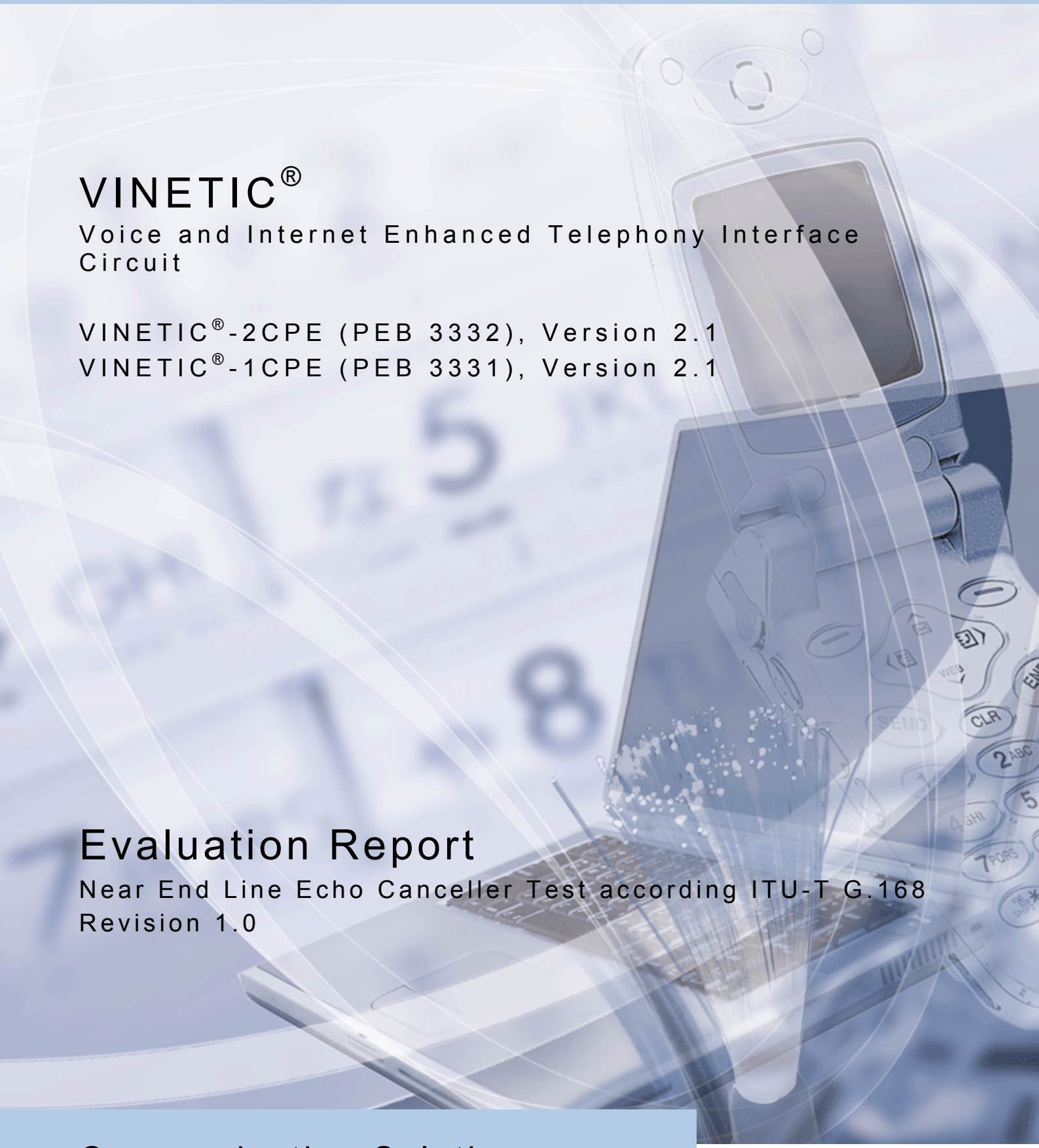
March 2006

VINETIC®

Voice and Internet Enhanced Telephony Interface Circuit

VINETIC®-2CPE (PEB 3332), Version 2.1
VINETIC®-1CPE (PEB 3331), Version 2.1



Evaluation Report

Near End Line Echo Canceller Test according ITU-T G.168
Revision 1.0

Communication Solutions

Never stop thinking

Edition 2006-03-29

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Previous Version:	none	

Page	Subjects (major changes since last revision)

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Preface

Figure 1 shows the block diagram of the Near End Line Echo Canceller Test setup according ITU-T G.168.

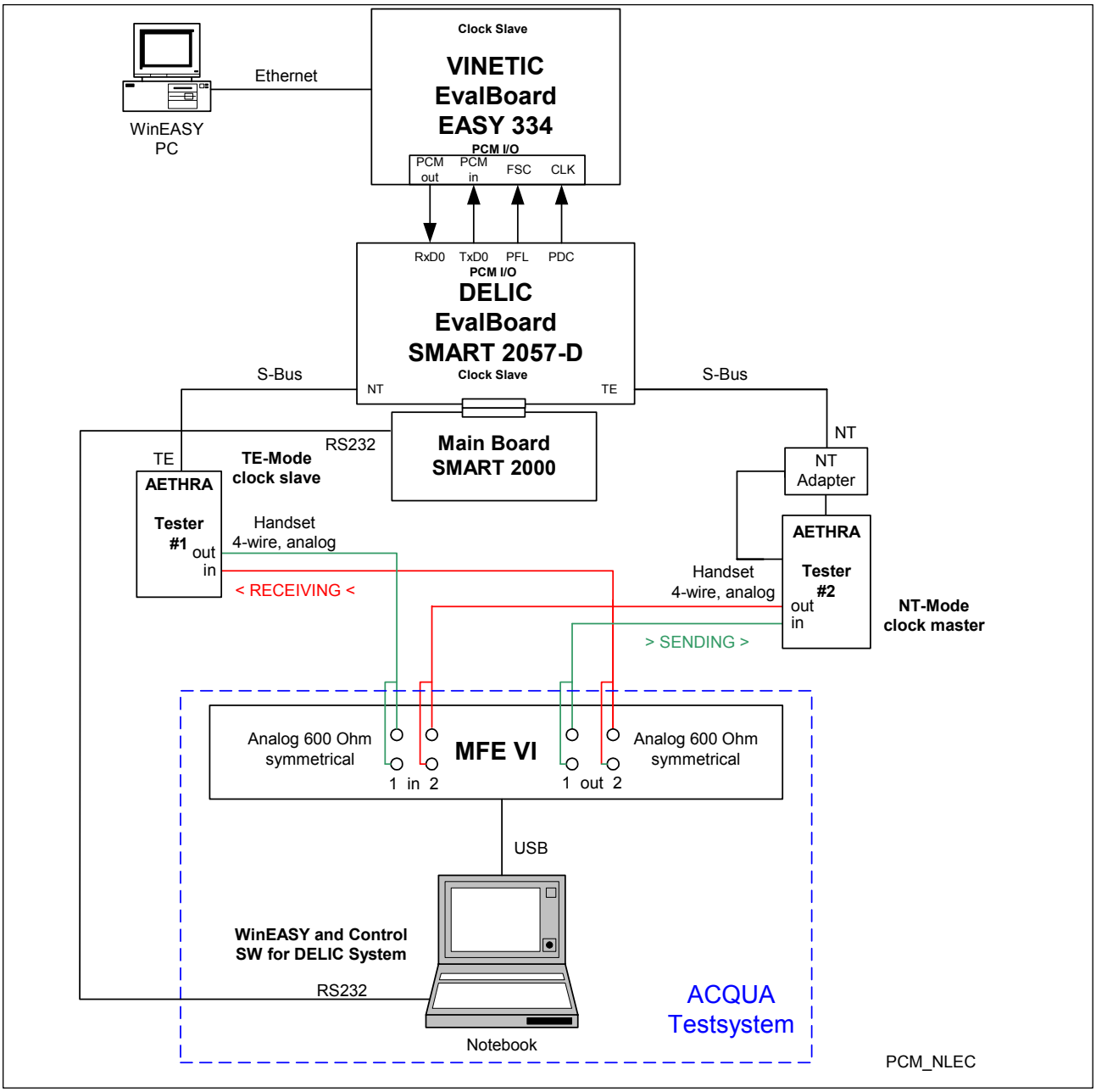


Figure 1 Block diagram of the NLEC test setup

Measurement object description:	NLEC of PCM Module
Echo Path:	G.168, EPM 1
Standard:	G.168-2002
G.168-2002 Test No.:	#0, #2, #3, #4, #5, #6, #9 with noise #0, #7, #10 with tones
Report generation date:	27.01.2006 11:11
Comment:	This test has been performed with the NLEC of the PCM module, channel 1

Hardware

The following hardware components are used for the tests.

VINETIC Device:	VINETIC-2CPE, V2.1, PEB 3332 HT (PG-TFQP-100-3 package)
VINETIC System:	SMART 3332, V1.1 with SMART 4268, V1.2
VoIP Test System:	MFE VI (Head acoustics), ACQUA control software, V2.1, Aethra ISDN Tester D2000

Software

Below the versions of the used software is shown.

EDSP Firmware:	2CPE1 RTP4 Rel. 0.16.234.V2.1
Device Driver:	V 1.1.2.4
WinEASY:	V 3.3.8.1

Status Overview

SMD	Status	Single Value Description	Single Value
0) Delay Measurement 'Double Talk'	DONE [1)]	Delay (Cross) [ms]	2,98
0) Delay Measurement 'Echo' (round trip)	DONE [1)]	Delay (Cross) [ms]	8,35
0) ERL Measurement EPM1 Noise	OK	Level SND(1) - Source [dB]	7,00
0) ERL Measurement EPM1 Tones	OK	Level SND(1) - Source [dB]	8,15
2a) Convergence Test (NLP) -10 dBm0	OK	Min. dist. to tolerance scheme [dB], at 1,000 s	0,74
2a) Convergence Test (NLP) -20 dBm0	OK	Min. dist. to tolerance scheme [dB], at 1,124 s	1,19
2a) Convergence Test (NLP) -30 dBm0	OK	Min. dist. to tolerance scheme [dB], at 1,159 s	0,04
2a) Convergence Test (NLP, peaks) 0 dBm0	OK	Min. dist. to tolerance scheme [dB], at 6,784 s	20,21
2a) Convergence Test (NLP, peaks) -10 dBm0	OK	Min. dist. to tolerance scheme [dB], at 10,284 s	16,85
2a) Convergence Test (NLP, peaks) -20 dBm0	OK	Min. dist. to tolerance scheme [dB], at 3,651 s	19,53
2a) Convergence Test (NLP, peaks) -30 dBm0	OK	Min. dist. to tolerance scheme [dB], at 10,483 s	16,29
2b) Convergence Test 0 dBm0	OK	Min. dist. to tolerance scheme [dB], at 1,152 s	0,70
2b) Convergence Test -10 dBm0	OK	Min. dist. to tolerance scheme [dB], at 1,036 s	0,62
2b) Convergence Test -20 dBm0	OK	Min. dist. to tolerance scheme [dB], at 1,117 s	0,65
2b) Convergence Test -30 dBm0	OK	Min. dist. to tolerance scheme [dB], at 1,036 s	0,68
2b) Convergence Test (peaks) 0 dBm0	OK	Min. dist. to tolerance scheme [dB], at 2,195 s	5,07
2b) Convergence Test (peaks) -10 dBm0	OK	Min. dist. to tolerance scheme [dB], at 2,195 s	5,68
2b) Convergence Test (peaks) -20 dBm0	OK	Min. dist. to tolerance scheme [dB], at 2,168 s	6,60
2b) Convergence Test (peaks) -30 dBm0	OK	Min. dist. to tolerance scheme [dB], at 2,244 s	7,41
2c) Convergence Test (NLP, noise) 0/-30 dBm0	OK	Level SND(1) [dBm0]	-36,45
2c) Convergence Test (NLP, noise) -10/-30 dBm0	OK	Level SND(1) [dBm0]	-38,44
2c) Convergence Test (NLP, noise) -20/-35 dBm0	OK	Level SND(1) [dBm0]	-35,06
2c) Convergence Test (NLP, noise) -30/-45 dBm0	OK	Level SND(1) [dBm0]	-88,36
2c) Convergence Test (noise, steady state) 0/-30 dBm0	OK	Level SND(1) [dBm0]	-35,62

SMD	Status	Single Value Description	Single Value
2c) Convergence Test (noise, steady state) -10/-30 dBm0	OK	Level SND(1) [dBm0]	-39,02
2c) Convergence Test (noise, steady state) -20/-35 dBm0	OK	Level SND(1) [dBm0]	-41,95
2c) Convergence Test (noise, steady state) -30/-45 dBm0	OK	Level SND(1) [dBm0]	-51,77
2c) Convergence Test (noise, steady state) 0/-55 dBm0	OK	Level SND(1) [dBm0]	-38,13
2c) Convergence Test (noise, steady state) -10/-55 dBm0	OK	Level SND(1) [dBm0]	-50,36
2c) Convergence Test (noise, steady state) -20/-55 dBm0	OK	Level SND(1) [dBm0]	-58,48
2c) Convergence Test (noise, steady state) -30/-55 dBm0	OK	Level SND(1) [dBm0]	-60,10
2c) -study- Convergence Test (noise, 1s) 0/-30 dBm0	DONE 2)	Level SND(1) [dBm0]	-28,12
2c) -study- Convergence Test (noise, 1s) -10/-30 dBm0	DONE 2)	Level SND(1) [dBm0]	-31,51
2c) -study- Convergence Test (noise, 1s) -20/-35 dBm0	DONE 2)	Level SND(1) [dBm0]	-26,66
2c) -study- Convergence Test (noise, 1s) -30/-45 dBm0	DONE 2)	Level SND(1) [dBm0]	-36,71
2c) -study- Convergence Test (noise, 10s) 0/-30 dBm0	OK	Level SND(1) [dBm0]	-34,23
2c) -study- Convergence Test (noise, 10s) -10/-30 dBm0	OK	Level SND(1) [dBm0]	-39,00
2c) -study- Convergence Test (noise, 10s) -20/-35 dBm0	OK	Level SND(1) [dBm0]	-42,62
2c) -study- Convergence Test (noise, 10s) -30/-45 dBm0	OK	Level SND(1) [dBm0]	-53,16
3a) Double Talk Test (convergence, 5s) 0/-15 dBm0	OK	Level SND(1) [dBm0]	-30,09
3a) Double Talk Test (convergence, 5s) -10/-25 dBm0	OK	Level SND(1) [dBm0]	-38,20
3a) Double Talk Test (convergence, 5s) -20/-35 dBm0	OK	Level SND(1) [dBm0]	-51,88
3a) Double Talk Test (convergence, 5s) -25/-40 dBm0	OK	Level SND(1) [dBm0]	-54,78
3b) Double Talk Test (divergence) 0/ 0 dBm0	OK	Level SND(1) [dBm0]	-35,72
3b) Double Talk Test (divergence) -10/-10 dBm0	OK	Level SND(1) [dBm0]	-49,61

SMD	Status	Single Value Description	Single Value
3b) Double Talk Test (divergence) -30/-30 dBm0	OK	Level SND(1) [dBm0]	-112,18
3c) Simulated Conversation (t2, peaks) 0/ 0 dBm0	OK	Min. dist. to tolerance scheme [dB], at 6,693 s	30,42
3c) Simulated Conversation (t2, peaks) -10/-10 dBm0	OK	Min. dist. to tolerance scheme [dB], at 6,687 s	26,26
3c) Simulated Conversation (t2, peaks) -20/-20 dBm0	OK	Min. dist. to tolerance scheme [dB], at 6,693 s	28,07
3c) Simulated Conversation (t2, peaks) -25/-25 dBm0	OK	Min. dist. to tolerance scheme [dB], at 6,691 s	26,40
3c) Simulated Conversation (t3, res. echo) 0/ 0 dBm0	OK	Min. dist. to tolerance scheme [dB], at 12,035 s	16,28
3c) Simulated Conversation (t3, res. echo) -10/-10 dBm0	OK	Min. dist. to tolerance scheme [dB], at 11,905 s	12,26
3c) Simulated Conversation (t3, res. echo) -20/-20 dBm0	OK	Min. dist. to tolerance scheme [dB], at 10,850 s	15,25
3c) Simulated Conversation (t3, res. echo) -25/-25 dBm0	OK	Min. dist. to tolerance scheme [dB], at 10,149 s	14,08
3c) Simulated Conversation (t4, t5, peaks) 0/ 0 dBm0	OK	Min. dist. to tolerance scheme [dB], at 23,506 s	4,51
3c) Simulated Conversation (t4, t5, peaks) -10/-10 dBm0	OK	Min. dist. to tolerance scheme [dB], at 16,306 s	2,33
3c) Simulated Conversation (t4, t5, peaks) -20/-20 dBm0	OK	Min. dist. to tolerance scheme [dB], at 15,506 s	2,31
3c) Simulated Conversation (t4, t5, peaks) -25/-25 dBm0	OK	Min. dist. to tolerance scheme [dB], at 17,106 s	2,32
4) Leak Rate Test 0 dBm0	OK	Level SND(1) [dBm0]	-35,24
4) Leak Rate Test -10 dBm0	OK	Level SND(1) [dBm0]	-49,60
4) Leak Rate Test -20 dBm0	OK	Level SND(1) [dBm0]	-58,84
4) Leak Rate Test -30 dBm0	OK	Level SND(1) [dBm0]	-64,18
5) Infinite Return Loss Convergence Test 0 dBm0	OK	Min. dist. to tolerance scheme [dB], at 11,275 s	0,13
5) Infinite Return Loss Convergence Test -10 dBm0	OK	Min. dist. to tolerance scheme [dB], at 11,275 s	0,30
5) Infinite Return Loss Convergence Test -20 dBm0	OK	Min. dist. to tolerance scheme [dB], at 11,275 s	0,06
5) Infinite Return Loss Convergence Test -30 dBm0	OK	Min. dist. to tolerance scheme [dB], at 11,275 s	0,03
6) Non-divergence on Narrow-band Signals 0 dBm0	OK	Level SND(1) [dBm0]	-37,26
6) Non-divergence on Narrow-band Signals -10 dBm0	OK	Level SND(1) [dBm0]	-50,32

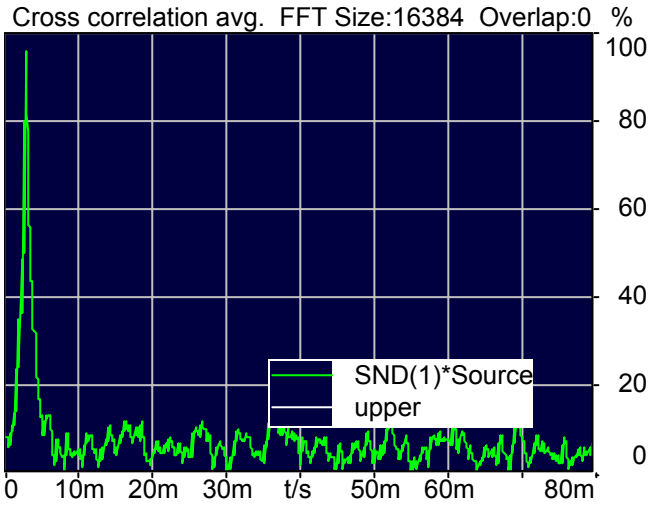
SMD	Status	Single Value Description	Single Value
6) Non-divergence on Narrow-band Signals -20 dBm0	OK	Level SND(1) [dBm0]	-59,77
6) Non-divergence on Narrow-band Signals -30 dBm0	OK	Level SND(1) [dBm0]	-64,59
7) Stability Test +3 dBm0	OK	Min. dist. to tolerance scheme [dB], at 35,559 s	6,22
7) Stability Test -10 dBm0	OK	Min. dist. to tolerance scheme [dB], at 13,688 s	11,43
7) Stability Test -20 dBm0	OK	Min. dist. to tolerance scheme [dB], at 38,411 s	11,27
7) Stability Test -30 dBm0	OK	Min. dist. to tolerance scheme [dB], at 93,273 s	3,96
9) Comfort noise test 1 (matching) -45 dBm0	OK	Level SND(1) [dBm0]	-46,48
9) Comfort noise test 2 (adjustment down) -55 dBm0	OK	Level SND(1) [dBm0]	-53,28
9) Comfort noise test 3 (adjustment up) -45 dBm0	OK	Level SND(1) [dBm0]	-46,49
10a) Facsimile test (calling station)	OK	Min. dist. to tolerance scheme [dB], at 7,499 s	0,05
10a) Facsimile test (calling station, NLP)	OK	Min. dist. to tolerance scheme [dB], at 7,527 s	0,62
10b) Facsimile test (called station)	OK	Min. dist. to tolerance scheme [dB], at 1,035 s	5,05
10b) Facsimile test (called station, NLP)	OK	Min. dist. to tolerance scheme [dB], at 7,027 s	5,32

[1] The delay measurements are used to compensate the delay of the test equipment.

