/AN-05

Date	: 28.12.10	Feeding Voltage	: 50.0 V
Time	: 13:59.17	Polarity	: Normal
Operator	: Y. Miura	Current limitation	: 100.0 mA
Commission	: 214007009	Feeding Bridge	: TBR21
TEUT	: Facsimile Kit for MFP		
Manufacturer	: Kyocera Mita Corp.		
Parameter set	: AN-05,B.3.1 2050 Ohm N		
Remark	: -		
Verdict	: PASS	Requirement [s]	: 0.0 .. 180.0 s

Frequency Hz	Level dBm	td s	ton ms	toff ms	Disconnect after s
No tone		-	-	-	45.9

Protocol for Resistance to earth

Resistance to earth

Date : 4.01.11
Time : 15:26.58
Operator : Y. Miura
Test Job : 214007009
TEUT : Facsimile Kit for MFP
Parameter set : AN 06

Feeding bridge : germany
Waiting Period : 10.0 sec

Verdict : PASS

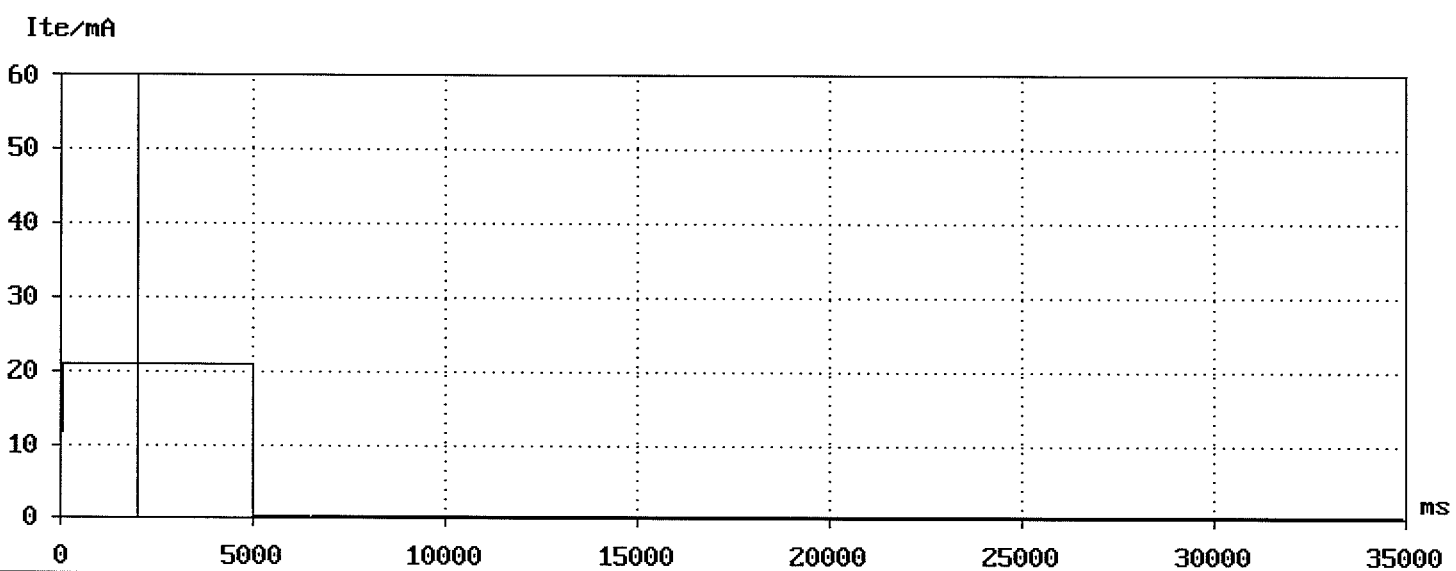
Remark : -

Uf V	Rf Ω	Polarity	Ut V	Rt Ω	Measure	Limit MΩ		Current uA	Resistance MΩ
50.0	1000	Normal	100.0	10000	b - E	10	<	2.0	> 50
50.0	1000	Normal	-100.0	10000	b - E	10	<	2.0	> 50
50.0	1000	Normal	100.0	10000	a - E	10	<	2.0	> 50
50.0	1000	Normal	-100.0	10000	a - E	10	<	2.0	> 50
50.0	1000	Normal	150.0	10000	a - E	0.1	<	3.0	> 50
50.0	1000	Normal	-150.0	10000	a - E	0.1	<	3.0	> 50
50.0	1000	Normal	150.0	10000	b - E	0.1	<	3.0	> 50
50.0	1000	Normal	-150.0	10000	b - E	0.1	<	3.0	> 50

Liberation of loop condition power failure

EG 201 121/AN-07

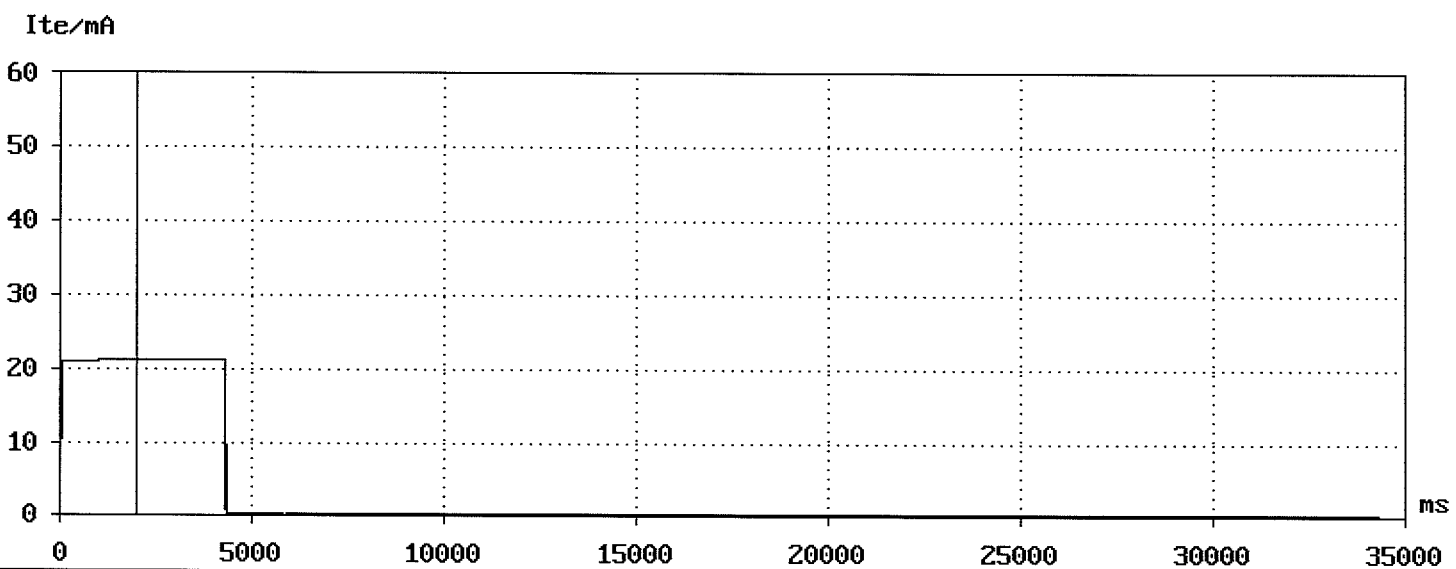
Test Job	: 214007009	Feeding Bridge	: TBR21
TEUT	: Facsimile Kit for MFP	Feeding voltage	: 50.0 V
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 2050.0 Ohm
Operator	: Y. Miura	Polarity	: Normal
Date	: 28.12.10	Limit	: ≤ 30.0 s
Time	: 14:14.38	Measured value	: 2.985 s
Remark	: -	t0	: 2980 ms
Ite	: 0.01 mA	t01	: 2985 ms
Ute	: 49.97 V	Transient times	: 0.0 ms
TEUT Status	: Quiescent state	Trigger	: OK
Verdict	: PASS	I [mA]	: 10.0



Liberation of loop condition power failure

EG 201 121/AN-07

Test Job	: 214007009	Feeding Bridge	: TBR21
TEUT	: Facsimile Kit for MFP	Feeding voltage	: 50.0 V
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 2050.0 Ohm
Operator	: Y. Miura	Polarity	: Inverted
Date	: 28.12.10	Limit	: ≤ 30.0 s
Time	: 14:18.20	Measured value	: 2.305 s
Remark	: -	t0	: 2300 ms
Ite	: 0.01 mA	t01	: 2310 ms
Ute	: 49.98 V	Transient times	: 0.0 ms
TEUT Status	: Quiescent state	Trigger	: OK
Verdict	: PASS	I [mA]	: 10.0



Protocol for Maximum mean sending level

TBR21-4.7.3.1 Mean sending level / TBR21-4.7.3.2 Instantaneous voltage

Model No.	: FAX System(V)	Feeding voltage	: 50 V
TEUT	: Facsimile Kit for MFP	Current limitation	: 80 mA
Number of TEUT	: 214007009	Polarity	: Normal
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 230 Ω
Date	: 27.12.10	Trigger lev./delay	: -12.0 dBV 10 msec
Time	: 17:08.06	Receiver impedance	: Zr TBR21
		Receiver filter	: BP 200-3800 Hz
		Call setup	: outgoing
		Gain (internal)	: -6.0 dB

Data set : TBR21-4.7.3.1 230 N
Requirement : The mean sending level shall not be greater than -9.7 dBV
The instantaneous voltage shall not exceed 5.0 Vpp.

Comm. Signal : V.34 33600bps Instantaneous Volt: 1.20 Vpp

Verdict : PASS

Mean level
dBV

. - 13.2

Protocol for Maximum mean sending level

TBR21-4.7.3.1 Mean sending level / TBR21-4.7.3.2 Instantaneous voltage

Model No.	: FAX System(V)	Feeding voltage	: 50 V
TEUT	: Facsimile Kit for MFP	Current limitation	: 80 mA
Number of TEUT	: 214007009	Polarity	: Inverted
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 230 Ω
Date	: 27.12.10	Trigger lev./delay	: -12.0 dBV 10 msec
Time	: 17:19.09	Receiver impedance	: Zr TBR21
		Receiver filter	: BP 200-3800 Hz
		Call setup	: outgoing
		Gain (internal)	: -6.0 dB

Data set : TBR21-4.7.3.1 230 I
Requirement : The mean sending level shall not be greater than -9.7 dBV
The instantaneous voltage shall not exceed 5.0 Vpp.

Comm. Signal : V.17 14400bps Instantaneous Volt: 1.12 Vpp

Verdict : PASS

	Mean level dBV
.	- 13.0

Protocol for Maximum mean sending level

TBR21-4.7.3.1 Mean sending level / TBR21-4.7.3.2 Instantaneous voltage

Model No.	: FAX System(V)	Feeding voltage	: 50 V
TEUT	: Facsimile Kit for MFP	Current limitation	: 80 mA
Number of TEUT	: 214007009	Polarity	: Normal
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 3200 Ω
Date	: 27.12.10	Trigger lev./delay	: -12.0 dBV 10 msec
Time	: 17:29.37	Receiver impedance	: Zr TBR21
		Receiver filter	: BP 200-3800 Hz
		Call setup	: outgoing
		Gain (internal)	: -6.0 dB

Data set : TBR21-4.7.3.1 3200 N
Requirement : The mean sending level shall not be greater than -9.7 dBV
The instantaneous voltage shall not exceed 5.0 Vpp.

Comm. Signal : V.29 9600bps Instantaneous Volt: 1.12 Vpp

Verdict : PASS

	Mean level dBV
.	- 13.0

Protocol for Maximum mean sending level

TBR21-4.7.3.1 Mean sending level / TBR21-4.7.3.2 Instantaneous voltage

Model No.	: FAX System(V)	Feeding voltage	: 50 V
TEUT	: Facsimile Kit for MFP	Current limitation	: 80 mA
Number of TEUT	: 214007009	Polarity	: Inverted
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 3200 Ω
Date	: 27.12.10	Trigger lev./delay	: -12.0 dBV 10 msec
Time	: 17:44.56	Receiver impedance	: Zr TBR21
		Receiver filter	: BP 200-3800 Hz
		Call setup	: outgoing
		Gain (internal)	: -6.0 dB

Data set : TBR21-4.7.3.1 3200 I
Requirement : The mean sending level shall not be greater than -9.7 dBV
The instantaneous voltage shall not exceed 5.0 Vpp.

Comm. Signal : V.27ter 4800bps Instantaneous Volt: 0.88 Vpp

Verdict : PASS

	Mean level dBV
.	- 13.0

Protocol for Maximum mean sending level

TBR21-4.7.3.1 Mean sending level / TBR21-4.7.3.2 Instantaneous voltage

Model No.	: FAX System(V)	Feeding voltage	: 50 V
TEUT	: Facsimile Kit for MFP	Current limitation	: 80 mA
Number of TEUT	: 214007009	Polarity	: Normal
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 230 Ω
Date	: 27.12.10	Trigger lev./delay	: -12.0 dBV 10 msec
Time	: 17:55.46	Receiver impedance	: Zr TBR21
		Receiver filter	: BP 200-3800 Hz
		Call setup	: outgoing
		Gain (internal)	: -6.0 dB

Data set : TBR21-4.7.3.1 230 N
Requirement : The mean sending level shall not be greater than -9.7 dBV
The instantaneous voltage shall not exceed 5.0 Vpp.

