



Report number: EWA10077-40
Class E Channel screened
Gebauer & Griller Dataflex STP/C Cat.7

2001-21-08 Albert

Transmission Performance Testing

according to: ISO/IEC JTC 1/SC 25 N696 (2001)
Limits relating to Channel Class E

Equipment under Test:

Part Number 1: J02023A0019(1x)
Type 1: Mod. Patch Panel Cat 6 MPP24-HS screened RAL 7035
Part Number 2: J00020B0360(1x)
Type 2: Outlet (Floor Tank) Class E VAD/B 8/8 UP/50 EK RAL 9010
Part number 3: L00003A0049 (x2)
Type 3: RJ45 Channel Messkabel 5,0m
Installation cable: Gebauer & Griller Dataflex STP/C 42060 FR-LSOH IEC 332-3 EN 50173
ISO/IEC 11801 DIN44312-5 CAT7-100 600 MHz
Test equipment: Microtest OMNIscanner II + Cat.6 Channel Adapter (2x)

Result: The tested equipment has been verified as being compliant with the transmission specifications of the following standards: ISO/IEC JTC 1/SC 25 N696 (2001)
The minimum NEXT reserve of the Channel Class E is: @100 MHz = -10,4 dB and @ 250 MHz = -8,5 dB.

Date: 2001-21-08
Tested by: Albert
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Measuring Results

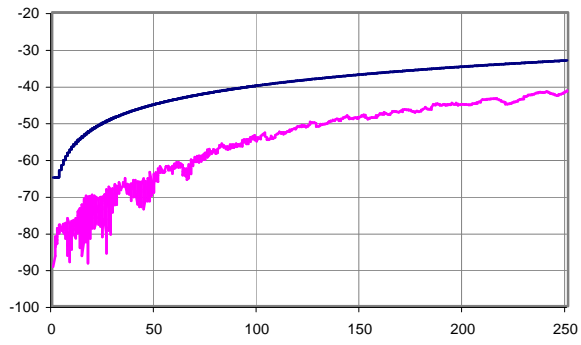
pair	1-2	3-6	4-5	7-8	limit	skew / ns	limit
max propagation delay / ns	453,0	452,0	451,0	457,0	546,3	6,0	50,0
Attenuation @ 100 MHz / dE	-19,5	-19,7	-19,8	-19,5	-21,7		
Attenuation @ 250 MHz / dE	-31,7	-31,7	-31,6	-31,7	-21,7		
min PSNEXT margin / dB	10,3	8,8	8,9	9,8			
@ f / MHz	240,7	237,1	237,1	239,8			
PSNEXT limit / db	-30,4	-30,6	-30,6	-30,5			
PSNEXT @ 100 MHz	-49,0	-49,3	-48,2	-50,9	-37,1		
PSNEXT @ 250 MHz	-41,4	-39,1	-40,4	-41,2	-30,2		
min PSELFEXT margin / dB	14,0	11,4	8,0	11,8			
@ f / MHz	51,6	167,4	248,8	239,8			
PSELFEXT limit / db	-26,0	-15,8	-12,3	-12,7			
PSELFEXT @ 100 MHz	-35,1	-33,5	-31,6	-42,1	-20,3		
PSELFEXT @ 250 MHz	-28,2	-25,0	-21,4	-24,6	-12,3		
min PSACR margin / dB	11,8	11,1	10,1	11,9			
@ f / MHz	27,1	3,4	20,1	16,5			
PSACR limit / db	35,9	57,6	39,6	41,9			
PSACR @ 100 MHz	33,8	29,8	30,1	31,6	15,4		
PSACR @ 250 MHz	10,2	8,7	13,3	18,4	-5,7		
min RL margin / dB	4,1	4,6	4,6	5,2			
@ f / MHz	2,5	2,5	2,5	2,3			
RL limit / db	-19,0	-19,0	-19,0	-19,0			

pairs	1-2 / 3-6	1-2 / 4-5	1-2 / 7-8	3-6 / 4-5	3-6 / 7-8	4-5 / 7-8	limit
min NEXT margin / dB	8,1	12,5	18,3	8,4	13,2	8,0	
@ f / MHz	240,7	12,2	27,1	74,5	239,8	240,3	
Next limit / db	-33,4	-55,2	-49,5	-42,1	-33,4	-33,4	
NEXT @ 100 MHz	-50,3	-56,4	-59,5	-51,5	-60,0	-51,5	-39,9
NEXT @ 250 MHz	-41,6	-55,2	-55,0	-44,6	-46,7	-42,6	-33,1
min ACR margin / db	10,8	13,1	19,2	10,0	16,9	9,4	
@ f / MHz	4,6	11,1	27,1	74,5	231,7	15,4	
ACR limit / db	57,7	48,9	38,6	23,5	-0,8	45,4	
ACR @ 100 MHz	30,6	36,6	40,0	31,8	40,3	31,8	18,2
ACR @ 250 MHz	9,9	23,5	23,3	12,9	15,0	11,0	-2,8

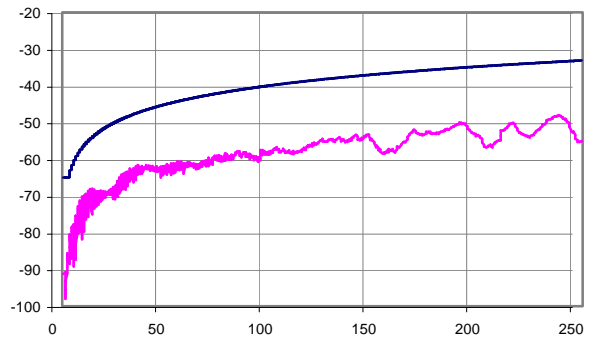
pairs	3-6 / 1-2	4-5 / 1-2	7-8 / 1-2	4-5 / 3-6	7-8 / 3-6	7-8 / 4-5	limit
	1-2 / 3-6	1-2 / 4-5	1-2 / 7-8	3-6 / 4-5	3-6 / 7-8	4-5 / 7-8	
min ELFEXT margin / db	16,0	12,3	24,2	8,8	18,9	8,3	
@ f / MHz	53,6	246,1	243,4	202,0	45,3	247,0	
ELFEXT limit / db	-28,7	-15,4	-15,5	-17,1	-30,1	-15,4	
min ELFEXT margin / db	16,0	11,6	24,5	8,8	19,0	8,8	
@ f / MHz	54,5	246,1	243,4	230,8	45,3	239,8	
ELFEXT limit / db	-28,5	-15,4	-15,5	-16,0	-30,1	-15,7	
ELFEXT @ 100 MHz	-41,4	-36,2	-56,7	-34,3	-49,8	-42,5	-23,3
ELFEXT @ 250 MHz	-38,7	-28,8	-41,9	-25,2	-43,4	-24,8	-15,3
ELFEXT @ 100 MHz	-41,2	-35,9	-56,7	-34,3	-50,0	-42,8	-23,3
ELFEXT @ 250 MHz	-38,7	-28,9	-42,0	-25,3	-43,5	-24,7	-15,3

NEXT / dB (scanner side - type 1 side)

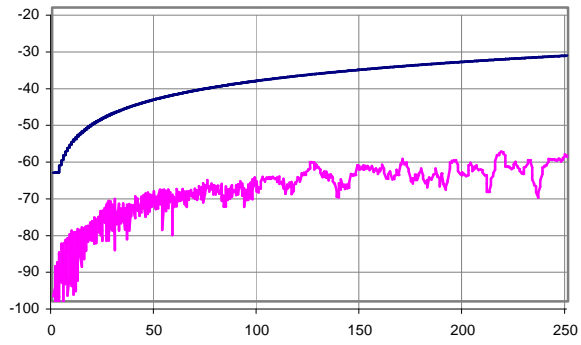
pairs: 1-2 / 3-6



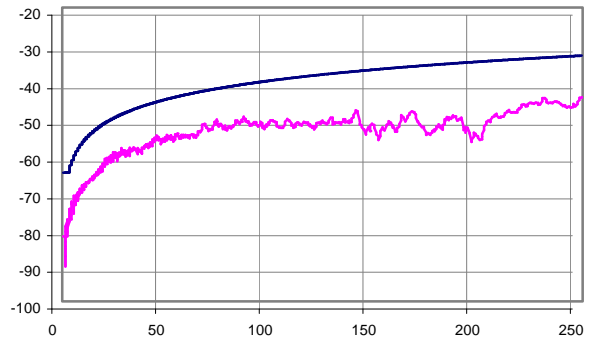
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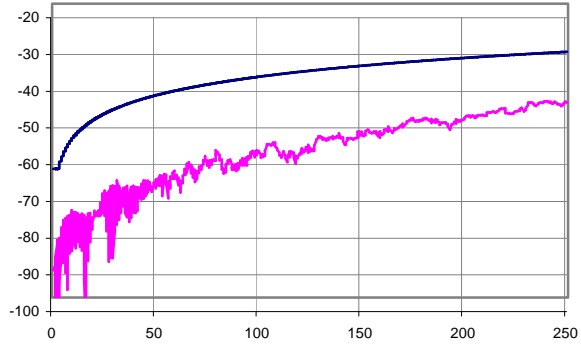
pairs: 1-2 / 7-8