[2] These measurements are still under study at the ITU-T. Therefore no mask is defined to compare the results with a reference.

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0) Delay Measurement 'Double Talk'



Delay(Cross): 3,0 ms

07.11.2005 15:40 ACQUA 2.1.100

Source: css_snd.dat

Calibration

Measurement	0 dB

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Time seq. start	160.00 ms	Time seq. length	91.88 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	16384	Overlap	0
Delayed channel	None	Max. delay length	0 ms

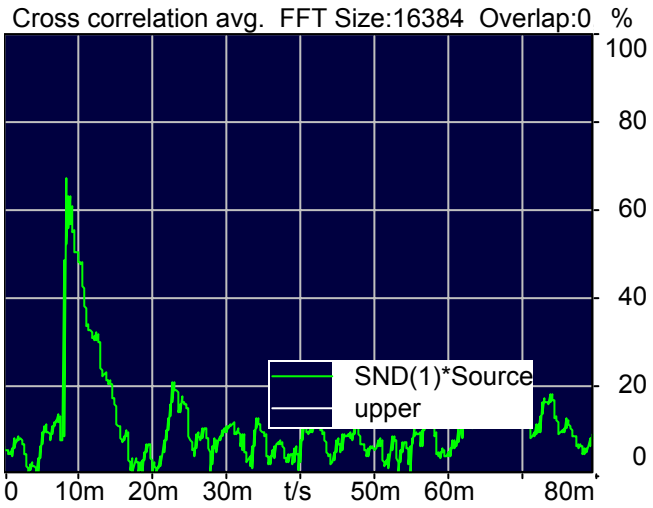
Special Features

Show source signal	Source ch.1
Store to variable	D2

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

0) Delay Measurement 'Echo' (round trip)



Delay(Cross): 8,4 ms

07.11.2005 15:40 ACQUA 2.1.100

Source: css_rcv.dat
Calibration

Measurement	0 dB

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Time seq. start	160.00 ms	Time seq. length	91.88 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	16384	Overlap	0
Delayed channel	None	Max. delay length	0 ms

Special Features

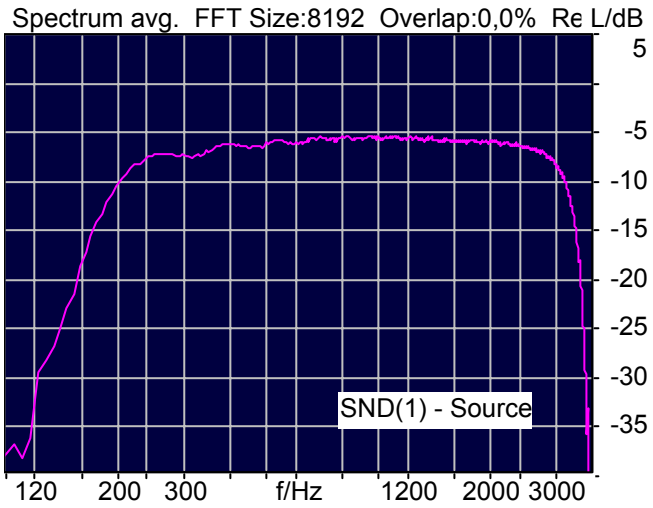
Show source signal	Source ch.2
Store to variable	D1

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

0) ERL Measurement EPM 1 Noise



Correction

-(LRET - 27.9)

Level SND(1) - Source: 20,90 dB

Corrected value: 7,00 dB Ok

Ok

07.11.2005 15:40 ACQUA 2.1.100

Source: erl_pn.dat

Pseudo noise	
level	= -10.0 dB
noise	= WHITE
frequency start	= 80.0 Hz
frequency end	= 3900.0 Hz
FFT-length	= 8192

Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	20.00 ms	Time seq. length	400.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	100.0 Hz		

Special Features

Show source signal	Source ch.2		
Compensate delay	8.3542 ms		
Channel combination		Ch 1 minus ch 2	
Store to variable	ERL		

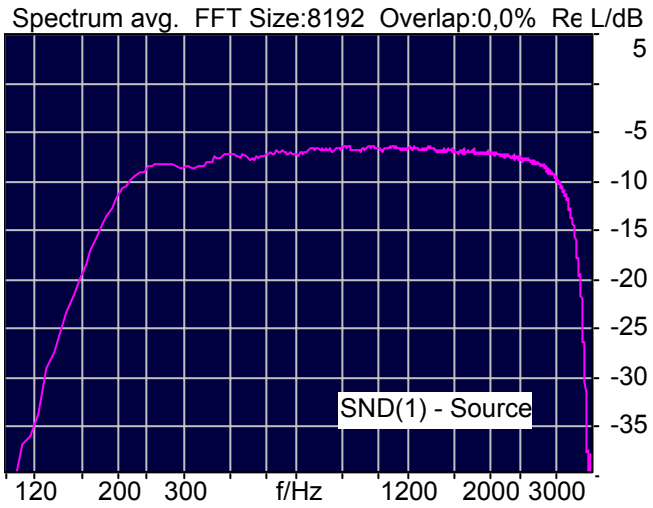
CONFIDENTIAL

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

0) ERL Measurement EPM 1 Tones



Correction

-(LRET - 27.9)

Level SND(1) - Source: 19,75 dB

Corrected value: 8,15 dB Ok

Ok

07.11.2005 14:45 ACQUA 2.1.100

Source: erl_pn.dat

Pseudo noise
level = -10.0 dB
noise
= WHITE
frequency start = 80.0
Hz
frequency end = 3900.0 Hz
FFT-length
= 8192

Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	20.00 ms	Time seq. length	400.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	100.0 Hz		

Special Features

Show source signal	Source ch.2		
Compensate delay	8.2500 ms		
Channel combination		Ch 1 minus ch 2	
Store to variable	ERL		

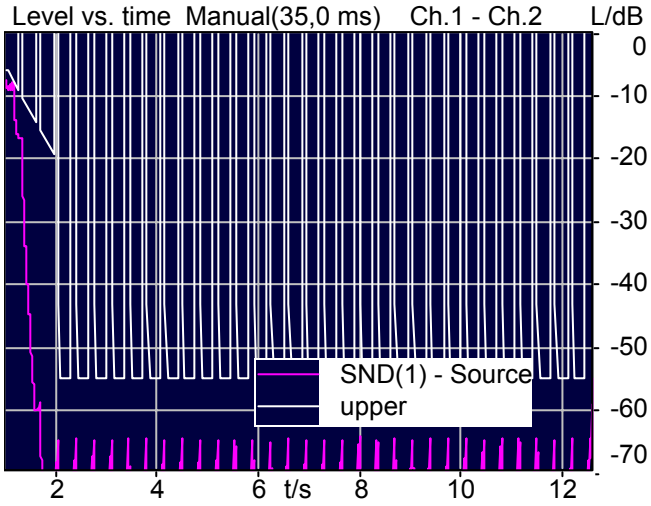
CONFIDENTIAL

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Tone	ERL	6,00 dB

CONFIDENTIAL

2a) Convergence Test (NLP) 0 dBm0



Absolute minimal distance

0,23 dB at 1,159 s Ok

Ok

07.11.2005 15:41 ACQUA 2.1.100

Source: t2ab.dat

Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	1000.00 ms	Time seq. length	11649.96 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t2a___00.tol	Min. time for tol.	1.000 s
Auto adjust	No	Max. time for tol.	12.500 s

Special Features

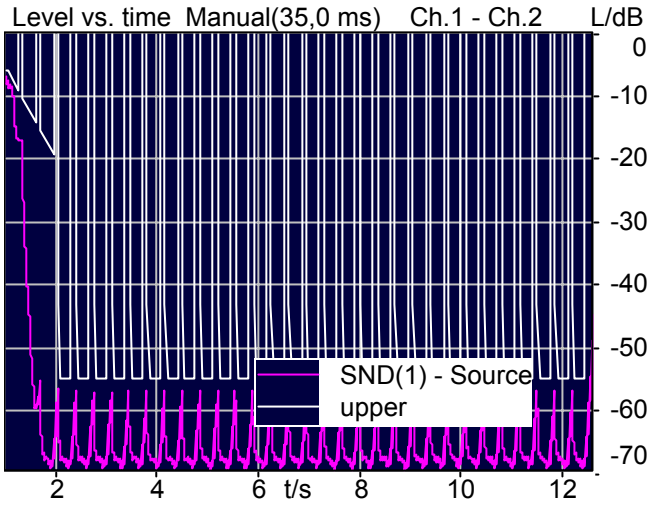
Show source signal	Source ch.2
Compensate delay	8.3542 ms
Compensate offset	Yes
Channel combination	Ch 1 minus ch 2

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

2a) Convergence Test (NLP) -10 dBm0



Absolute minimal distance

0,74 dB at 1,000 s Ok

Ok

08.11.2005 09:31 ACQUA 2.1.100

Source: t2ab.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	1000.00 ms	Time seq. length	11649.96 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t2a___10.tol	Min. time for tol.	1.000 s
Auto adjust	No	Max. time for tol.	12.500 s

Special Features

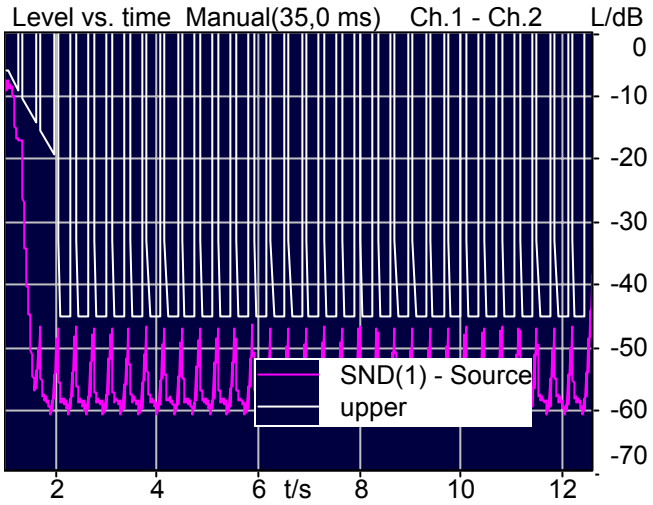
Show source signal	Source ch.2
Compensate delay	8.3542 ms
Compensate offset	Yes
Channel combination	Ch 1 minus ch 2

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
Delay 1	2,0 ms	Attenuation 1	6,0 dB

CONFIDENTIAL

2a) Convergence Test (NLP) -20 dBm0



Absolute minimal distance

1,19 dB at 1,124 s Ok

Ok

08.11.2005 09:31 ACQUA 2.1.100

Source: t2ab.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	1000.00 ms	Time seq. length	11649.96 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t2a___20.tol	Min. time for tol.	1.000 s
Auto adjust	No	Max. time for tol.	12.500 s

Special Features

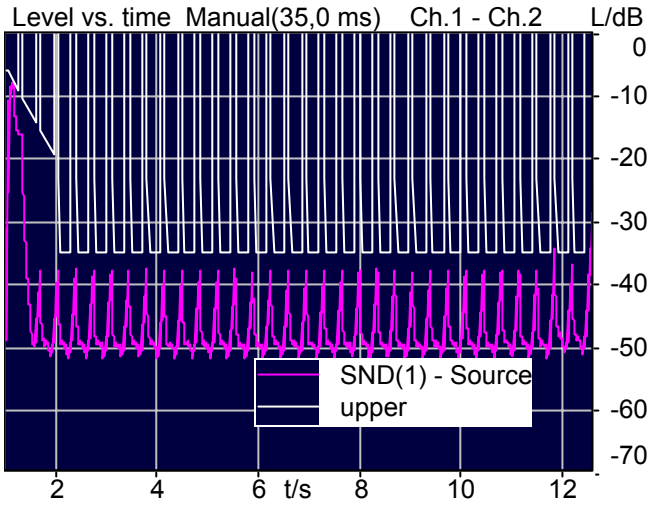
Show source signal	Source ch.2
Compensate delay	8.3542 ms
Compensate offset	Yes
Channel combination	Ch 1 minus ch 2

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
Delay 1	2,0 ms	Attenuation 1	6,0 dB

CONFIDENTIAL

2a) Convergence Test (NLP) -30 dBm0



Absolute minimal distance

0,04 dB at 1,159 s Ok

Ok

07.11.2005 15:43 ACQUA 2.1.100

Source: t2ab.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	1000.00 ms	Time seq. length	11649.96 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t2a___30.tol	Min. time for tol.	1.000 s
Auto adjust	No	Max. time for tol.	12.500 s

Special Features

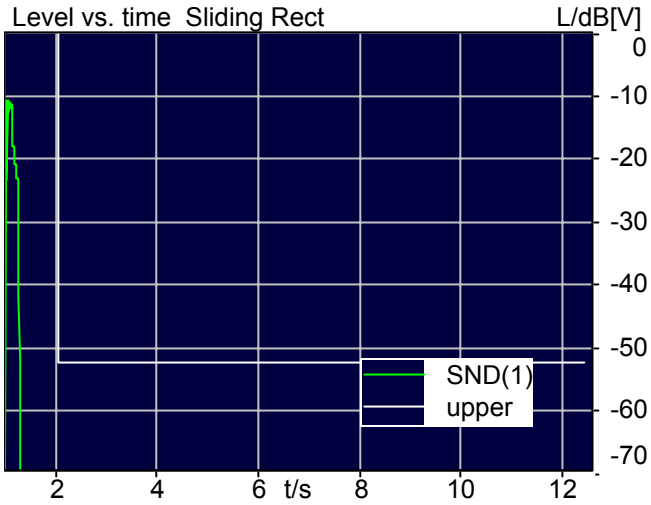
Show source signal	Source ch.2
Compensate delay	8.3542 ms
Compensate offset	Yes
Channel combination	Ch 1 minus ch 2

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

2a) Convergence Test (NLP, peaks) 0 dBm0



Absolute minimal distance

20,21 dB at 6,784 s Ok

Ok

07.11.2005 15:43 ACQUA 2.1.100

Source: t2ab.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	1000.00 ms	Time seq. length	11649.96 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t2a2__00.tol	Min. time for tol.	1.000 s
Auto adjust	No	Max. time for tol.	12.500 s

Special Features

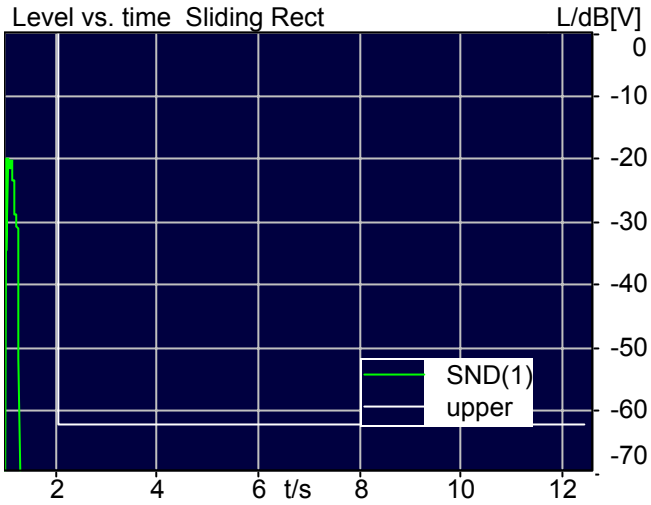
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

2a) Convergence Test (NLP, peaks) -10 dBm0



Absolute minimal distance

16,85 dB at 10,284 s Ok

Ok

07.11.2005 15:43 ACQUA 2.1.100

Source: t2ab.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	1000.00 ms	Time seq. length	11649.96 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t2a2__10.tol	Min. time for tol.	1.000 s
Auto adjust	No	Max. time for tol.	12.500 s