Comm. Signal : V.21 300bps Instantaneous Volt: 0.72 Vpp

Verdict : PASS

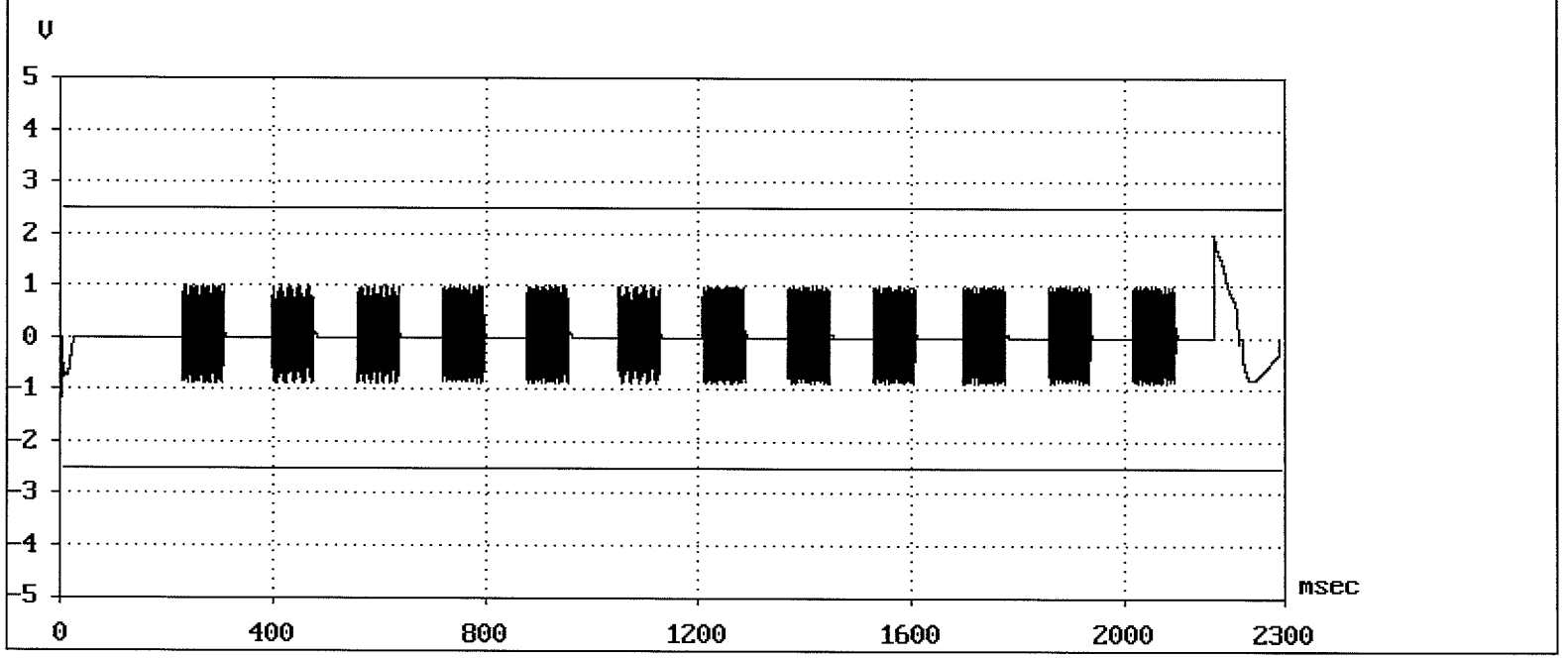
Mean level
dBV

. - 13.1

DTMF instantaneous voltage

EG 201 121/AN-09

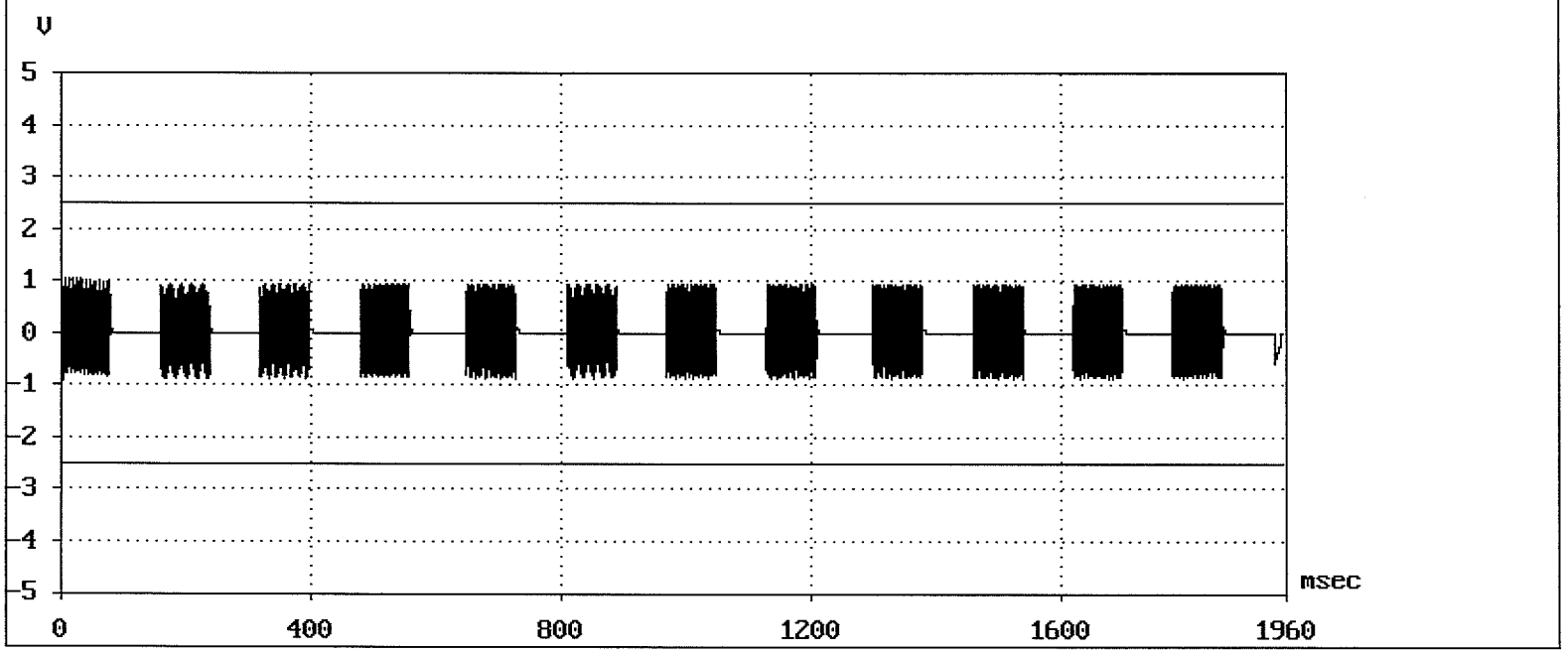
Test Job	: 214007009	Mask violations	: 0
TEUT	: Facsimile Kit for MFP	Measured voltage	: OK
Manufacturer	: Kyocera Mita Corp.	Temporary Voltage	: 5.0 Vpp for 0.0 msec
Operator	: Y. Miura	Feeding Voltage	: 50.0 V
Date	: 28.12.10	Polarity	: Normal
Time	: 14:22.25	Feeding Resistor	: 230.0 Ohm
		Filter	: BP 5-4300 Hz
Remark	: -		
		Trigger	: OK
Verdict	: PASS	User Operation	: DTMF



DTMF instantaneous voltage

EG 201 121/AN-09

Test Job	: 214007009	Mask violations	: 0
TEUT	: Facsimile Kit for MFP	Measured voltage	: OK
Manufacturer	: Kyocera Mita Corp.	Temporary Voltage	: 5.0 Vpp for 0.0 msec
Operator	: Y. Miura	Feeding Voltage	: 50.0 V
Date	: 28.12.10	Polarity	: Inverted
Time	: 14:25.58	Feeding Resistor	: 3200.0 Ohm
		Filter	: BP 5-4300 Hz
Remark	: -		
		Trigger	: OK
Verdict	: PASS	User Operation	: DTMF

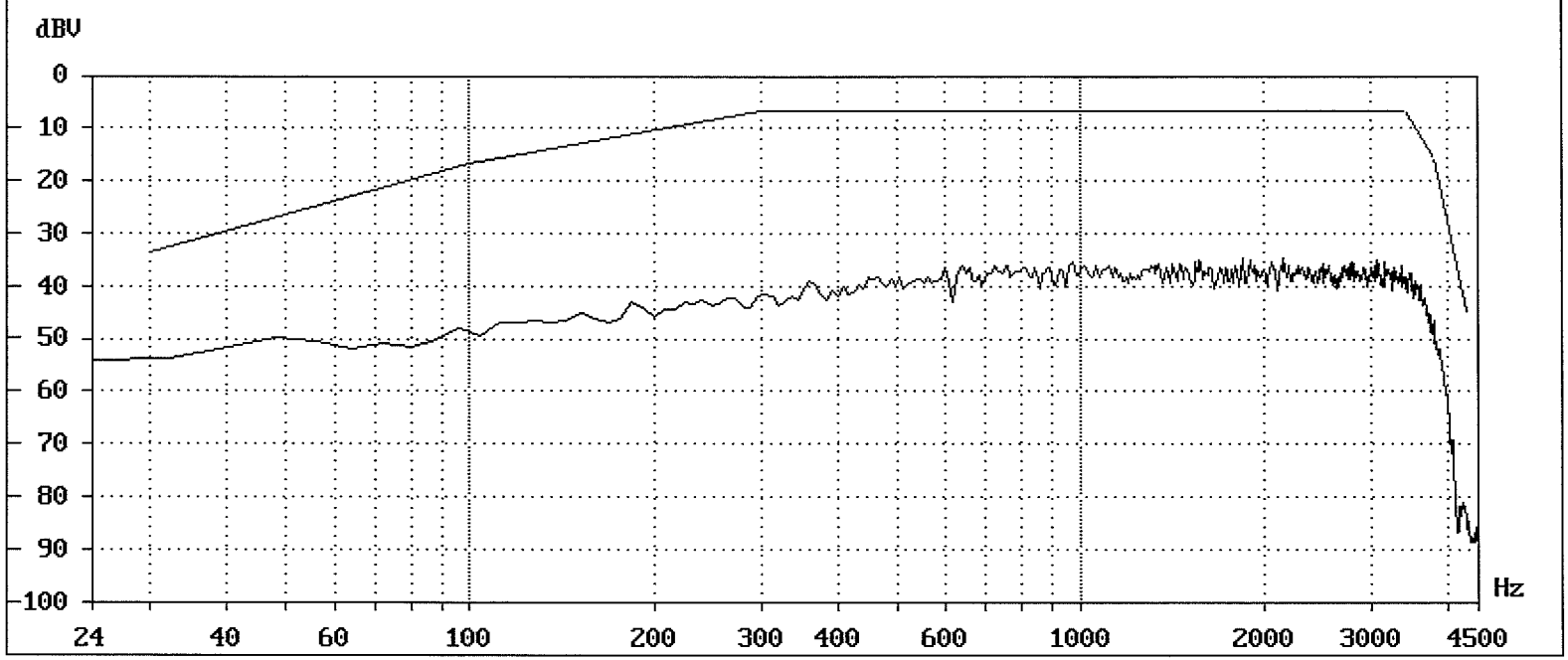


AN 10 Sending level in 10Hz bandwith regarding TBR 15

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Feeding bridge	: TBR21
TEUT	: Facsimile Kit for M[illegible]	Current limitation	: 80.0 mA	Max. Level	: - 34.6 dBV
Number of TEUT	: 214007009	Polarity	: Normal	Frequency	: 2155 Hz
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 230.0 Ohm	Rx impedance	: Zr TBR21
Date	: 28.12.10	Requirement: The voltage		Call setup	: outgoing
Time	: 14:31.16	shall not exceed the limits			
		Data set	: AN10 230 Ohm N		
Remark	: V.34 33600bps				

Mask violation: 0

Verdict : PASS

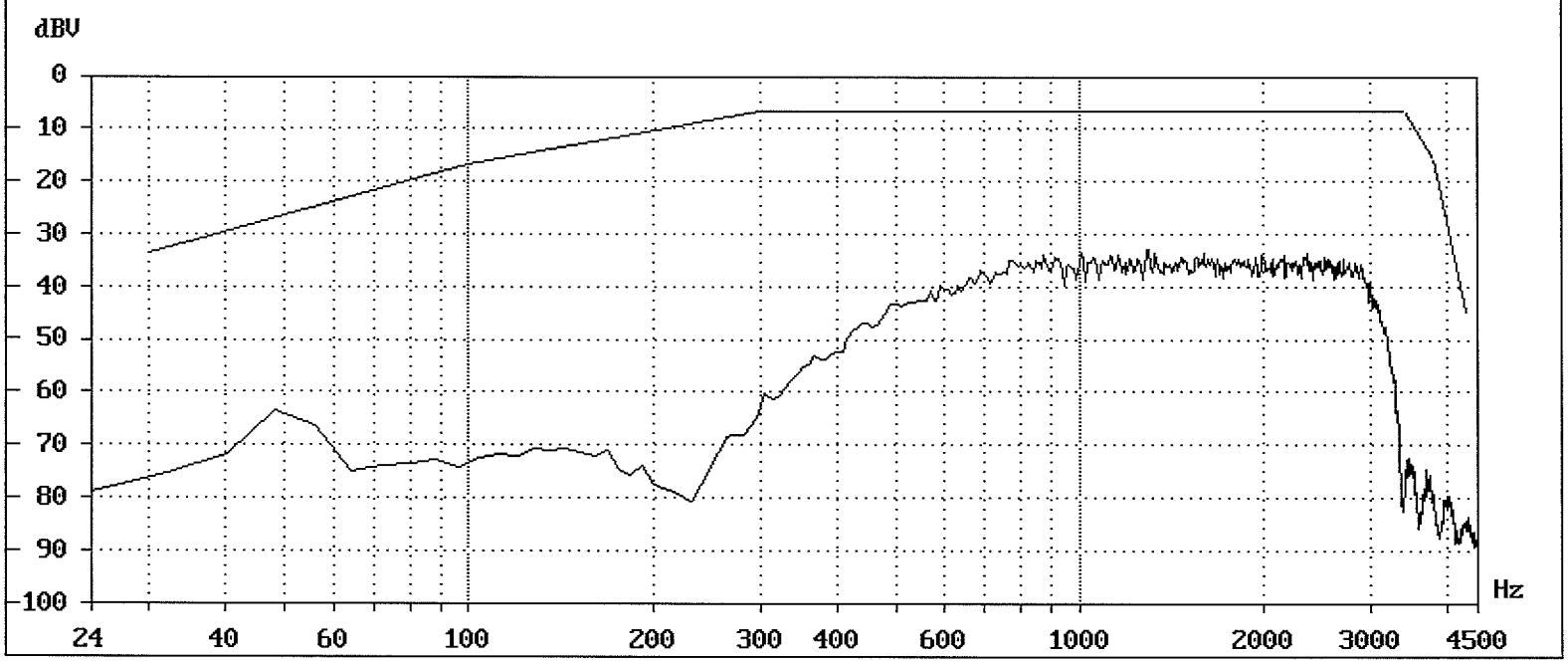


AN 10 Sending level in 10Hz bandwith regarding TBR 15

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Feeding bridge	: TBR21
TEUT	: Facsimile Kit for M[illegible]rrent limitation		: 80.0 mA	Max. Level	: - 32.8 dBV
Number of TEUT	: 214007009	Polarity	: Inverted	Frequency	: 1298 Hz
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 230.0 Ohm	Rx impedance	: Zr TBR21
Date	: 28.12.10	Requirement: The voltage		Call setup	: outgoing
Time	: 14:32.28	shall not exceed the limits			
		Data set	: AN10 230 Ohm I		
Remark	: V.17 14400bps				

Mask violation: 0

Verdict : PASS

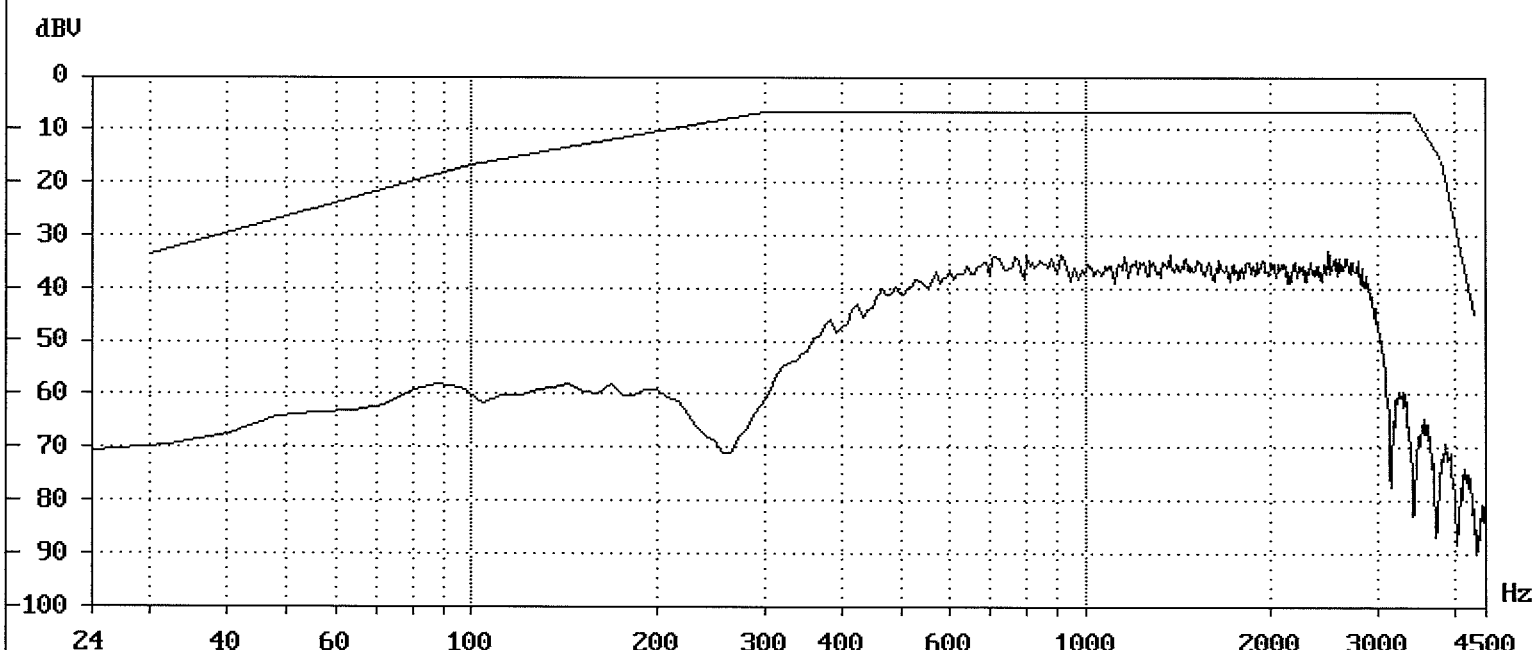


AN 10 Sending level in 10Hz bandwith regarding TBR 15

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Feeding bridge	: TBR21
TEUT	: Facsimile Kit for K[illegible]rrent limitation		: 80.0 mA	Max. Level	: - 33.1 dBV
Number of TEUT	: 214007009	Polarity	: Normal	Frequency	: 2484 Hz
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 3200.0 Ohm	Rx impedance	: Zr TBR21
Date	: 28.12.10	Requirement: The voltage		Call setup	: outgoing
Time	: 14:33.34	shall not exceed the limits			
		Data set	: AN10 3200 Ohm N		
Remark	: V.29 9600bps				

