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## TERMINAL EQUIPMENT CONFORMANCE TEST REPORT

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**Report No.: 60.860.6.106.01**

**ACCORDING TO:** TBR 38. Terminal equipment (TE); Attachment requirements for pan-european approval for connection to the analogue Public Switched Telephone Networks (PSTNs) of handset telephony in which network addressing, if provided, is means of Dual Tone Multi Frequency (DTMF) signalling.

**REFERENCE NORMATIVE:** TBR 38 (May 1998)

**PRODUCT:** DECT Phone (FP+PP)

**MODEL:** H315-S1 / HS315-S1

**REQUESTED BY:** Aztech Systems Ltd.

**TEST RESULTS:** COMPLIED.

This test report includes 5 annexes and therefore the total number of pages is 42.

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Date: Jun 14, 06	Test operator Date: <i>[Signature]</i> <i>14 June 2006</i>	Supervisor Date: <i>[Signature]</i> <i>30 Jun 06</i>	
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- B. IMPLEMENTATION EXTRA INFORMATION FOR TESTING (IXIT)
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- D. CONSTRUCTION DATA FORM
- E. TE PHOTOGRAPH

## 1. IDENTIFICATION SUMMARY

### 1.1. TESTING LABORATORY

**Name:** TÜV SÜD Hong Kong Ltd.  
**Address:** Unit 601, InnoCentre, 72 Tat Chee Avenue, Kowloon  
Tong, Hong Kong.  
**Telephone:** (852) 2776 1323  
**Fax:** (852) 2776 1372

### 1.2. IMPLEMENTATION UNDER TEST

**Product:** DECT Phone (FP +PP)  
**Model:** H315-S1 / HS315-S1  
**Serial Number(s):** --  
**Date of receipt** 4-May-2006  
**Software Version:** --  
**Hardware Version:** --  
**Additional Information:** --  
**Standard:** TBR 38 (May 1998)  
**ICS:** See Annex A  
**Previous TCTRs:** -

### 1.3. CLIENT

**Name:** Aztech Systems Ltd.  
**Contact person:** Mr. Terence Kwong  
**Address:** 31 Ubi Road1, Aztech Building, Singapore 408694  
**Telephone:** +852 2655-8991  
**Fax:** +852 2753-0578

#### 1.4. MANUFACTURER

**Name:** --  
**Contact person:** --  
**Address:** --  
**Telephone:** --  
**Fax:** --

#### 1.5. TESTING ENVIRONMENT

**IXIT:** See Annex B  
**Conformance Testing Standard:** TBR 38 (May 1998)  
**Abstract Test Method:** --  
**Means of testing Identification:** ESP-Teleckom-Electronic- GmbH  
 Analogue Telecom Testsystem  
**Date (or period) of Testing:** 4-May-2006 to 7-Jun-2006  
**Test conditions**

Ambient Temperature:	+ 15° C to + 30° C	YES
Relative Humidity:	5% to 85%	YES
Air Pressure:	86 kPa to 106 kPa	YES
Local Power Characteristics:	± 5 % of the rated voltage, ± 4% of the rated frequency	

  
**Conformance Log reference:** --  
**Retention Period of Log** 10 years  
**Reference(s):**

## **1.6. LIMITS AND RESERVATIONS**

The test result presented in this test report apply only to the items of terminal equipment tested, identified as the particular IUT declared in Section 1.2 of this TCTR, for the functionality described in the relevant Implementation Conformance Statement (ICS) as presented for test on date(s) declared in Section 1.2, and configured as declared in the relevant Implementation Extra Information for Testing (IXIT). No part of this report may be reproduced or quoted out of the context and shall not be reproduced except in full without the written approval of the Test Laboratory.

## **1.7. COMMENTS**

## **2. IUT CONFORMANCE STATUS**

This TE has been shown by conformance assessment conform to the specified standard.

## **3. STATIC CONFORMANCE SUMMARY**

The ICS for the IUT is consistent with the static conformance requirements in the specified standard.



#### 4. DYNAMIC CONFORMANCE SUMMARY

The test campaign did not reveal errors in the IUT.  
A summary of the test results is shown in the following table.

Item	Reference	TBR 38 requirement	Status *	Support [Y/N]	Result [Pass/Fail/Comments]
R.1	4.1.1	Polarity Independence	M	Y	PASS
R.2	4.1.2	Feed Conditions	M	Y	PASS
R.3	4.1.3	Power Supply	O	Y	N/A
R.4	4.1.4	Volume Control	O	Y	N/A
R.5	4.2.1.1	Sending Sensitivity	M	Y	PASS
R.6	4.2.1.2	Receiving Sensitivity	M	Y	PASS
R.7	4.2.2.1	Sending Loudness Rating	M	Y	PASS
R.8	4.2.2.2	Receiving Loudness Rating	M	Y	PASS
R.9	4.2.3	Sidetone Performance	M	Y	PASS
R.10	4.2.4.1	Sending Distortion	M	Y	PASS
R.11	4.2.4.2	Receiving Distortion	M	Y	PASS
R.12	4.2.5.1	Sending Linearity	M	Y	PASS
R.13	4.2.5.2	Receiving Linearity	M	Y	PASS
R.14	4.2.6.1	Sending Noise	M	Y	PASS
R.15	4.2.6.2	Receiving Noise	M	Y	PASS
R.16	4.2.7	Instability	M	Y	PASS
R.17	4.2.8	Echo Return Loss	M	Y	PASS

Remark\*

- **M: Mandatory, shall be implemented if applicable.**
- **O: Optional, may not be provided, but if provided shall be implemented in accordance with the requirements.**

## **5. STATIC CONFORMANCE REVIEW REPORT**

There were no errors in the static conformance test.

## **6. TEST CAMPAIGN REPORT**

This section records for each test purpose/test case referenced by the test specification for this requirement, the outcome of test campaign. This information is recorded in tables. The key to the information stated in the tables is as follows: (Please refer to Chapter 4).

## 7. OBSERVATIONS

## 8. TEST ACCURACY

The values for expanded measurement uncertainty are in accordance with Guidance Notes on Measurement Uncertainty, Reference.

### Accuracy of Measurements

Unless specified otherwise, the accuracy of measurements made by test equipment was equal to or better than:

Item	Accuracy
Electrical signal level	$\pm 0.2$ dB for levels $\geq -50$ dBV $\pm 0.4$ dB for levels $< -50$ dBV
Sound pressure	$\pm 0,7$ dB
Frequency	$\pm 0.2$ %

### Accuracy of Signals

Unless specified otherwise, the accuracy of the signals generated by the test equipment shall be better than:

Quantity	Accuracy
Sound pressure level at Mouth Reference Point (MRP)	$\pm 3$ dB for frequencies from 100 Hz to 200 Hz $\pm 1$ dB for frequencies from 200 Hz to 4000 Hz $\pm 3$ dB for frequencies from 4000 Hz to 8000 Hz
Electrical excitation levels	$\pm 0.4$ dB across the whole frequency range.
Frequency generation	$\pm 2$ %
Specified component values	$\pm 1$ %



## **ANNEX A**

# **IMPLEMENTATION CONFORMANCE STATEMENT (ICS)**

Item	Reference	Information	Yes/No	Comments
C.1	4.1.3	Does the apparatus require an external power source?	NO	N/A
C.2	4.1.4	Is the apparatus provided with a user controlled receiving volume control?	YES	N/A
C.3	4.2.2.1, 4.2.2.2 and others	Does the apparatus support a handsfree or loudspeaking function which is not powered from a separate power supply?	NO	N/A