Special Features

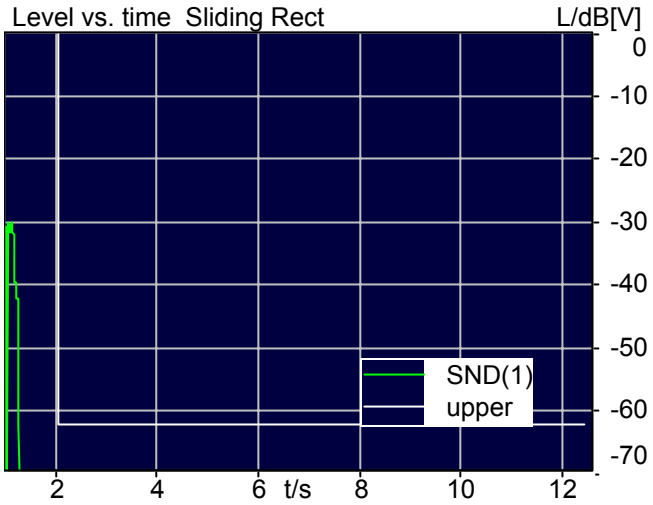
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

2a) Convergence Test (NLP, peaks) -20 dBm0



Absolute minimal distance

19,53 dB at 3,651 s Ok

Ok

07.11.2005 15:44 ACQUA 2.1.100

Source: t2ab.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	1000.00 ms	Time seq. length	11649.96 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t2a2__20.tol	Min. time for tol.	1.000 s
Auto adjust	No	Max. time for tol.	12.500 s

Special Features

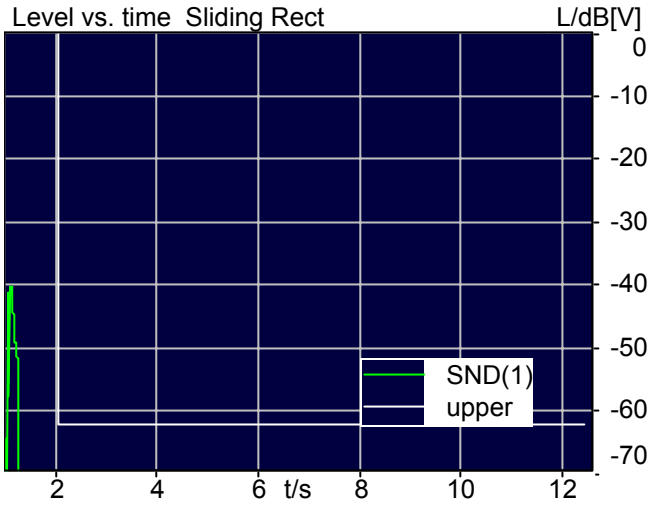
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

2a) Convergence Test (NLP, peaks) -30 dBm0



Absolute minimal distance

16,29 dB at 10,483 s Ok

Ok

07.11.2005 15:44 ACQUA 2.1.100

Source: t2ab.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	1000.00 ms	Time seq. length	11649.96 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t2a2__30.tol	Min. time for tol.	1.000 s
Auto adjust	No	Max. time for tol.	12.500 s

Special Features

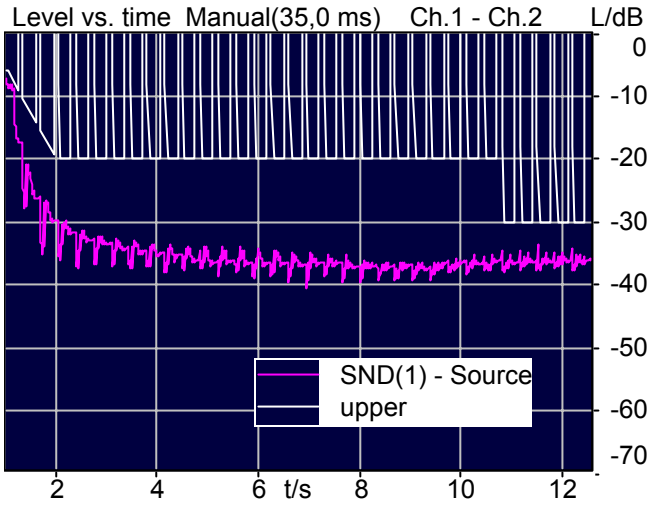
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

2b) Convergence Test 0 dBm0



Absolute minimal distance

0,70 dB at 1,152 s Ok

Ok

07.11.2005 15:45 ACQUA 2.1.100

Source: t2ab.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	1000.00 ms	Time seq. length	11649.96 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t2b___00.tol	Min. time for tol.	1.000 s
Auto adjust	No	Max. time for tol.	12.500 s

Special Features

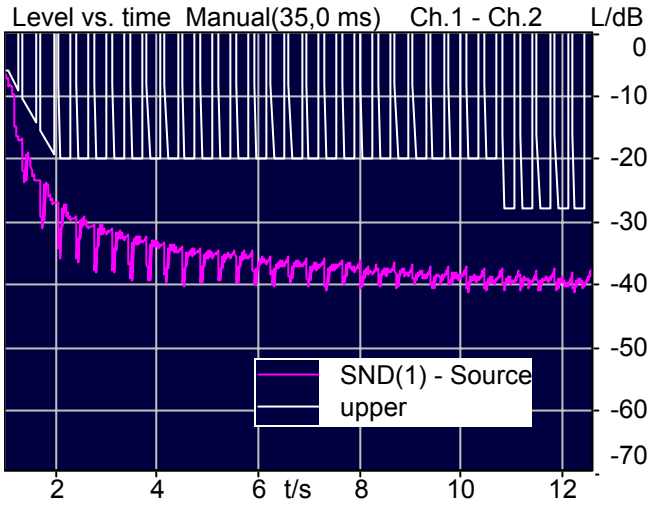
Show source signal	Source ch.2
Compensate delay	8.3542 ms
Compensate offset	Yes
Channel combination	Ch 1 minus ch 2

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

2b) Convergence Test -10 dBm0



Absolute minimal distance

0,62 dB at 1,036 s Ok

Ok

08.11.2005 09:32 ACQUA 2.1.100

Source: t2ab.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	1000.00 ms	Time seq. length	11649.96 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t2b___10.tol	Min. time for tol.	1.000 s
Auto adjust	No	Max. time for tol.	12.500 s

Special Features

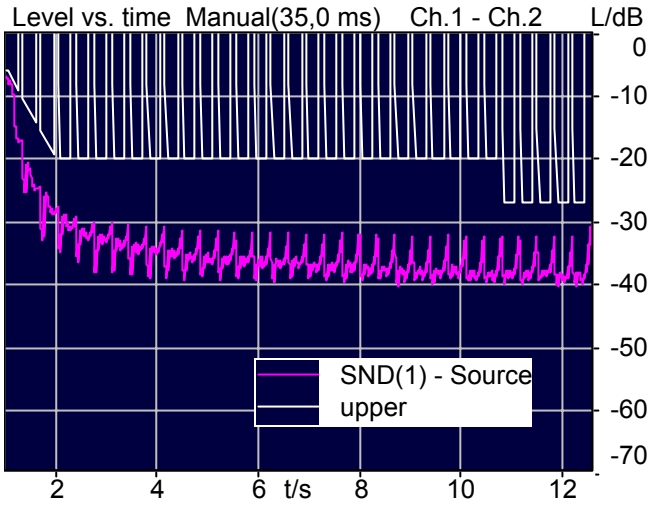
Show source signal	Source ch.2		
Compensate delay	8.3542 ms		
Compensate offset	Yes		
Channel combination		Ch 1 minus ch 2	

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
Delay 1	2,0 ms	Attenuation 1	6,0 dB

CONFIDENTIAL

2b) Convergence Test -20 dBm0



Absolute minimal distance

0,65 dB at 1,117 s Ok

Ok

07.11.2005 15:46 ACQUA 2.1.100

Source: t2ab.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	1000.00 ms	Time seq. length	11649.96 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t2b___20.tol	Min. time for tol.	1.000 s
Auto adjust	No	Max. time for tol.	12.500 s

Special Features

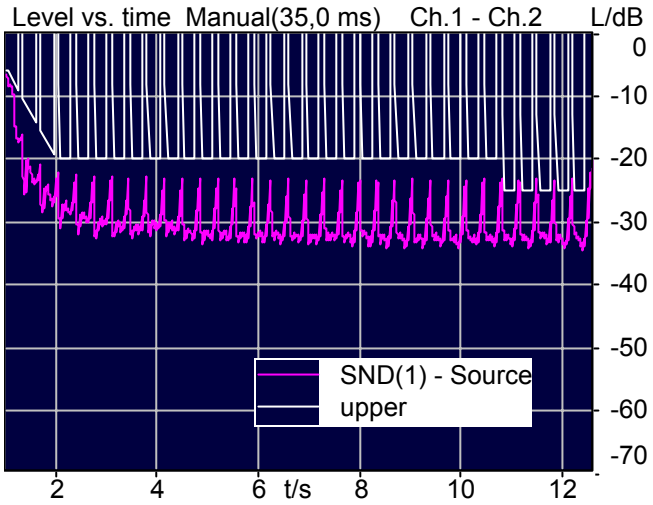
Show source signal	Source ch.2
Compensate delay	8.3542 ms
Compensate offset	Yes
Channel combination	Ch 1 minus ch 2

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

2b) Convergence Test -30 dBm0



Absolute minimal distance

0,68 dB at 1,036 s Ok

Ok

08.11.2005 09:33 ACQUA 2.1.100

Source: t2ab.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	1000.00 ms	Time seq. length	11649.96 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t2b___30.tol	Min. time for tol.	1.000 s
Auto adjust	No	Max. time for tol.	12.500 s

Special Features

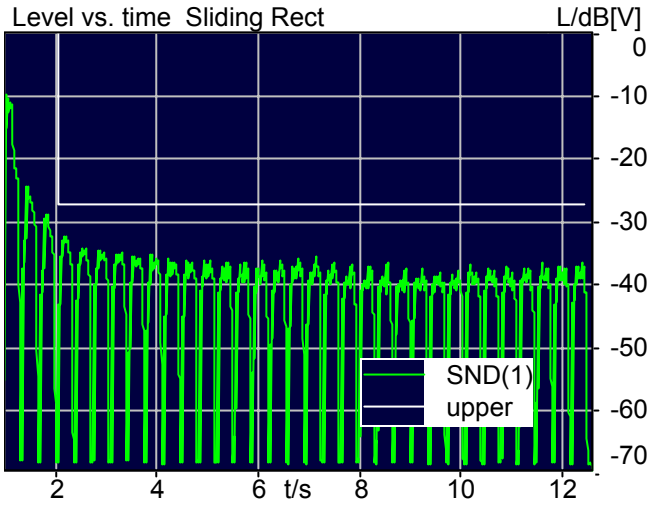
Show source signal	Source ch.2
Compensate delay	8.3542 ms
Compensate offset	Yes
Channel combination	Ch 1 minus ch 2

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
Delay 1	2,0 ms	Attenuation 1	6,0 dB

CONFIDENTIAL

2b) Convergence Test (peaks) 0 dBm0



Absolute minimal distance

5,07 dB at 2,195 s Ok

Ok

07.11.2005 15:47 ACQUA 2.1.100

Source: t2ab.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	1000.00 ms	Time seq. length	11649.96 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t2b2__00.tol	Min. time for tol.	1.000 s
Auto adjust	No	Max. time for tol.	12.500 s

Special Features

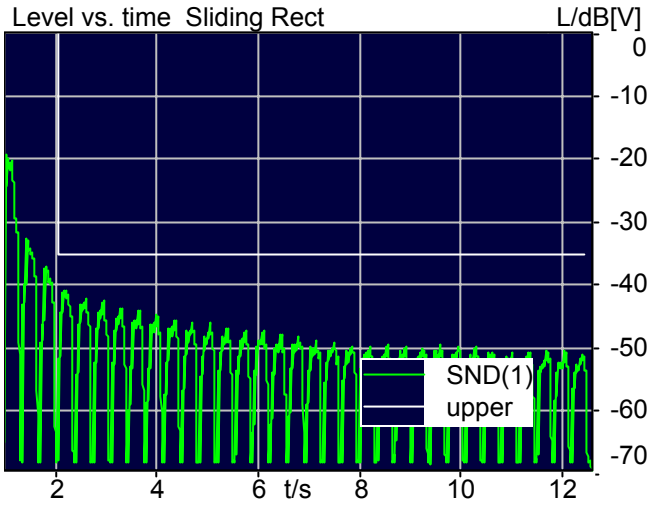
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

2b) Convergence Test (peaks) -10 dBm0



Absolute minimal distance

5,68 dB at 2,195 s Ok

Ok

07.11.2005 15:47 ACQUA 2.1.100

Source: t2ab.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	1000.00 ms	Time seq. length	11649.96 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t2b2__10.tol	Min. time for tol.	1.000 s
Auto adjust	No	Max. time for tol.	12.500 s

Special Features

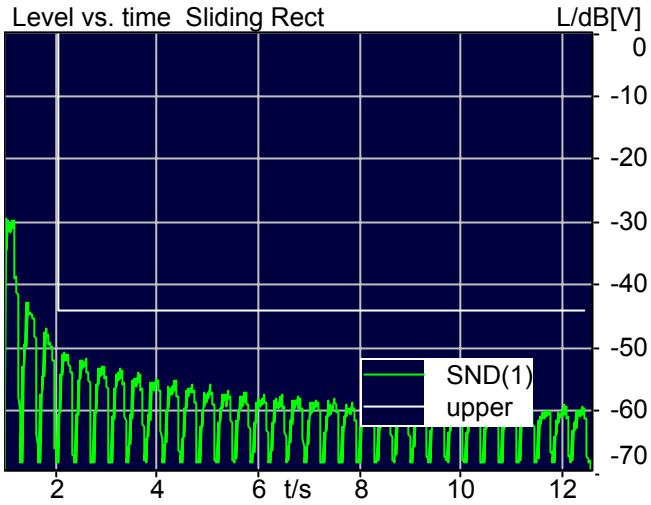
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

2b) Convergence Test (peaks) -20 dBm0



Absolute minimal distance

6,60 dB at 2,168 s Ok

Ok

07.11.2005 15:48 ACQUA 2.1.100

Source: t2ab.dat

Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	1000.00 ms	Time seq. length	11649.96 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t2b2__20.tol	Min. time for tol.	1.000 s
Auto adjust	No	Max. time for tol.	12.500 s

Special Features

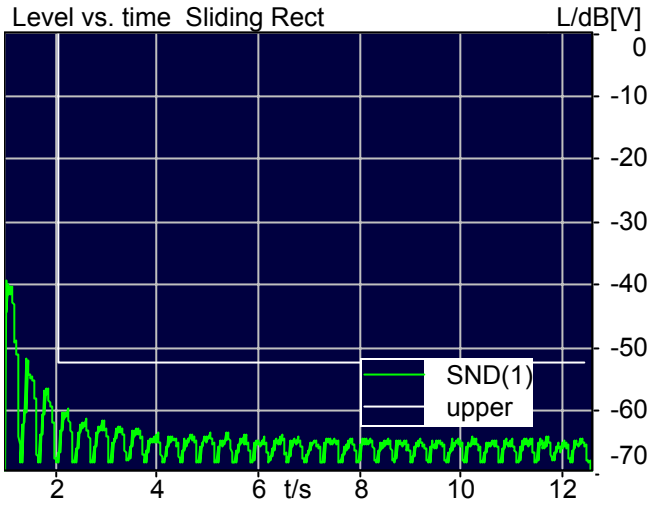
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

2b) Convergence Test (peaks) -30 dBm0



Absolute minimal distance

7,41 dB at 2,244 s Ok

Ok

07.11.2005 15:48 ACQUA 2.1.100

Source: t2ab.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	1000.00 ms	Time seq. length	11649.96 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t2b2__30.tol	Min. time for tol.	1.000 s
Auto adjust	No	Max. time for tol.	12.500 s

Special Features

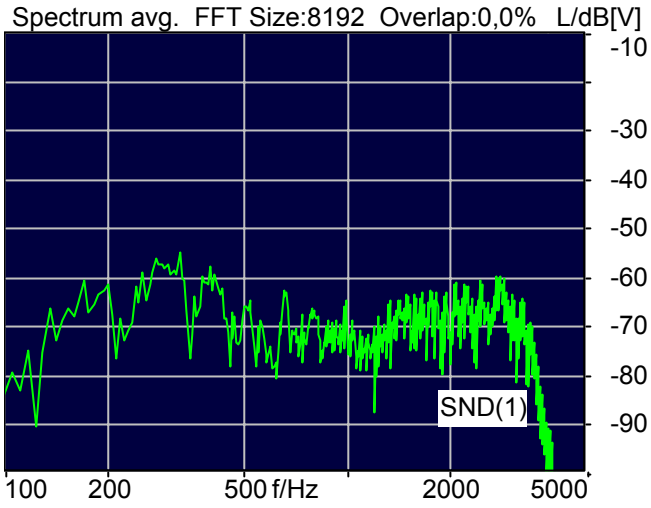
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

2c) Convergence Test (NLP, noise) 0/-30 dBm0



Level SND(1): -36,45 dBm0 Ok

Ok

07.11.2005 15:48 ACQUA 2.1.100

Source: t2ca1030.dat

Level adj. Ch2	10.00 dB

Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	3000.00 ms	Time seq. length	1400.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

Special Features

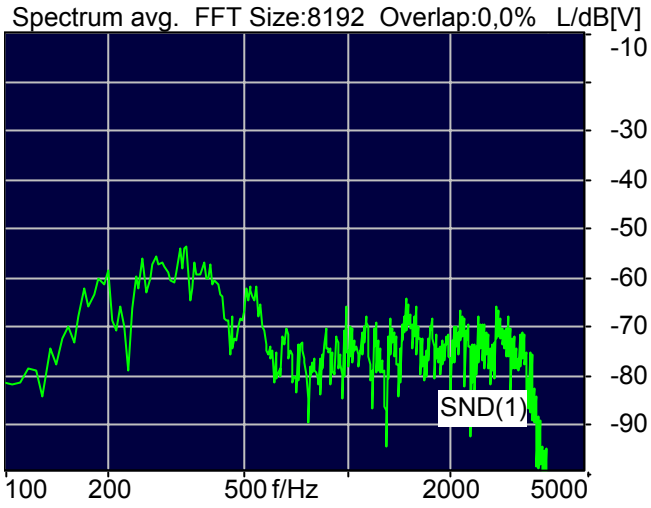
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

2c) Convergence Test (NLP, noise) -10/-30 dBm0



Level SND(1): -38,44 dBm0 Ok

Ok

07.11.2005 15:49 ACQUA 2.1.100

Source: t2ca1030.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	3000.00 ms	Time seq. length	1400.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