Mask violation: 0

Verdict : PASS

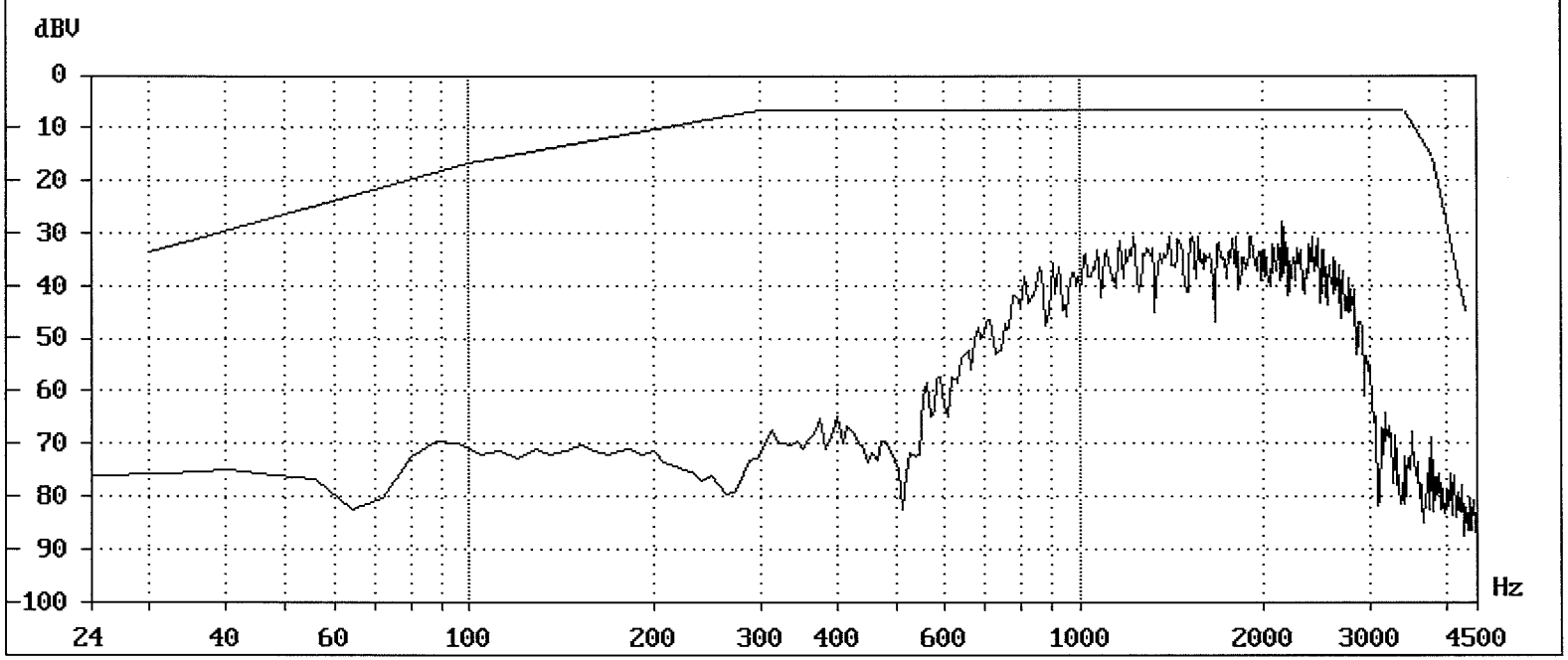


AN 10 Sending level in 10Hz bandwith regarding TBR 15

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Feeding bridge	: TBR21
TEUT	: Facsimile Kit for M[illegible]rrent limitation		: 80.0 mA	Max. Level	: - 27.8 dBV
Number of TEUT	: 214007009	Polarity	: Inverted	Frequency	: 2155 Hz
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 3200.0 Ohm	Rx impedance	: Zr TBR21
Date	: 28.12.10	Requirement: The voltage		Call setup	: outgoing
Time	: 14:34.38	shall not exceed the limits			
		Data set	: AN10 3200 Ohm I		
Remark	: V.27ter 4800bps				

Mask violation: 0

Verdict : PASS

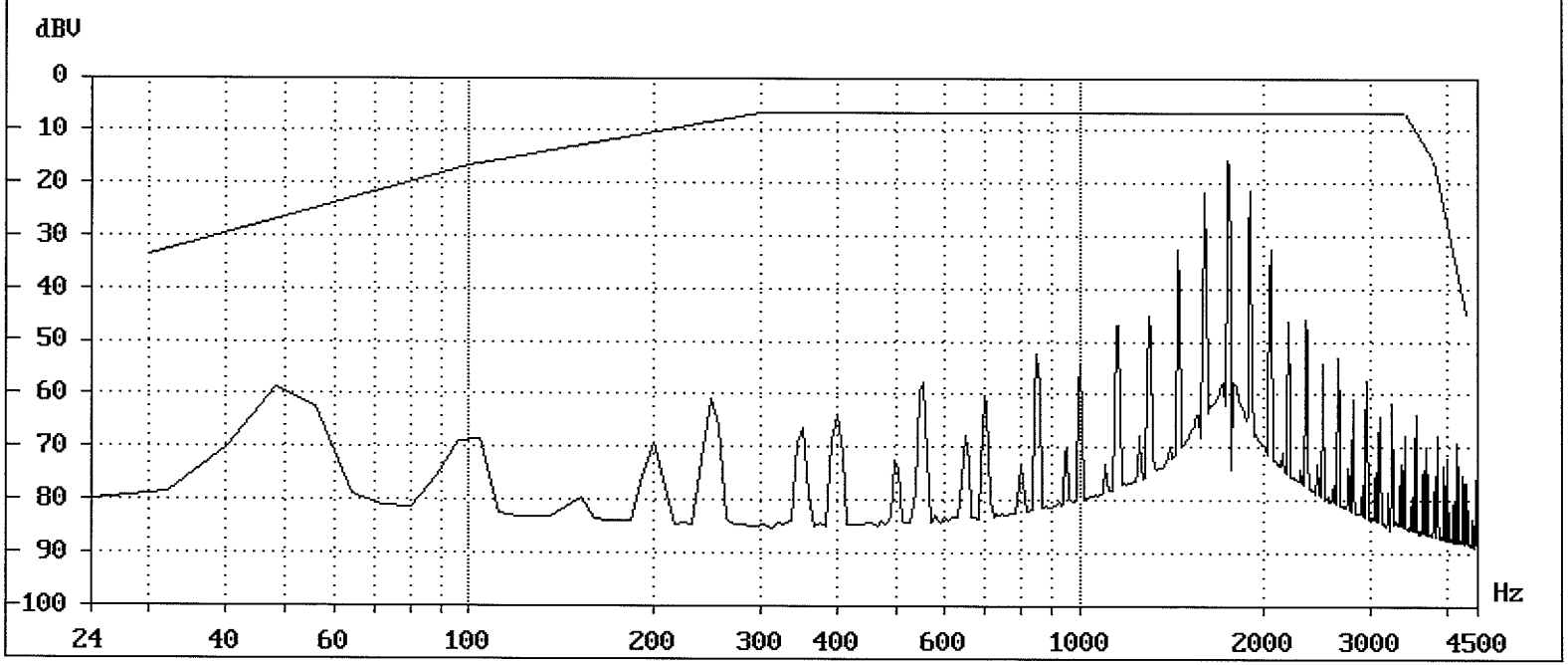


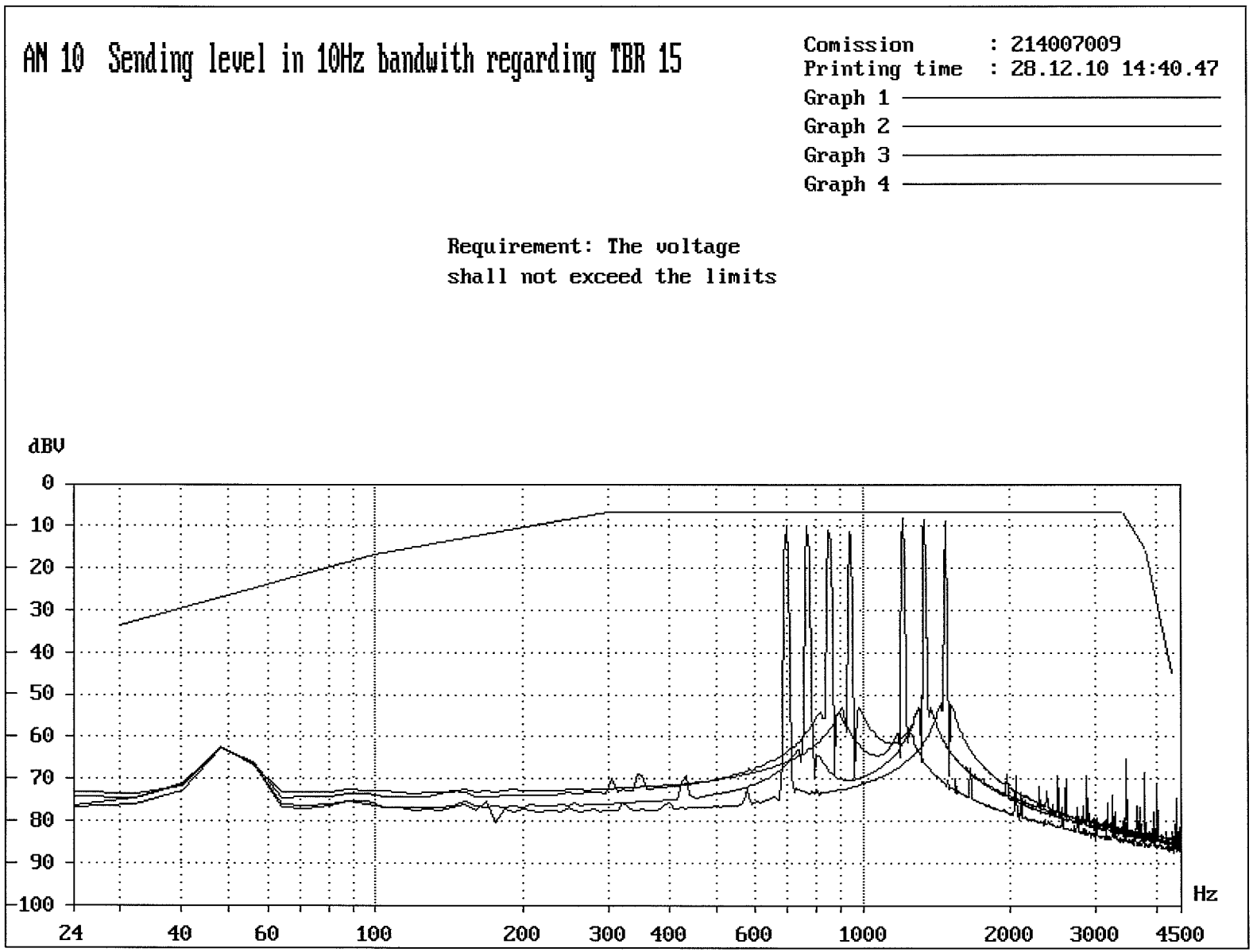
AN 10 Sending level in 10Hz bandwith regarding TBR 15

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Feeding bridge	: TBR21
TEUT	: Facsimile Kit for M	Current limitation	: 80.0 mA	Max. Level	: - 15.7 dBV
Number of TEUT	: 214007009	Polarity	: Normal	Frequency	: 1747 Hz
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 230.0 Ohm	Rx impedance	: Zr TBR21
Date	: 28.12.10	Requirement: The voltage		Call setup	: outgoing
Time	: 14:36.17	shall not exceed the limits			
		Data set	: AN10 230 Ohm N		
Remark	: V.21 300bps				

Mask violation: 0

Verdict : PASS

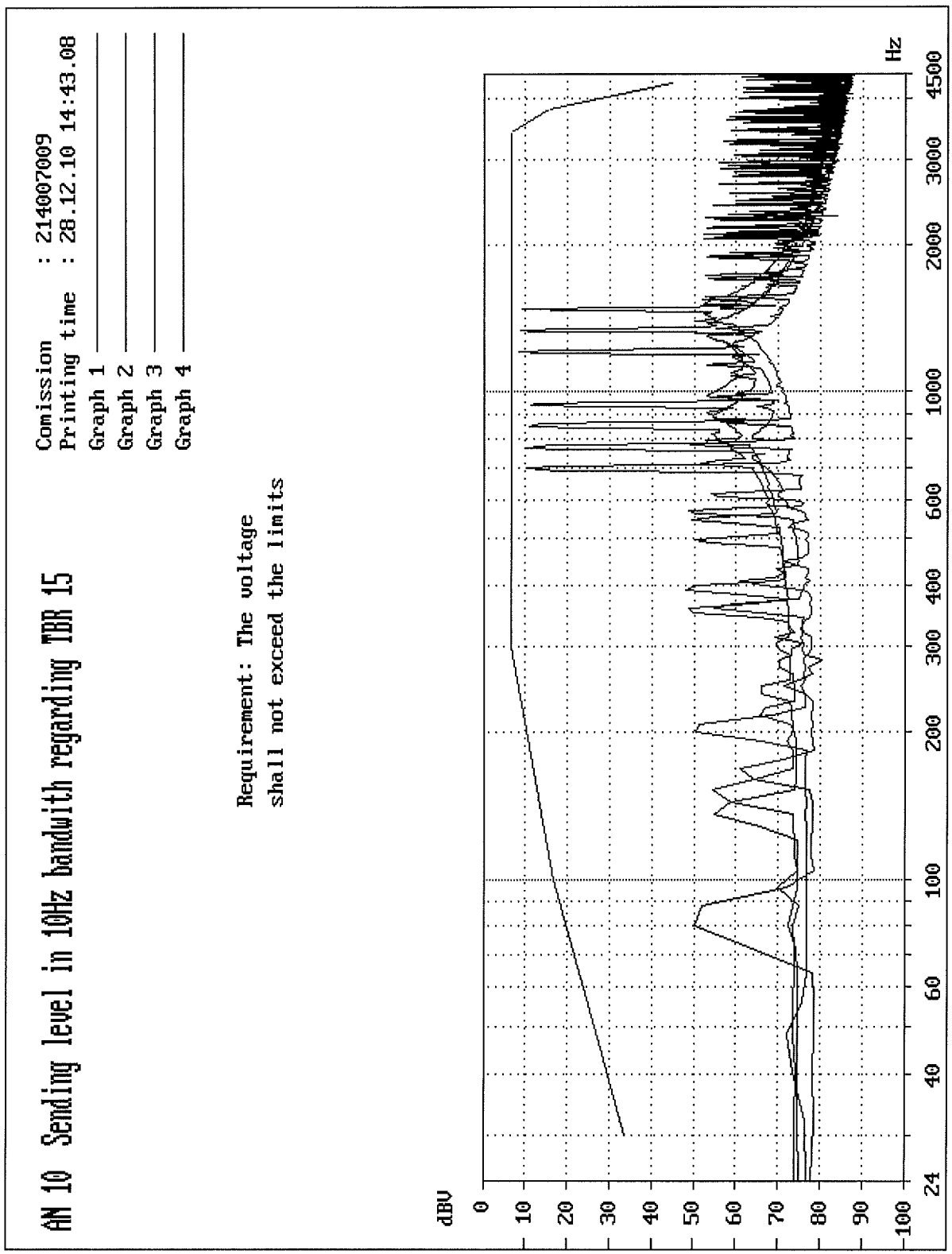



AN 10 Sending level in 10Hz bandwith regarding TBR 15
Comission : 214007009
Printing time : 28.12.10 14:40.47
Graph 1
Graph 2
Graph 3
Graph 4
Requirement: The voltage
shall not exceed the limits
dBV
0
10
20
30
40
50
60
70
80
90
100
24
40
60
100
200
300
400
600
1000
2000
3000
4500
Hz

Maximum voltage in 10Hz bandwidth
Comission : 214007009 Printing time : 28.12.10 14:40.47

	Graph 1	Graph 2
Model No.	FAX System(V)	FAX System(V)
TEUT	Facsimile Kit for MFP	Facsimile Kit for MFP
Number of TEUT	214007009	214007009
Manufacturer	Kyocera Mita Corp.	Kyocera Mita Corp.
Date	28.12.10	28.12.10
Time	14:39.18	14:39.36
Mask violation	0	0
Feeding voltage	50.0 V	50.0 V
Current limitation	80.0 mA	80.0 mA
Polarity	Normal	Normal
Feeding resistor	230.0 Ohm	230.0 Ohm
Data set	AN10 230 Ohm N	AN10 230 Ohm N
Feeding bridge	TBR21	TBR21
Max. Level	- 8.9 dBV	- 8.6 dBV
Frequency	1474 Hz	1338 Hz
Rx impedance	Zr TBR21	Zr TBR21
Call setup	outgoing	outgoing
Verdict	PASS	PASS
Remark	DTMF 3	DTMF 5