## **ANNEX B**

# **IMPLEMENTATION EXTRA INFORMATION FOR TESTING (IXIT)**

**TBR 38 4.1.3 TE Power Supply**

	Rated	Measured	Limit
Voltage (V)	N/A	N/A	± 5 %
Frequency (Hz)	N/A	N/A	± 4 %

**TBR 38 4.1.4 Volume Control (HandsFree)**

Volume Control [Y/N]	No
If YES run RLR (-8 dB ± 1 dB)	N/A

## **ANNEX C**

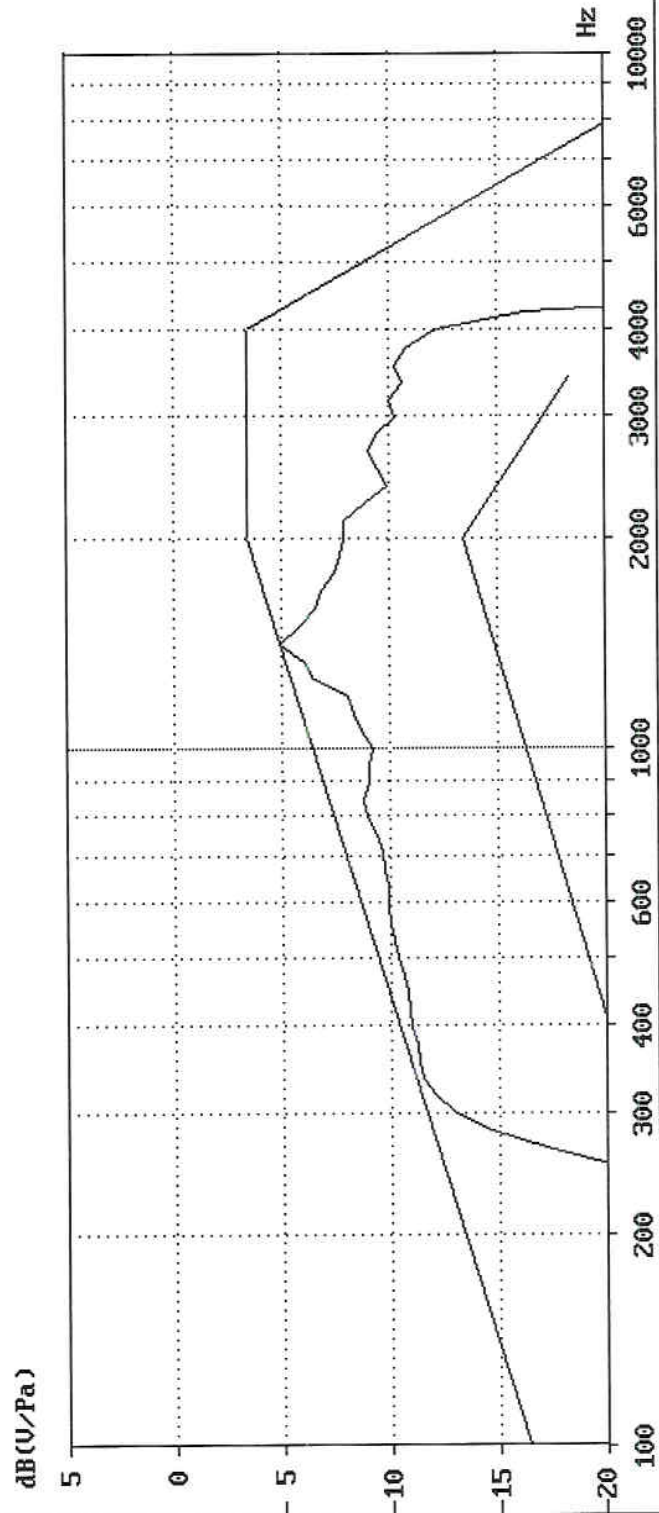
### **TEST RESULTS**



# Sending sensitivity/SLR

Commission	: 60.860.6.106.01	Gen. Level	: -4.7 dB(Pa)	SLR	: +5.0 dB
TEUT	: H-315	Meas Impedance	: 600 Ohm	cSLR	: -2.0 dB
Manufacturer	: --	Feeding Resistor	: 1000.0 Ohm	SLR limit	: -1.0 ... 7.0 dB
Operator	: --	Feeding Voltage	: 50.0 V		
Date	: 7.06.06	Feeding bridge	: tbr38		
Time	: 16:59.16	Current limit	: 60.0 mA		
Reference	: TBR 38 4.2.1.1/4.2.2.1	Line	: off 0.00		
Remark	: -	Polarity	: Normal		

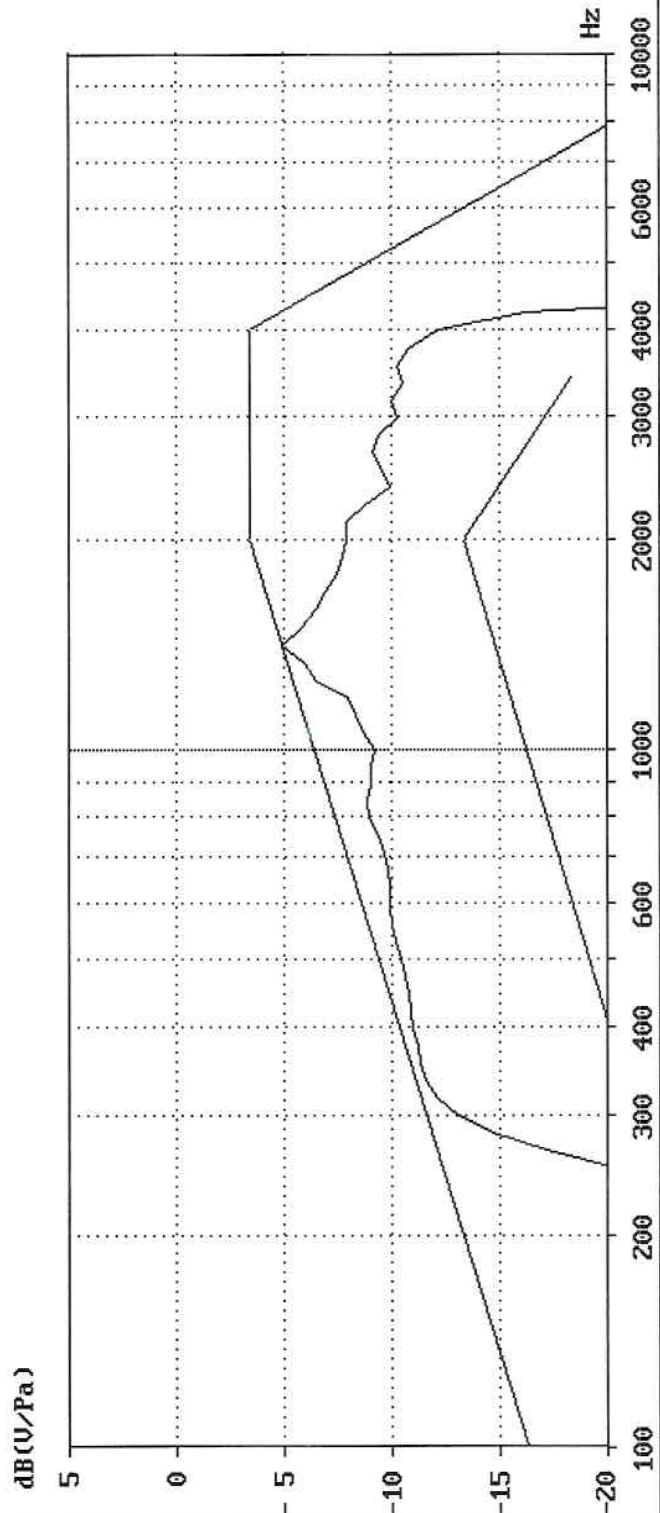
Tol. mask violations: 0



# Sendung sensitivity/SLR

Commission	: 60.860.6.106.01	Gen. Level	: -4.7 dB(Pa)	SLR	: +5.0 dB
TEUT	: H-315	Meas Impedance	: 600 Ohm	cSLR	: -2.0 dB
Manufacturer	: --	Feeding Resistor	: 1000.0 Ohm	SLR limit	: -1.0 ... 7.0 dB
Operator	: --	Feeding Voltage	: 50.0 V		
Date	: 7.06.06	Feeding bridge	: tbr38		
Time	: 17:00.01	Current limit	: 60.0 mA		
Reference	: TBR 38 4.2.1.1/4.2.2.1	Line	: off		
Remark	: -	Polarity	: Inverted		