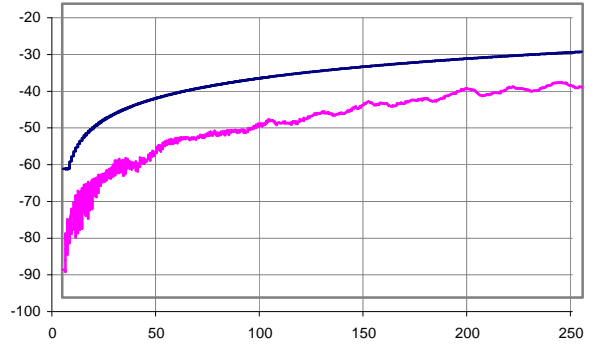
pairs: 3-6 / 4-5



pairs: 3-6 / 7-8

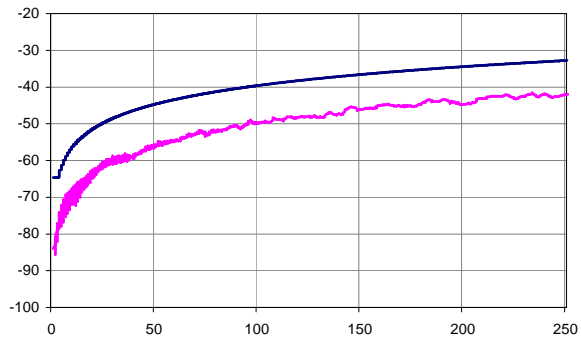


pairs: 4-5 / 7-8

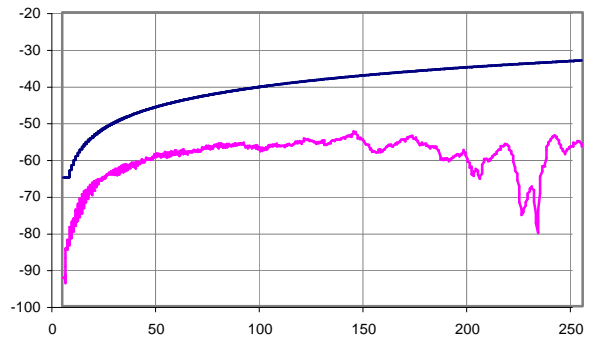


NEXT / dB (remote side - type 2 side)