Special Features

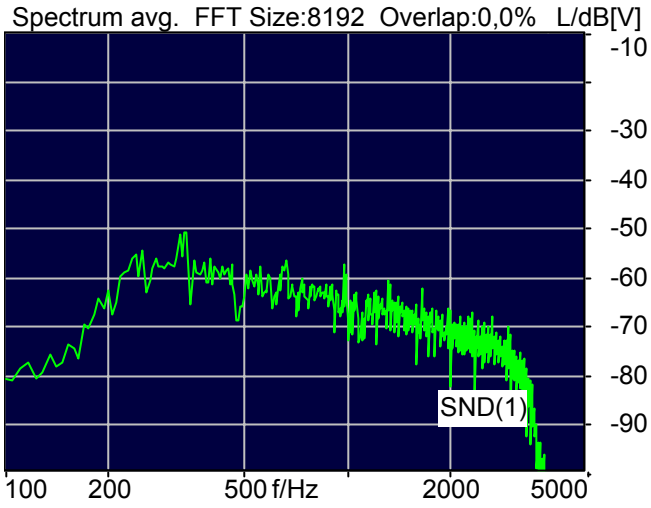
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

2c) Convergence Test (NLP, noise) -20/-35 dBm0



Level SND(1): -35,06 dBm0 Ok

Ok

07.11.2005 15:49 ACQUA 2.1.100

Source: t2ca1030.dat

Level adj. Ch1	5.00 dB

Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	3000.00 ms	Time seq. length	1400.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

Special Features

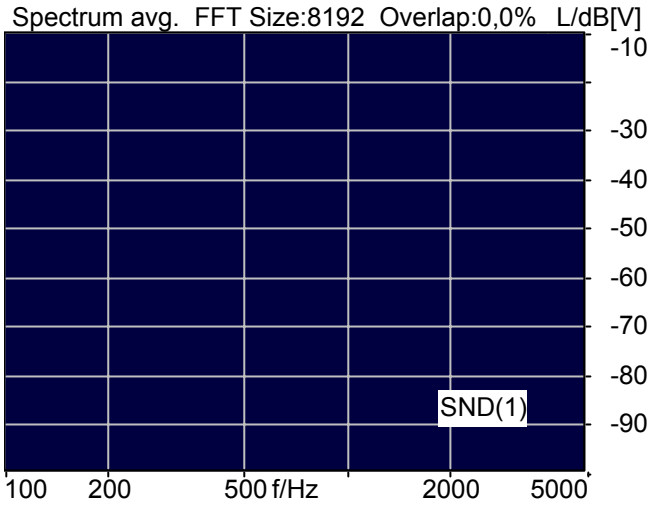
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

2c) Convergence Test (NLP, noise) -30/-45 dBm0



Level SND(1): -88,36 dBm0 Ok

Ok

07.11.2005 15:49 ACQUA 2.1.100

Source: t2ca1030.dat

Level adj. Ch1	5.00 dB

Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	3000.00 ms	Time seq. length	1400.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

Special Features

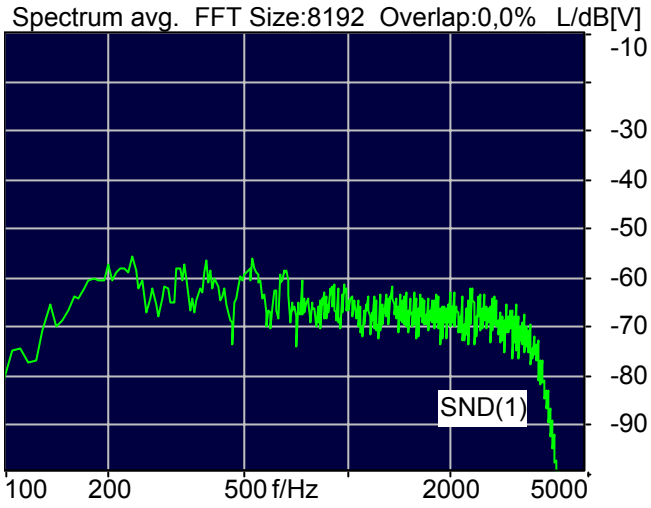
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

2c) Convergence Test (noise, steady state) 0/-30 dBm0



Level SND(1): -35,62 dBm0 Ok

Ok

07.11.2005 15:50 ACQUA 2.1.100

Source: t2cb1030.dat

Level adj. Ch2	10.00 dB

Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	12000.00 ms	Time seq. length	1400.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

Special Features

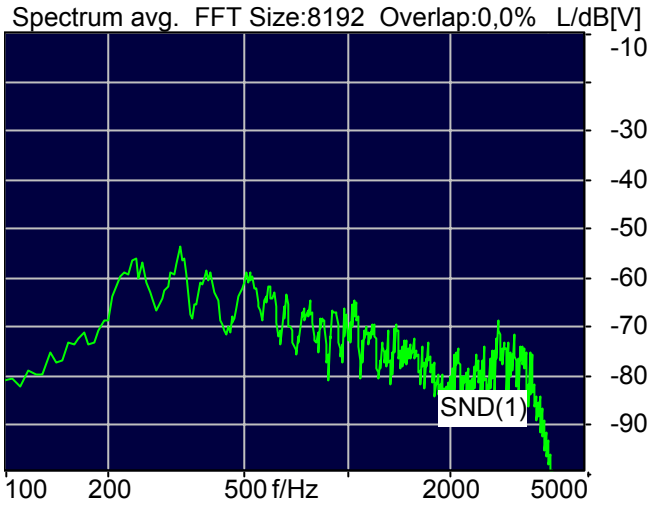
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

2c) Convergence Test (noise, steady state) -10/-30 dBm0



Level SND(1): -39,02 dBm0 Ok

Ok

07.11.2005 15:50 ACQUA 2.1.100

Source: t2cb1030.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	12000.00 ms	Time seq. length	1400.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

Special Features

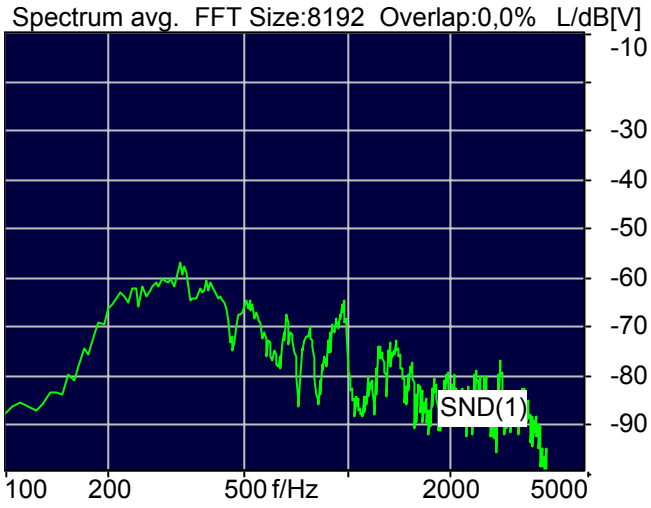
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

2c) Convergence Test (noise, steady state) -20/-35 dBm0



Level SND(1): -41,95 dBm0 Ok

Ok

07.11.2005 15:51 ACQUA 2.1.100

Source: t2cb1030.dat

Level adj. Ch1	5.00 dB

Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	12000.00 ms	Time seq. length	1400.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

Special Features

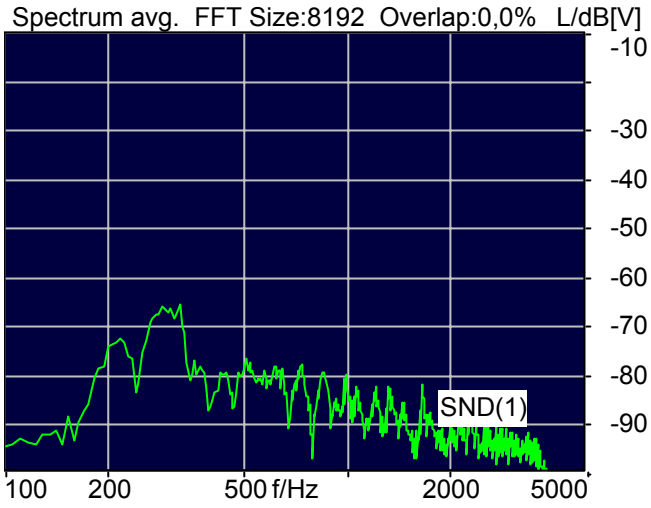
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

2c) Convergence Test (noise, steady state) -30/-45 dBm0



Level SND(1): -51,77 dBm0 Ok

Ok

07.11.2005 15:51 ACQUA 2.1.100

Source: t2cb1030.dat

Level adj. Ch1	5.00 dB

Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	12000.00 ms	Time seq. length	1400.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

Special Features

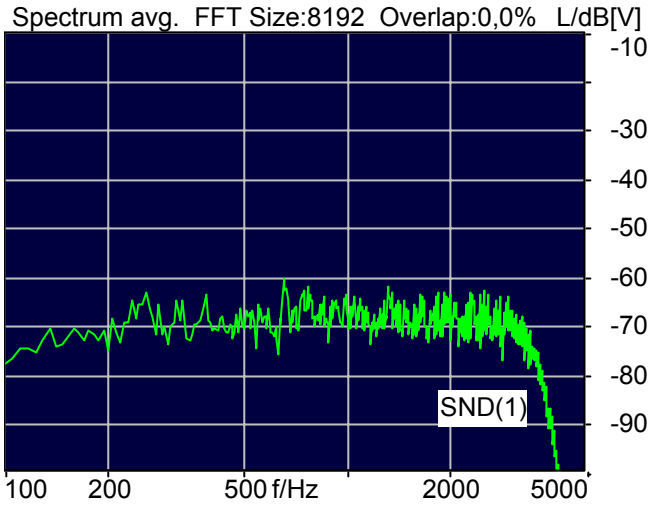
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

2c) Convergence Test (noise, steady state) 0/-55 dBm0



Level SND(1): -38,13 dBm0 Ok

Ok

07.11.2005 15:51 ACQUA 2.1.100

Source: t2cb1030.dat

Level adj. Ch1	-25.00 dB	Level adj. Ch2	10.00 dB

Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	12000.00 ms	Time seq. length	1400.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

Special Features

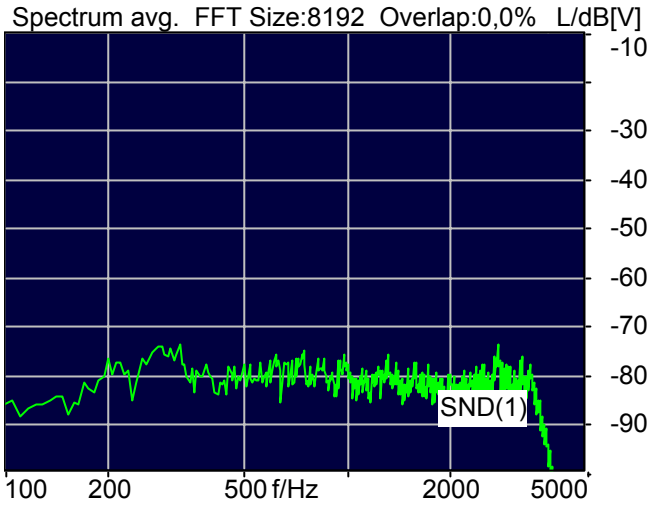
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

2c) Convergence Test (noise, steady state) -10/-55 dBm0



Level SND(1): -50,36 dBm0 Ok

Ok

07.11.2005 15:52 ACQUA 2.1.100

Source: t2cb1030.dat

Level adj. Ch1	-25.00 dB

Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	12000.00 ms	Time seq. length	1400.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

Special Features

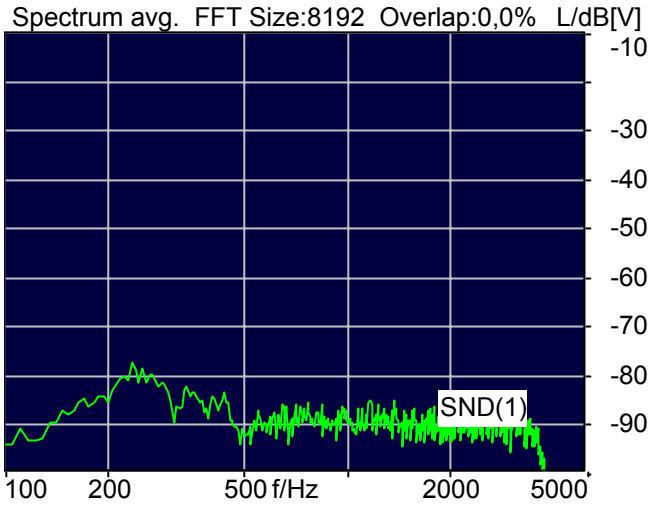
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

2c) Convergence Test (noise, steady state) -20/-55 dBm0



Level SND(1): -58,48 dBm0 Ok

Ok

07.11.2005 15:52 ACQUA 2.1.100

Source: t2cb1030.dat

Level adj. Ch1	-15.00 dB

Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	12000.00 ms	Time seq. length	1400.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

Special Features

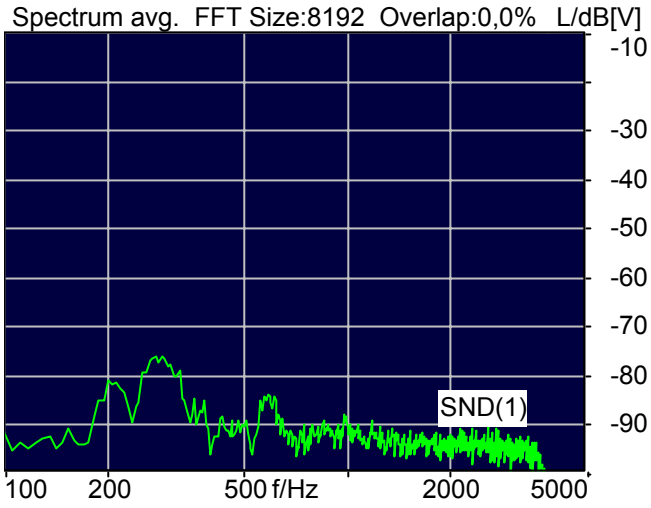
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

2c) Convergence Test (noise, steady state) -30/-55 dBm0



Level SND(1): -60,10 dBm0 Ok

Ok

07.11.2005 15:53 ACQUA 2.1.100

Source: t2cb1030.dat

Level adj. Ch1	-5.00 dB

Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	12000.00 ms	Time seq. length	1400.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

Special Features

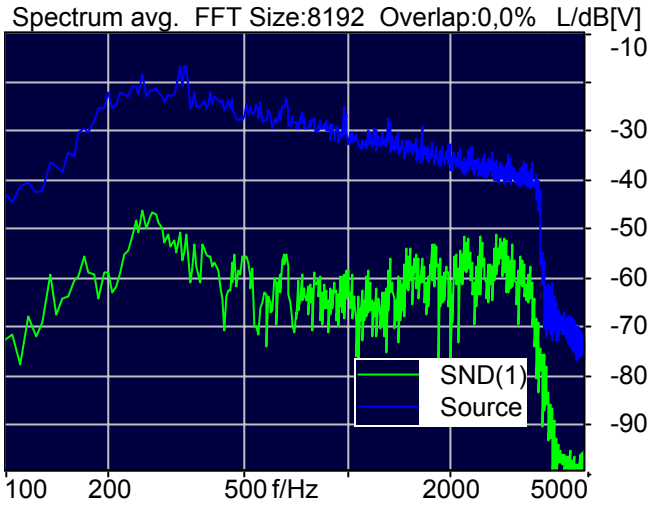
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

2c) -study- Convergence Test (noise, 1s) 0/-30 dBm0



Level SND(1): -28,12 dBm0

07.11.2005 15:53 ACQUA 2.1.100

Source: t2ca1030.dat

Level adj. Ch2	10.00 dB

Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	3350.00 ms	Time seq. length	250.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

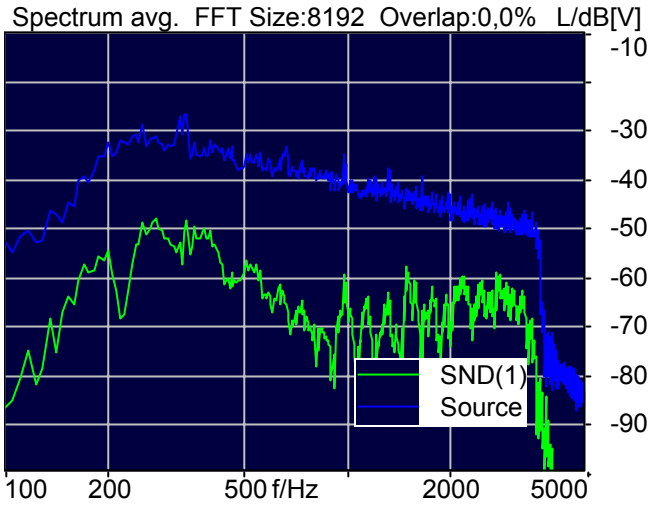
Special Features

Show source signal	Source ch.2
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

2c) -study- Convergence Test (noise, 1s) -10/-30 dBm0



Level SND(1): -31,51 dBm0

07.11.2005 15:53 ACQUA 2.1.100

Source: t2ca1030.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	3350.00 ms	Time seq. length	250.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

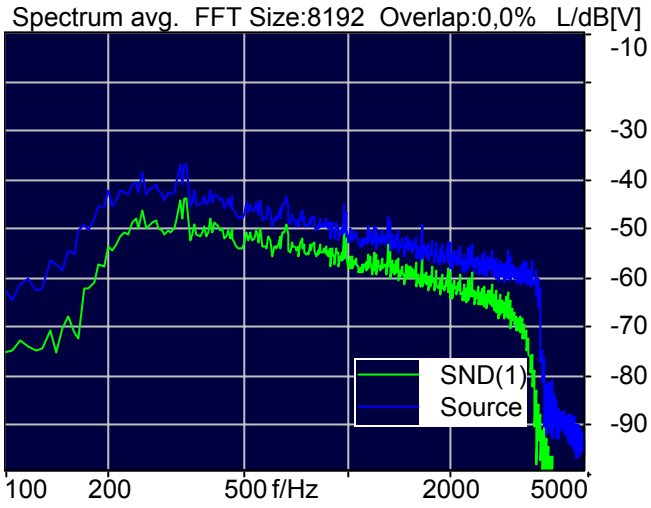
Special Features

Show source signal	Source ch.2
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