Tol. mask violations: 0

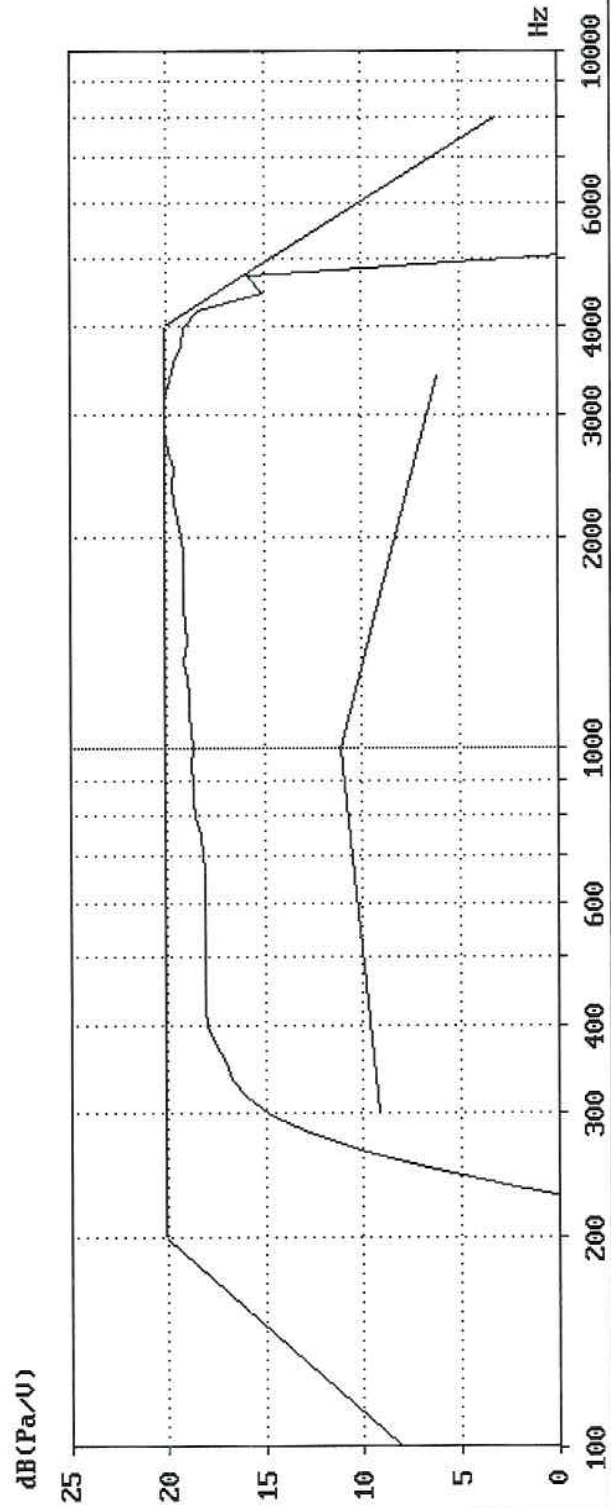


# Receiving sensitivity/RLR

**Commission** : 60.860.6.106.01      **Gen. Level** : -12.0 dBV      **RLR** : -6.6 dB  
**TEUT** : H-315      **Generator impedance**: 600 Ohm symmetrical  
**Manufacturer**: --      **Feeding resistor** : 1000.0 Ohm      **CRLR** : -1.4 dB  
**Operator** : --      **Feeding voltage** : 50.0 V      **Limit**: -12.0 ... -4.0 dB  
**Date** : 7.06.06      **Feeding Bridge** : tbr38      **Coupler**: IEC 318  
**Time** : 17:00.43      **Current limitation** : 60.0 mA  
**Reference** : TBR 38 4.2.1.2/4.2.2.2      **Polarity** : Normal  
**Line** : off 0.00

**Remark** : -

**Tol. mask violations**: 0

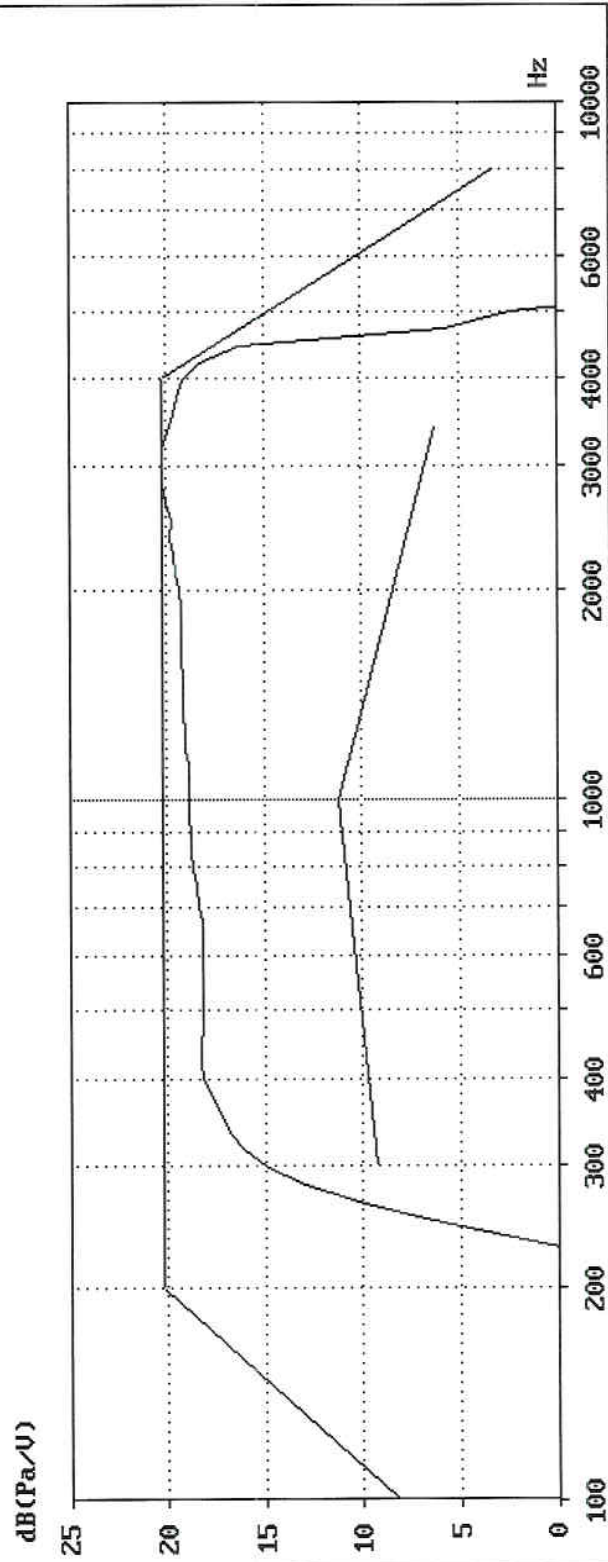


## Receiving sensitivity/RLR

Commission : 60.860.6.106.01	Gen. Level : -12.0 dBV	RLR : -6.7 dB
TEUT : H-315	Generator impedance: 600 Ohm symmetrical	
Manufacturer: --	Feeding resistor : 1000.0 Ohm	cRLR : -1.3 dB
Operator : --	Feeding voltage : 50.0 V	Limit:-12.0 ... -4.0 dB
Date : 7.06.06	Feeding Bridge : tbr38	
Time : 17:01.23	Current limitation : 60.0 mA	Coupler: IEC 318
Reference : TBR 38 4.2.1.2/4.2.2.2	Polarity : Inverted	
	Line : off 0.00	

Remark : -

**Tol. mask violations: 0**





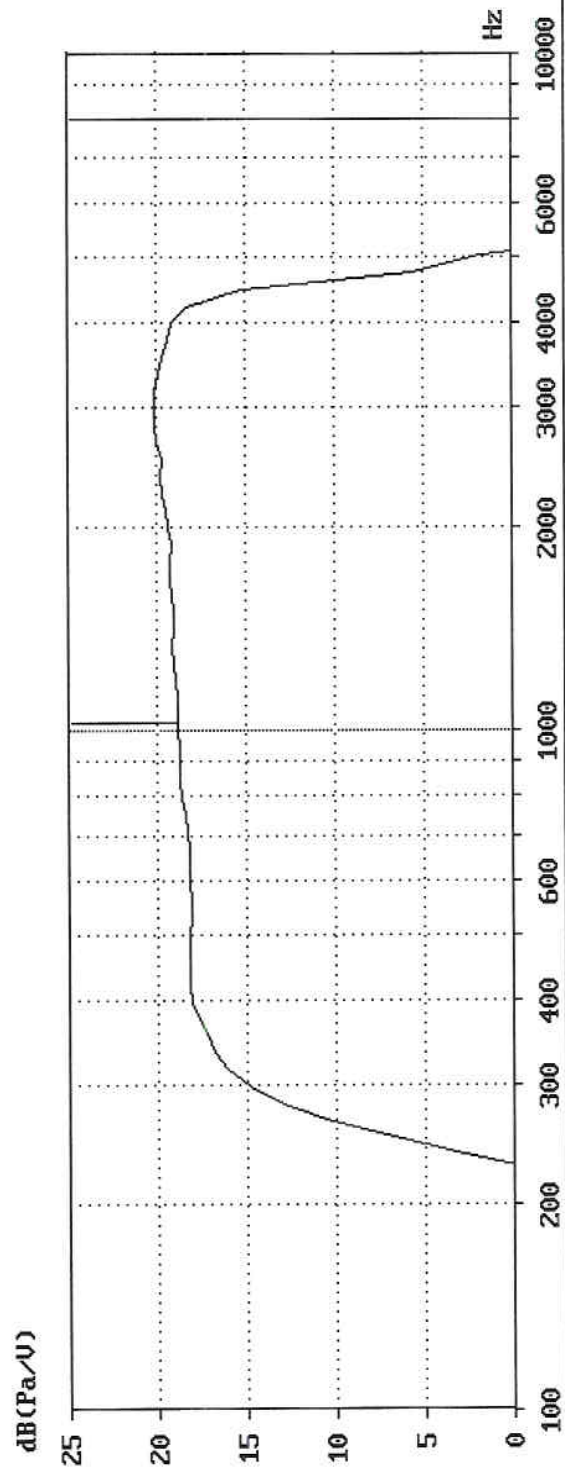




# Receiving sensitivity/RLR

**Commission** : 60.860.6.106.01      **Gen. Level** : -12.0 dBu      **RLR** : -6.7 dB  
**TEUT** : H-315      **Generator impedance**: 600 Ohm symmetrical  
**Manufacturer**: --      **Feeding resistor** : 1000.0 Ohm      **CRLR** : -1.3 dB  
**Operator** : --      **Feeding voltage** : 50.0 V      **Limit**: -12.0 ... -4.0 dB  
**Date** : 7.06.06      **Feeding Bridge** : thr38      **Coupler**: IEC 318  
**Time** : 17:02.43      **Current limitation** : 60.0 mA  
**Reference** : TBR 38 4.2.1.2/4.2.2.2      **Polarity** : Inverted  
**Remark** : -      **Line** : off 0.00