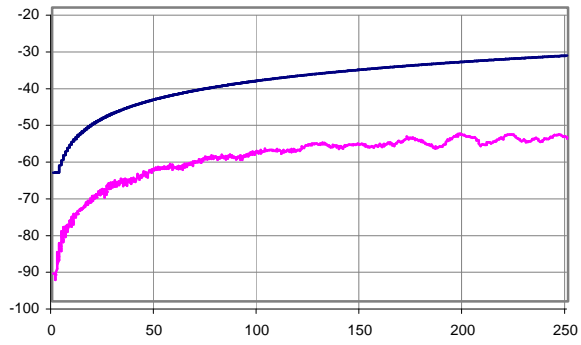
pairs: 1-2 / 3-6



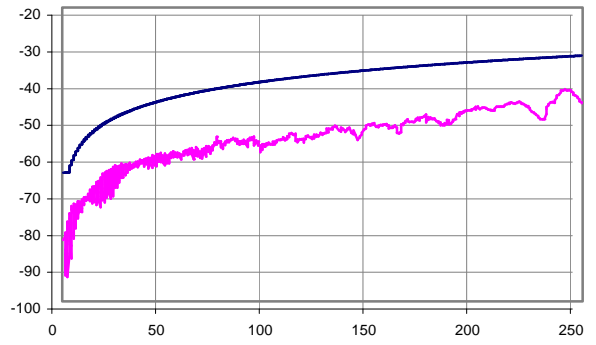
pairs: 1-2 / 4-5



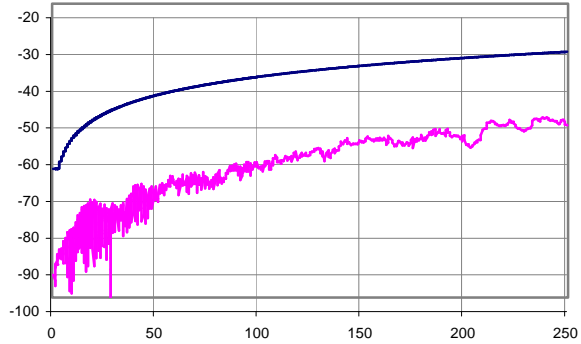
pairs: 1-2 / 7-8



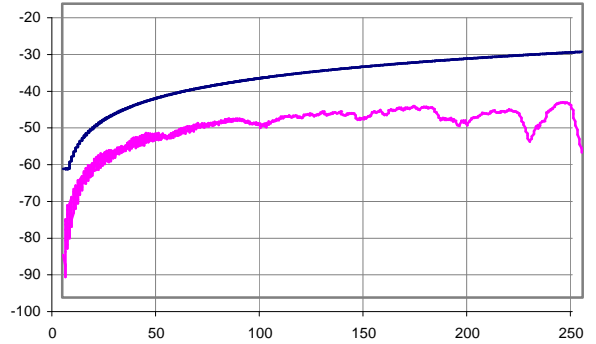
pairs: 3-6 / 4-5



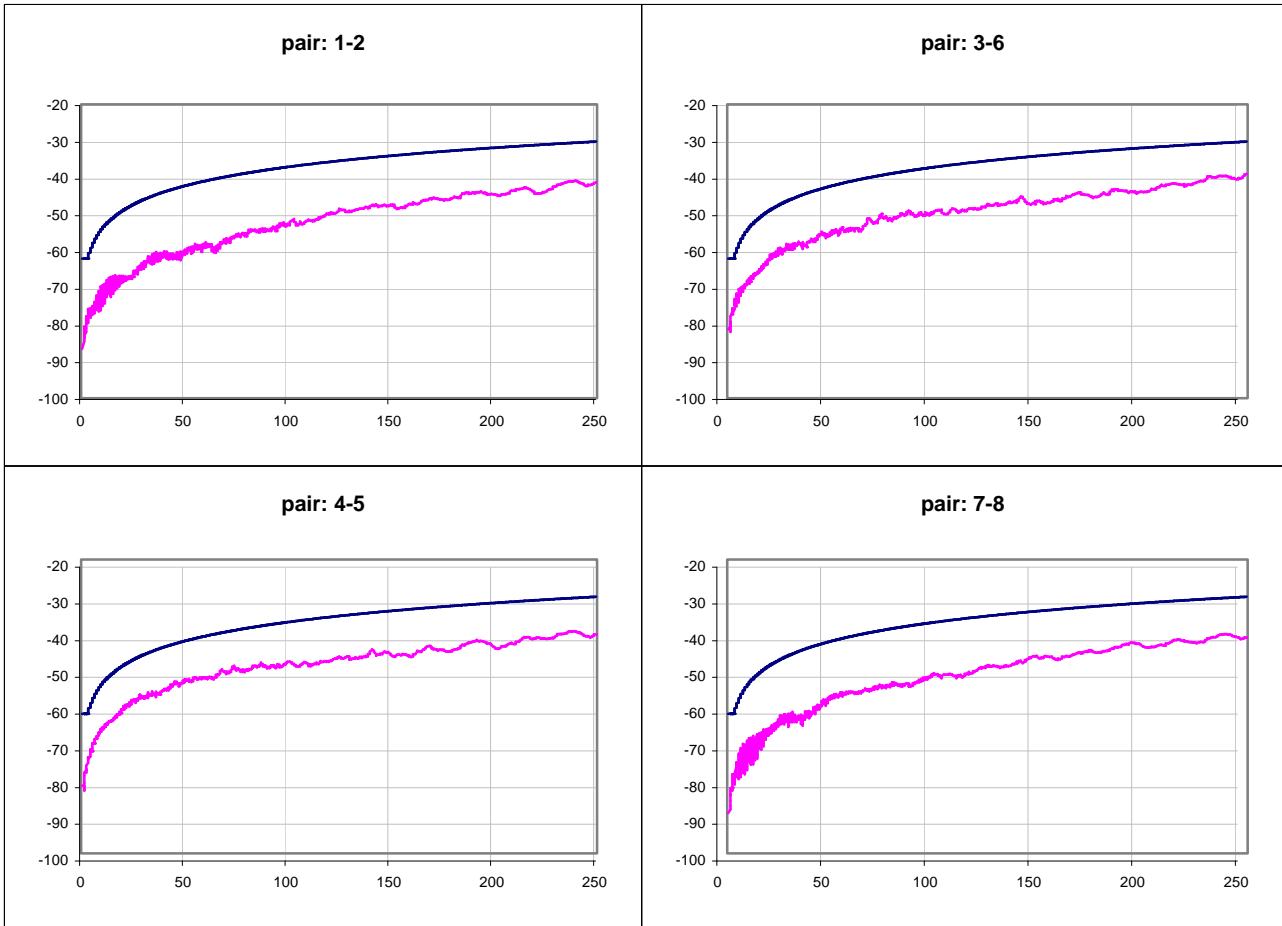
pairs: 3-6 / 7-8



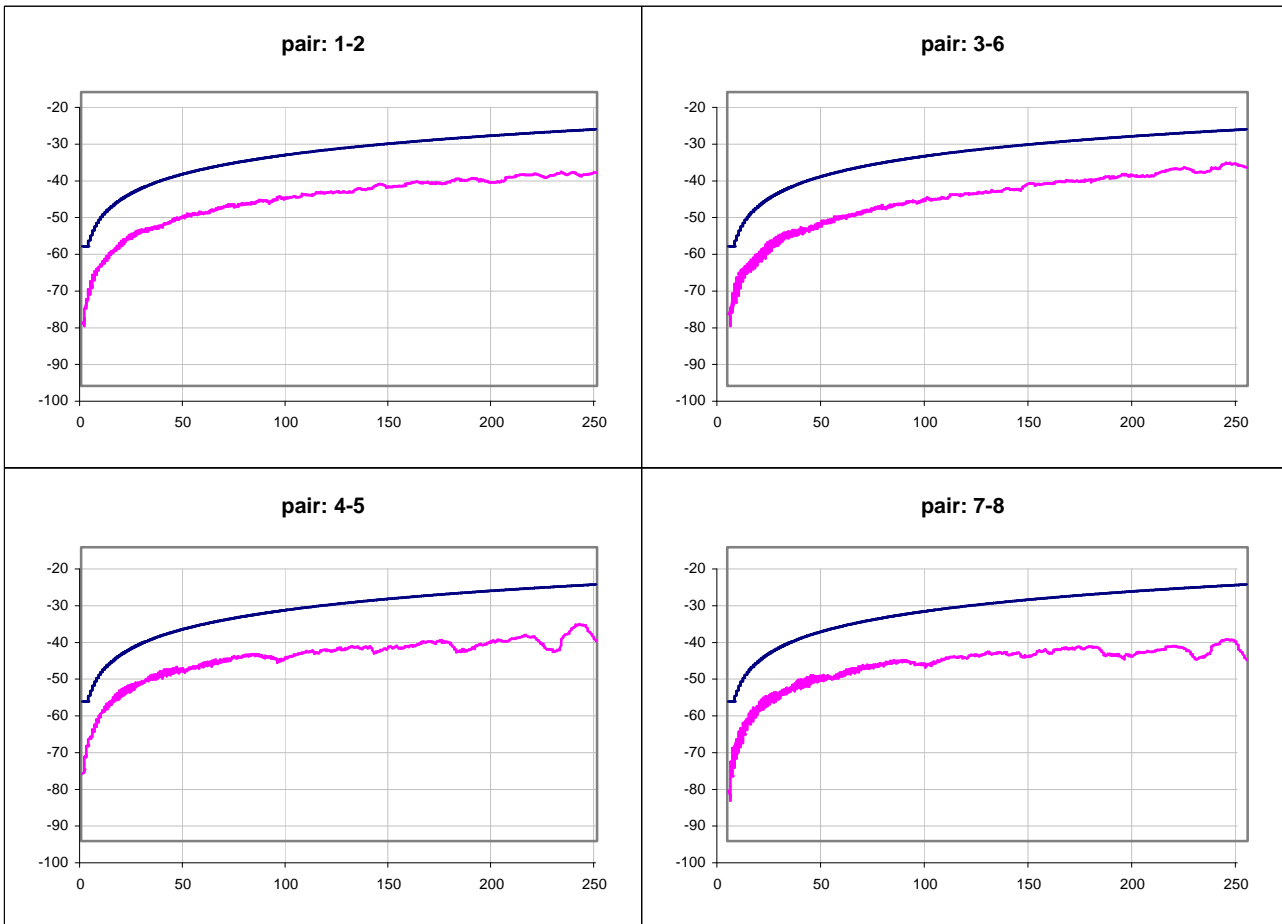
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PSNEXT / dB (gemessen am Scanner)

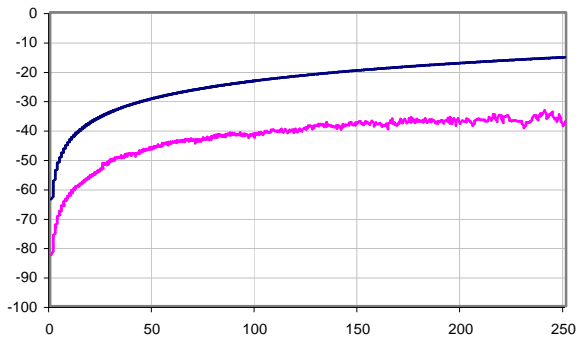


PSNEXT / dB (remote side - type 2 side)

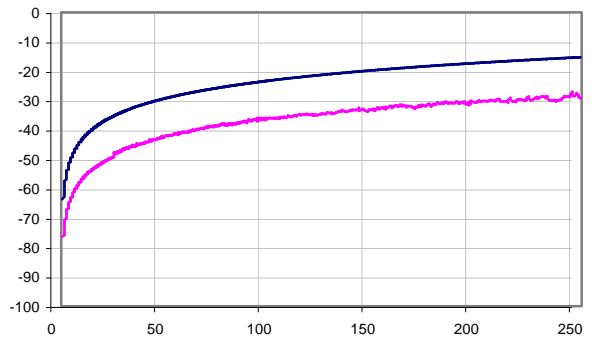


ELFEXT / dB (scanner side - type 1 side)

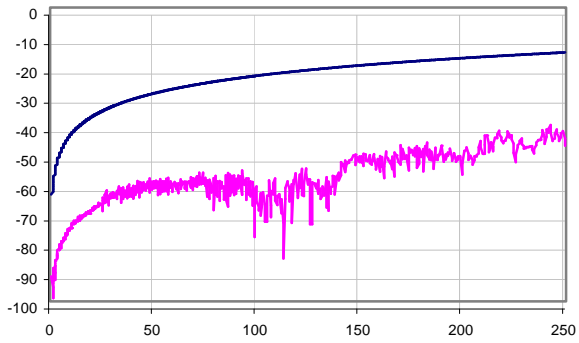
pairs: 1-2 / 3-6



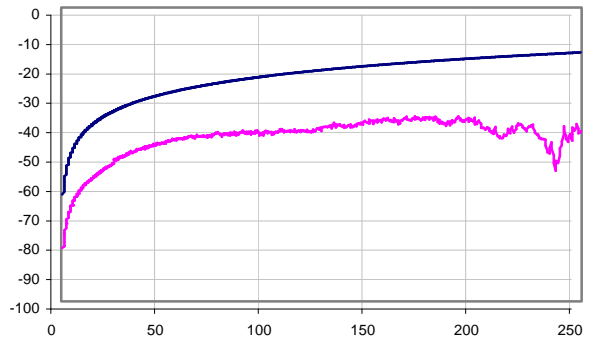
pairs: 1-2 / 4-5



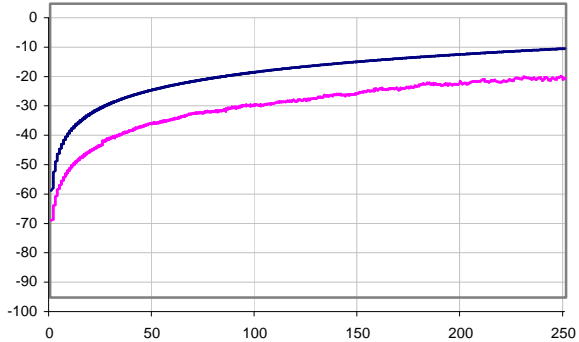
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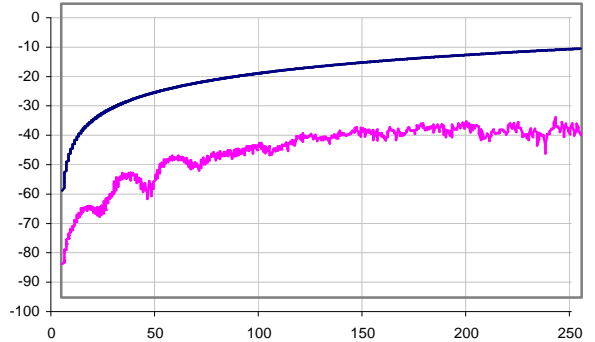
pairs: 3-6 / 1-2



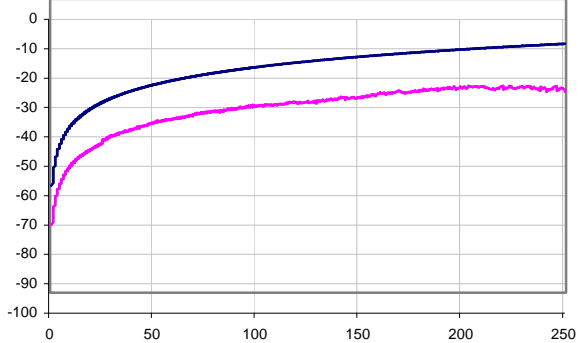
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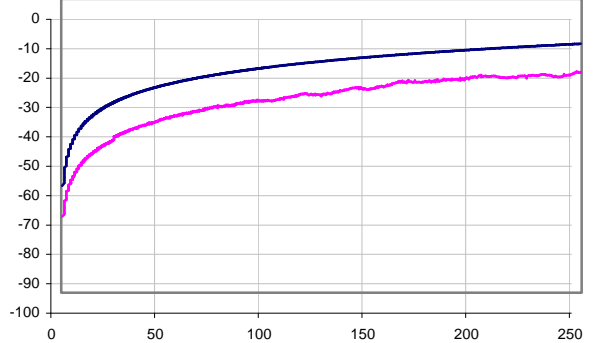
pairs: 3-6 / 7-8