2c) -study- Convergence Test (noise, 1s) -20/-35 dBm0



Level SND(1): -26,66 dBm0

07.11.2005 15:54 ACQUA 2.1.100

Source: t2ca1030.dat

Level adj. Ch1	5.00 dB

Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	3350.00 ms	Time seq. length	250.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

Special Features

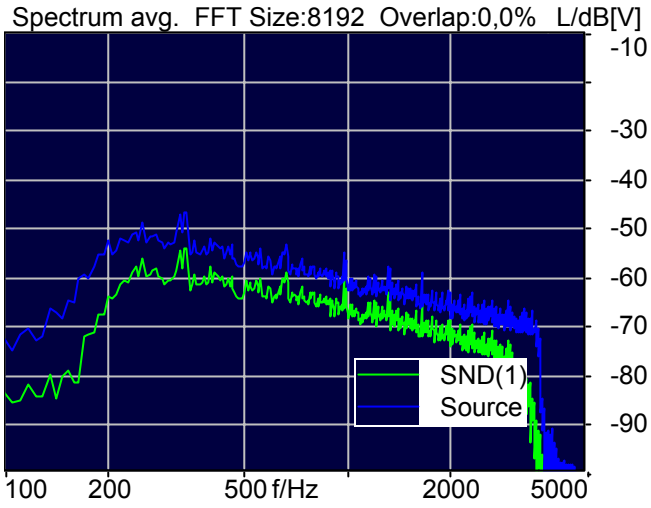
Show source signal	Source ch.2
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

2c) -study- Convergence Test (noise, 1s) -30/-45 dBm0



Level SND(1): -36,71 dBm0

07.11.2005 15:54 ACQUA 2.1.100

Source: t2ca1030.dat

Level adj. Ch1	5.00 dB

Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	3350.00 ms	Time seq. length	250.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

Special Features

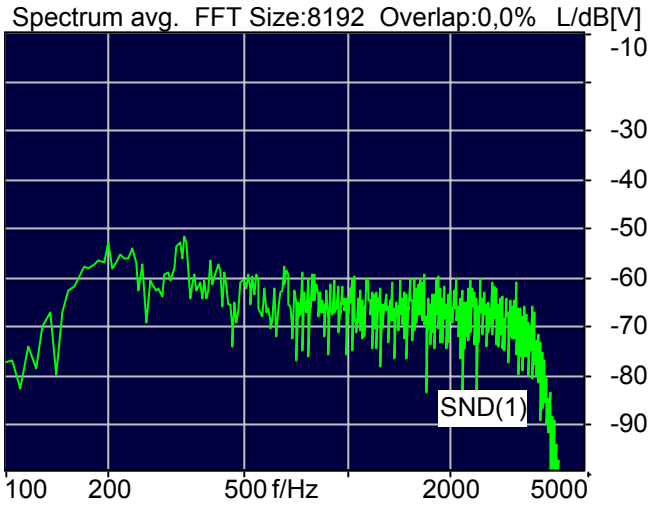
Show source signal	Source ch.2
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

2c) -study- Convergence Test (noise, 10s) 0/-30 dBm0



Level SND(1): -34,23 dBm0 Ok

Ok

07.11.2005 15:54 ACQUA 2.1.100

Source: t2cb1030.dat

Level adj. Ch2	10.00 dB

Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	12350.00 ms	Time seq. length	250.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

Special Features

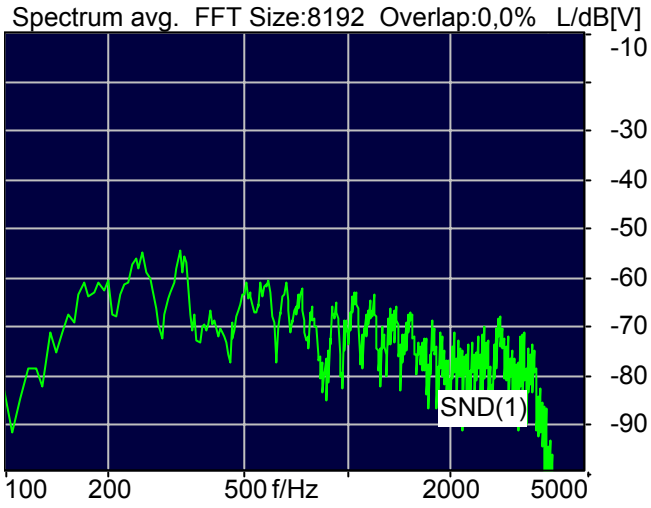
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

2c) -study- Convergence Test (noise, 10s) -10/-30 dBm0



Level SND(1): -39,00 dBm0 Ok

Ok

07.11.2005 15:55 ACQUA 2.1.100

Source: t2cb1030.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	12350.00 ms	Time seq. length	250.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

Special Features

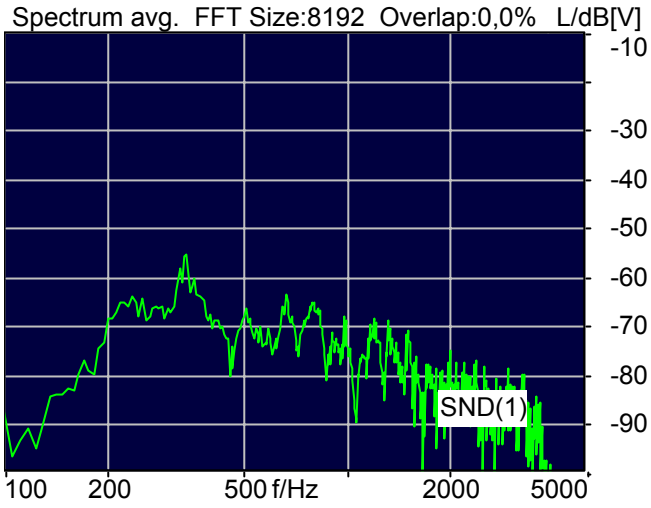
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

2c) -study- Convergence Test (noise, 10s) -20/-35 dBm0



Level SND(1): -42,62 dBm0 Ok

Ok

07.11.2005 15:55 ACQUA 2.1.100

Source: t2cb1030.dat

Level adj. Ch1	5.00 dB

Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	12350.00 ms	Time seq. length	250.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

Special Features

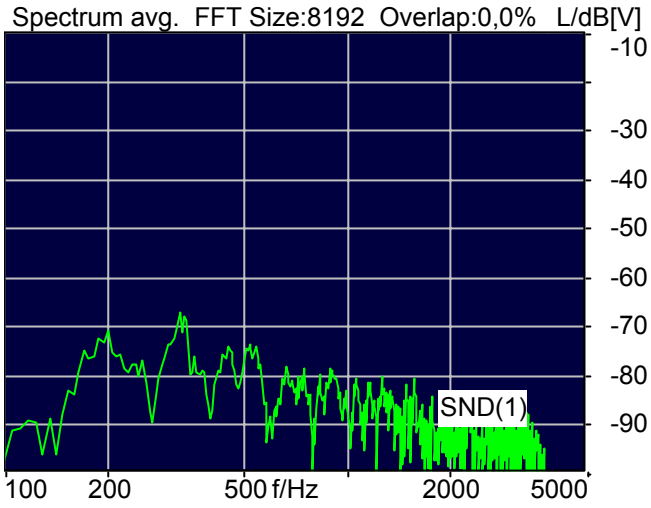
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

2c) -study- Convergence Test (noise, 10s) -30/-45 dBm0



Level SND(1): -53,16 dBm0 Ok

Ok

07.11.2005 15:56 ACQUA 2.1.100

Source: t2cb1030.dat

Level adj. Ch1	5.00 dB

Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	12350.00 ms	Time seq. length	250.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

Special Features

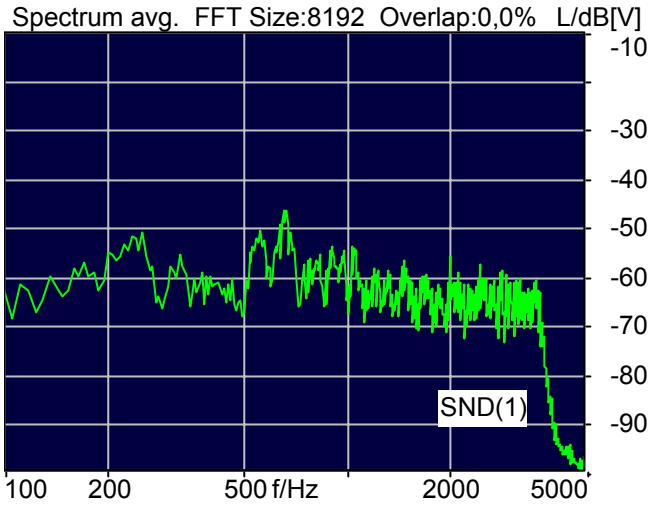
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

3a) Double Talk Test (convergence, 5s) 0/-15 dBm0



Level SND(1): -30,09 dBm0 Ok

Ok

08.11.2005 10:07 ACQUA 2.1.100

Source: t3a_1025.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	7000.00 ms	Time seq. length	1400.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

Special Features

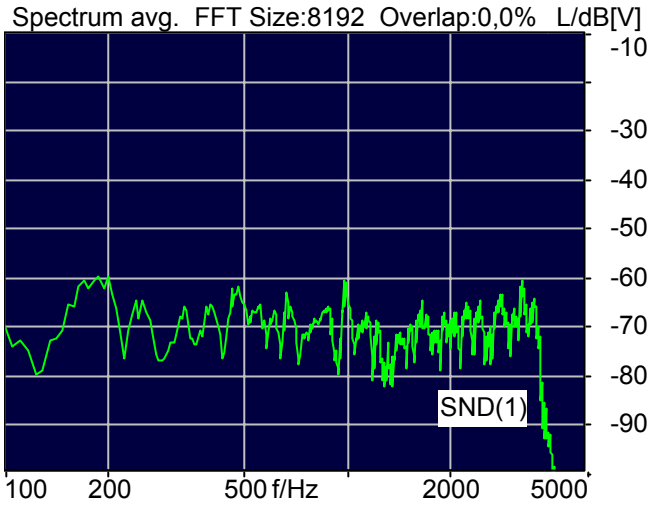
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
Delay 1	2,0 ms	Attenuation 1	6,0 dB

CONFIDENTIAL

3a) Double Talk Test (convergence, 5s) -10/-25 dBm0



Level SND(1): -38,20 dBm0 Ok

Ok

08.11.2005 10:08 ACQUA 2.1.100

Source: t3a_1025.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	7000.00 ms	Time seq. length	1400.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

Special Features

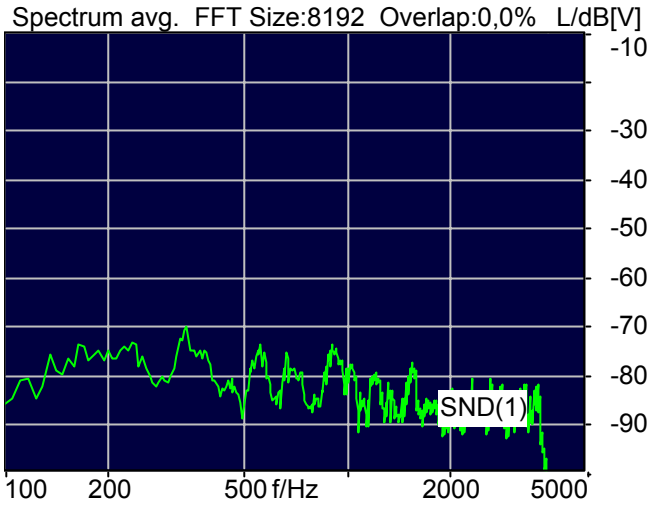
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
Delay 1	2,0 ms	Attenuation 1	6,0 dB

CONFIDENTIAL

3a) Double Talk Test (convergence, 5s) -20/-35 dBm0



Level SND(1): -51,88 dBm0 Ok

Ok

08.11.2005 10:35 ACQUA 2.1.100

Source: t3a_1025.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	7000.00 ms	Time seq. length	1400.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

Special Features

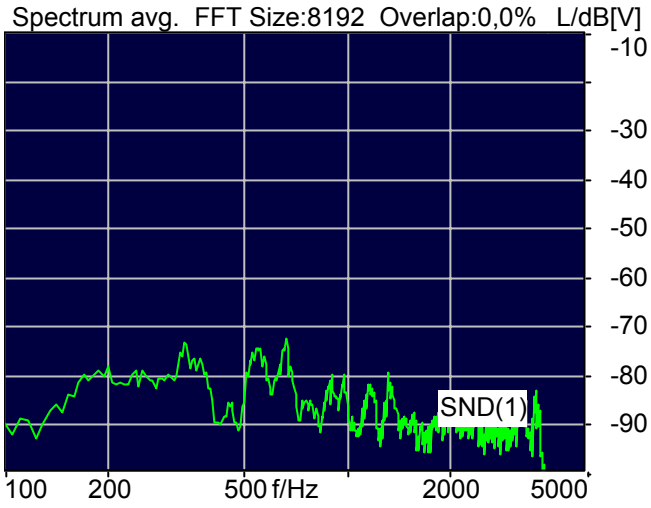
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
Delay 1	2,0 ms	Attenuation 1	6,0 dB

CONFIDENTIAL

3a) Double Talk Test (convergence, 5s) -25/-40 dBm0



Level SND(1): -54,78 dBm0 Ok

Ok

08.11.2005 10:10 ACQUA 2.1.100

Source: t3a_1025.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	7000.00 ms	Time seq. length	1400.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

Special Features

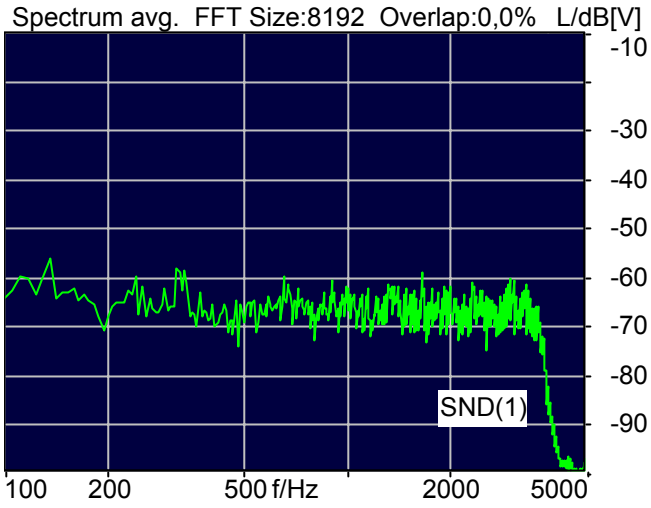
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
Delay 1	2,0 ms	Attenuation 1	6,0 dB

CONFIDENTIAL

3b) Double Talk Test (divergence) 0/ 0 dBm0



Level SND(1): -35,72 dBm0 Ok

Ok

08.11.2005 09:51 ACQUA 2.1.100

Source: t3b_1010.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	13650.00 ms	Time seq. length	1400.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

Special Features

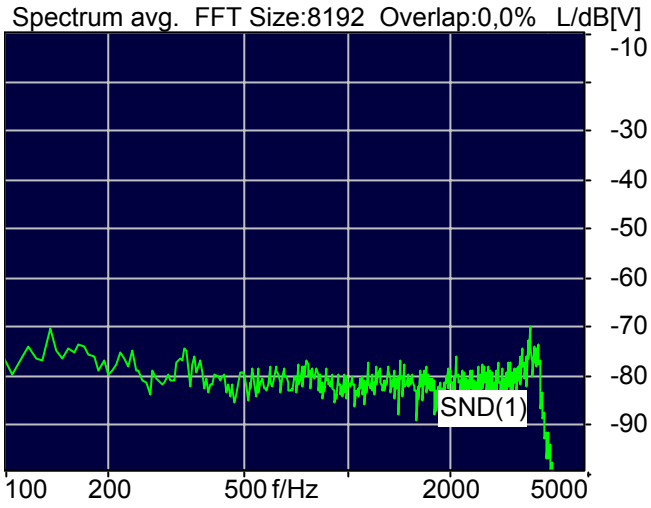
Compensate delay	8.3542 ms
Compensate offset	Yes
Store to variable	RES_T3b_00

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
Delay 1	2,0 ms	Attenuation 1	6,0 dB

CONFIDENTIAL

3b) Double Talk Test (divergence) -10/-10 dBm0



Level SND(1): -49,61 dBm0 Ok

Ok

08.11.2005 09:51 ACQUA 2.1.100

Source: t3b_1010.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	13650.00 ms	Time seq. length	1400.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

Special Features

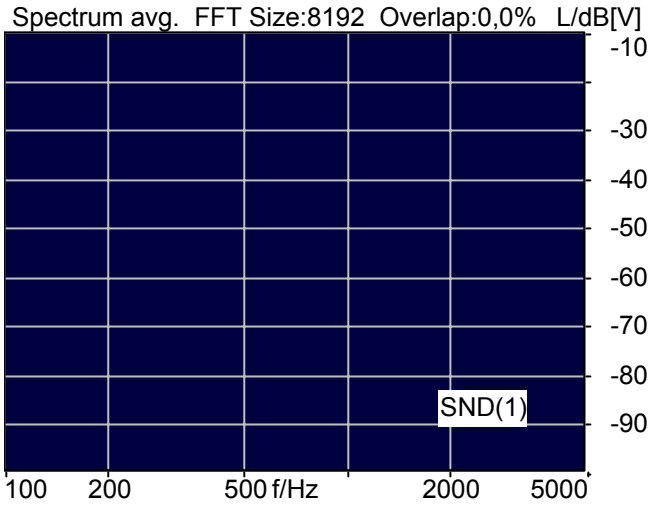
Compensate delay	8.3542 ms
Compensate offset	Yes
Store to variable	RES_T3b_10

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
Delay 1	2,0 ms	Attenuation 1	6,0 dB

CONFIDENTIAL

3b) Double Talk Test (divergence) -30/-30 dBm0



Level SND(1): -112,18 dBm0 Ok

Ok

08.11.2005 09:16 ACQUA 2.1.100

Source: t3b_1010.dat

Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	13650.00 ms	Time seq. length	1400.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