**Tol. mask violations: 0**



Protocol for Sending loudness rating Auto

Sending loudness rating Auto

Date	: 7.06.06	Current limitation	: 100.0 mA
Time	: 17:03.13	Feeding voltage	: 50.0 V
Operator	: --	Feeding bridge	: tbr38
Commission	: 60.860.6.106.01	Receiver impedance	: 600 Ohm
TEUT	: H-315	Measurement points	: 81
Manufacturer:	--	Artificial line	: off 0.00
Reference	: TBR 38 4.2.2.1		
Remark	: -		

SLR [dB (V/Pa)]	Limit [dB]	Rf [Ω]	p0 [dB (Pa)]	Polarity
+5.2	-1.0 .. 7.0	2800	-4.7	Normal
+5.2	-1.0 .. 7.0	2800	-4.7	Inverted
+5.0	-1.0 .. 7.0	1000	-4.7	Normal
+5.1	-1.0 .. 7.0	1000	-4.7	Inverted
+5.1	-1.0 .. 10.0	500	-4.7	Normal
+5.1	-1.0 .. 10.0	500	-4.7	Inverted

Protocol for Receiving loudness rating Auto

Receiving loudness rating Auto

Date	: 7.06.06	Feeding voltage	: 50.0 V
Time	: 17:05.06	Current limitation	: 100.0 mA
Operator	: --	Feeding bridge	: tbr38
Commission	: 60.860.6.106.01	Generator impedance	: 600 Ohm symmetrical
TEUT	: H-315	Measurement points	: 81
Manufacturer	: --	Coupler	: IEC 318
Reference	: TBR 38 4.2.2.2	Artificial line	: off 0.00

Remark : -

RLR [dB (Pa/V)]	Limits [dB]	Rf [Ω]	pJ [dBV]	Polarity
-6.7	-12.0 .. -4.0	2800	-12.0	Normal
-6.6	-12.0 .. -4.0	2800	-12.0	Inverted
-6.6	-12.0 .. -4.0	1000	-12.0	Normal
-6.6	-12.0 .. -4.0	1000	-12.0	Inverted
-6.6	-12.0 .. -1.0	500	-12.0	Normal
-6.5	-12.0 .. -1.0	500	-12.0	Inverted

Protocol for Sidetone masking rating Auto

Sidetone masking rating Auto

Date	: 7.06.06	Current limitation	: 60.0 mA
Time	: 17:06.14	Feeding voltage	: 50.0 V
Operator	: --	Feeding bridge	: tbr38
		Measurement points	: 81
Commission	: 60.860.6.106.01	Coupler	: IEC 318
TEUT	: H-315	cSLR	: -
Manufacturer:	--	cRLR	: -
Reference	: TBR 38 4.2.3		

Remark : -

cSTMR [dB]	Limit [dB]	STMR [dB]	Rf [Ω]	p0 [dB (Pa)]	Polarity	Termination
19.2	≈ 7.0	19.2	2800	-4.7	Normal	TBR 38 c)
23.2	≈ 7.0	23.2	2800	-4.7	Inverted	TBR 38 c)
28.1	≈ 10.0	28.1	1000	-4.7	Normal	TBR 21
30.2	≈ 10.0	30.2	1000	-4.7	Inverted	TBR 21
18.8	≈ 5.0	18.8	500	-4.7	Normal	TBR 38 a)
19.5	≈ 5.0	19.5	500	-4.7	Inverted	TBR 38 a)

Protocol for Harmonic distortion sending Auto

Harmonic distortion sending Auto

Date	: 7.06.06	Feed current/limit	: 100.0 mA
Time	: 17:07.44	Feeding Voltage	: 50.0 V
Operator	: --	Feeding bridge	: tbr38
Commission	: 60.860.6.106.01	Limit	: ≤ 7.00 %
TEUT	: H-315	Harmonics	: 5
Manufacturer:	--	Meas impedance	: 600 Ohm
Reference	: TBR 38 4.2.4.1		

Remark : -

kmJ [%]	Fundamental [dBV]	Frequency [Hz]	pm [dB (Pa)]	Rf [Ω]	Polarity
0.37	-16.2	336	-4.7	2800	Normal
0.45	-15.3	480	-4.7	2800	Normal
0.33	-13.9	1009	-4.7	2800	Normal
0.31	-16.3	336	-4.7	2800	Inverted
0.46	-15.3	480	-4.7	2800	Inverted
0.45	-13.9	1009	-4.7	2800	Inverted
0.51	-16.2	336	-4.7	500	Normal
0.38	-15.2	480	-4.7	500	Normal
0.47	-13.7	1009	-4.7	500	Normal
0.37	-16.2	336	-4.7	500	Inverted
0.41	-15.2	480	-4.7	500	Inverted
0.19	-13.8	1009	-4.7	500	Inverted



Protocol for Harmonic distortion sending Auto

Harmonic distortion sending Auto

Date	: 7.06.06	Feed current/limit	: 100.0 mA
Time	: 17:08.56	Feeding Voltage	: 50.0 V
Operator	: --	Feeding bridge	: tbr38
Commission	: 60.860.6.106.01	Limit	: ≤ 10.00 %
TEUT	: H-315	Harmonics	: 5
Manufacturer:	--	Meas impedance	: 600 Ohm
Reference	: TBR 38 4.2.4.1		

Remark : -

kmJ [%]	Fundamental [dBV]	Frequency [Hz]	pm [dB (Pa)]	Rf [Ω]	Polarity
0.59	-4.1	1009	+5.0	2800	Normal
0.75	-4.1	1009	+5.0	2800	Inverted
0.93	-4.0	1009	+5.0	500	Normal
0.71	-4.0	1009	+5.0	500	Inverted

Protocol for Harmonic distortion receiving Auto

Harmonic distortion receiving Auto

Date	: 7.06.06	Feed current/limit	: 100.0 mA
Time	: 17:09.39	Feeding Voltage	: 50.0 V
Operator	: --	Feeding bridge	: tbr38
Commission	: 60.860.6.106.01	Limit	: ≤ 7.00 %
TEUT	: H-315	Harmonics	: 5
Manufacturer:	--	Sender impedance	: 600 Ohm symmetrical
Reference	: TBR 38 4.2.4.2		

Remark : -

kJe [%]	Fundamental [dB (Pa)]	Frequency [Hz]	pJ [dBV]	Rf [Ω]	Polarity
0.25	-0.9	336	-12.0	2800	Normal
0.27	+0.1	480	-12.0	2800	Normal
0.22	+0.7	1009	-12.0	2800	Normal
0.13	-1.2	336	-12.0	2800	Inverted
0.23	-0.0	480	-12.0	2800	Inverted
0.25	+0.7	1009	-12.0	2800	Inverted
0.12	-1.3	336	-12.0	500	Normal
0.16	-0.1	480	-12.0	500	Normal
0.19	+0.6	1009	-12.0	500	Normal
0.20	-1.3	336	-12.0	500	Inverted
0.21	-0.1	480	-12.0	500	Inverted
0.26	+0.6	1009	-12.0	500	Inverted

Protocol for Harmonic distortion receiving Auto

Harmonic distortion receiving Auto

Date	: 7.06.06	Feed current/limit	: 100.0 mA
Time	: 17:10.47	Feeding Voltage	: 50.0 V
Operator	: --	Feeding bridge	: tbr38
Commission	: 60.860.6.106.01	Limit	: ≤ 10.00 %
TEUT	: H-315	Harmonics	: 5
Manufacturer:	--	Sender impedance	: 600 Ohm symmetrical
Reference	: TBR 38 4.2.4.2		

Remark : -

kJe [%]	Fundamental [dB (Pa)]	Frequency [Hz]	pJ [dBV]	Rf [Ω]	Polarity
5.71	+11.5	1009	+0.0	2800	Normal
6.08	+11.3	1009	+0.0	2800	Inverted
6.11	+11.1	1009	+0.0	500	Normal
5.89	+11.0	1009	+0.0	500	Inverted

Protocol for SLR: Linearity/Var. of gain/DC feed var.

SLR: Linearity/Var. of gain/DC feed var.

Date	: 7.06.06	Current limitation	: 100.0 mA
Time	: 17:11.29	Feeding voltage	: 50.0 V
Operator	: --	Feeding bridge	: tbr38
		Receiver impedance	: 600 Ohm
Commission	: 60.860.6.106.01	Measurement points	: 81
TEUT	: H-315	Artificial line	: off 0.00
Manufacturer:	--		
Reference	: TBR 38 4.2.5.1		

Remark : -

No.	SLR [dB(V/Pa)]	D SLR [dB]	Limits [dB]	ref.meas [No.]	Rf [Ω]	p0 [dB(Pa)]	Polarity
1	+5.1		-1.0 .. 7.0		1000	-4.7	Normal
2	+5.1		-1.0 .. 7.0		1000	-4.7	Inverted
3	+5.1	+0.0	-2.0 .. 2.0	1	1000	-19.7	Normal
4	+5.0	-0.1	-2.0 .. 2.0	2	1000	-19.7	Inverted

Protocol for RLR: Linearity/Var. of gain/DC feed var.