	Graph 3	Graph 4
Model No.	FAX System(V)	FAX System(V)
TEUT	Facsimile Kit for MFP	Facsimile Kit for MFP
Number of TEUT	214007009	214007009
Manufacturer	Kyocera Mita Corp.	Kyocera Mita Corp.
Date	28.12.10	28.12.10
Time	14:39.49	14:40.01
Mask violation	0	0
Feeding voltage	50.0 V	50.0 V
Current limitation	80.0 mA	80.0 mA
Polarity	Normal	Normal
Feeding resistor	230.0 Ohm	230.0 Ohm
Data set	AN10 230 Ohm N	AN10 230 Ohm N
Feeding bridge	TBR21	TBR21
Max. Level	- 8.2 dBV	- 8.6 dBV
Frequency	1210 Hz	1338 Hz
Rx impedance	Zr TBR21	Zr TBR21
Call setup	outgoing	outgoing
Verdict	PASS	PASS
Remark	DTMF 7	DTMF 0


AN 10 Sending level in 10Hz bandwith regarding TBR 15
Comission : 214007009
Printing time : 28.12.10 14:43.08
Graph 1
Graph 2
Graph 3
Graph 4
Requirement: The voltage
shall not exceed the limits
dBV
Hz
0
10
20
30
40
50
60
70
80
90
100
24
40
60
100
200
300
400
600
1000
2000
3000
4500

Maximum voltage in 10Hz bandwidth
Comission : 214007009 Printing time : 28.12.10 14:43.08

	Graph 1	Graph 2
Model No.	FAX System(V)	FAX System(V)
TEUT	Facsimile Kit for MFP	Facsimile Kit for MFP
Number of TEUT	214007009	214007009
Manufacturer	Kyocera Mita Corp.	Kyocera Mita Corp.
Date	28.12.10	28.12.10
Time	14:41.28	14:41.43
Mask violation	0	0
Feeding voltage	50.0 V	50.0 V
Current limitation	80.0 mA	80.0 mA
Polarity	Inverted	Inverted
Feeding resistor	3200.0 Ohm	3200.0 Ohm
Data set	AN10 3200 Ohm I	AN10 3200 Ohm I
Feeding bridge	TBR21	TBR21
Max. Level	- 9.0 dBV	- 8.7 dBV
Frequency	1474 Hz	1338 Hz
Rx impedance	Zr TBR21	Zr TBR21
Call setup	outgoing	outgoing
Verdict	PASS	PASS
Remark	DTMF 3	DTMF 5

	Graph 3	Graph 4
Model No.	FAX System(V)	FAX System(V)
TEUT	Facsimile Kit for MFP	Facsimile Kit for MFP
Number of TEUT	214007009	214007009
Manufacturer	Kyocera Mita Corp.	Kyocera Mita Corp.
Date	28.12.10	28.12.10
Time	14:41.56	14:42.10
Mask violation	0	0
Feeding voltage	50.0 V	50.0 V
Current limitation	80.0 mA	80.0 mA
Polarity	Inverted	Inverted
Feeding resistor	3200.0 Ohm	3200.0 Ohm
Data set	AN10 3200 Ohm I	AN10 3200 Ohm I
Feeding bridge	TBR21	TBR21
Max. Level	- 8.3 dBV	- 8.7 dBV
Frequency	1210 Hz	1338 Hz
Rx impedance	Zr TBR21	Zr TBR21
Call setup	outgoing	outgoing
Verdict	PASS	PASS
Remark	DTMF 7	DTMF 0

Protocol for Automatic answering function Auto

Automatic answering function Auto
EG 201 121/AN-11

Date	: 29.12.10		Feeding Voltage	:	50.0 V
Time	: 11:59.08		Dropping Resis. Rv	:	850.0 Ohm
Operator	: Y. Miura		Polarity	:	Normal
Commission	: 214007009		Trigger threshold	:	10.0 mA
TEUT	: Facsimile Kit for MFP				
Manufacturer	: Kyocera Mita Corp.				
Parameter set	: AN-11 N				
Remark	: -				
Verdict	: PASS		Requirement [s]	:	≤ 120.0

Cycles	Frequency Hz	Ute V	1.Pulse ms	Pulse ms	Pause ms	Answering s
21	25.0	30.0	1000	1000	5000	7.10
21	50.0	30.0	1000	1000	5000	7.11

Protocol for Automatic answering function Auto

Automatic answering function Auto
EG 201 121/AN-11

Date	: 29.12.10	Feeding Voltage	: 50.0 V
Time	: 12:01.25	Dropping Resis. Rv	: 850.0 Ohm
Operator	: Y. Miura	Polarity	: Inverted
Commission	: 214007009	Trigger threshold	: 10.0 mA
TEUT	: Facsimile Kit for MFP		
Manufacturer	: Kyocera Mita Corp.		
Parameter set	: AN-11 I		
Remark	: -		
Verdict	: PASS	Requirement [s]	: ≤ 120.0

Cycles	Frequency Hz	Ute V	1.Pulse ms	Pulse ms	Pause ms	Answering s
21	25.0	30.0	1000	1000	5000	7.09
21	50.0	30.0	1000	1000	5000	7.11

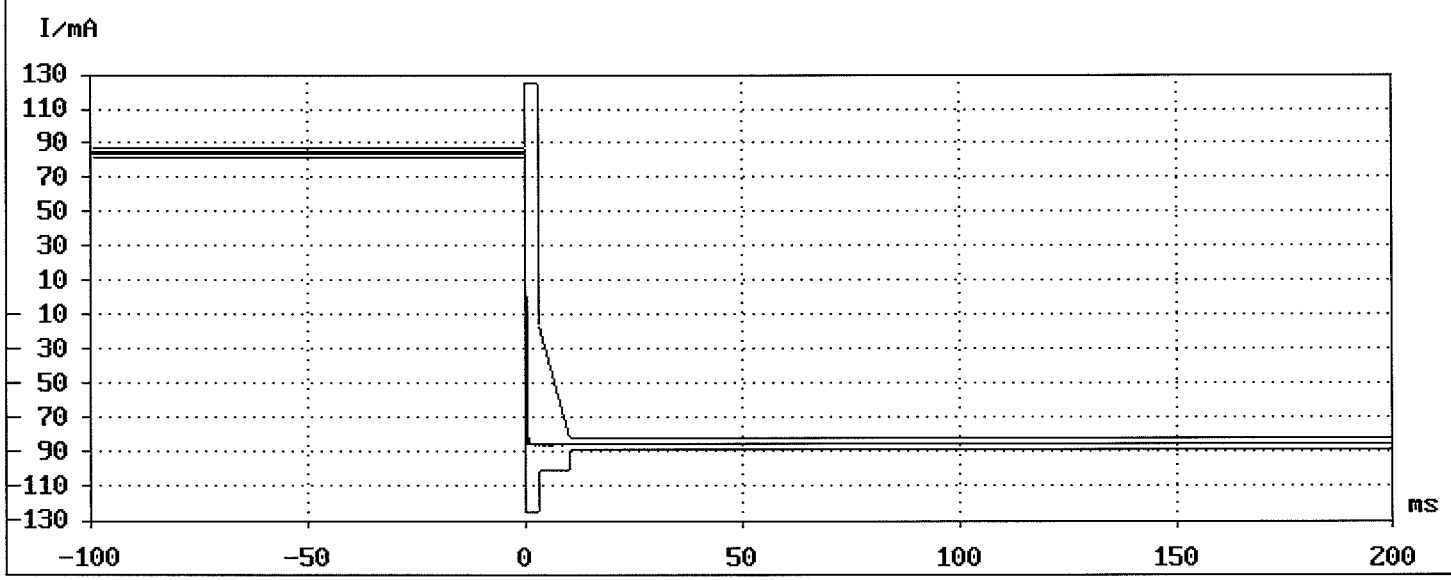
AN 12 Immunity to polarity reversals

Model No.	: FAX System(V)	Current limitation:	100.0 mA	I1 :	84.42 mA
TEUT	: Facsimile Kit for MFP	Feeding voltage :	50.0 V	I4 :	- 85.06 mA
Manufacturer	: Kyocera Mita Corp.	Drop resistor :	460.0 Ohm		
Number of TEUT	: 214007009	Polarity :	Normal		
Date	: 28.12.10	Measurement Time :	0.1 sec		
Time	: 14:52.56	Data set :	AN12 460 N		
		Requirement :	The current shall be within the limits.		

Remark : -

Mask violations : 0

Verdict : PASS



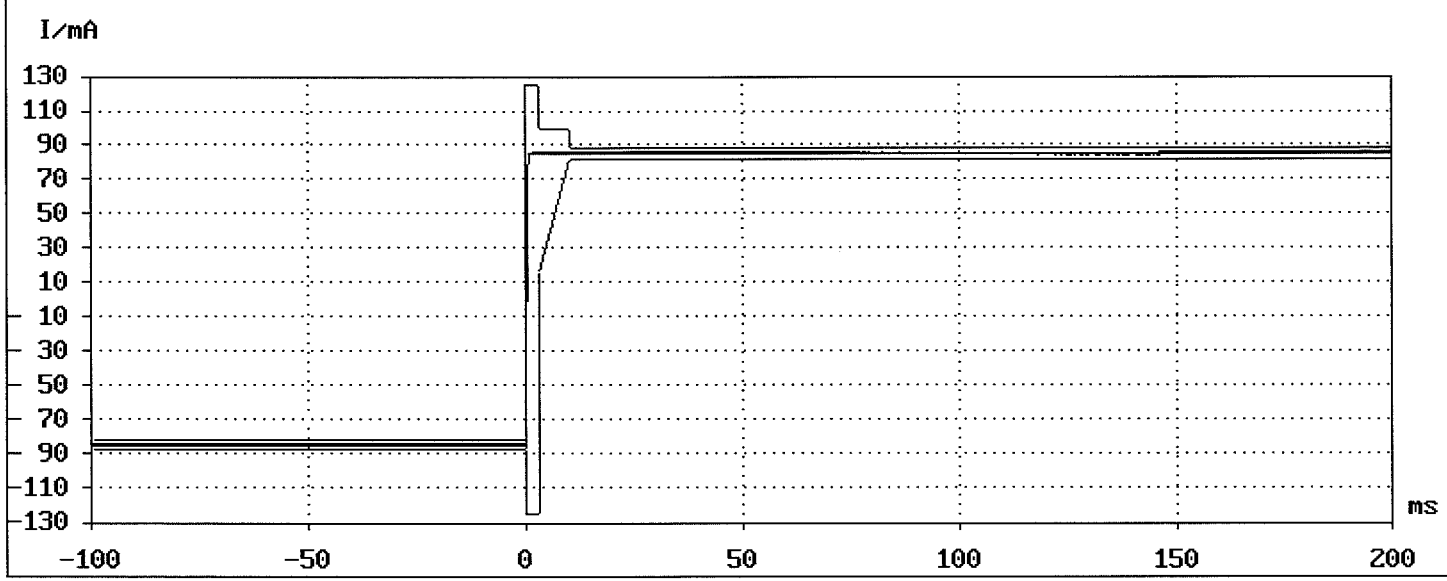
AN 12 Immunity to polarity reversals

Model No.	: FAX System(V)	Current limitation:	100.0 mA	I1 : - 84.55 mA	
TEUT	: Facsimile Kit for MFP	Feeding voltage	: 50.0 V	I4 : 85.13 mA	
Manufacturer	: Kyocera Mita Corp.	Drop resistor	: 460.0 Ohm		
Number of TEUT	: 214007009	Polarity	: Inverted		
Date	: 28.12.10	Measurement Time	: 0.1 sec		
Time	: 14:54.18	Data set	: AN12 460 I		
		Requirement	: The current shall be within the limits.		

Remark : -

Mask violations : 0

Verdict : PASS



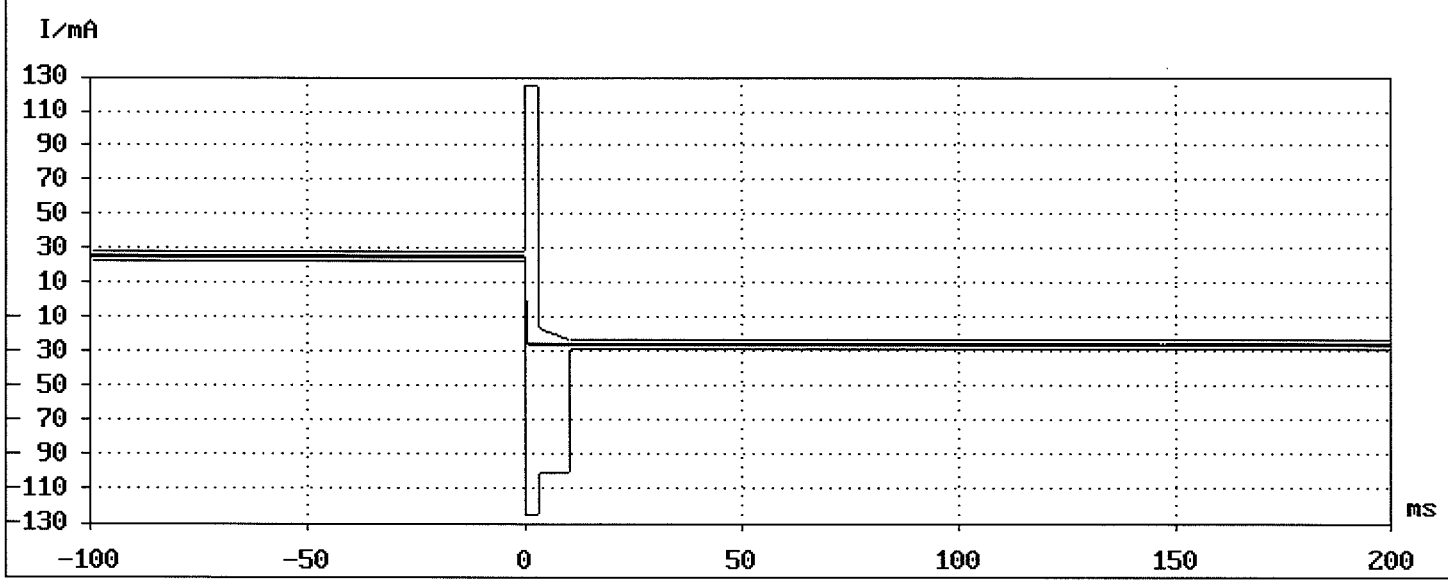
AN 12 Immunity to polarity reversals

Model No.	: FAX System(V)	Current limitation:	100.0 mA	I1 :	25.53 mA
TEUT	: Facsimile Kit for MFP	Feeding voltage :	50.0 V	I4 :	- 25.61 mA
Manufacturer	: Kyocera Mita Corp.	Drop resistor :	1700.0 Ohm		
Number of TEUT	: 214007009	Polarity :	Normal		
Date	: 28.12.10	Measurement Time :	0.1 sec		
Time	: 14:55.34	Data set :	AN12 1700 N		
		Requirement :	The current shall be within the limits.		