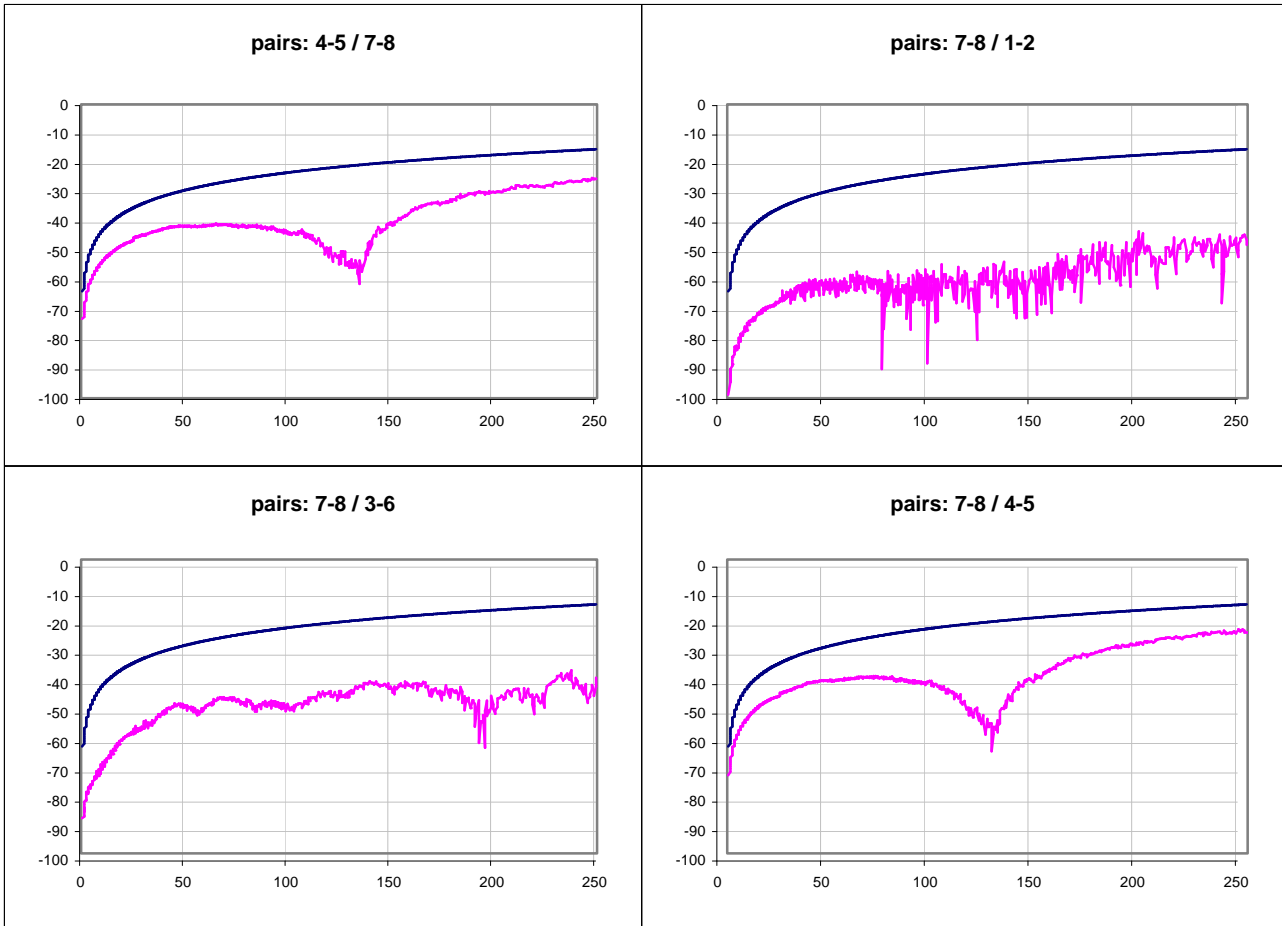
pairs: 4-5 / 1-2



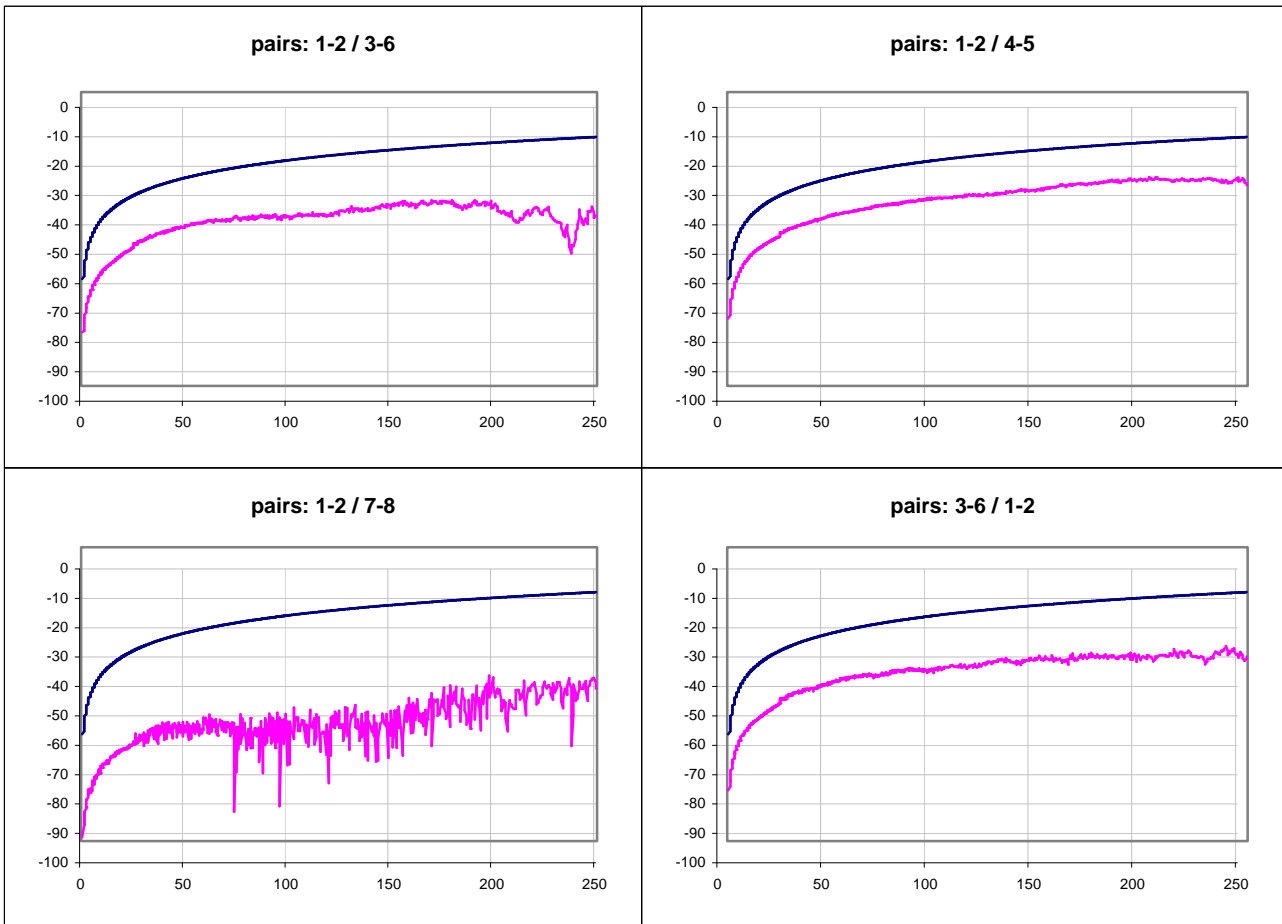
pairs: 4-5 / 3-6



ELFEXT / dB (scanner side - type 1 side)

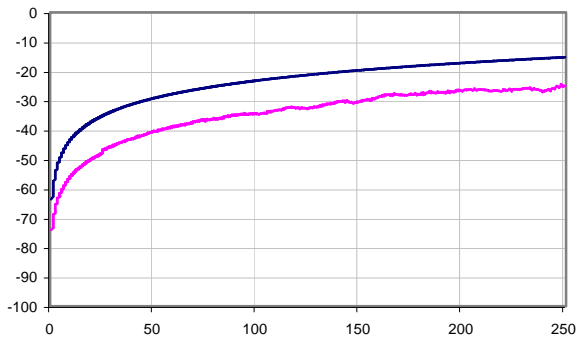


ELFEXT / dB (remote side - type 2 side)

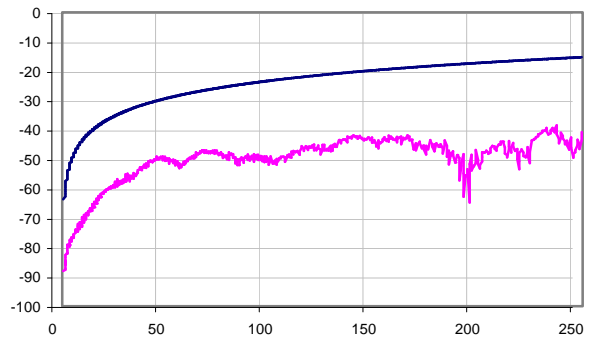


ELFEXT / dB (remote side - type 2 side)