RLR: Linearity/Var. of gain/DC feed var.

Date	: 7.06.06	Feeding voltage	: 50.0 V
Time	: 17:13.05	Current limitation	: 100.0 mA
Operator	: --	Feeding bridge	: tbr38
Commission	: 60.860.6.106.01	Generator impedance	: 600 Ohm symmetrical
TEUT	: H-315	Measurement points	: 81
Manufacturer	: --	Coupler	: IEC 318
Reference	: TBR 38 4.2.5.2	Artificial line	: off 0.00
Remark	: -		

No.	RLR [dB (Pa/V)]	D RLR [dB]	Limits [dB]	ref.meas [No.]	Rf [Ω]	pJ [dBV]	Polarity
1	-6.7		-12.0 .. -4.0		1000	-12.0	Normal
2	-6.6		-12.0 .. -4.0		1000	-12.0	Inverted
3	-6.5	+0.2	-2.0 .. 2.0	1	1000	-32.0	Normal
4	-6.4	+0.2	-2.0 .. 2.0	2	1000	-32.0	Inverted



Protocol for Noise level sending		
Noise level sending		
Date	: 7.06.06	Current Limitation : 100.0 mA
Time	: 17:14.12	Feeding Voltage : 50.0 V
Operator	: --	Feeding Bridge : tbr38
Commission	: 60.860.6.106.01	Meas Impedance : 600 Ohm
TEUT	: H-315	Filter : Psophometric
Manufacturer:	--	Limit : $\leq -66.0$ dBV
Reference	: TBR 38 4.2.6.1	Weighting : $\tau = 200$ msec
Remark	: -	
ps [dBV]	Rf [ $\Omega$ ]	Polarity
-68.9	500	Normal
-68.6	500	Inverted

Protocol for Noise level sending

Noise level sending

Date	: 7.06.06	Current Limitation	: 100.0 mA
Time	: 17:14.47	Feeding Voltage	: 50.0 V
Operator	: --	Feeding Bridge	: tbr38
Commission	: 60.860.6.106.01	Meas Impedance	: 600 Ohm
TEUT	: H-315	Filter	: Psophometric
Manufacturer:	--	Limit	: ≤ -64.0 dBV
Reference	: TBR 38 4.2.6.1	Weighting	: τ = 200 msec

Remark : -

ps [dBV]	Rf [Ω]	Polarity
-68.4	1000	Normal
-68.3	1000	Inverted

Protocol for Noise level sending

Noise level sending

Date	: 7.06.06	Current Limitation	: 100.0 mA
Time	: 17:15.31	Feeding Voltage	: 50.0 V
Operator	: --	Feeding Bridge	: tbr38
Commission	: 60.860.6.106.01	Meas Impedance	: 600 Ohm
TEUT	: H-315	Filter	: Psophometric
Manufacturer:	--	Limit	: $\leq -60.0$ dBV
Reference	: TBR 38 4.2.6.1	Weighting	: $\tau = 200$ msec

Remark : -

ps [dBV]	Rf [ $\Omega$ ]	Polarity
-68.3	2800	Normal
-68.3	2800	Inverted

Protocol for Noise level receiving

Noise level receiving

Date	: 7.06.06	Current Limitation	: 100.0 mA
Time	: 17:16.15	Feeding Voltage	: 50.0 V
Operator	: --	Feeding Bridge	: tbr38
Commission	: 60.860.6.106.01	Weighting	: $\tau = 200$ msec
TEUT	: H-315	Filter	: A-Filter
Manufacturer:	--	Limit	: $\leq -49.0$ dBPa(A)
Reference	: TBR 38 4.2.6.2	Termination	: 600 Ohm

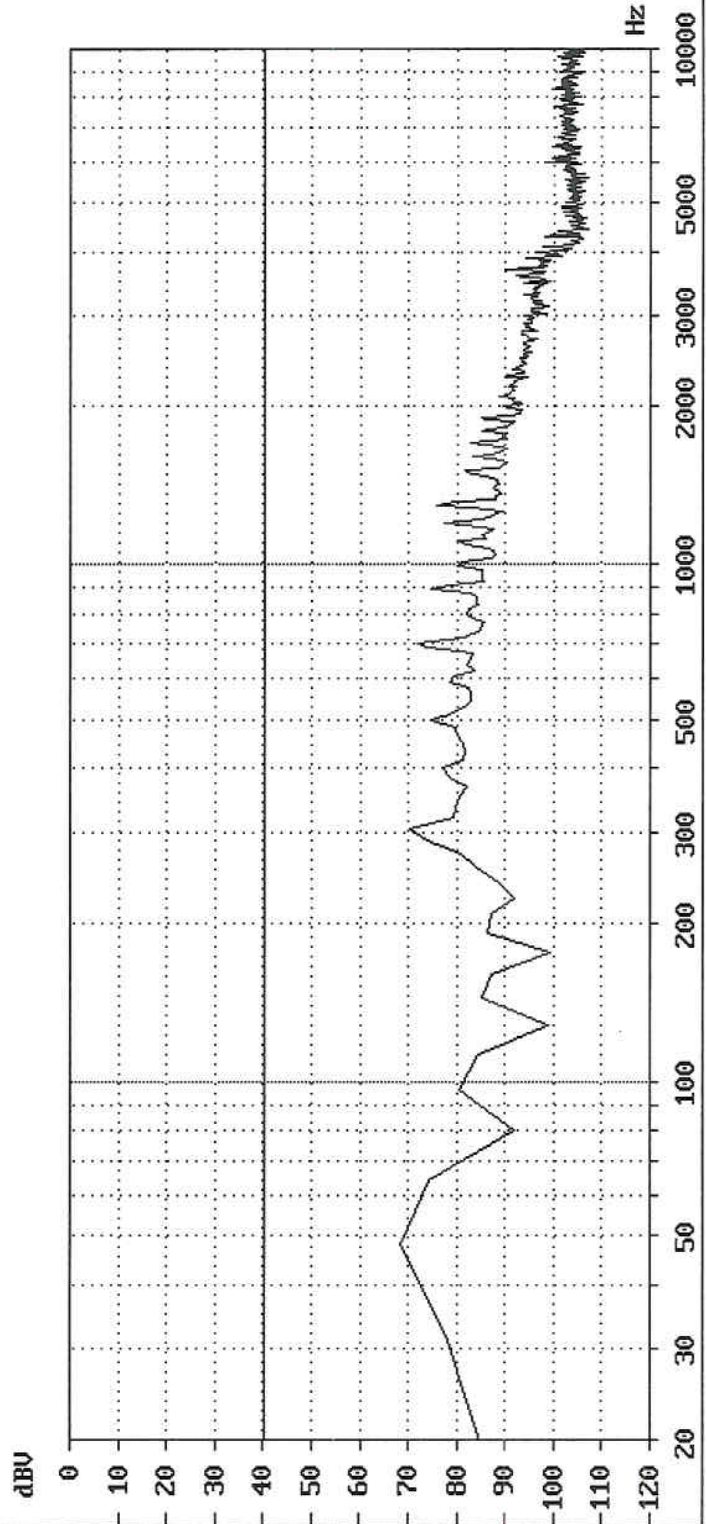
Remark : -

pe [dBPa (A) ]	Rf [ $\Omega$ ]	Polarity
-59.0	2800	Normal
-59.3	2800	Inverted
-59.2	500	Normal
-59.8	500	Inverted

# Instability/Sending Spectrum

Commission : 60.860.6.106.01  
 TEUT : H-315  
 Manufacturer : --  
 Operator : --  
 Date : 7.06.06  
 Time : 17:17.51  
 Reference : TBR 38 4.2.7  
 Remark : -