Remark : -

Mask violations : 0

Verdict : PASS



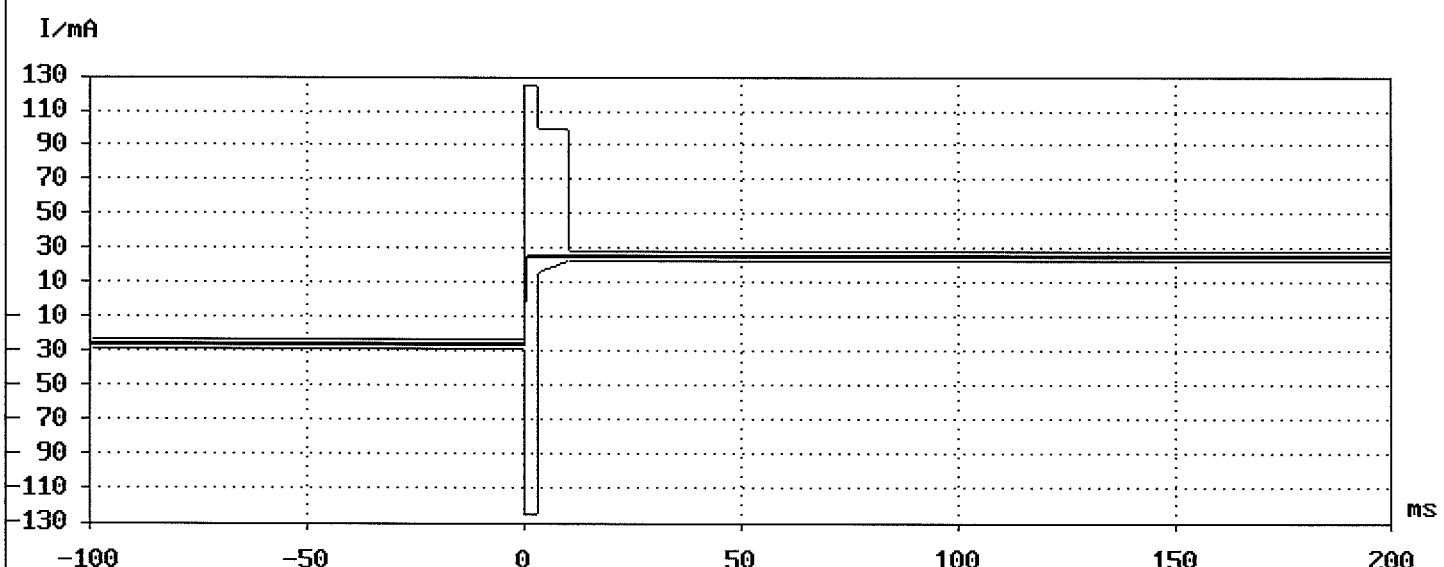
AN 12 Immunity to polarity reversals

Model No.	: FAX System(V)	Current limitation:	100.0 mA	I1 : - 25.53 mA	
TEUT	: Facsimile Kit for MFP	Feeding voltage	: 50.0 V	I4 : 25.59 mA	
Manufacturer	: Kyocera Mita Corp.	Drop resistor	: 1700.0 Ohm		
Number of TEUT	: 214007009	Polarity	: Inverted		
Date	: 28.12.10	Measurement Time	: 0.1 sec		
Time	: 14:57.03	Data set	: AN12 1700 I		
		Requirement	: The current shall be within the limits.		

Remark : -

Mask violations : 0

Verdict : PASS



Protocol for Maximum mean sending level

DE03 GR03 NO01 Mean sending level in quiescent state

Model No.	: FAX System(V)	Feeding voltage	: 50 V
TEUT	: Facsimile Kit for MFP	Current limitation	: 80 mA
Number of TEUT	: 214007009	Polarity	: Inverted
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 230 Ω
Date	: 28.12.10	Trigger lev./delay	: -50.0 dBV 10 msec
Time	: 14:59.45	Receiver impedance	: Zr TBR21
		Receiver filter	: BP 200-3800 Hz
		Call setup	: outgoing
		Gain (internal)	: -6.0 dB

Data set : DE03 GR03 NO01
Requirement : The mean sending level shall not be greater than -9.7 dBV

Remark : -

Verdict : PASS

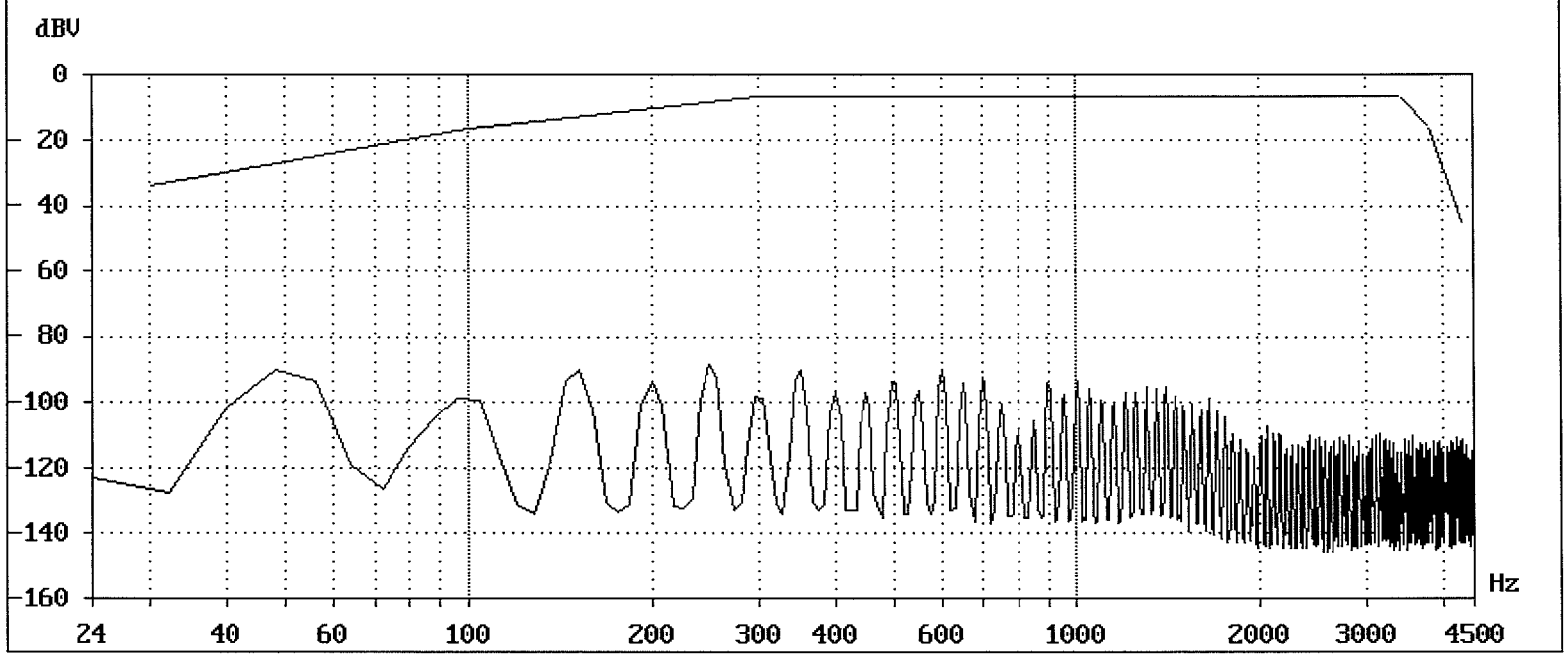
	Mean level dBV
.	- 25.4

DE03 GR03 NO01 Sending level in 10 Hz bandwith in quiescent state

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Feeding bridge	: TBR21
TEUT	: Facsimile Kit for [illegible]	rrent limitation	: 80.0 mA	Max. Level	: - 88.3 dBV
Number of TEUT	: 214007009	Polarity	: Inverted	Frequency	: 248 Hz
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 230.0 Ohm	Rx impedance	: Zr TBR21
Date	: 28.12.10	Requirement: The voltage		Call setup	: outgoing
Time	: 15:02.22	shall not exceed the limits			
		Data set	: DE03 GR03 NO01		
Remark	: -				

Mask violation: 0

Verdict : PASS



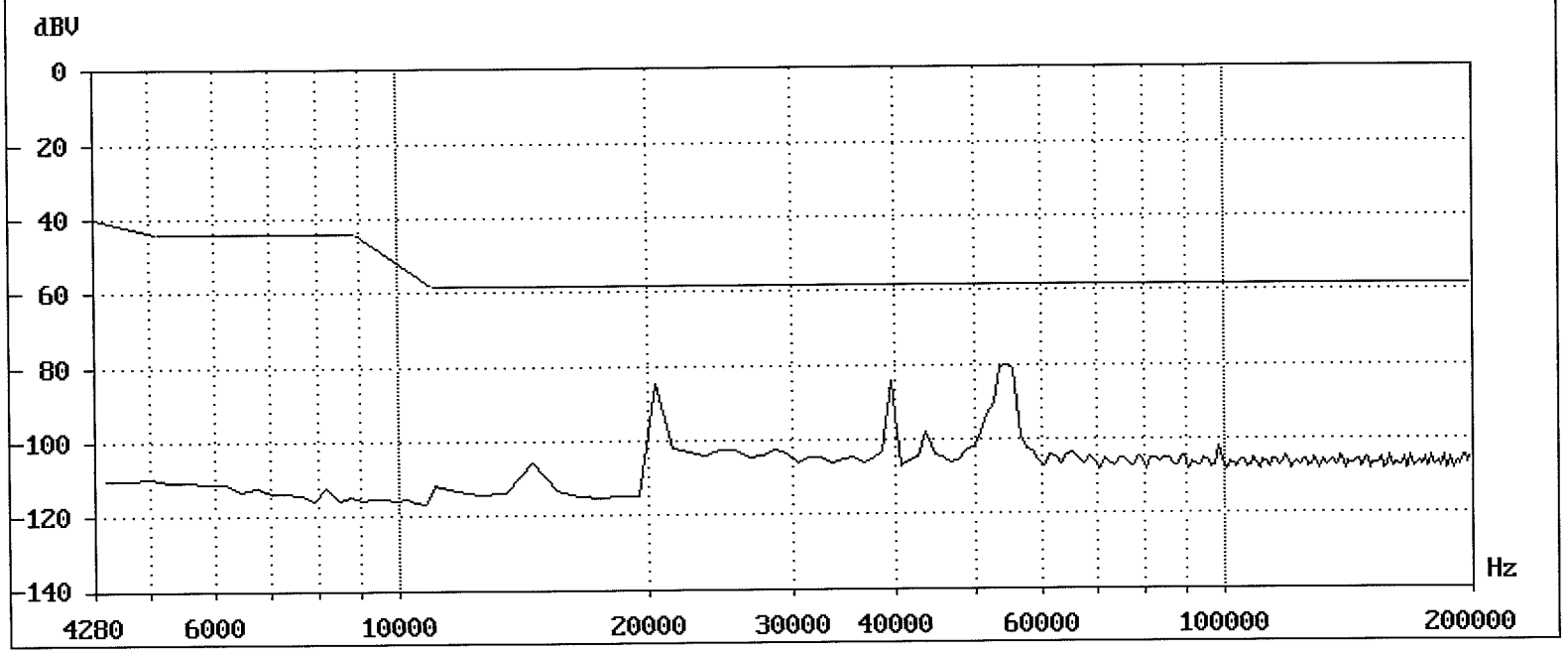
DE03 GR03 NO01 Sending level above 4.3 kHz in quiescent state

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Max. Level	: - 83.7 dBV
TEUT	: Facsimile Kit for M[illegible]	Polarity	: Normal	at Frequency	: 40000 Hz
Number of TEUT	: 214007007	Feeding Resistor	: 230.0 Ohm	Max. Level	: - 80.0 dBV
Manufacturer	: Kyocera Mita Corp.	Feeding Bridge	: TBR21	Frequency	: 53942 Hz
Date	: 30.12.10	Requirement	: The voltage level	Rx impedance	: Zr TBR21
Time	: 11:51.37	shall not exceed the limits			
		Data set	: DE03 GR03 NO01		

Remark : -

Mask violations: 0

Verdict : PASS



Protocol for AC/DC Suszeptibility test quiescent condition

DE 04 GR 04 AC/DC Suszeptiblity in quiescent state

Model No. : FAX System(V)
TEUT : Facsimile Kit for MFP
Number of TEUT: 214007009
Manufacturer : Kyocera Mita Corp.
Date : 28.12.10
Time : 15:09.34

Data Set : DE04 GR04

Requirement : After this test the TE shall still fulfill all remaining requirements.

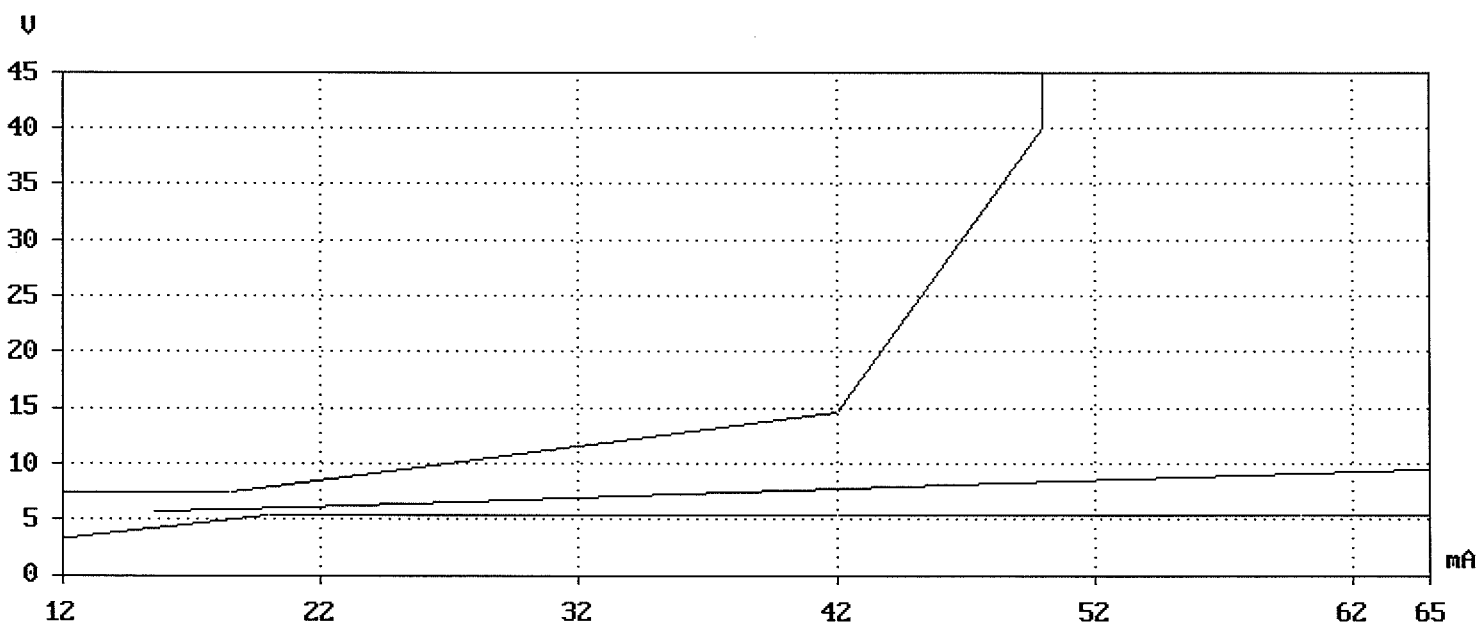
Remark : PASS

Udc [V]	Uac [V]	f [Hz]	R [Ohm]	Polarity	Duration [ms]	Pause [s]
63	75	25	140	Normal	6500	2
85	75	25	1340	Inverted	6500	2
63	75	25	140	Normal	6500	2
85	75	25	1340	Inverted	6500	2

DE08 N002 ES01 Lower limit of voltage in DC characteristics

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V
TEUT	: Facsimile Kit for M	Feeding	: 230/850/2050/3200 Ohm
Number of TEUT	: 214007009	Polarity	: normal
Manufacturer	: Kyocera Mita Corp.	Requirement:	The DC characteristic
Date	: 28.12.10	shall not exceed the limits	
Time	: 15:15.27	Data set	: DE08 ES01 N002 60mA 2800N
Remark	: -		