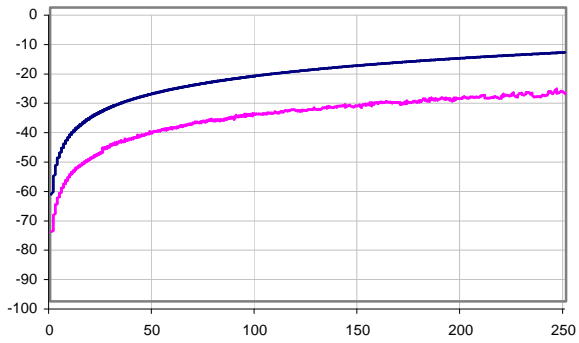
pairs: 3-6 / 4-5



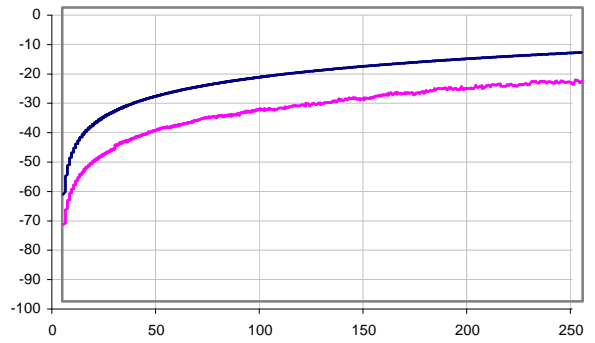
pairs: 3-6 / 7-8



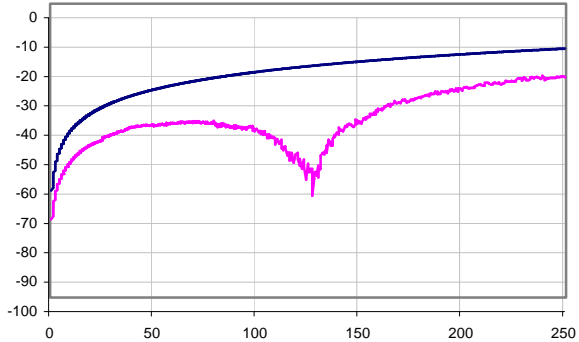
pairs: 4-5 / 1-2



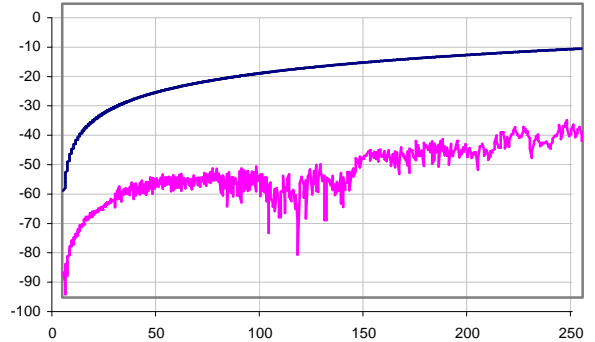
pairs: 4-5 / 3-6



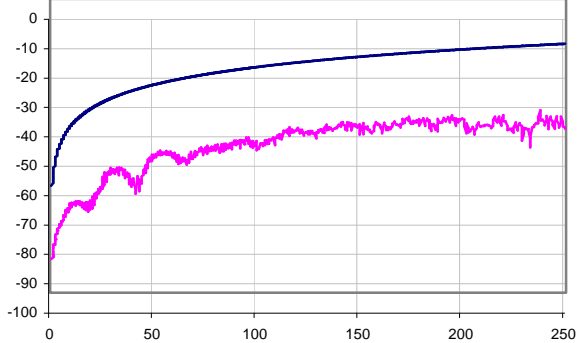
pairs: 4-5 / 7-8



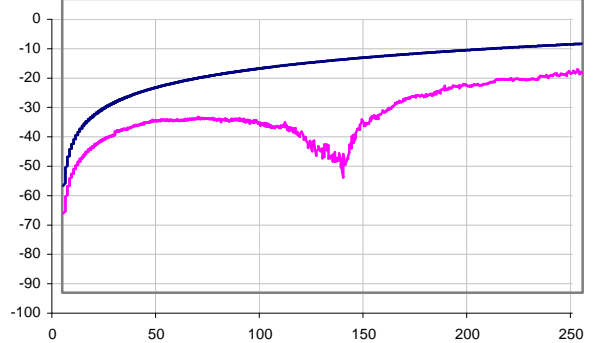
pairs: 7-8 / 1-2



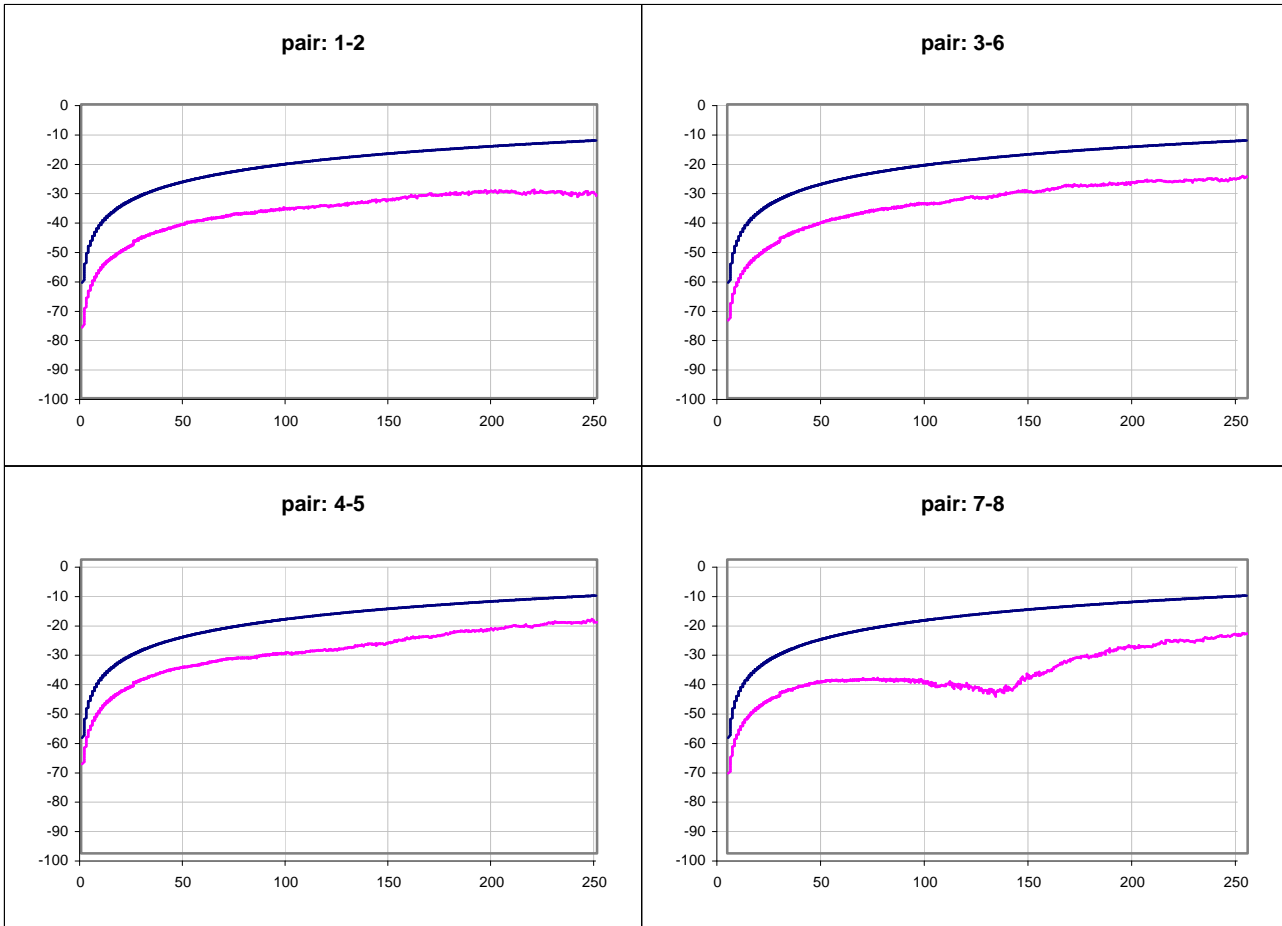
pairs: 7-8 / 3-6



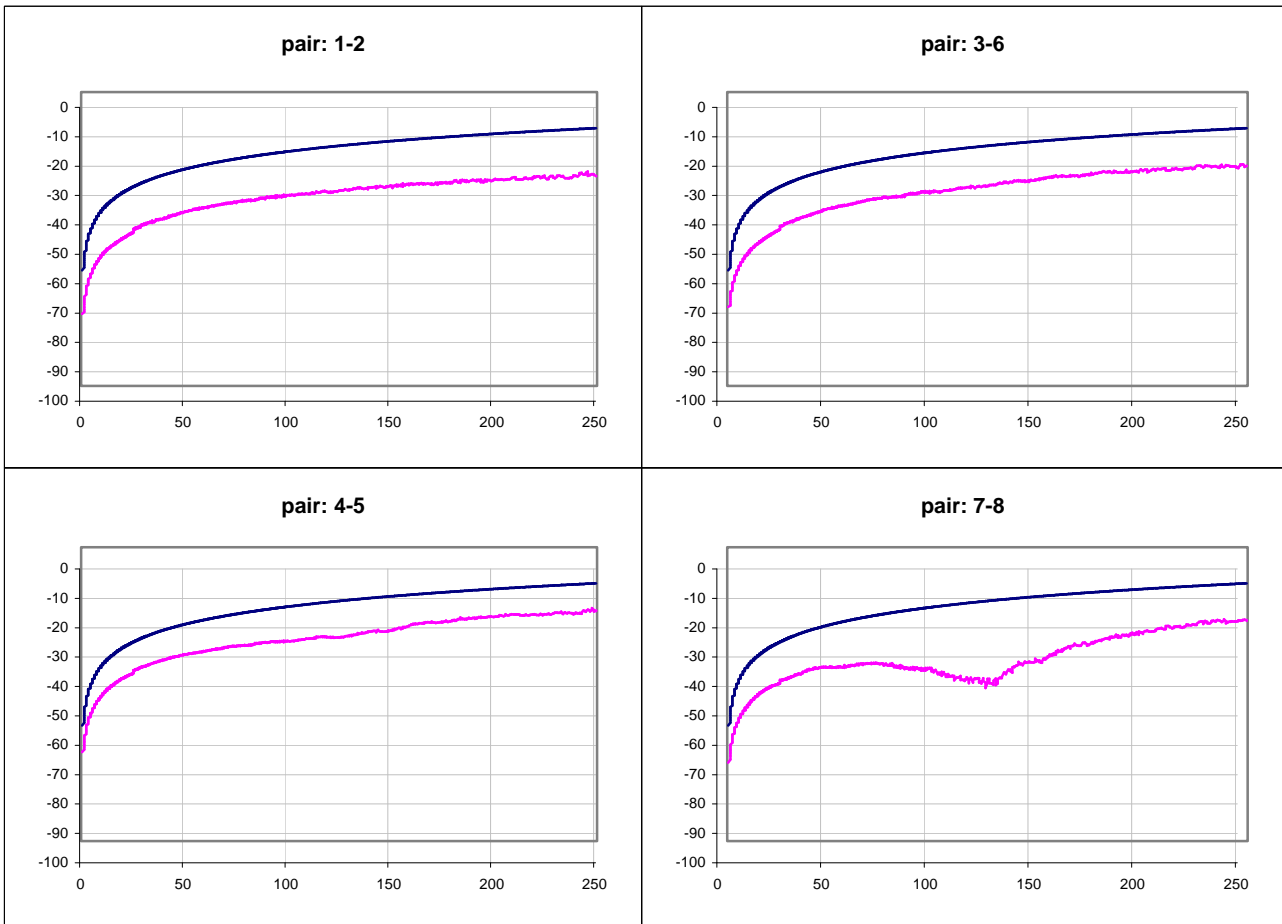
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PSELFEXT / dB (scanner side - type 1 side)

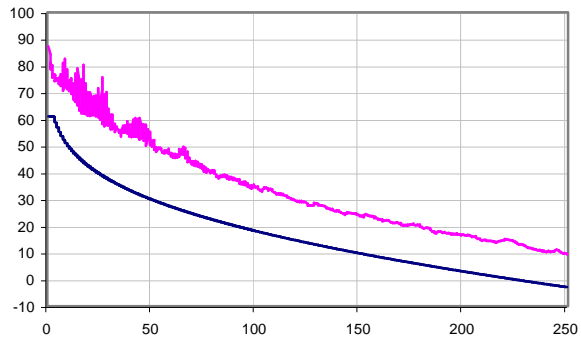