Special Features

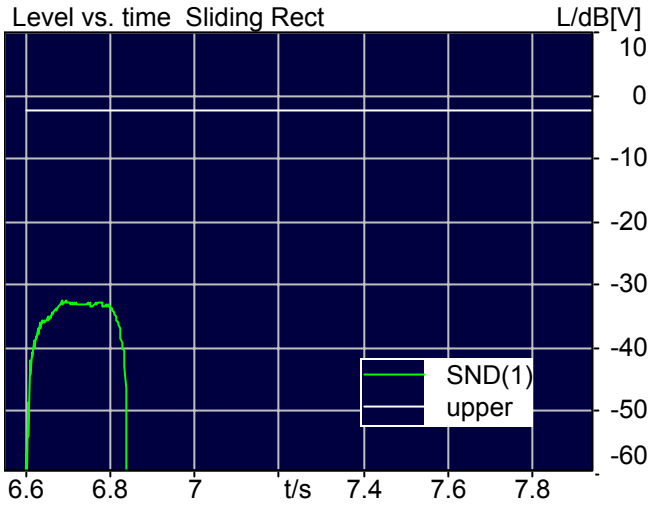
Compensate delay	8.3542 ms
Compensate offset	Yes
Store to variable	RES_T3b_30

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

3c) Simulated Conversation (t2, peaks) 0/ 0 dBm0



Absolute minimal distance

30,42 dB at 6,693 s Ok

Ok

07.11.2005 15:59 ACQUA 2.1.100

Source: t3ca1010.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	6550.00 ms	Time seq. length	1400.00 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t3ca__00.tol	Min. time for tol.	6.600 s
Auto adjust	No	Max. time for tol.	7.950 s

Special Features

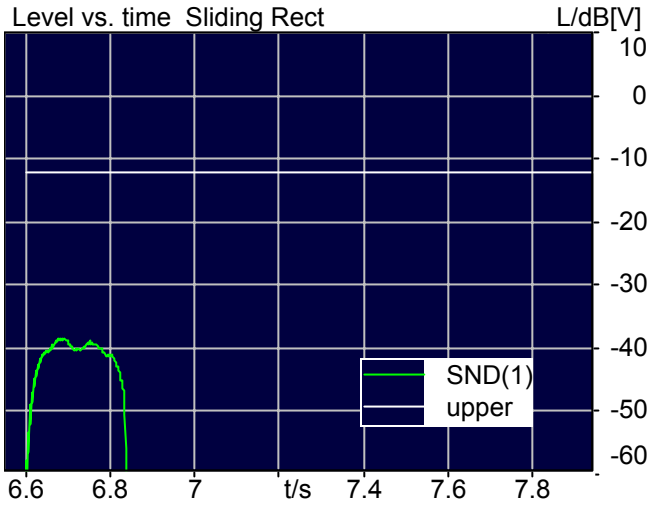
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

3c) Simulated Conversation (t2, peaks) -10/-10 dBm0



Absolute minimal distance

26,26 dB at 6,687 s Ok

Ok

07.11.2005 16:00 ACQUA 2.1.100

Source: t3ca1010.dat

Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	6550.00 ms	Time seq. length	1400.00 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t3ca__10.tol	Min. time for tol.	6.600 s
Auto adjust	No	Max. time for tol.	7.950 s

Special Features

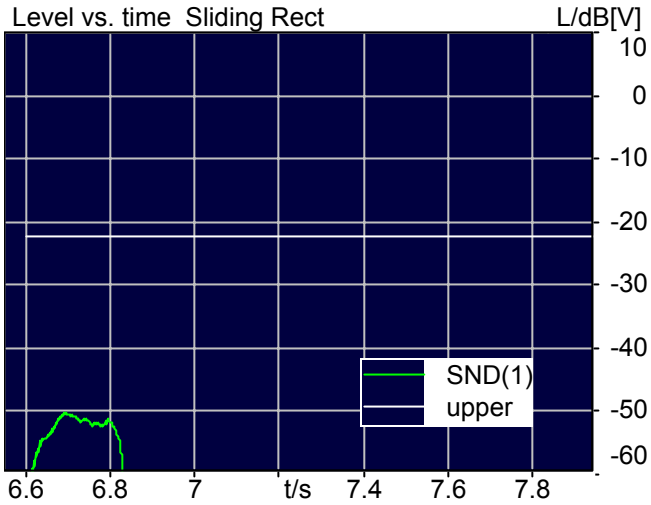
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

3c) Simulated Conversation (t2, peaks) -20/-20 dBm0



Absolute minimal distance

28,07 dB at 6,693 s Ok

Ok

07.11.2005 16:00 ACQUA 2.1.100

Source: t3ca1010.dat

Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	6550.00 ms	Time seq. length	1400.00 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t3ca__20.tol	Min. time for tol.	6.600 s
Auto adjust	No	Max. time for tol.	7.950 s

Special Features

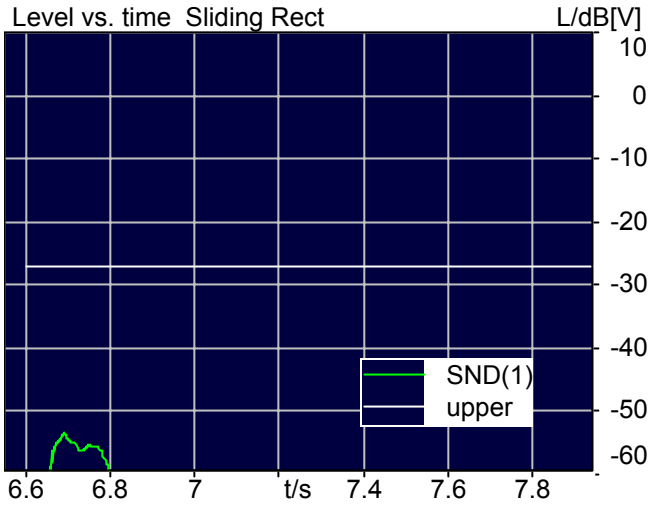
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

3c) Simulated Conversation (t2, peaks) -25/-25 dBm0



Absolute minimal distance

26,40 dB at 6,691 s Ok

Ok

07.11.2005 16:00 ACQUA 2.1.100

Source: t3ca1010.dat

Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	6550.00 ms	Time seq. length	1400.00 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t3ca__25.tol	Min. time for tol.	6.600 s
Auto adjust	No	Max. time for tol.	7.950 s

Special Features

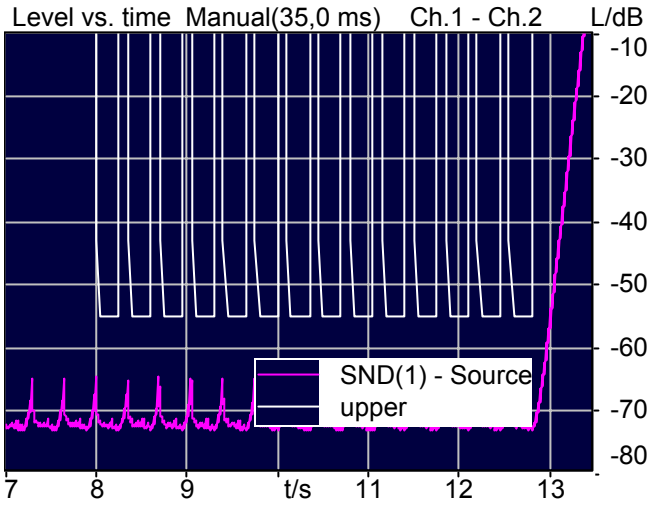
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

3c) Simulated Conversation (t3, res. echo) 0/ 0 dBm0



Absolute minimal distance
16,28 dB at 12,035 s Ok

Ok

07.11.2005 16:01 ACQUA 2.1.100

Source: t3cb1010.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	7000.00 ms	Time seq. length	6500.00 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t3c___00.tol	Min. time for tol.	7.800 s
Auto adjust	No	Max. time for tol.	12.950 s

Special Features

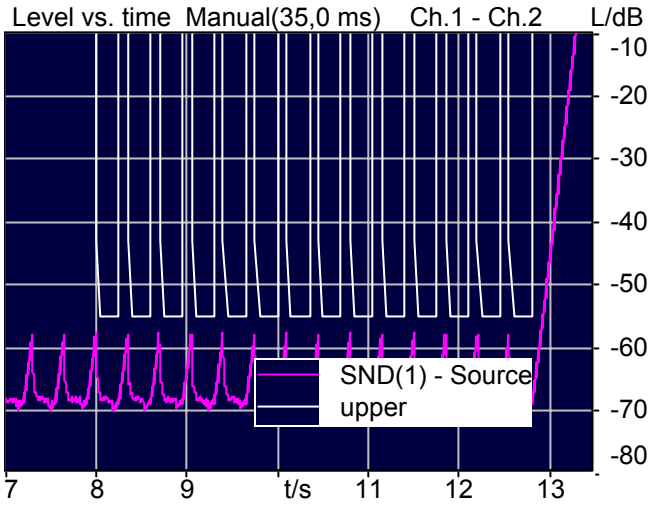
Show source signal	Source ch.2
Compensate delay	8.3542 ms
Compensate offset	Yes
Channel combination	Ch 1 minus ch 2

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

3c) Simulated Conversation (t3, res. echo) -10/-10 dBm0



Absolute minimal distance

12,26 dB at 11,905 s Ok

Ok

07.11.2005 16:01 ACQUA 2.1.100

Source: t3cb1010.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	7000.00 ms	Time seq. length	6500.00 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t3c___10.tol	Min. time for tol.	8.000 s
Auto adjust	No	Max. time for tol.	12.950 s

Special Features

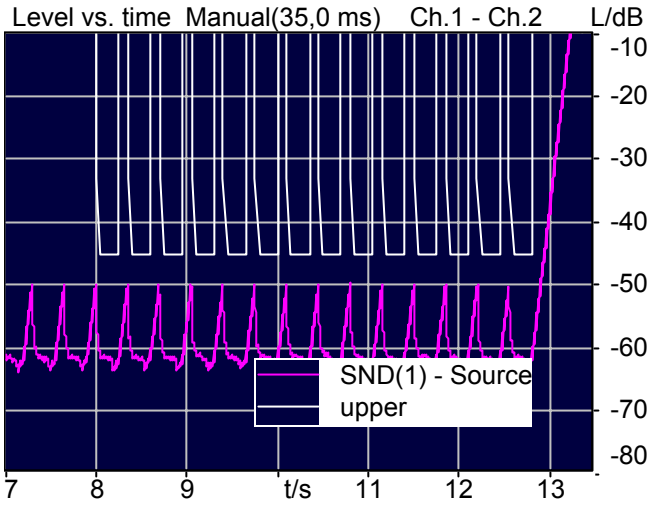
Show source signal	Source ch.2
Compensate delay	8.3542 ms
Compensate offset	Yes
Channel combination	Ch 1 minus ch 2

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

3c) Simulated Conversation (t3, res. echo) -20/-20 dBm0



Absolute minimal distance

15,25 dB at 10,850 s Ok

Ok

07.11.2005 16:02 ACQUA 2.1.100

Source: t3cb1010.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	7000.00 ms	Time seq. length	6500.00 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t3c___20.tol	Min. time for tol.	8.000 s
Auto adjust	No	Max. time for tol.	12.950 s

Special Features

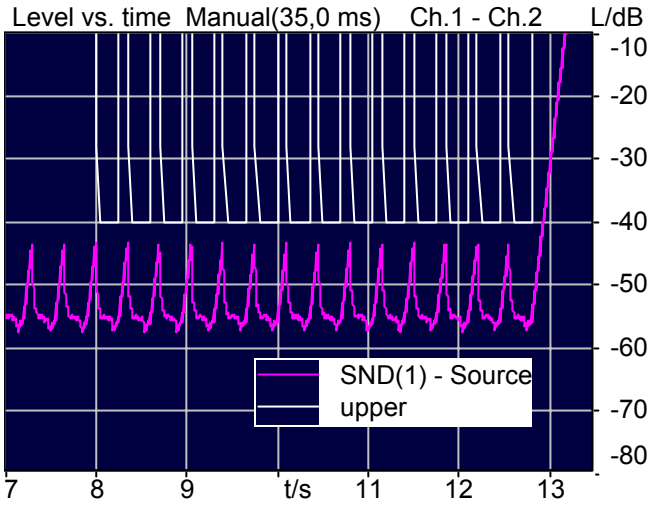
Show source signal	Source ch.2
Compensate delay	8.3542 ms
Compensate offset	Yes
Channel combination	Ch 1 minus ch 2

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

3c) Simulated Conversation (t3, res. echo) -25/-25 dBm0



Absolute minimal distance

14,08 dB at 10,149 s Ok

Ok

07.11.2005 16:03 ACQUA 2.1.100

Source: t3cb1010.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	7000.00 ms	Time seq. length	6500.00 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t3c___25.tol	Min. time for tol.	8.000 s
Auto adjust	No	Max. time for tol.	12.950 s

Special Features

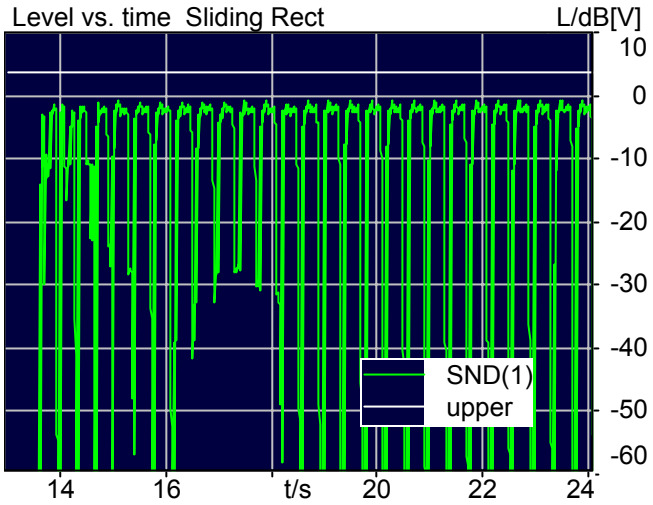
Show source signal	Source ch.2
Compensate delay	8.3542 ms
Compensate offset	Yes
Channel combination	Ch 1 minus ch 2

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

3c) Simulated Conversation (t4, t5, peaks) 0/ 0 dBm0



Absolute minimal distance

4,51 dB at 23,506 s Ok

Ok

07.11.2005 16:03 ACQUA 2.1.100

Source: t3cc1010.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	12950.00 ms	Time seq. length	11200.00 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t3cc__00.tol	Min. time for tol.	13.000 s
Auto adjust	No	Max. time for tol.	24.150 s

Special Features

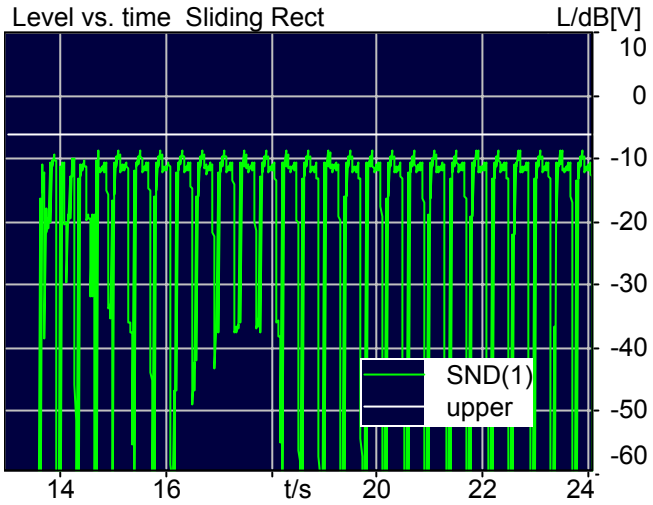
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

3c) Simulated Conversation (t4, t5, peaks) -10/-10 dBm0



Absolute minimal distance

2,33 dB at 16,306 s Ok

Ok

07.11.2005 16:04 ACQUA 2.1.100

Source: t3cc1010.dat

Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	12950.00 ms	Time seq. length	11200.00 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t3cc__10.tol	Min. time for tol.	13.000 s
Auto adjust	No	Max. time for tol.	24.150 s

Special Features

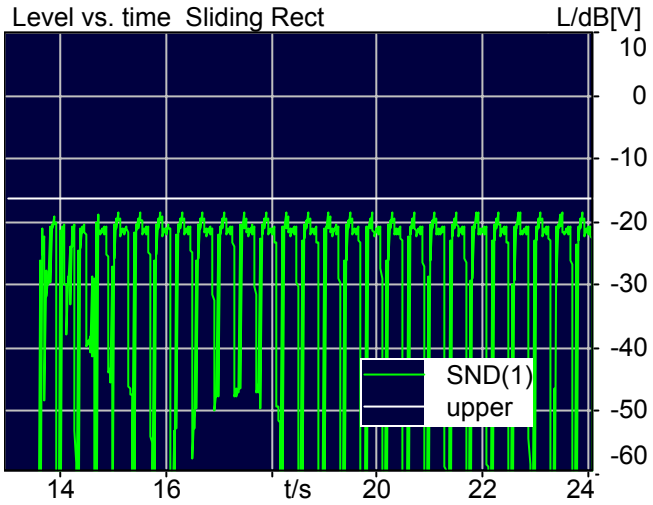
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

3c) Simulated Conversation (t4, t5, peaks) -20/-20 dBm0



Absolute minimal distance

2,31 dB at 15,506 s Ok

Ok

07.11.2005 16:05 ACQUA 2.1.100

Source: t3cc1010.dat

Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	12950.00 ms	Time seq. length	11200.00 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t3cc__20.tol	Min. time for tol.	13.000 s
Auto adjust	No	Max. time for tol.	24.150 s

Special Features

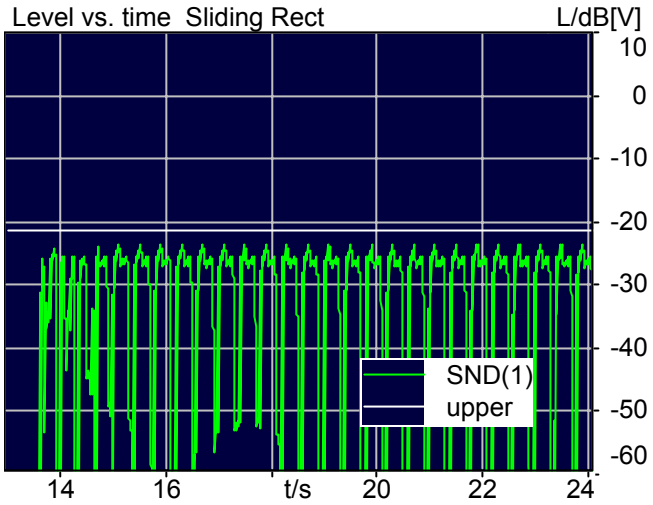
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