Mask violations: 0 Verdict : PASS

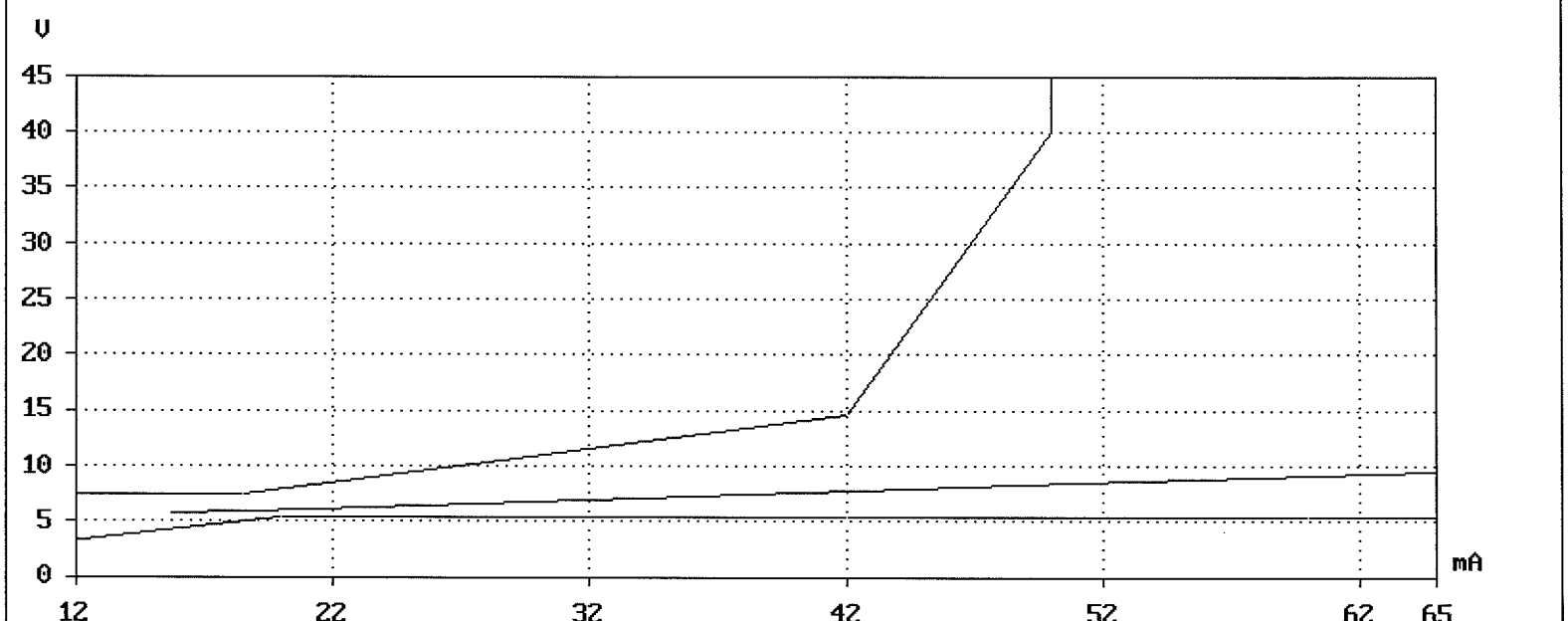


DE08 NO02 ES01 Lower limit of voltage in DC characteristics

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V
TEUT	: Facsimile Kit for M	Feeding	: 230/850/2050/3200 Ohm
Number of TEUT	: 214007009	Polarity	: normal
Manufacturer	: Kyocera Mita Corp.	Requirement:	The DC characteristic
Date	: 28.12.10	shall not exceed the limits	
Time	: 15:19.19	Data set	: DE08 ES01 NO02 60mA 2800I
Remark	: -		

Mask violations: 0

Verdict : PASS



Protocol for DTMF Impedance

DTMF Impedance
EG 201 121, DE-09

Date	: 28.12.10	Feeding bridge	: TBR21
Time	: 15:20.41	Feeding Voltage	: 50.0 V
Operator	: Y. Miura	Feeding resistor	: 230.0 Ohm
Test Job	: 214007009	Polarity	: Normal
TEUT	: Facsimile Kit for MFP	Triggerlevel/delay	: -20.0 dBV 10 msec
Manufacturer	: Kyocera Mita Corp.	Bridge Impedance Zn	: Zr TBR21
		Audible tone	: DialTone
Remark	: -		
Verdict	: PASS		

Digit	Frequency [Hz]	Loss [dB]
3	504	51.3
3	889	47.9
3	1201	39.1
3	1706	37.4
5	576	38.5
5	1009	39.9
5	1105	38.5
5	1538	46.2
5	1706	35.7
7	600	33.8
7	1418	45.4
7	1706	35.6

Protocol for DTMF Impedance

DTMF Impedance
EG 201 121, DE-09

Date	: 28.12.10	Feeding bridge	: TBR21
Time	: 15:23.20	Feeding Voltage	: 50.0 V
Operator	: Y. Miura	Feeding resistor	: 850.0 Ohm
Test Job	: 214007009	Polarity	: Inverted
TEUT	: Facsimile Kit for MFP	Triggerlevel/delay	: -20.0 dBV 10 msec
Manufacturer	: Kyocera Mita Corp.	Bridge Impedance Zn	: Zr TBR21
		Audible tone	: DialTone
Remark	: -		
Verdict	: PASS		

Digit	Frequency [Hz]	Loss [dB]
3	504	43.4
3	889	41.8
3	1201	29.5
3	1706	25.6
5	576	41.0
5	1009	40.1
5	1105	41.0
5	1538	32.4
5	1706	37.5
7	600	35.5
7	1418	47.4
7	1706	37.3

Protocol for DTMF Impedance

DTMF Impedance
EG 201 121, DE-09

Date	: 28.12.10	Feeding bridge	: TBR21
Time	: 15:26.10	Feeding Voltage	: 50.0 V
Operator	: Y. Miura	Feeding resistor	: 2050.0 Ohm
Test Job	: 214007009	Polarity	: Normal
TEUT	: Facsimile Kit for MFP	Triggerlevel/delay	: -20.0 dBV 10 msec
Manufacturer	: Kyocera Mita Corp.	Bridge Impedance Zn	: Zr TBR21
		Audible tone	: DialTone
Remark	: -		
Verdict	: PASS		

Digit	Frequency [Hz]	Loss [dB]
3	504	42.2
3	889	43.7
3	1201	29.9
3	1706	25.5
5	576	41.2
5	1009	27.3
5	1105	23.7
5	1538	32.5
5	1706	34.7
7	600	36.5
7	1418	26.9
7	1706	31.6

Protocol for DTMF Impedance

DTMF Impedance
EG 201 121, DE-09

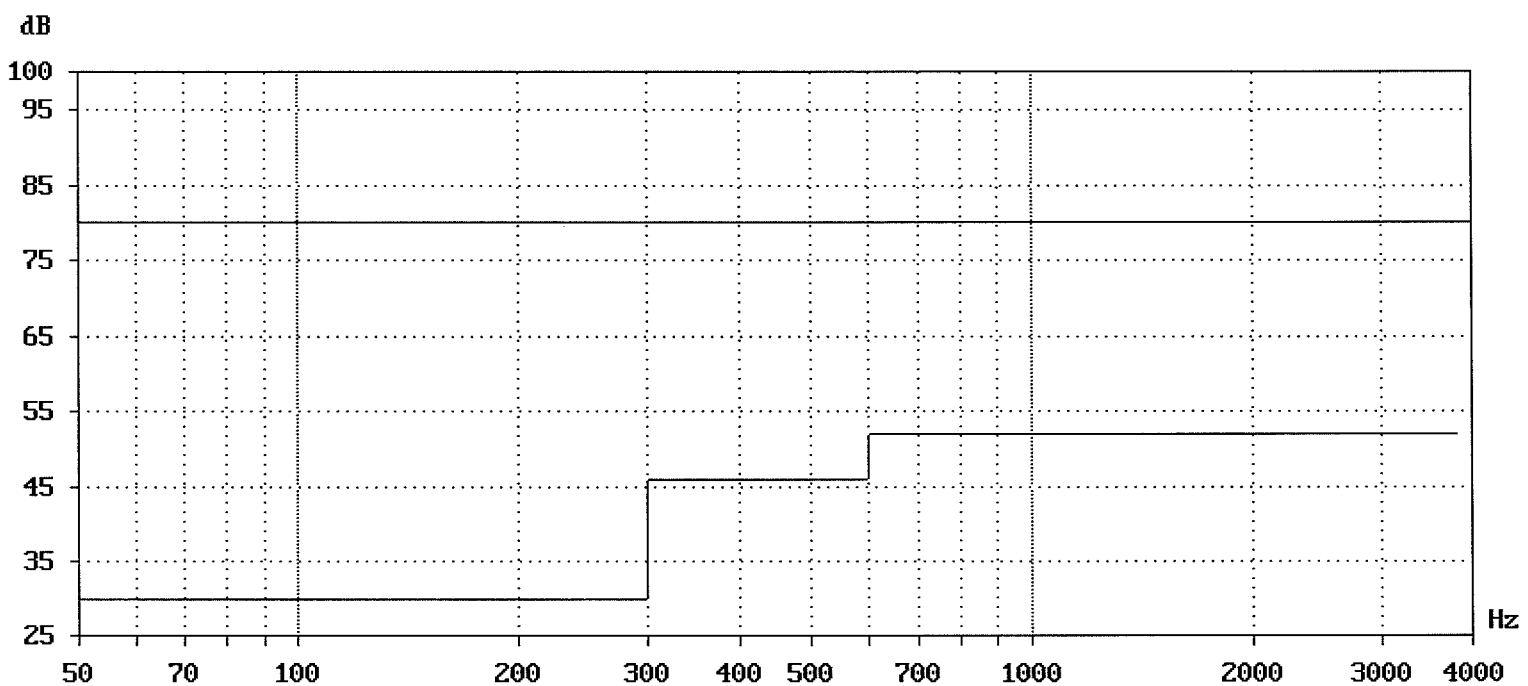
Date	: 28.12.10	Feeding bridge	: TBR21
Time	: 15:30.43	Feeding Voltage	: 50.0 V
Operator	: Y. Miura	Feeding resistor	: 3200.0 Ohm
Test Job	: 214007009	Polarity	: Inverted
TEUT	: Facsimile Kit for MFP	Triggerlevel/delay	: -20.0 dBV 10 msec
Manufacturer	: Kyocera Mita Corp.	Bridge Impedance Zn	: Zr TBR21
		Audible tone	: DialTone
Remark	: -		
Verdict	: PASS		

Digit	Frequency [Hz]	Loss [dB]
3	504	43.3
3	889	43.0
3	1201	29.5
3	1706	26.5
5	576	36.6
5	1009	26.6
5	1105	24.0
5	1538	30.1
5	1706	40.0
7	600	33.1
7	1418	27.9
7	1706	31.4

DE12 Output signal balance for better DTMF signalling

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Feeding Bridge	: TBR21
TEUT	: Facsimile Kit for M[illegible]rrent limitation		: 80.0 mA	Mask violation	: 0
Number of TEUT	: 214007009	Polarity	: Normal	Min. level Uo	: -70.0 dBV
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 230.0 Ohm	Call setup	: outgoing
Date	: 28.12.10	Requirement : The curve of results			
Time	: 15:35.38	shall be greater than the limits			
		Data set	: DE12 230 N		
Remark	: DTMF 3				

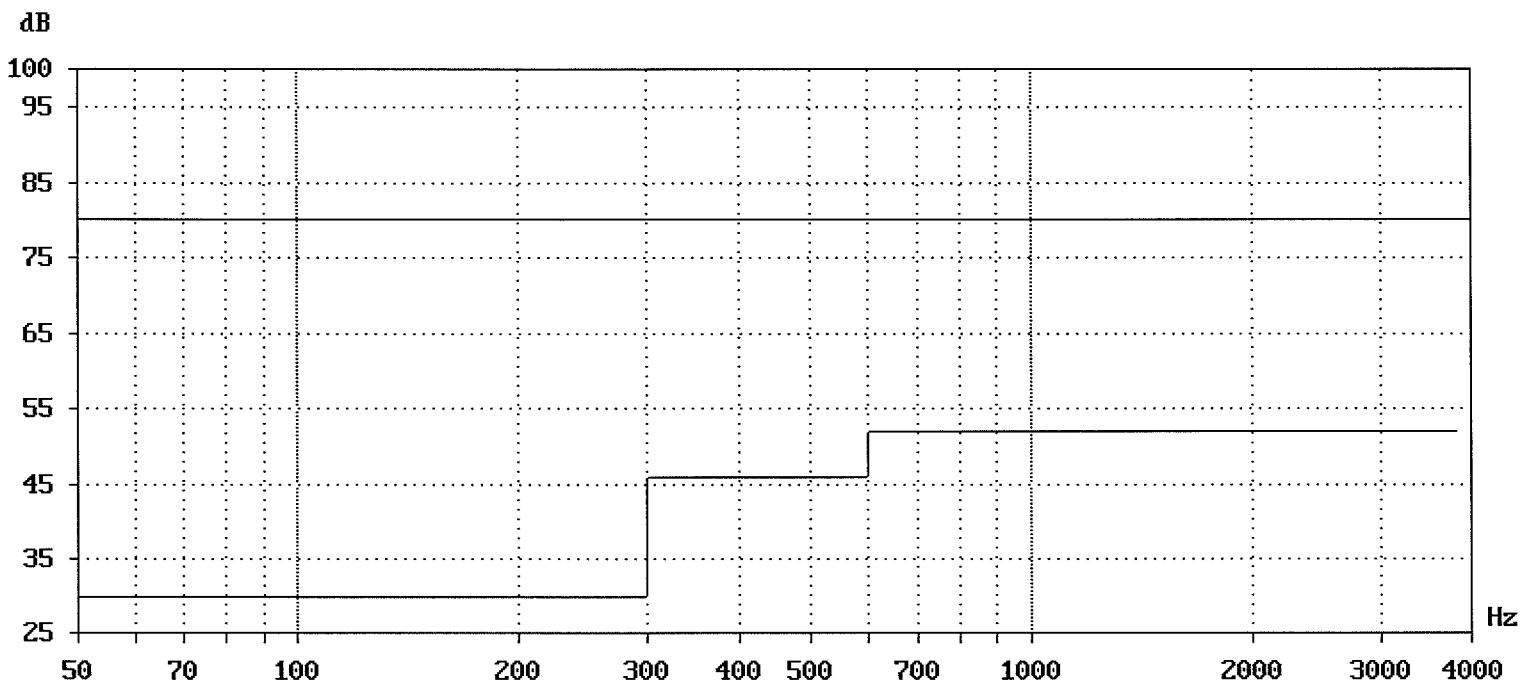
Verdict : PASS



DE12 Output signal balance for better DTMF signalling

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Feeding Bridge	: TBR21
TEUT	: Facsimile Kit for M[illegible]rrent limitation		: 80.0 mA	Mask violation	: 0
Number of TEUT	: 214007009	Polarity	: Inverted	Min. level Uo	: -70.0 dBV
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 850.0 Ohm	Call setup	: outgoing
Date	: 28.12.10	Requirement : The curve of results			
Time	: 15:47.01	shall be greater than the limits			
		Data set	: DE12 850 I		
Remark	: DTMF 3				

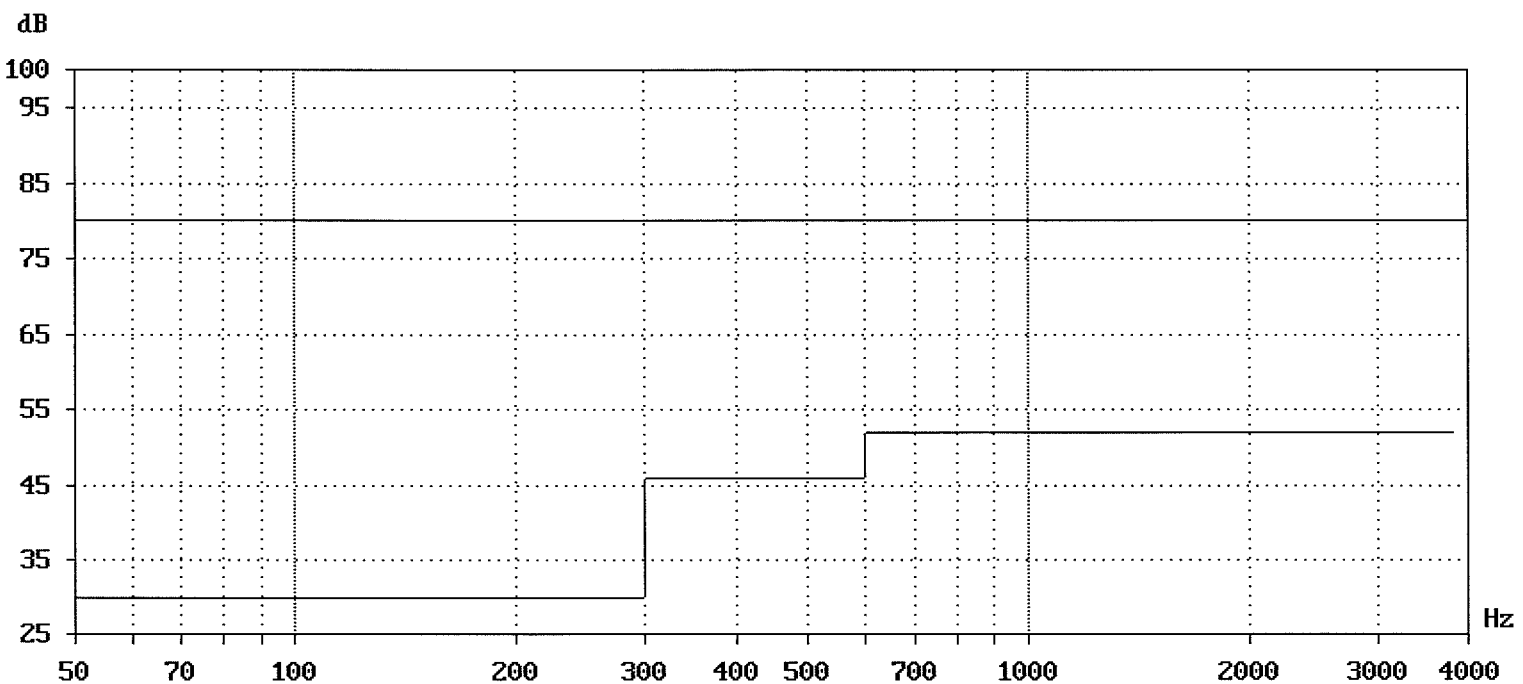
Verdict : PASS



DE12 Output signal balance for better DTMF signalling

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Feeding Bridge	: TBR21
TEUT	: Facsimile Kit for M[illegible]rrent limitation		: 80.0 mA	Mask violation	: 0
Number of TEUT	: 214007009	Polarity	: Normal	Min. level Uo	: -70.0 dBV
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 2050.0 Ohm	Call setup	: outgoing
Date	: 28.12.10	Requirement : The curve of results			
Time	: 15:48.02	shall be greater than the limits			
		Data set	: DE12 2050 N		
Remark	: DTMF3				