PSELFEXT / dB (remote side - type 2 side)

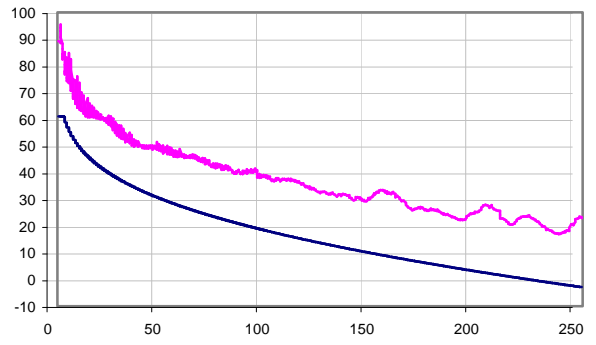


ACR / dB (scanner side - type 1 side)

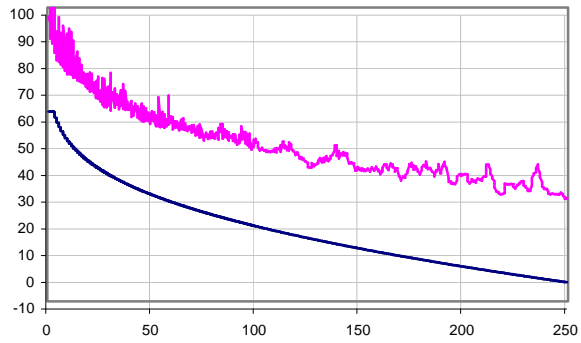
pairs: 1-2 / 3-6



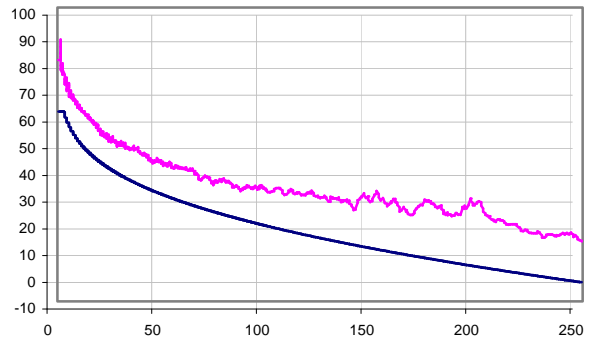
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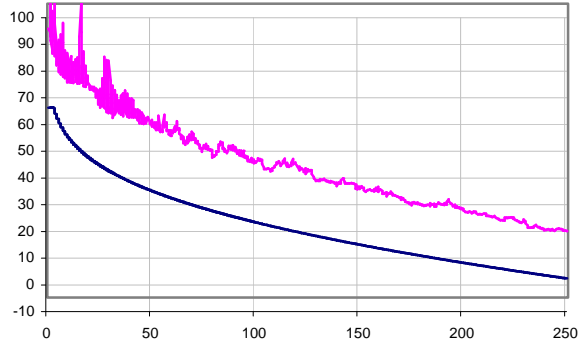
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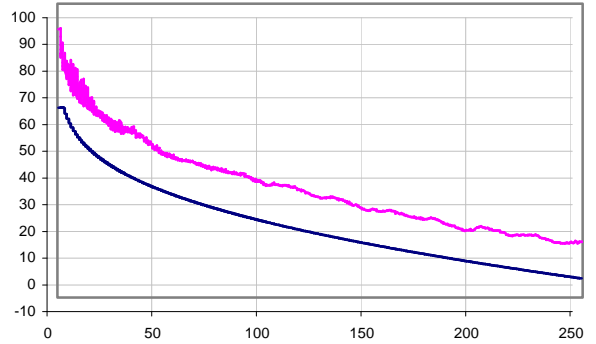
pairs: 3-6 / 4-5



pairs: 3-6 / 7-8

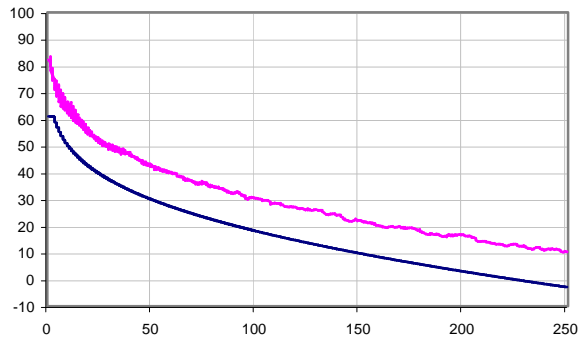


pairs: 4-5 / 7-8

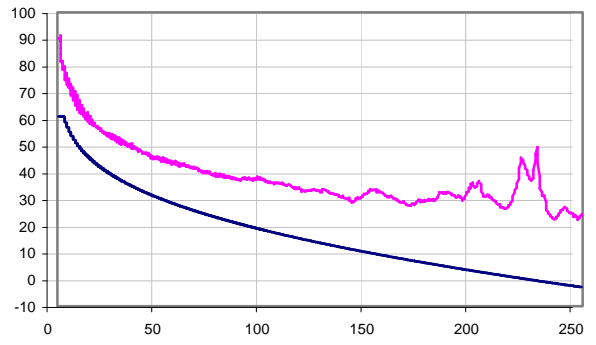


ACR / dB (remote side - type 2 side)