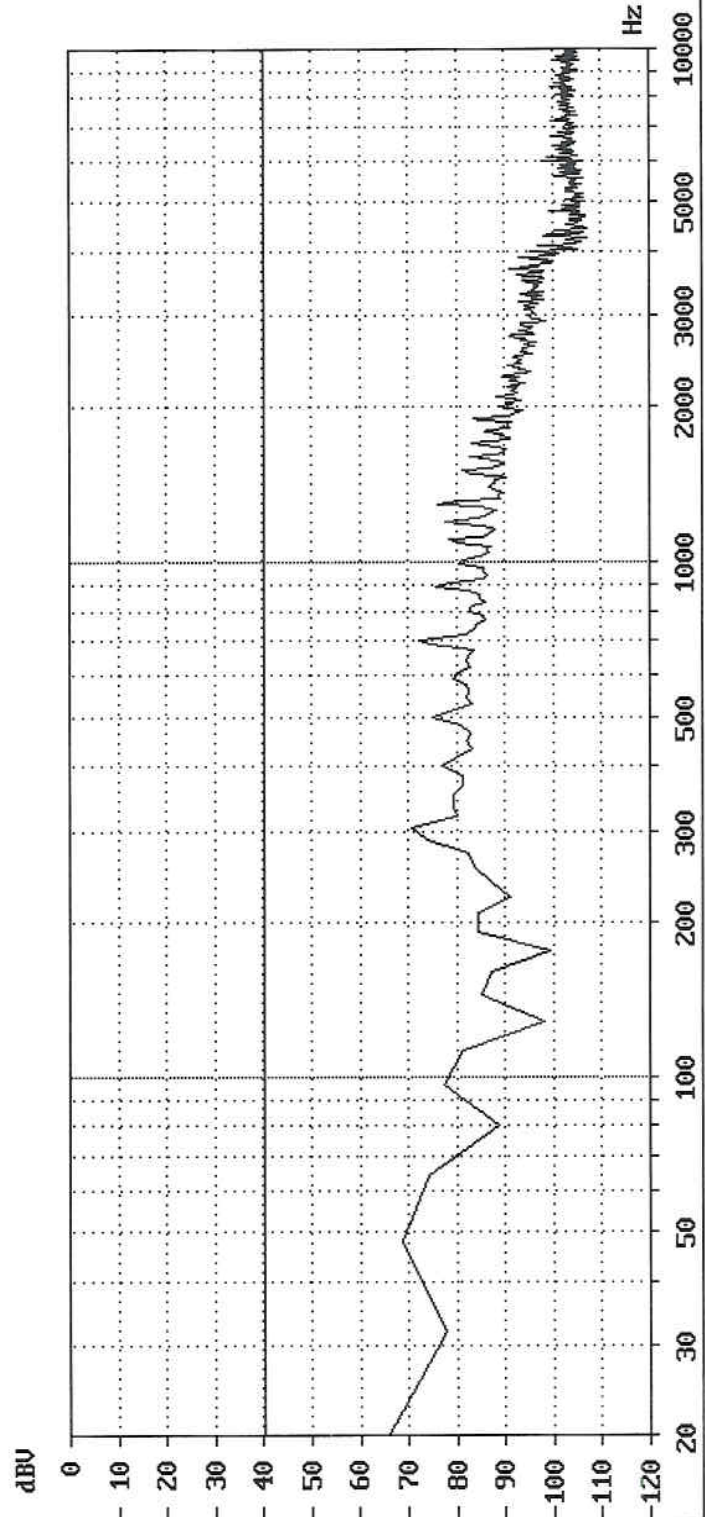
Mask violations : 0  
 Verdict : Pass  
 Max. Level : -68.6 dBV at 48 Hz  
 Evaluation range : 20 ... 10000 Hz  
 Feeding voltage : 50.0 V  
 Feeding resistor : 2800.0 Ohm  
 Polarity : Normal  
 Meas. Impedance : TBR 38 c)



# Instability/Sending Spectrum

Commission : 60.860.6.106.01  
 TEUT : H-315  
 Manufacturer : --  
 Operator : --  
 Date : 7.06.06  
 Time : 17:18.38  
 Reference : TBR 38 4.2.7  
 Remark : -

Mask violations : 0  
 Verdict : Pass  
 Max. Level : -68.6 dBV at 48 Hz  
 Evaluation range : 20 ... 10000 Hz  
 Feeding voltage : 50.0 V  
 Feeding resistor : 2800.0 Ohm  
 Polarity : Inverted  
 Meas. Impedance : TBR 38 c)



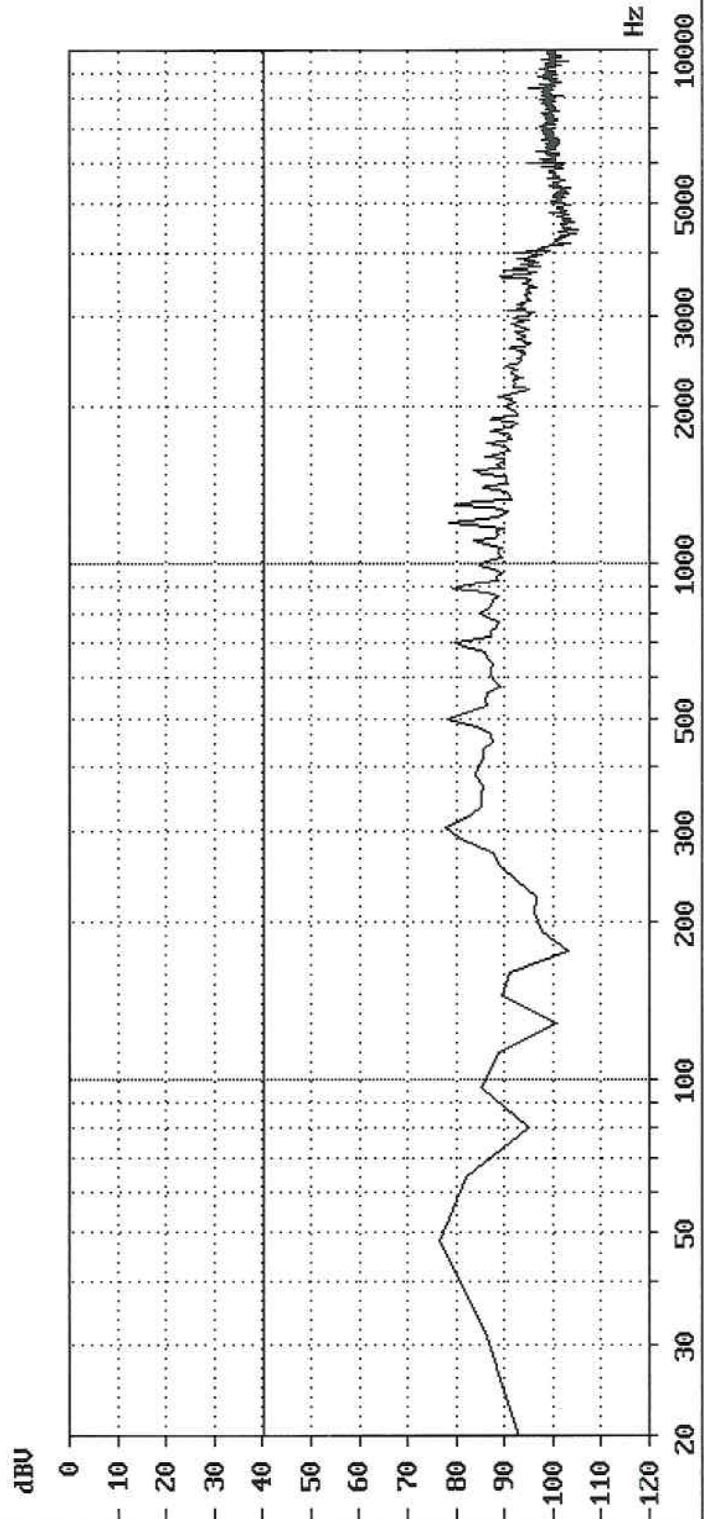


# Instability/Sending Spectrum

Commission : 60.860.6.106.01  
 TEUT : H-315  
 Manufacturer : --  
 Operator : --  
 Date : 7.06.06  
 Time : 17:19.25  
 Reference : TBR 38 4.2.7

Mask violations : 0  
 Verdict : Pass  
 Max. Level : -76.6 dBV at 48 Hz  
 Evaluation range : 20 ... 10000 Hz  
 Feeding voltage : 50.0 V  
 Feeding resistor : 500.0 Ohm  
 Polarity : Normal  
 Meas. Impedance : 600 Ohm