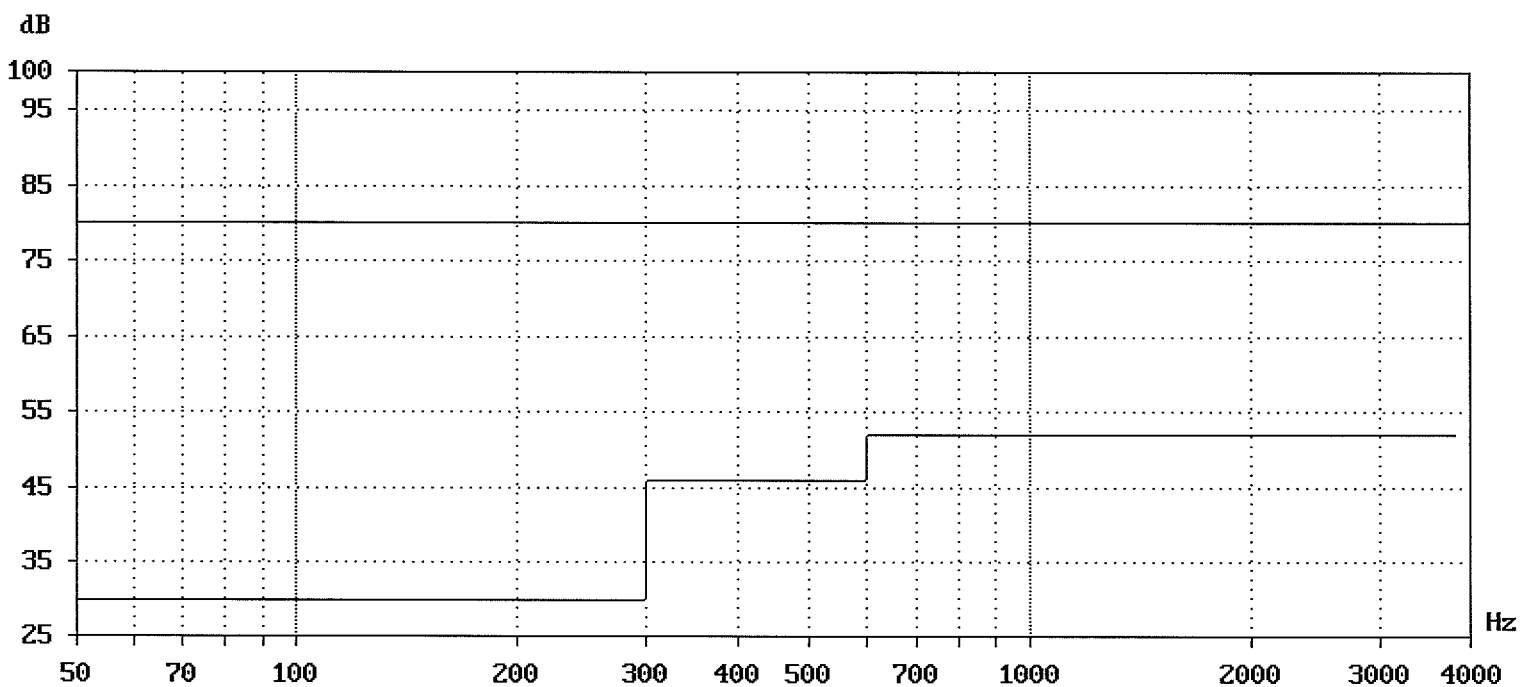
Verdict : PASS



DE12 Output signal balance for better DTMF signalling

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Feeding Bridge	: TBR21
TEUT	: Facsimile Kit for M[illegible]rrent limitation		: 80.0 mA	Mask violation	: 0
Number of TEUT	: 214007009	Polarity	: Inverted	Min. level Uo	: -70.0 dBV
Manufacturer	: Kyocera Mita Corp.	Feeding resistor	: 3200.0 Ohm	Call setup	: outgoing
Date	: 28.12.10	Requirement : The curve of results			
Time	: 15:48.45	shall be greater than the limits			
		Data set	: DE12 3200 I		
Remark	: DTMF 3				

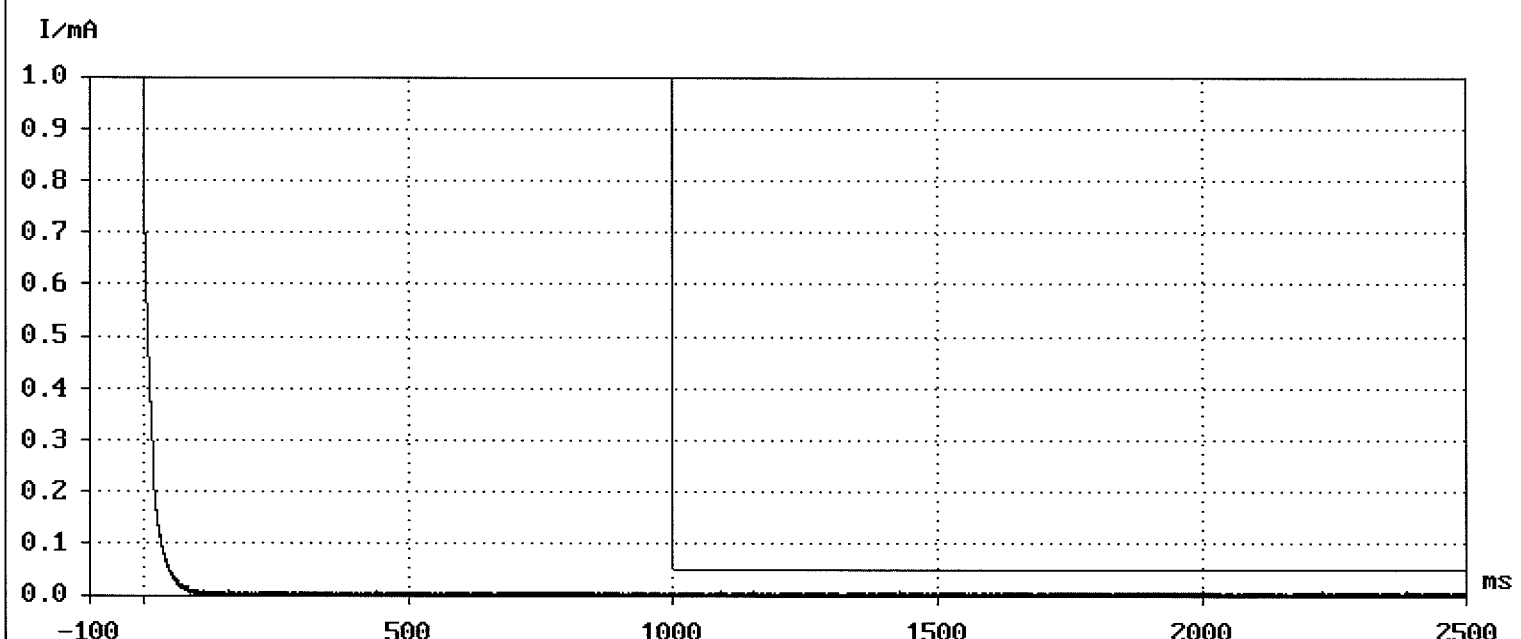
Verdict : PASS



DE14 Improvement for transition from loop to quiescent

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Trigger	: OK
TEUT	: Facsimile Kit for M	Polarity	: Normal	I [mA]	: 10.0
Number of TEUT	: 214007009	Drop resistor	: 2050.0 Ohm	Event	: 1. neg. Edge
Manufacturer	: Kyocera Mita Corp.			Delay [ms]	: - 100
Date	: 28.12.10	Requirement	: The current shall	Sample [ms]	: 0.2
Time	: 15:50.12	drop not later than 1s			
		Data set	: DE14		
Remark	: -				

Transient times : 0.0 ms **Verdict : PASS**



Modulus of impedance Z(f)

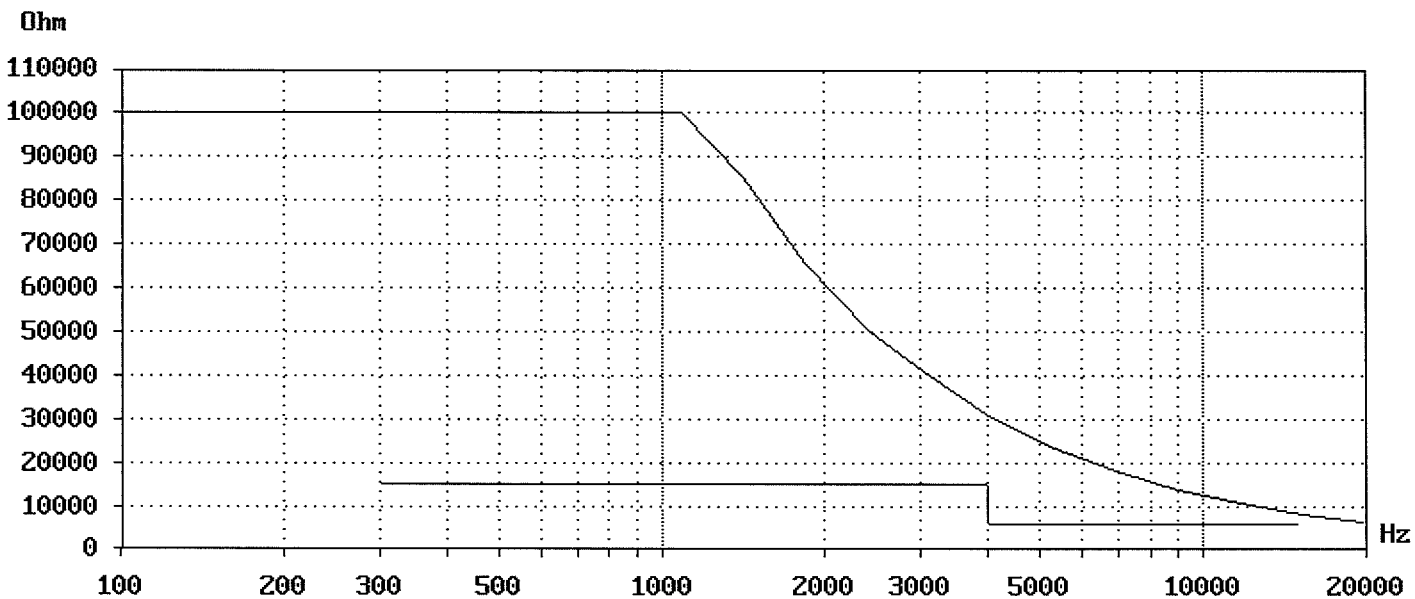
EG 201 121/P-03

Test Job	: 214007009	Current Limitation	: 100.0 mA
TEUT	: Facsimile Kit for MFP	Feeding Voltage	: 50.0 V
Manufacturer	: Kyocera Mita Corp.	Dropping Resistor	: 2050.0 Ohm
Operator	: Y. Miura	Polarity	: Normal
Date	: 28.12.10		
Time	: 16:04.19	Level	: +3.5 dBV

Remark : -

Mask violations : 0

Verdict : PASS



Modulus of impedance Z(f)

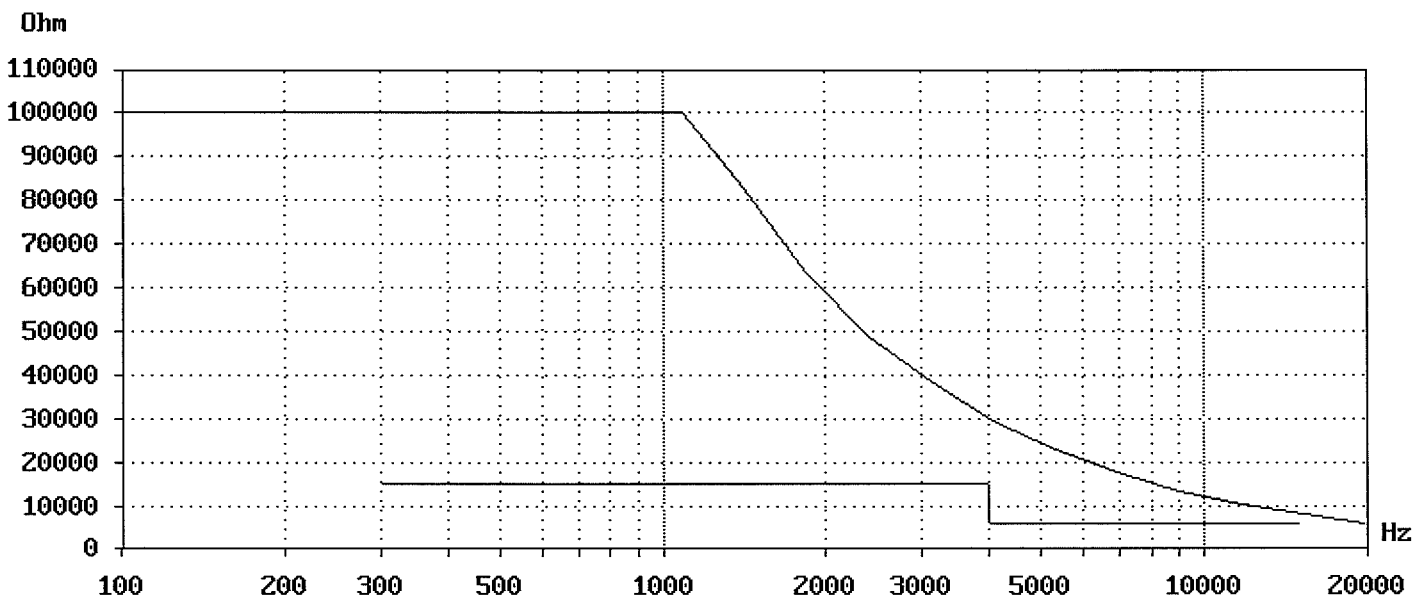
EG 201 121/P-03

Test Job	: 214007009	Current Limitation	: 100.0 mA
TEUT	: Facsimile Kit for MFP	Feeding Voltage	: 50.0 V
Manufacturer	: Kyocera Mita Corp.	Dropping Resistor	: 2050.0 Ohm
Operator	: Y. Miura	Polarity	: Inverted
Date	: 28.12.10		
Time	: 16:06.32	Level	: +3.5 dBV

Remark : -

Mask violations : 0

Verdict : PASS



Protocol for Series DC resistance

P04 Series installed TE - DC resistance

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V
TEUT	: Facsimile Kit for MFP	Current limitation	: 100.0 mA
Number of TEUT	: 214007009	Settling Time	: 1.0 sec
Manufacturer	: Kyocera Mita Corp.	Measurement Time	: 0.2 sec
Date	: 28.12.10	I [mA]	: 5 mA
Time	: 16:10.28	Termination	: Zr TBR21

Data set : P04
Requirement : DC resistance lower than
Rs1 < 100 Ohm Rs2 < 100 Ohm Rs < 100 Ohm

Remark : -

Verdict : PASS

Rf Ohm	Polarity	I mA	Vs1 V	Vs2 V	Rs1 Ohm	Rs2 Ohm	Rs Ohm
3200	Normal	14.777	0.152	0.238	10	16	26
2050	Inverted	22.369	0.222	0.35	10	16	26
850	Normal	48.292	0.488	0.761	10	16	26
230	Inverted	99.341	0.998	1.604	10	16	26

Protocol for Transition quiescent to loop (serial)