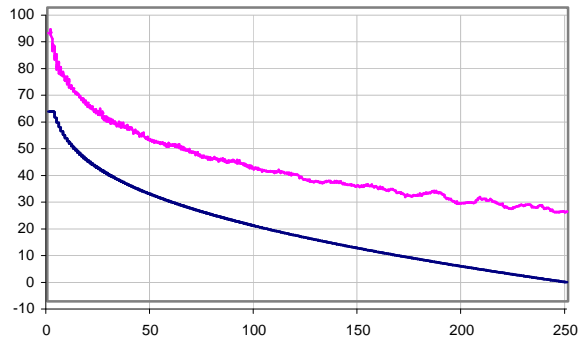
pairs: 1-2 / 3-6



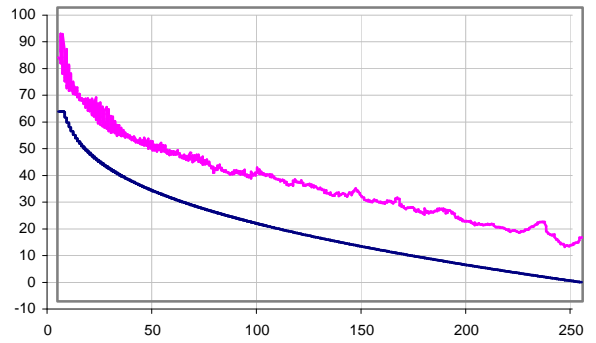
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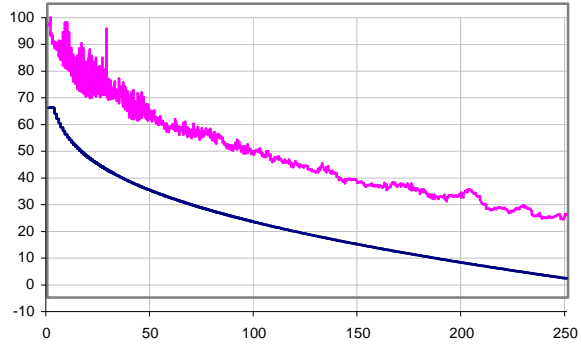
pairs: 1-2 / 7-8