3c) Simulated Conversation (t4, t5, peaks) -25/-25 dBm0



Absolute minimal distance

2,32 dB at 17,106 s Ok

Ok

07.11.2005 16:05 ACQUA 2.1.100

Source: t3cc1010.dat

Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	12950.00 ms	Time seq. length	11200.00 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t3cc__25.tol	Min. time for tol.	13.000 s
Auto adjust	No	Max. time for tol.	24.150 s

Special Features

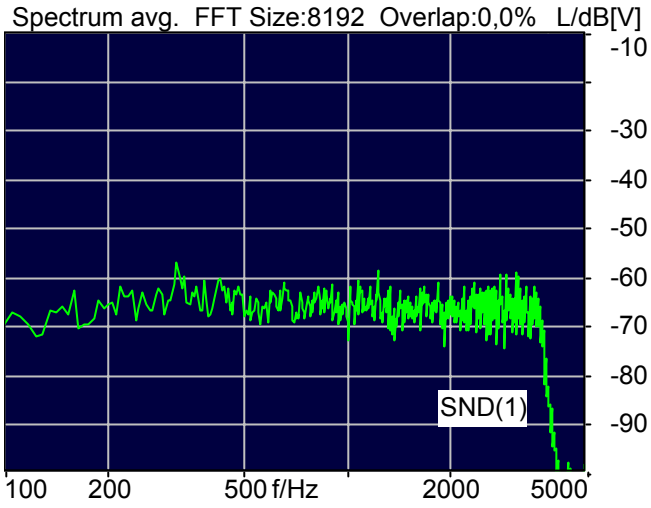
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Noise	ERL	6,00 dB

CONFIDENTIAL

4) Leak Rate Test 0 dBm0



Level SND(1): -35,24 dBm0 Ok

Ok

08.11.2005 10:13 ACQUA 2.1.100

Source: t4____10.dat
Calibration
Measurement Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	132050.00 ms	Time seq. length	1400.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

Special Features

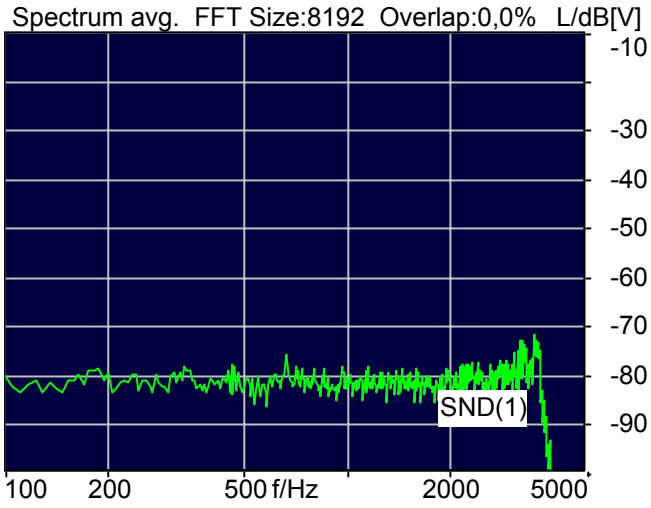
Compensate delay	8.3542 ms
Store to variable	RES_T4__00

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
Delay 1	2,0 ms	Attenuation 1	6,0 dB

CONFIDENTIAL

4) Leak Rate Test -10 dBm0



Level SND(1): -49,60 dBm0 Ok

Ok

08.11.2005 10:16 ACQUA 2.1.100

Source: t4____10.dat
Calibration
Measurement Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	132050.00 ms	Time seq. length	1400.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

Special Features

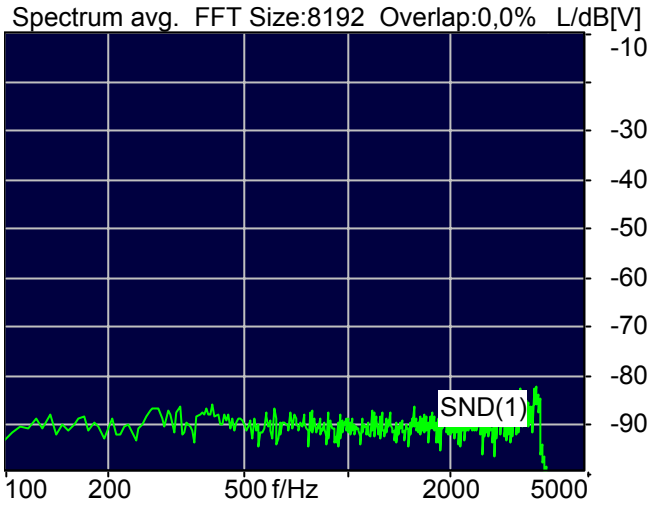
Compensate delay	8.3542 ms
Store to variable	RES_T4__10

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
Delay 1	2,0 ms	Attenuation 1	6,0 dB

CONFIDENTIAL

4) Leak Rate Test -20 dBm0



Level SND(1): -58,84 dBm0 Ok

Ok

08.11.2005 10:18 ACQUA 2.1.100

Source: t4____10.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	132050.00 ms	Time seq. length	1400.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

Special Features

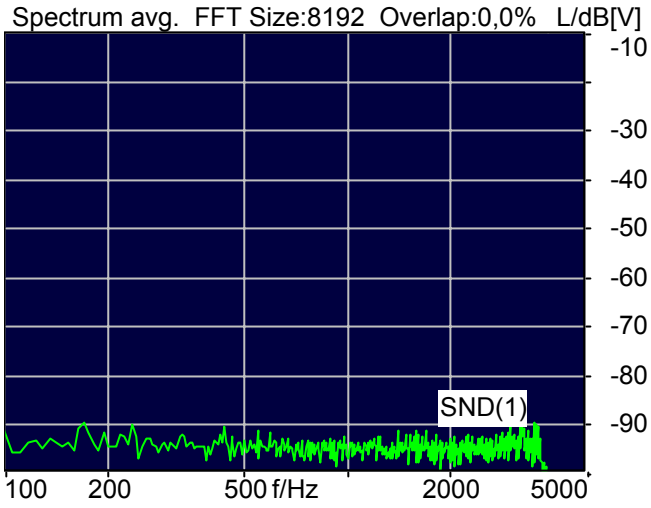
Compensate delay	8.3542 ms
Store to variable	RES_T4__20

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
Delay 1	2,0 ms	Attenuation 1	6,0 dB

CONFIDENTIAL

4) Leak Rate Test -30 dBm0



Level SND(1): -64,18 dBm0 Ok

Ok

08.11.2005 10:21 ACQUA 2.1.100

Source: t4____10.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	132050.00 ms	Time seq. length	1400.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

Special Features

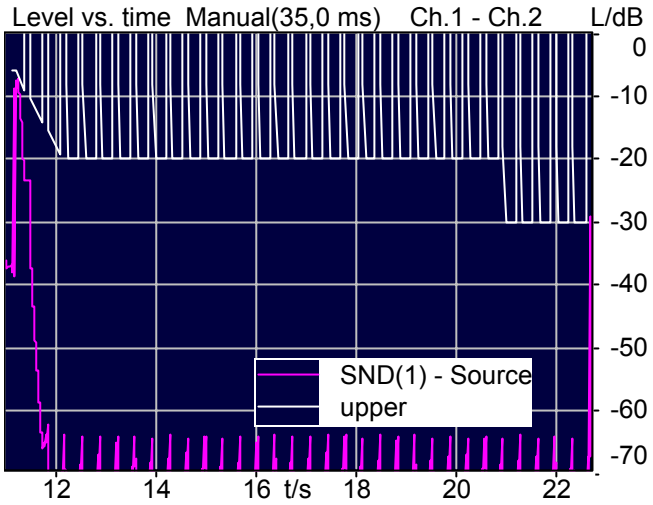
Compensate delay	8.3542 ms
Store to variable	RES_T4__30

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
Delay 1	2,0 ms	Attenuation 1	6,0 dB

CONFIDENTIAL

5) Infinite Return Loss Convergence Test 0 dBm0



Absolute minimal distance

0,13 dB at 11,275 s Ok

Ok

08.11.2005 10:22 ACQUA 2.1.100

Source: t5____10.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	11000.00 ms	Time seq. length	11800.00 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t5____00.tol	Min. time for tol.	11.100 s
Auto adjust	No	Max. time for tol.	22.600 s

Special Features

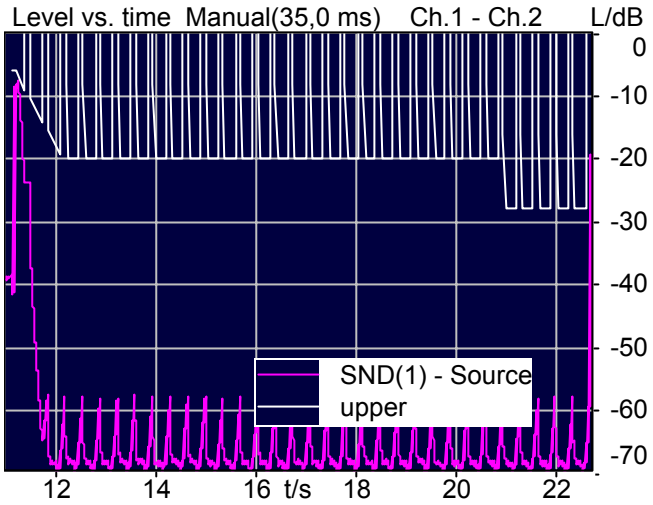
Show source signal	Source ch.2
Compensate delay	8.3542 ms
Compensate offset	Yes
Channel combination	Ch 1 minus ch 2

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
Delay 1	2,0 ms	Attenuation 1	6,0 dB

CONFIDENTIAL

5) Infinite Return Loss Convergence Test -10 dBm0



Absolute minimal distance

0,30 dB at 11,275 s Ok

Ok

08.11.2005 11:00 ACQUA 2.1.100

Source: t5____10.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	11000.00 ms	Time seq. length	11800.00 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t5____10.tol	Min. time for tol.	11.100 s
Auto adjust	No	Max. time for tol.	22.600 s

Special Features

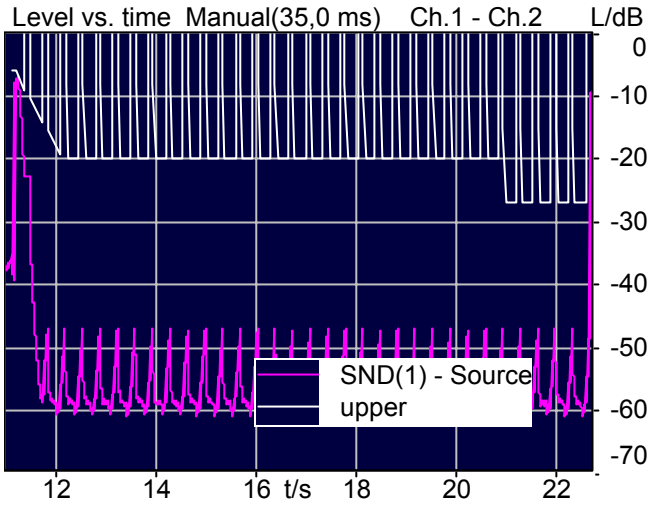
Show source signal	Source ch.2
Compensate delay	8.3542 ms
Compensate offset	Yes
Channel combination	Ch 1 minus ch 2

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
Delay 1	2,0 ms	Attenuation 1	6,0 dB

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5) Infinite Return Loss Convergence Test -20 dBm0



Absolute minimal distance
0,06 dB at 11,275 s Ok

Ok

08.11.2005 11:14 ACQUA 2.1.100

Source: t5____10.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	11000.00 ms	Time seq. length	11800.00 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t5____20.tol	Min. time for tol.	11.100 s
Auto adjust	No	Max. time for tol.	22.600 s

Special Features

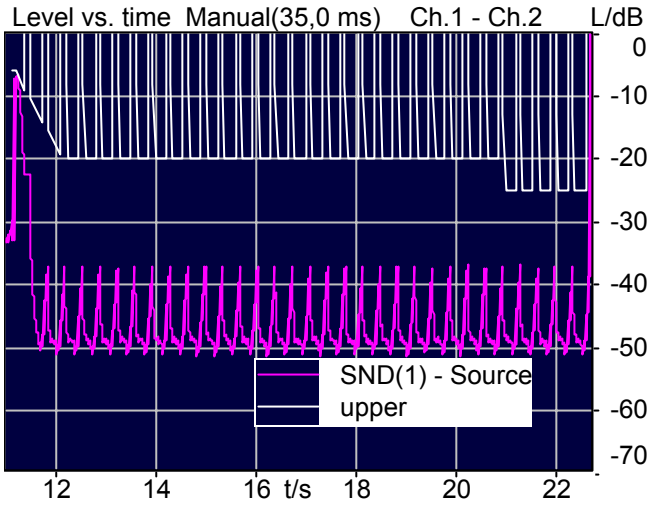
Show source signal	Source ch.2
Compensate delay	8.3542 ms
Compensate offset	Yes
Channel combination	Ch 1 minus ch 2

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
Delay 1	2,0 ms	Attenuation 1	6,0 dB

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5) Infinite Return Loss Convergence Test -30 dBm0



Absolute minimal distance

0,03 dB at 11,275 s Ok

Ok

08.11.2005 11:02 ACQUA 2.1.100

Source: t5____10.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	11000.00 ms	Time seq. length	11800.00 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t5____30.tol	Min. time for tol.	11.100 s
Auto adjust	No	Max. time for tol.	22.600 s

Special Features

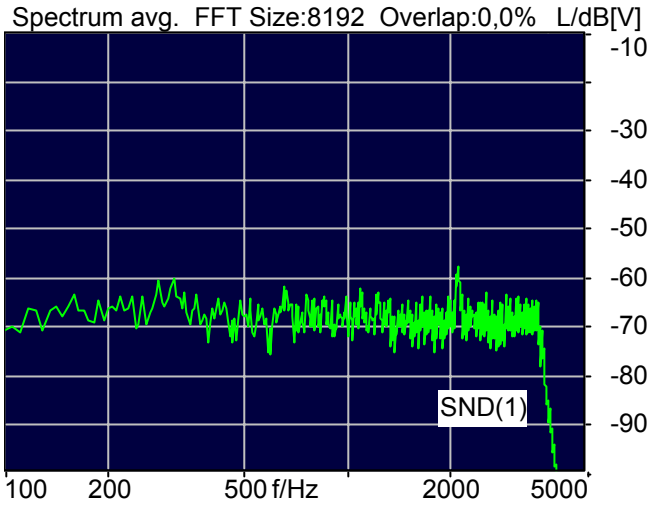
Show source signal	Source ch.2
Compensate delay	8.3542 ms
Compensate offset	Yes
Channel combination	Ch 1 minus ch 2

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
Delay 1	2,0 ms	Attenuation 1	6,0 dB

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6) Non-divergence on Narrow-band Signals 0 dBm0



Level SND(1): -37,26 dBm0 Ok

Ok

08.11.2005 10:25 ACQUA 2.1.100

Source: t6____10.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	52700.00 ms	Time seq. length	1400.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

Special Features

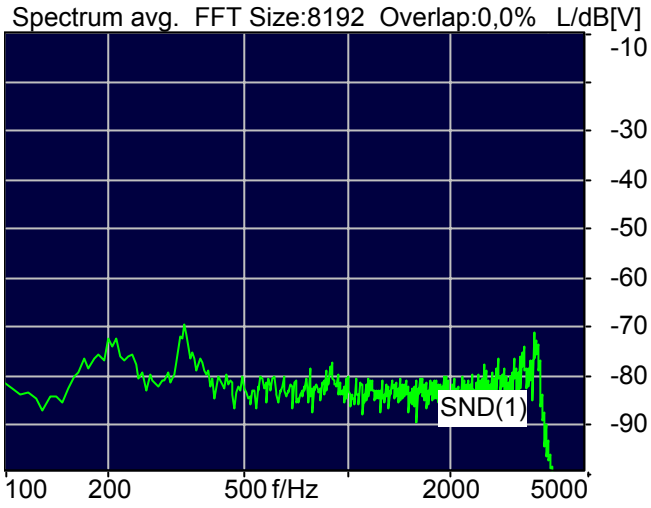
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
Delay 1	2,0 ms	Attenuation 1	6,0 dB

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6) Non-divergence on Narrow-band Signals -10 dBm0



Level SND(1): -50,32 dBm0 Ok

Ok

08.11.2005 10:26 ACQUA 2.1.100

Source: t6____10.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	52700.00 ms	Time seq. length	1400.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

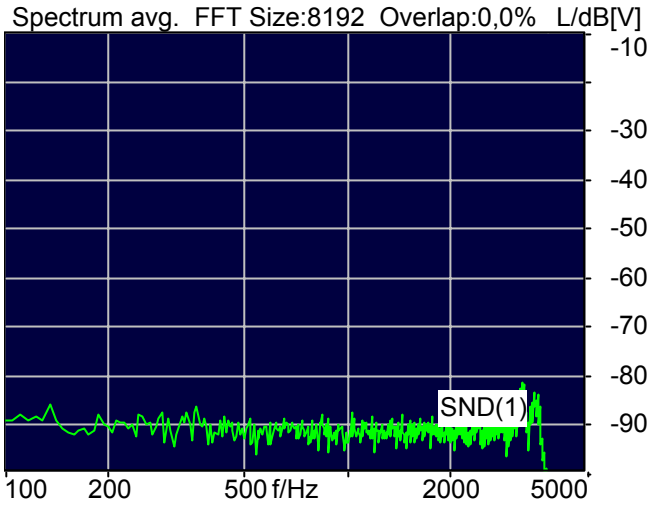
Special Features

Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
Delay 1	2,0 ms	Attenuation 1	6,0 dB

6) Non-divergence on Narrow-band Signals -20 dBm0



Level SND(1): -59,77 dBm0 Ok

Ok

08.11.2005 10:28 ACQUA 2.1.100

Source: t6____10.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	52700.00 ms	Time seq. length	1400.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

Special Features

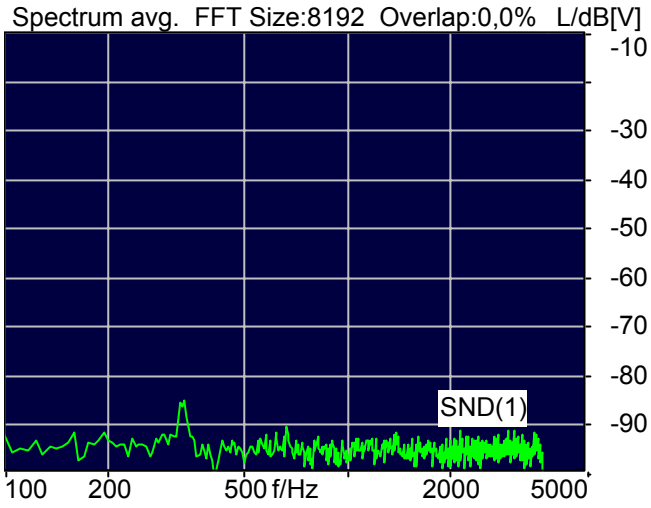
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
Delay 1	2,0 ms	Attenuation 1	6,0 dB