P04 Series installed TE - Delay in releasing the line

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V
TEUT	: Facsimile Kit for MFP	Current limitation	: 100.0 mA
Number of TEUT	: 214007009	Settling Time	: 0.1 sec
Manufacturer	: Kyocera Mita Corp.	Measurement Time	: 0.2 sec
Date	: 28.12.10	I [mA]	: 5 mA
Time	: 16:12.07	Termination	: Zr TBR21

Data set : P04
Requirement : DC resistance lower than
Rs1 < 100 Ohm Rs2 < 100 Ohm Rs < 100 Ohm

Remark : -

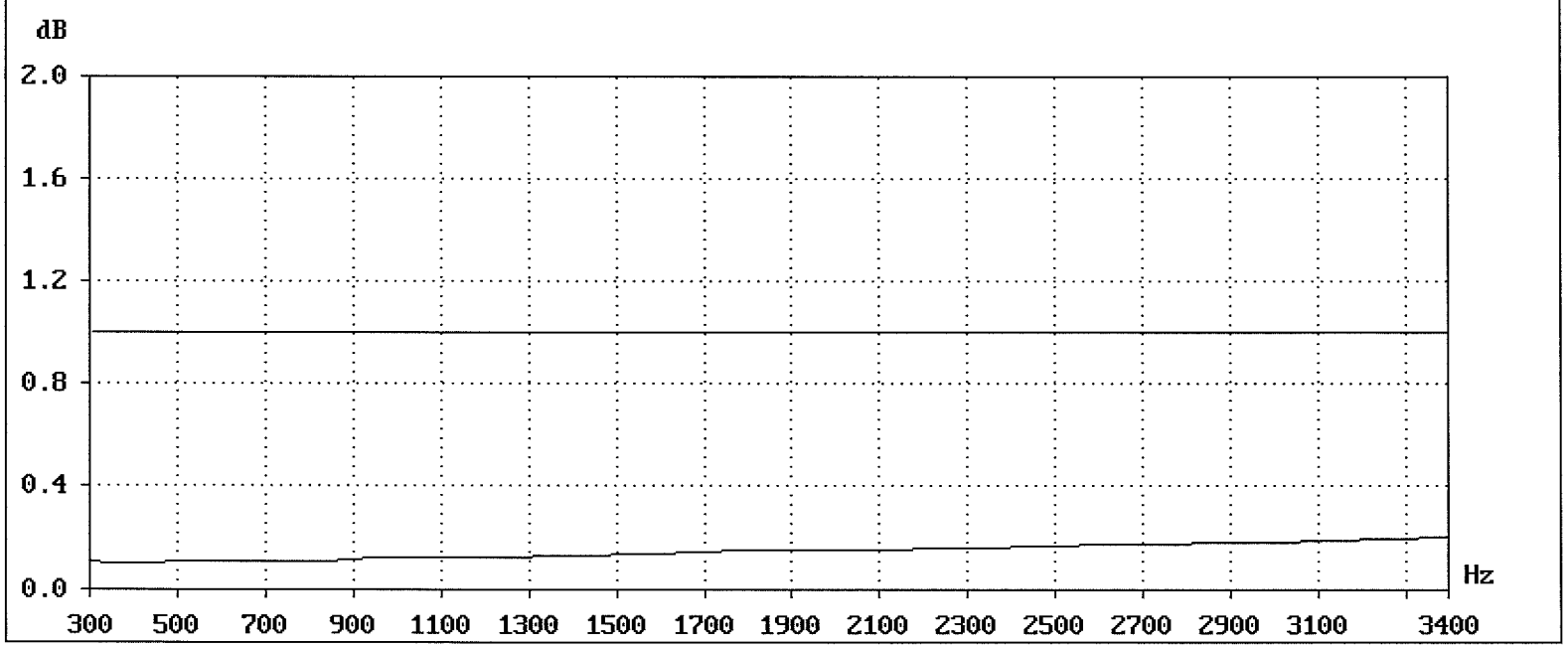
Verdict : PASS

Rf Ohm	Polarity	I mA	Vs1 V	Vs2 V	Rs1 Ohm	Rs2 Ohm	Rs Ohm	Delay ms
3200	Normal	14.78	0.151	0.224	10	15	25	0
2050	Inverted	22.381	0.222	0.33	10	15	25	0
850	Normal	48.331	0.487	0.727	10	15	25	0
230	Inverted	99.327	0.996	1.49	10	15	25	0

P 04 Series installed TE - Insertion loss

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Feeding Rf	: 230.0 Ohm
TEUT	: Facsimile Kit for M[illegible]arity		: Normal	RHC	: 300 Ohm
Number of TEUT	: 214007009	Level	: +3.52 dBV	Receiv. Imped.	: Zr TBR21
Manufacturer	: Kyocera Mita Corp.	Feeding Bridge	: TBR21		
Date	: 28.12.10	Generator Impedance: Zr TBR21 symmetrical			
Time	: 16:16.07	Requirement: Insertion loss should be less than 1 dB			
Remark	: -	Data set	: P04 230 Ohm N		

Mask violations: 0 Verdict : PASS

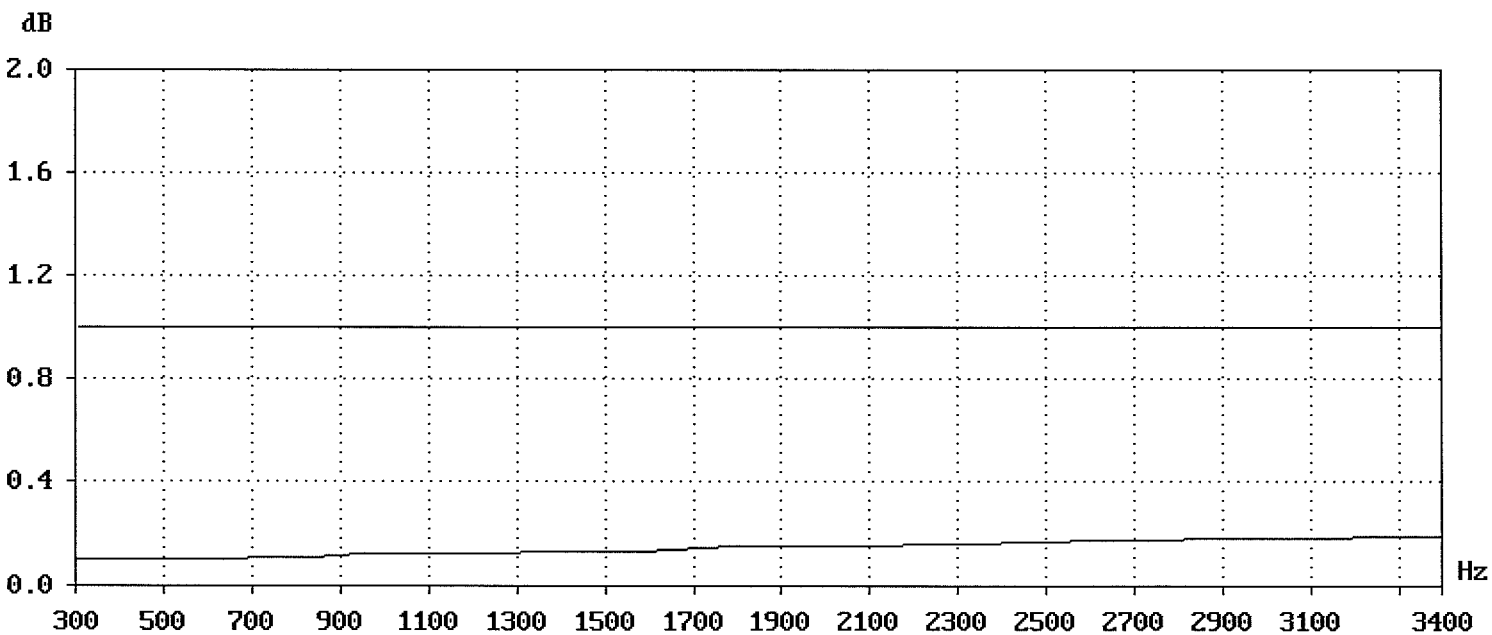


P 04 Series installed TE - Insertion loss

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Feeding Rf	: 850.0 Ohm
TEUT	: Facsimile Kit for M[illegible]	Polarity	: Inverted	RHC	: 300 Ohm
Number of TEUT	: 214007009	Level	: +3.52 dBV	Receiv. Imped.	: Zr TBR21
Manufacturer	: Kyocera Mita Corp.	Feeding Bridge	: TBR21		
Date	: 28.12.10	Generator Impedance: Zr TBR21 symmetrical			
Time	: 16:17.00	Requirement: Insertion loss should be less than 1 dB			
Remark	: -	Data set	: P04 850 Ohm I		

Mask violations: 0

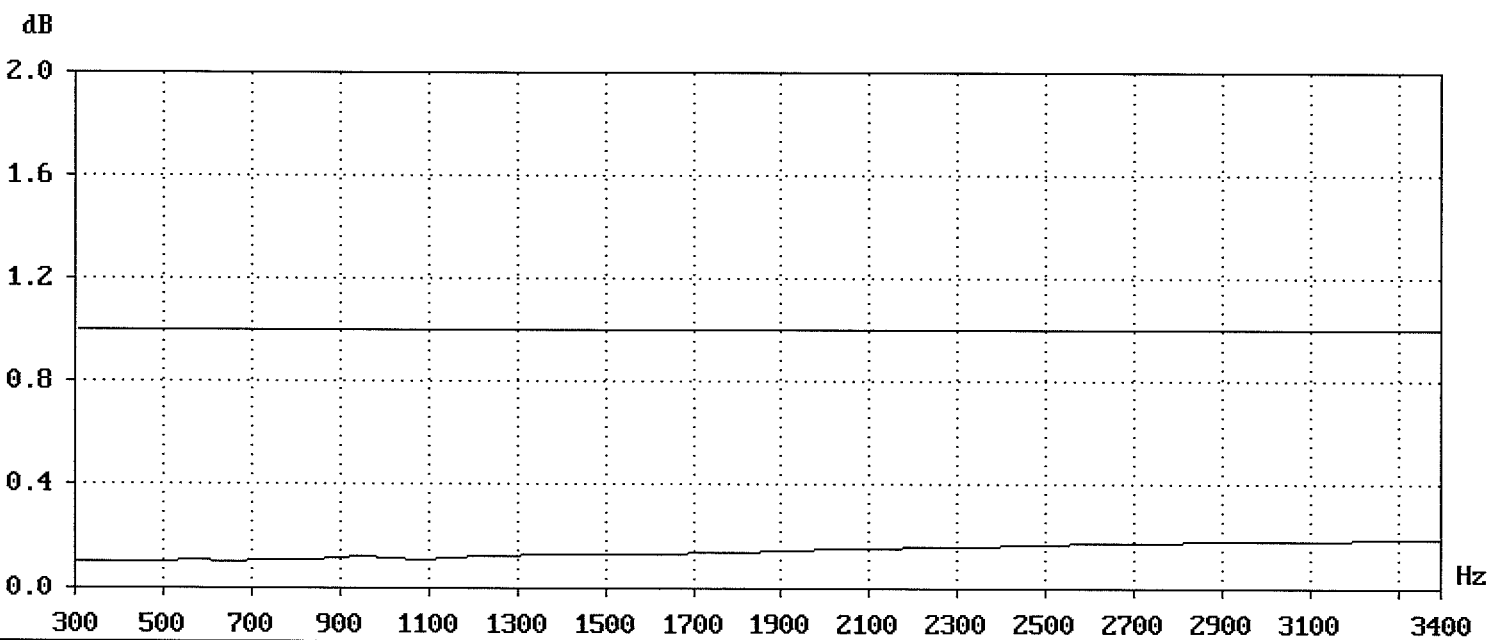
Verdict : PASS



P 04 Series installed TE - Insertion loss

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Feeding Rf	: 2050.0 Ohm
TEUT	: Facsimile Kit for M[illegible]	Polarity	: Normal	RHC	: 300 Ohm
Number of TEUT	: 214007009	Level	: +3.52 dBV	Receiv. Imped.	: Zr TBR21
Manufacturer	: Kyocera Mita Corp.	Feeding Bridge	: TBR21		
Date	: 28.12.10	Generator Impedance: Zr TBR21 symmetrical			
Time	: 16:17.58	Requirement: Insertion loss should be less than 1 dB			
Remark	: -	Data set	: P04 2050 Ohm N		

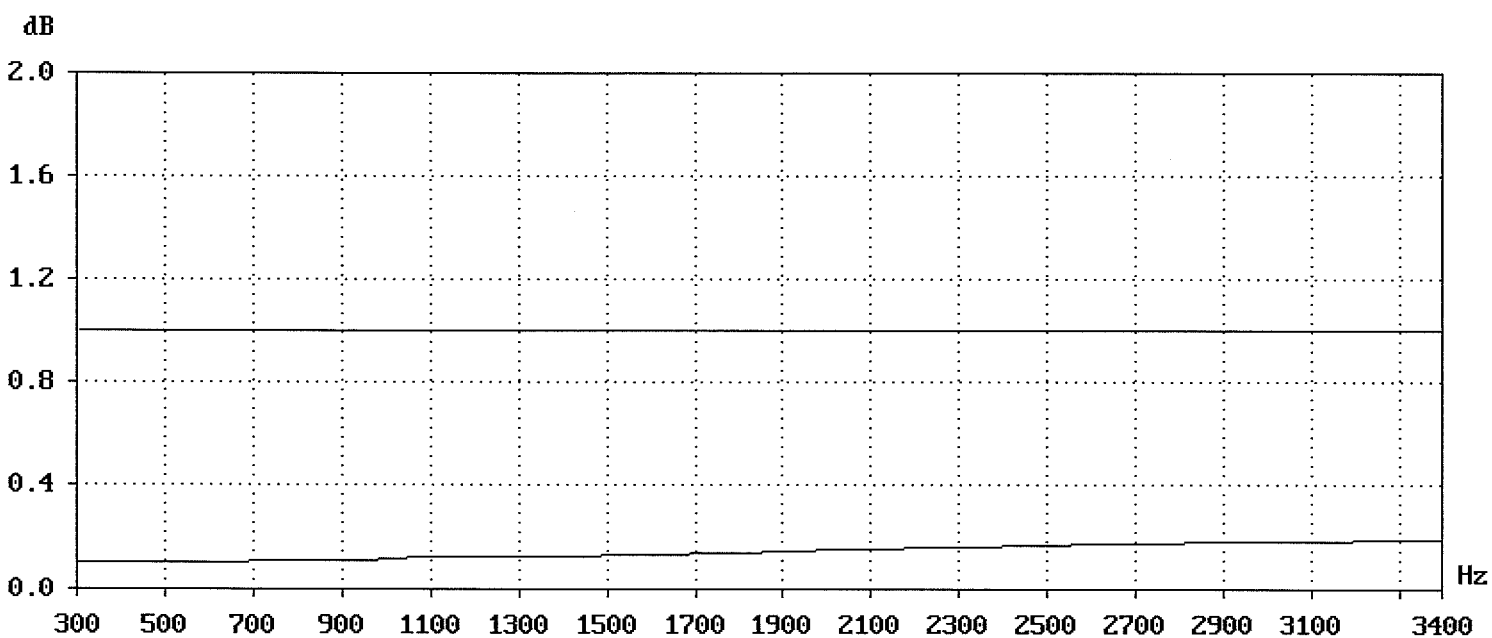
Mask violations: 0 Verdict : PASS



P 04 Series installed TE - Insertion loss

Model No.	: FAX System(V)	Feeding voltage	: 50.0 V	Feeding Rf	: 3200.0 Ohm
TEUT	: Facsimile Kit for M	Polarity	: Inverted	RHC	: 300 Ohm
Number of TEUT	: 214007009	Level	: +3.52 dBV	Receiv. Imped.	: Zr TBR21
Manufacturer	: Kyocera Mita Corp.	Feeding Bridge	: TBR21		
Date	: 28.12.10	Generator Impedance: Zr TBR21 symmetrical			
Time	: 16:19.12	Requirement: Insertion loss should be less than 1 dB			
Remark	: -	Data set	: P04 3200 Ohm I		

Mask violations: 0 Verdict : PASS



Prüfbericht - Nr.: **12608299 002**
Test Report No.:

Anlage B
Appendix B

Produktbeschreibung
Description of Equipment

Refer to test report 12608299 001

Prüfbericht - Nr.: **12608299 002**
Test Report No.:

Anlage C
Appendix C

Schaltpläne
Circuit diagrams

Refer to test report 12608299 001

Prüfbericht - Nr.: **12608299 002**
Test Report No.:

Anlage D
Appendix D

Fotos
Photographs

Refer to 12608299 001