Remark : -

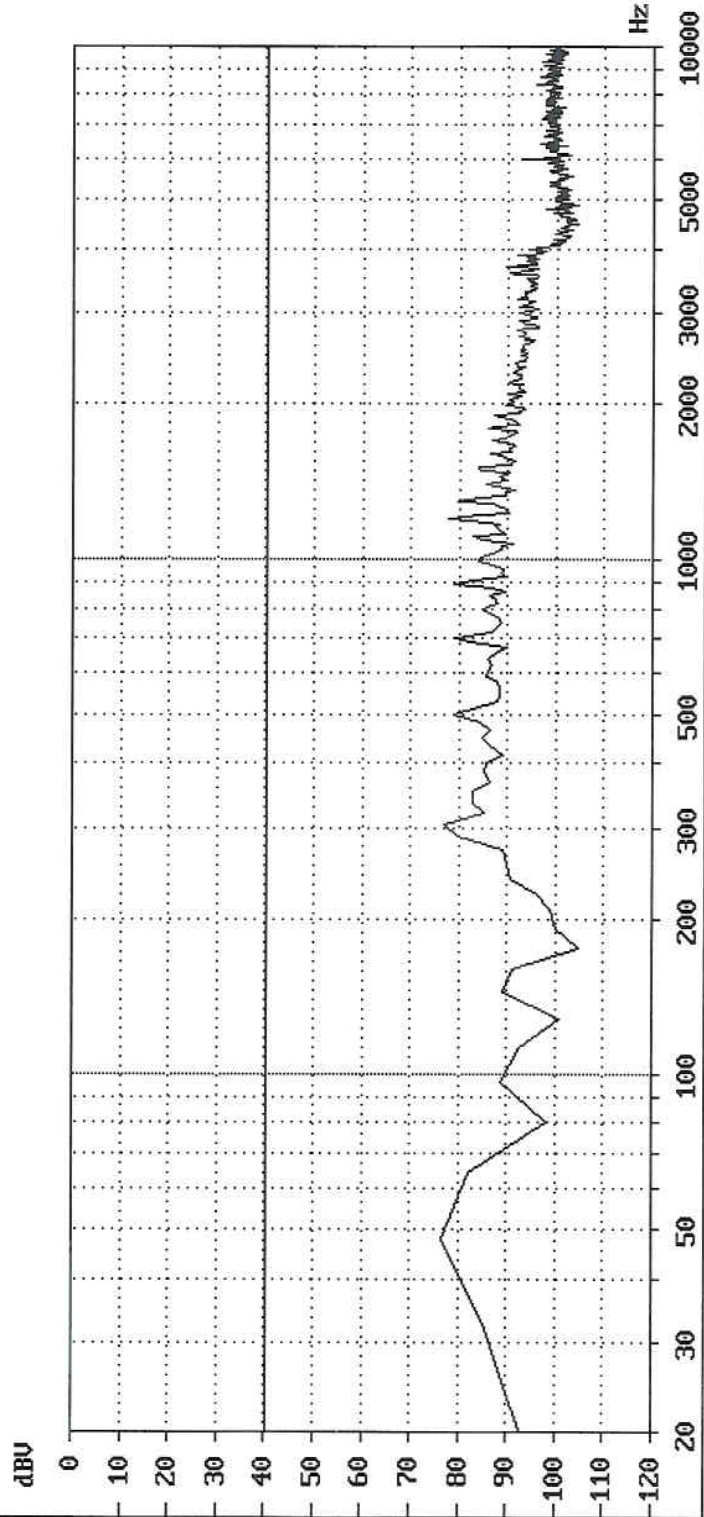




# Instability/Sending Spectrum

Commission : 60.860.6.106.01  
 TEUT : H-315  
 Manufacturer : --  
 Operator : --  
 Date : 7.06.06  
 Time : 17:20.12  
 Reference : TBR 38 4.2.7  
 Remark : -

Mask violations : 0  
 Verdict : Pass  
 Max. Level : -76.6 dBV at 48 Hz  
 Evaluation range : 20 ... 10000 Hz  
 Feeding voltage : 50.0 V  
 Feeding resistor : 500.0 Ohm  
 Polarity : Inverted  
 Meas. Impedance : 600 Ohm



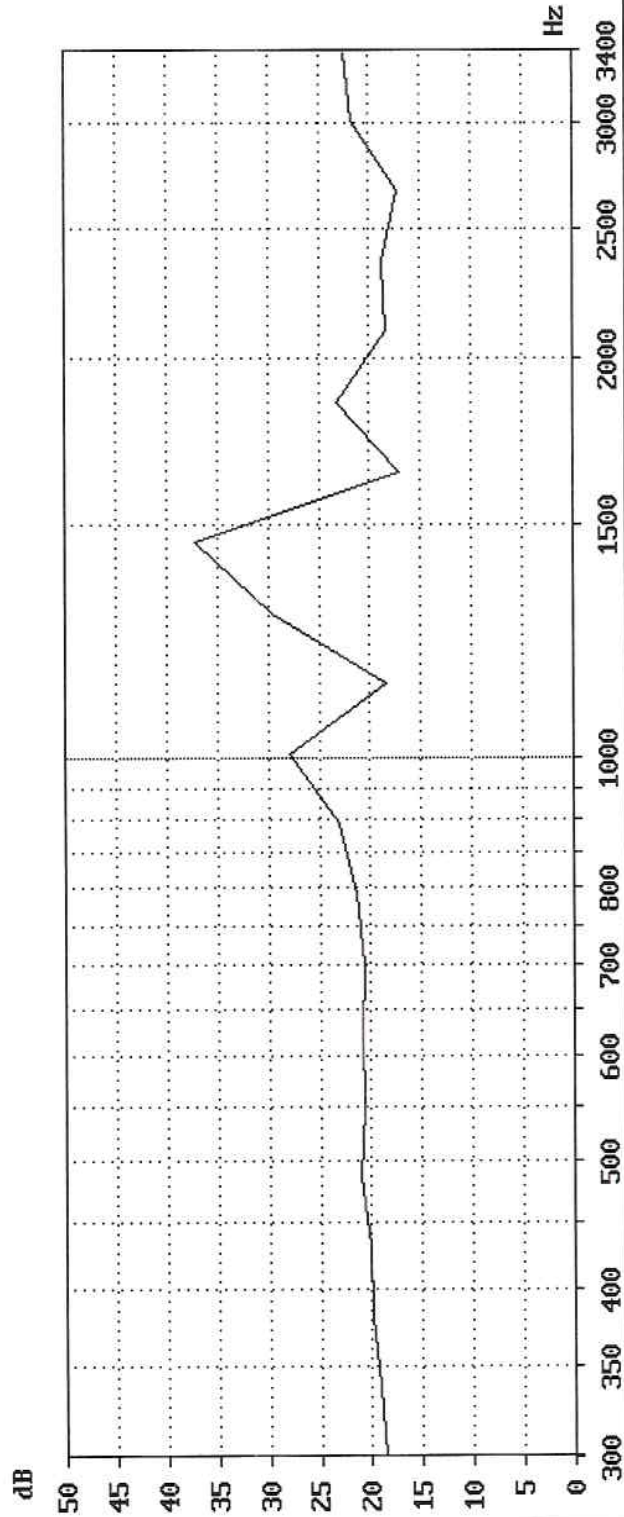
## Echo return loss (Sinus)

Commission : 60.860.6.106.01  
 TEUT : H-315  
 Manufacturer: --  
 Operator : --  
 Date : 7.06.06  
 Time : 17:20.57  
 Reference : TBR 38 4.2.8

Level ps : -18.0 dBV  
 Feeding resistor : 2800.0 Ohm  
 Feeding Voltage : 50.0 V  
 Current Limitation : 60.0 mA  
 Feeding Bridge : tbr38  
 Polarity : Normal  
 Bridge impedance Zn: TBR 21

ERL : 20.4 dB  
 Limit : > 14.0 dB  
 cSLR : --  
 cRLR : --

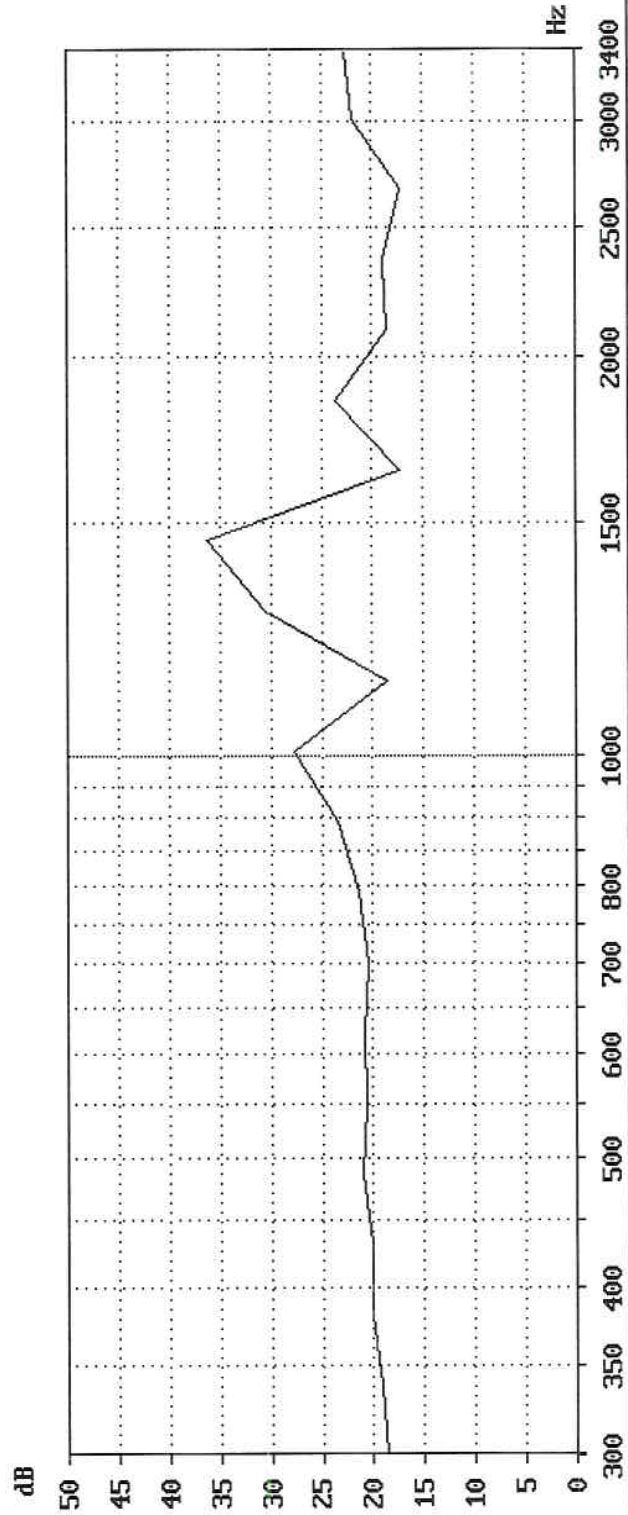
Remark : --



## Echo return loss (Sinus)

Commission	: 60.860.6.106.01	Level ps	: -18.0 dBV	ERL	: 20.5 dB
TEUT	: H-315	Feeding resistor	: 2800.0 Ohm	Limit	: ≥ 14.0 dB
Manufacturer:	--	Feeding Voltage	: 50.0 V	CSLR	: -
Operator	: --	Current Limitation	: 60.0 mA	CRLR	: -
Date	: 7.06.06	Feeding Bridge	: tbr38		
Time	: 17:22.21	Polarity	: Inverted		
Reference	: TBR 38 4.2.8	Bridge impedance Zn:	TBR 21		