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6) Non-divergence on Narrow-band Signals -30 dBm0



Level SND(1): -64,59 dBm0 Ok

Ok

08.11.2005 10:29 ACQUA 2.1.100

Source: t6____10.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	52700.00 ms	Time seq. length	1400.00 ms
Frequency base	Transformation	Wght. function	Rectangle
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

Special Features

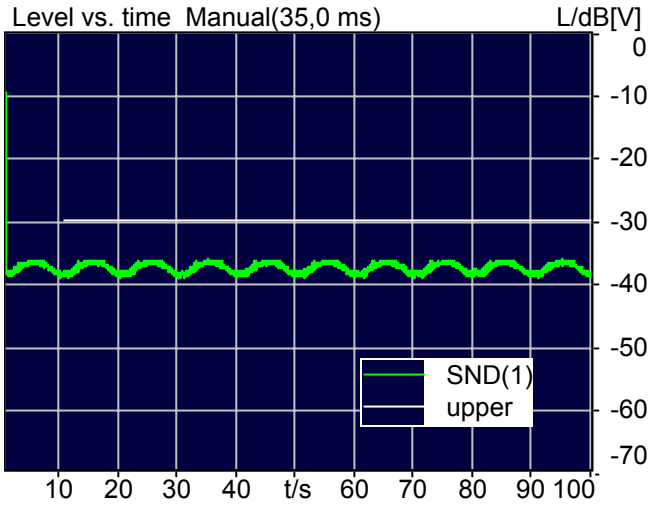
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
Delay 1	2,0 ms	Attenuation 1	6,0 dB

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7) Stability Test +3 dBm0



Absolute minimal distance

6,22 dB at 35,559 s Ok

Ok

07.11.2005 14:48 ACQUA 2.1.100

Source: t7____10.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	1000.00 ms	Time seq. length	100000.00 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t7___p03.tol	Min. time for tol.	10.000 s
Auto adjust	No	Max. time for tol.	100.000 s

Special Features

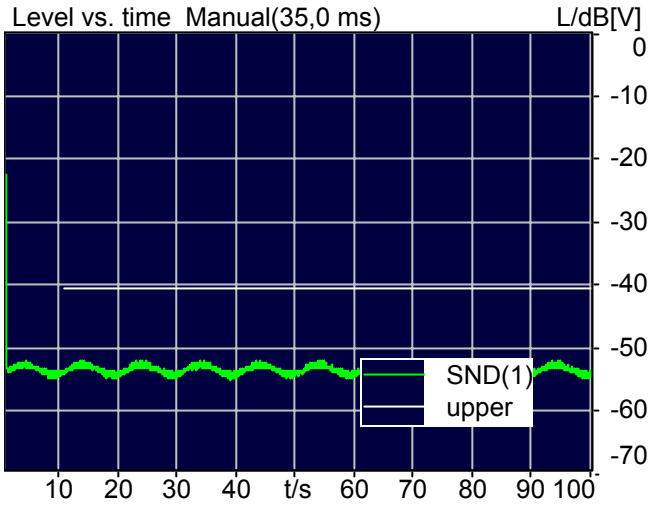
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Tone	ERL	6,00 dB

CONFIDENTIAL

7) Stability Test -10 dBm0



Absolute minimal distance

11,43 dB at 13,688 s Ok

Ok

07.11.2005 14:51 ACQUA 2.1.100

Source: t7____10.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	1000.00 ms	Time seq. length	100000.00 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t7___10.tol	Min. time for tol.	10.000 s
Auto adjust	No	Max. time for tol.	100.000 s

Special Features

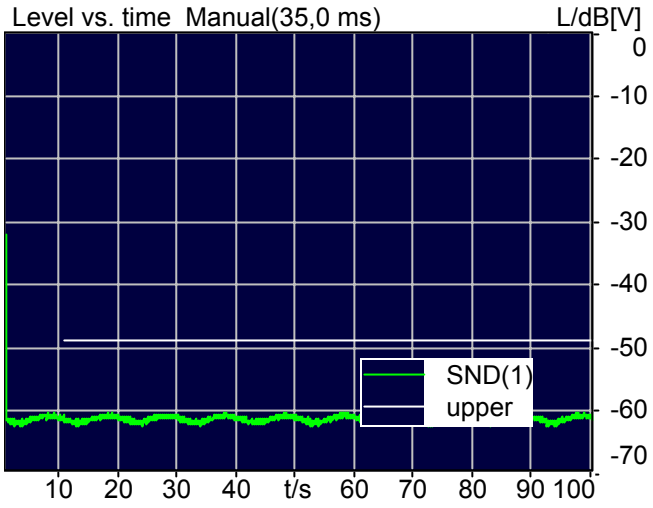
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Tone	ERL	6,00 dB

CONFIDENTIAL

7) Stability Test -20 dBm0



Absolute minimal distance

11,27 dB at 38,411 s Ok

Ok

07.11.2005 14:53 ACQUA 2.1.100

Source: t7____10.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	1000.00 ms	Time seq. length	100000.00 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t7___20.tol	Min. time for tol.	10.000 s
Auto adjust	No	Max. time for tol.	100.000 s

Special Features

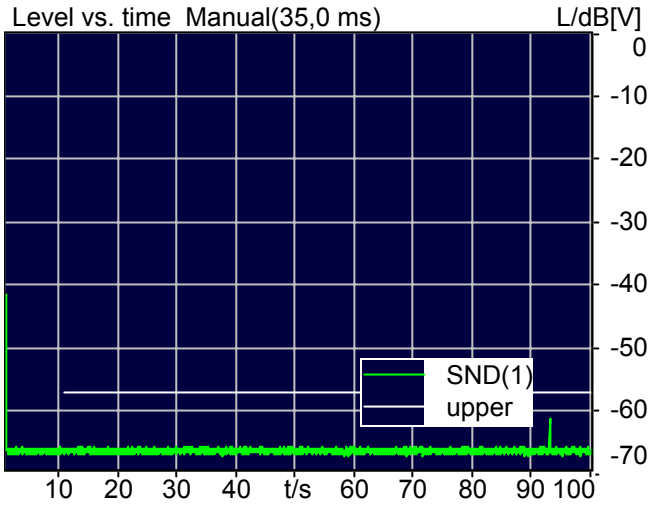
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Tone	ERL	6,00 dB

CONFIDENTIAL

7) Stability Test -30 dBm0



Absolute minimal distance

3,96 dB at 93,273 s Ok

Ok

07.11.2005 14:56 ACQUA 2.1.100

Source: t7____10.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	1000.00 ms	Time seq. length	100000.00 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t7___30.tol	Min. time for tol.	10.000 s
Auto adjust	No	Max. time for tol.	100.000 s

Special Features

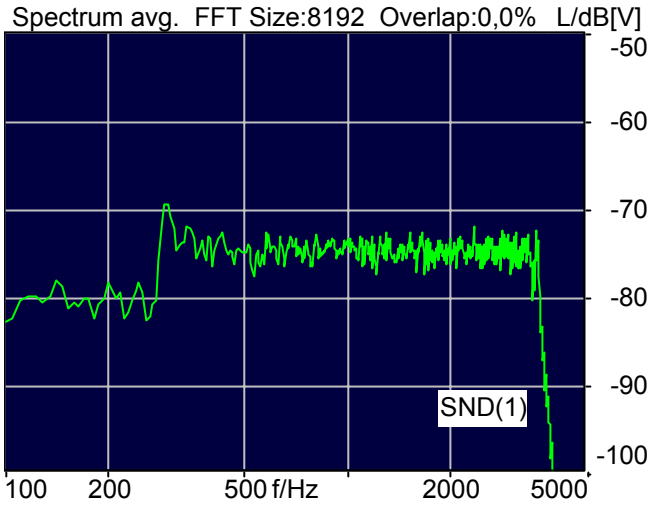
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Tone	ERL	6,00 dB

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9) Comfort noise test 1 (matching) -45 dBm0



Level SND(1): -46,48 dBm0 Ok

Ok

08.11.2005 11:10 ACQUA 2.1.100

Source: t9_30_45.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	33000.00 ms	Time seq. length	3500.00 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

Special Features

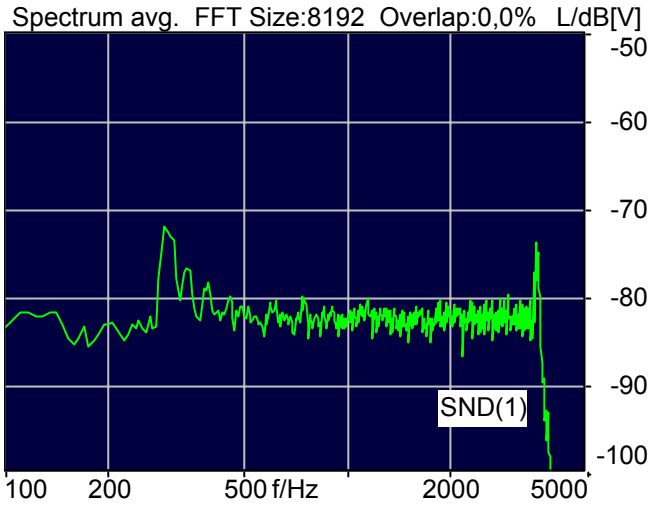
Compensate delay	2.9792 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
Delay 1	2,0 ms	Attenuation 1	6,0 dB

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9) Comfort noise test 2 (adjustment down) -55 dBm0



Level SND(1): -53,28 dBm0 Ok

Ok

08.11.2005 11:10 ACQUA 2.1.100

Source: t9_10_45.dat

Level adj. Ch2	10.00 dB

Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	13000.00 ms	Time seq. length	3500.00 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

Special Features

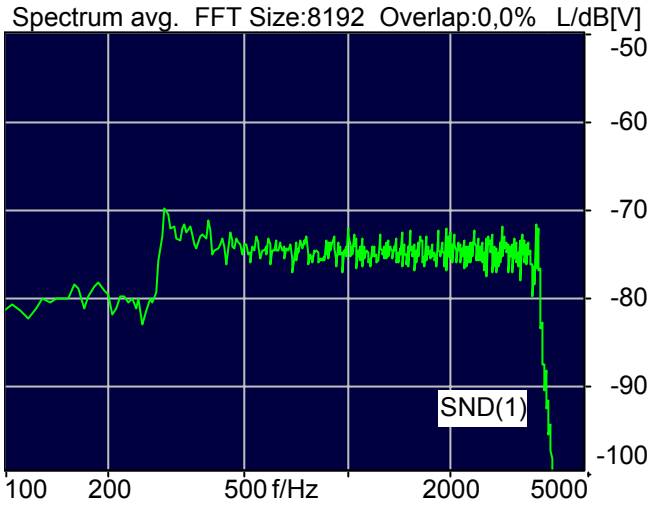
Compensate delay	2.9792 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
Delay 1	2,0 ms	Attenuation 1	6,0 dB

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9) Comfort noise test 3 (adjustment up) -45 dBm0



Level SND(1): -46,49 dBm0 Ok

Ok

08.11.2005 11:11 ACQUA 2.1.100

Source: t9_10_45.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	13000.00 ms	Time seq. length	3500.00 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	8192	Overlap	0
Freq. range 1 min.	150.0 Hz		

Special Features

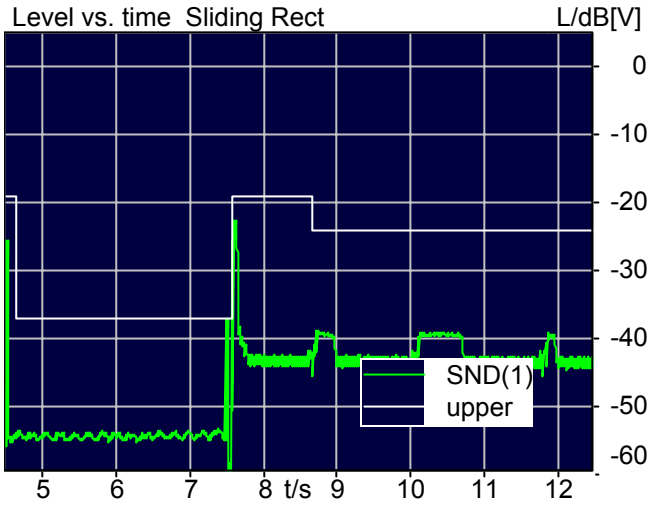
Compensate delay	2.9792 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
Delay 1	2,0 ms	Attenuation 1	6,0 dB

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10a) Facsimile test (calling station)



Absolute minimal distance

0,05 dB at 7,499 s Ok

Ok

08.11.2005 13:31 ACQUA 2.1.100

Source: t10a.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	4500.00 ms	Time seq. length	8000.00 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t10a.tol	Min. time for tol.	4.500 s
Auto adjust	No	Max. time for tol.	12.500 s

Special Features

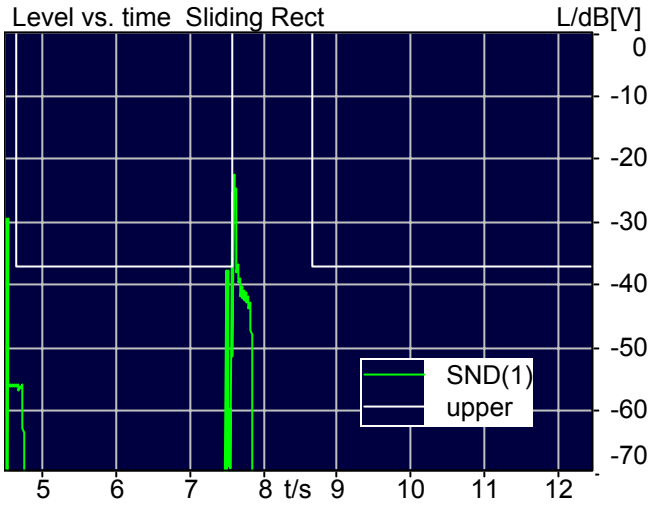
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Tone	ERL	6,00 dB

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10a) Facsimile test (calling station, NLP)



Absolute minimal distance

0,62 dB at 7,527 s Ok

Ok

07.11.2005 15:02 ACQUA 2.1.100

Source: t10a.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	4500.00 ms	Time seq. length	8000.00 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t10a_nlp.tol	Min. time for tol.	4.500 s
Auto adjust	No	Max. time for tol.	12.500 s

Special Features

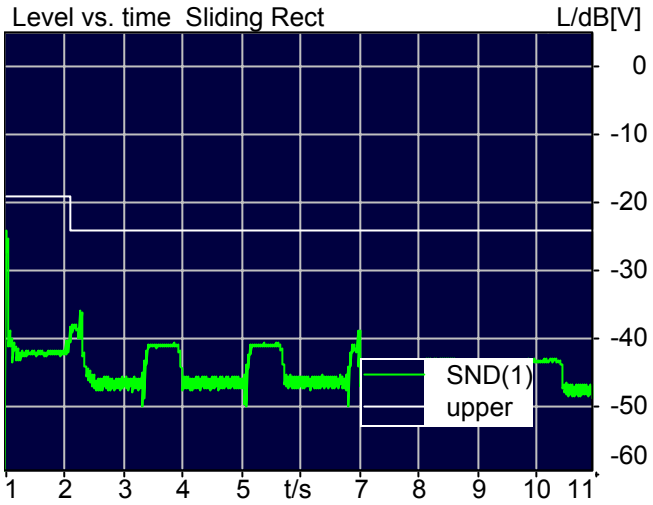
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Tone	ERL	6,00 dB

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10b) Facsimile test (called station)



Absolute minimal distance

5,05 dB at 1,035 s Ok

Ok

07.11.2005 15:02 ACQUA 2.1.100

Source: t10b.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	1000.00 ms	Time seq. length	10000.00 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t10b.tol	Min. time for tol.	1.000 s
Auto adjust	No	Max. time for tol.	11.000 s

Special Features

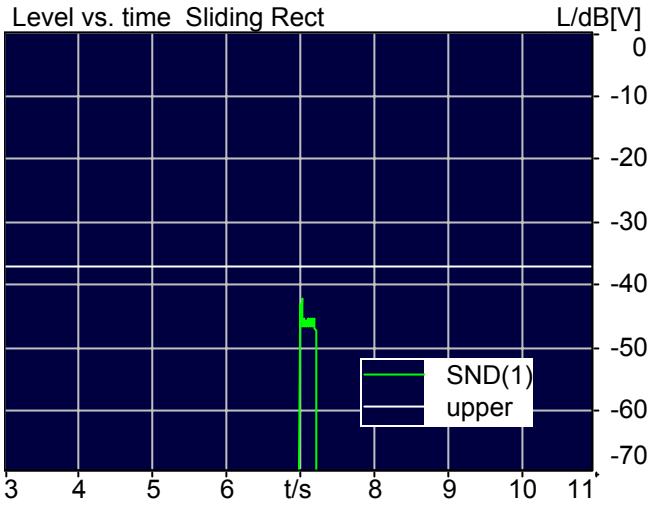
Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Tone	ERL	6,00 dB

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10b) Facsimile test (called station, NLP)



Absolute minimal distance

5,32 dB at 7,027 s Ok

Ok

07.11.2005 15:02 ACQUA 2.1.100

Source: t10b.dat
Calibration

Measurement	Electrical (0,00 dB 25.10.2005)

External Output Gains

Channel 1	-0,5 dB	Channel 2	-0,3 dB

Analysis

Direction	Out 1 -> In 1		
Time seq. start	3000.00 ms	Time seq. length	8000.00 ms
Frequency base	Transformation	Wght. function	Hanning
FFT size	2048	Overlap	0
Tol. scheme file	t10b_nlp.tol	Min. time for tol.	3.000 s
Auto adjust	No	Max. time for tol.	11.000 s

Special Features

Compensate delay	8.3542 ms
Compensate offset	Yes

MFE VI Settings

Output Ch.1	Analog	Output Ch.2	Analog
Input Ch.1	Sym.	Input Ch.2	Sym.
Input Gain	0 dB		
Routing	In 2 to Out 1	Add source	Yes
FIR Filter	Model 1 - Tone	ERL	6,00 dB

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