Remark : -

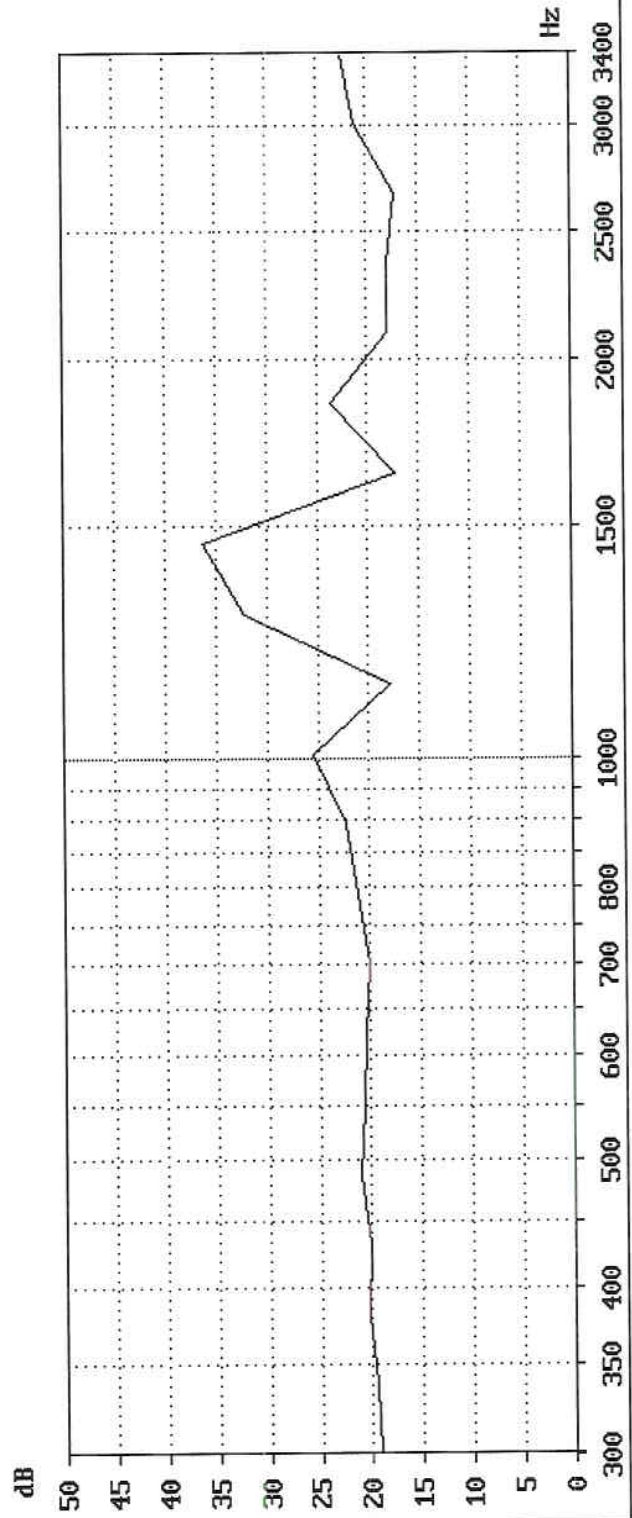


# Echo return loss (Sinus)

**Commission** : 60.860.6.106.01      **Level ps** : -18.0 dBV  
**TEUT** : H-315      **Feeding resistor** : 500.0 Ohm  
**Manufacturer:** --      **Feeding Voltage** : 50.0 V  
**Operator** : --      **Current Limitation** : 60.0 mA  
**Date** : 7.06.06      **Feeding Bridge** : tbr3B  
**Time** : 17:23.43      **Polarity** : Normal  
**Reference** : TBR 3B 4.2.8      **Bridge impedance Zn:** TBR 21

**ERL** : 20.2 dB  
**Limit** : > 14.0 dB  
**CSLR** : -  
**CRLR** : -

**Remark** : -



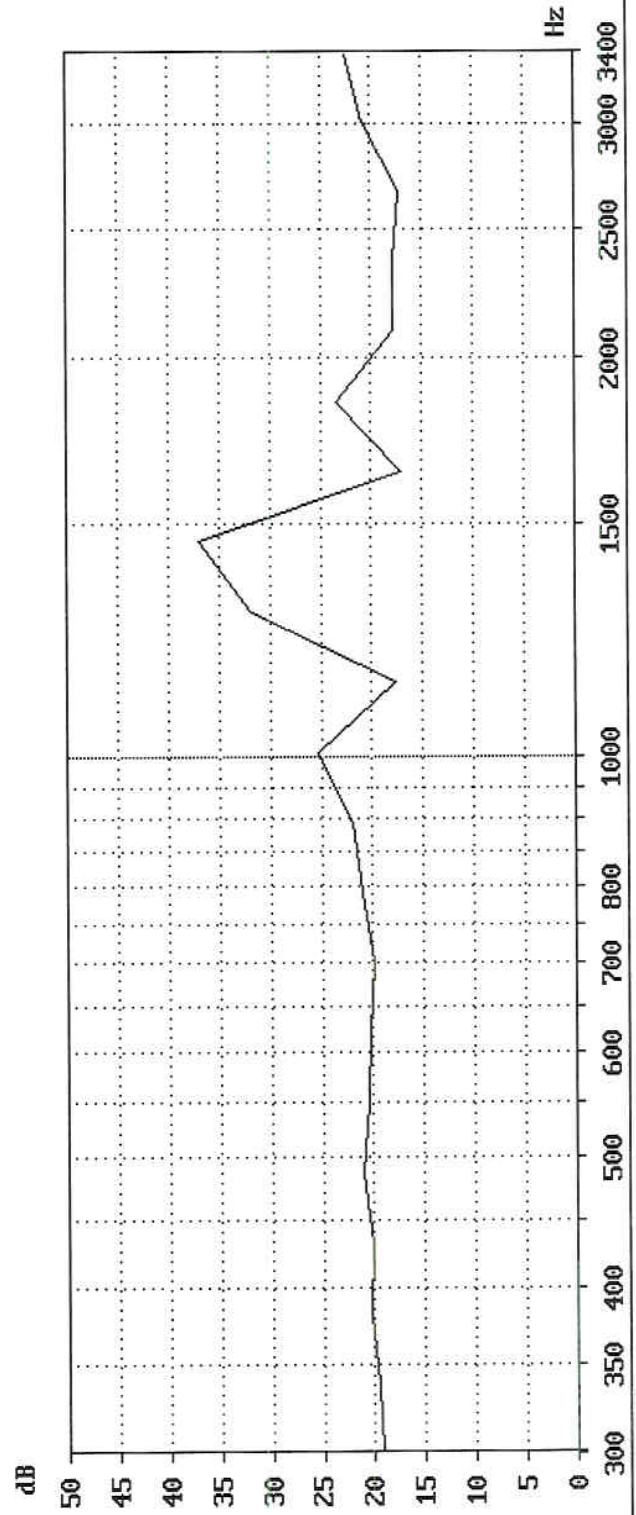


# Echo return loss (Sinus)

**Commission** : 60.860.6.106.01      **Level ps** : -18.0 dBV  
**TEUT** : H-315      **Feeding resistor** : 500.0 Ohm  
**Manufacturer** : --      **Feeding Voltage** : 50.0 V  
**Operator** : --      **Current Limitation** : 60.0 mA  
**Date** : 7.06.06      **Feeding Bridge** : tbr38  
**Time** : 17:24.58      **Polarity** : Inverted  
**Reference** : TBR 38 4.2.8      **Bridge impedance Zn**: TBR 21

**ERL** : 20.1 dB  
**Limit** : ≥ 14.0 dB  
**CSLR** : -  
**CRLR** : -

**Remark** : -



**ANNEX D**

**CONSTRUCTION DATA FORM**

**(PLEASE REFER TO [ETSI ES 203 021-1,2,3](#)**

**TEST REPORT)**



**ANNEX E**

**TE PHOTOGRAPH**

**(PLEASE REFER TO [ETSI ES 203 021-1,2,3](#)**

**TEST REPORT)**