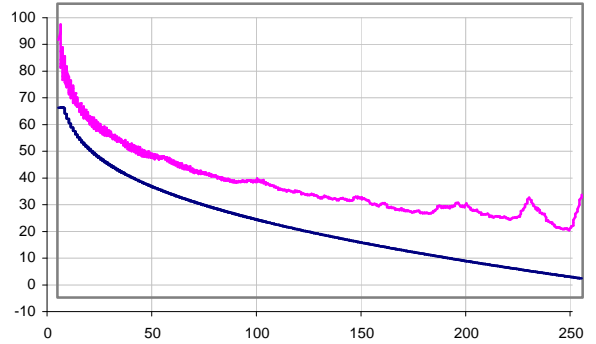
pairs: 3-6 / 4-5



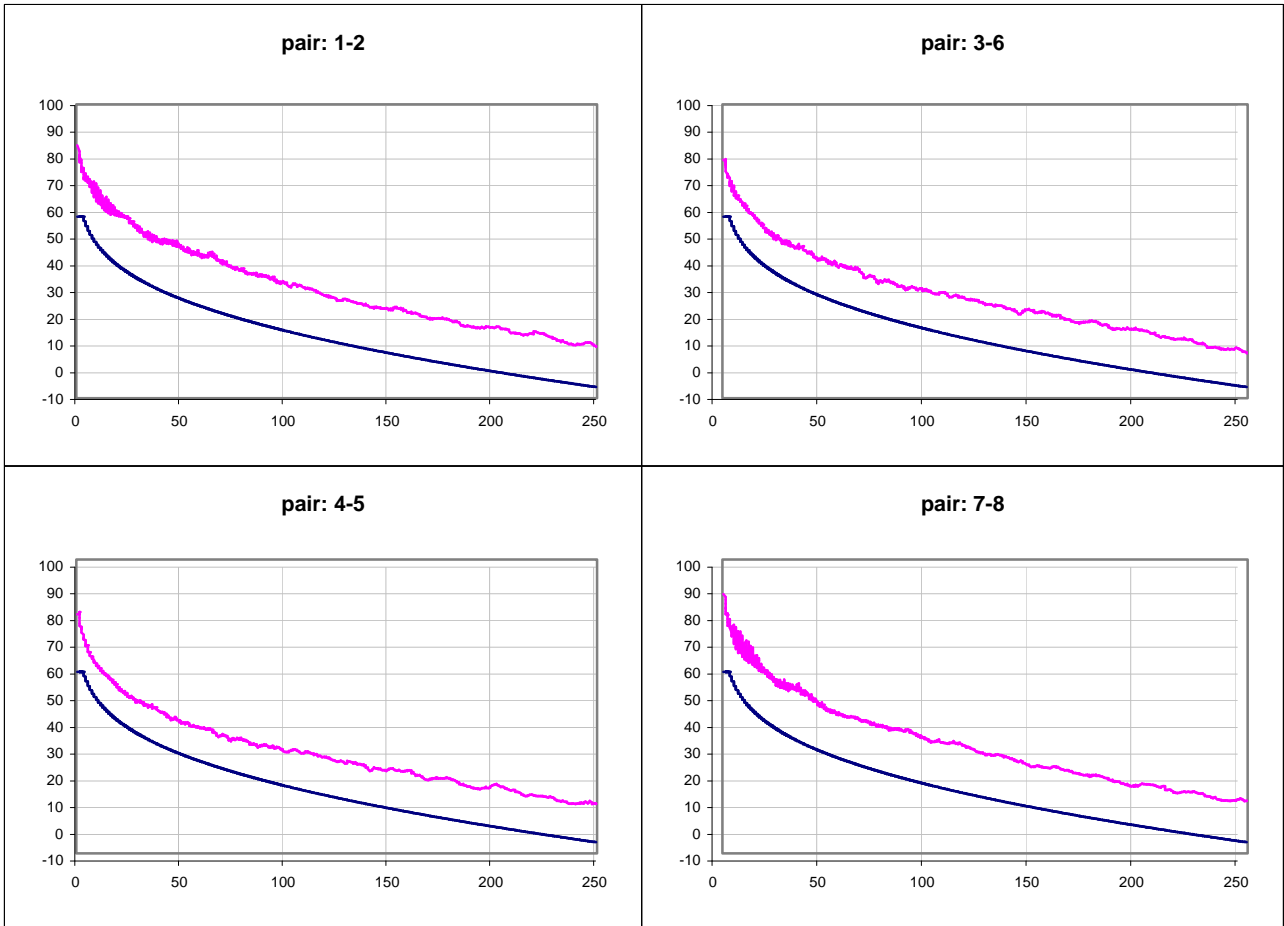
pairs: 3-6 / 7-8



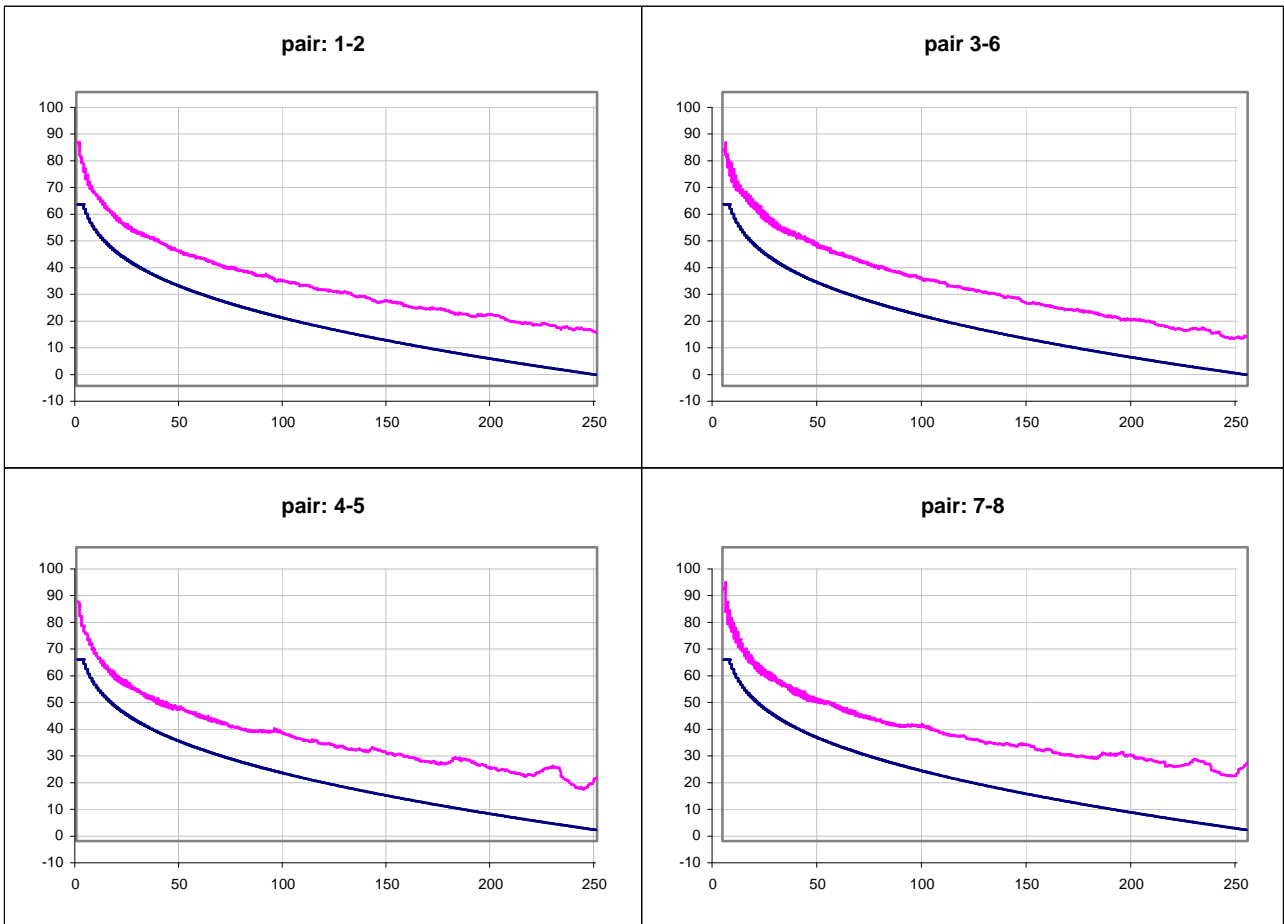
pairs: 4-5 / 7-8



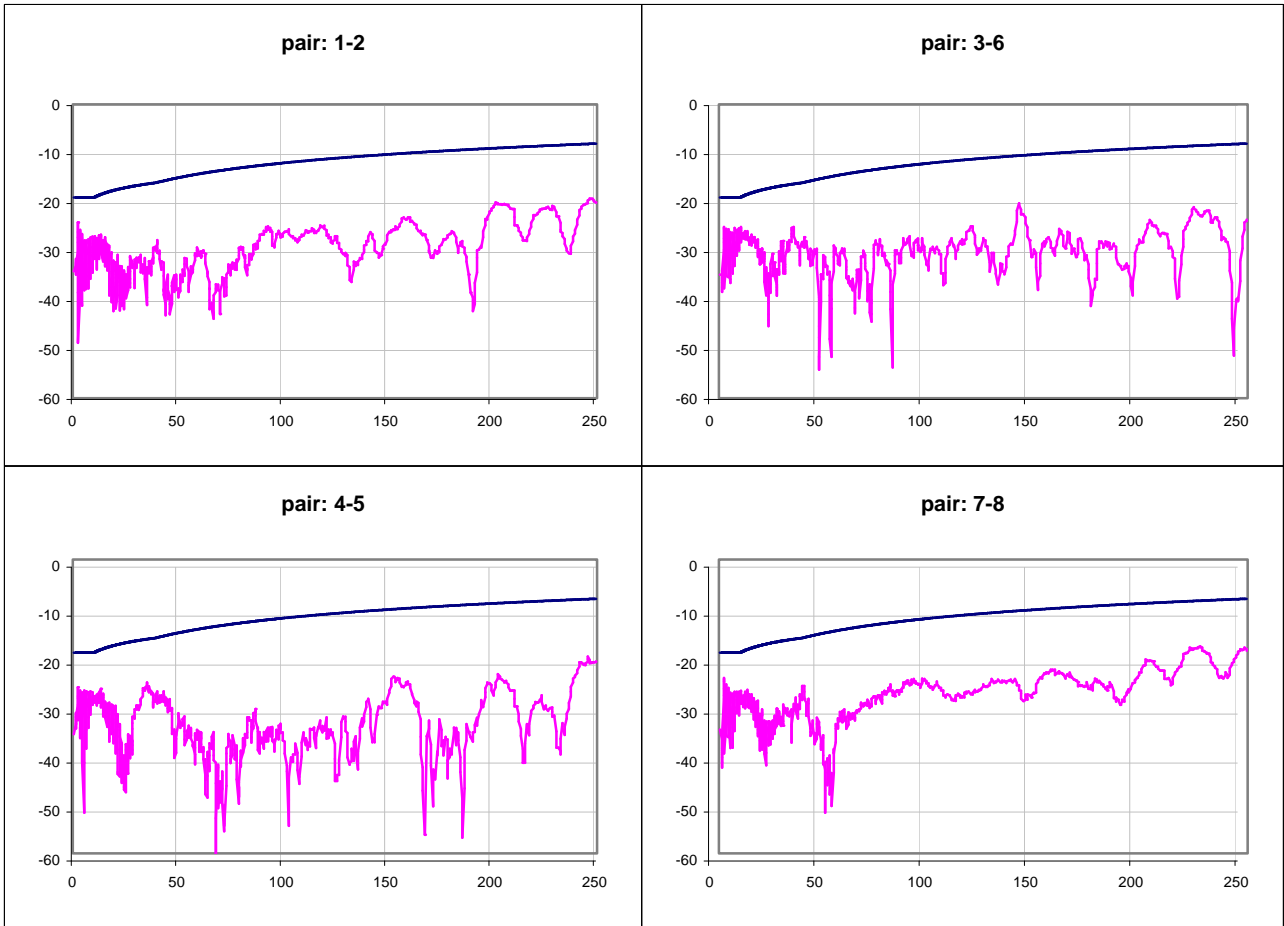
PSACR / dB (scanner side - type 1 side)



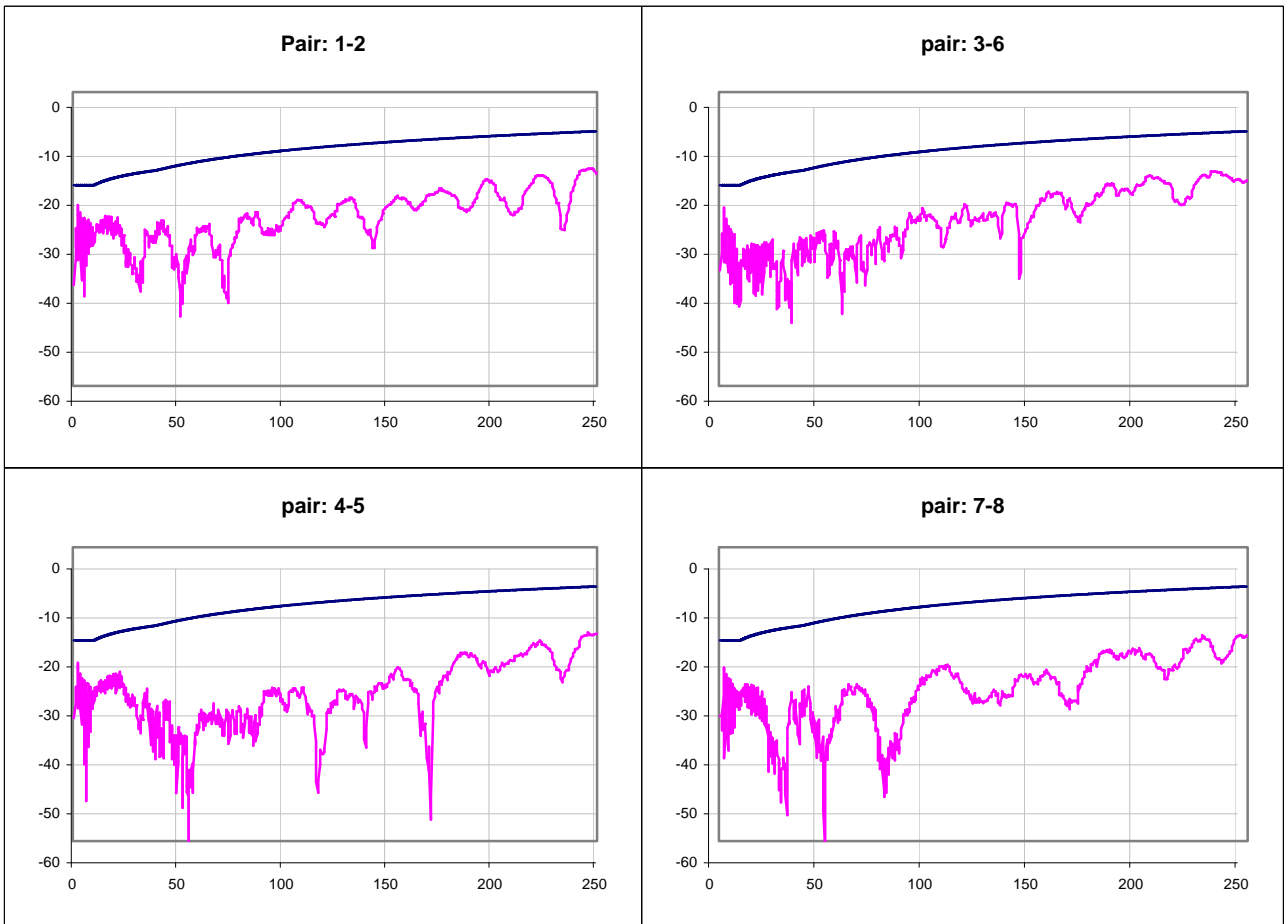
PSACR / dB (remote side - type 2 side)



Return Loss / dB (scanner side - type 1 side)

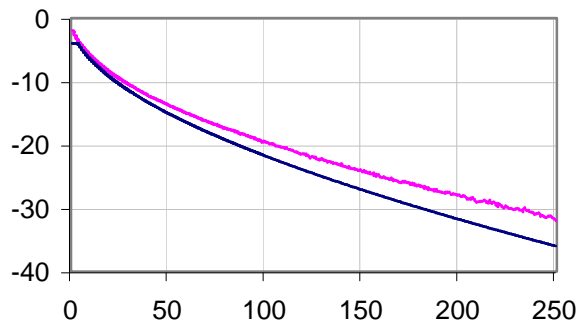


Return Loss / dB (remote side - type 2 side)

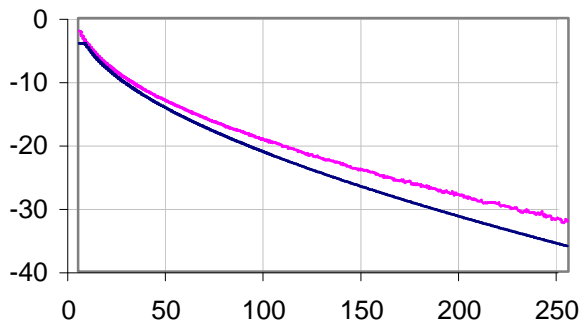


Attenuation / dB

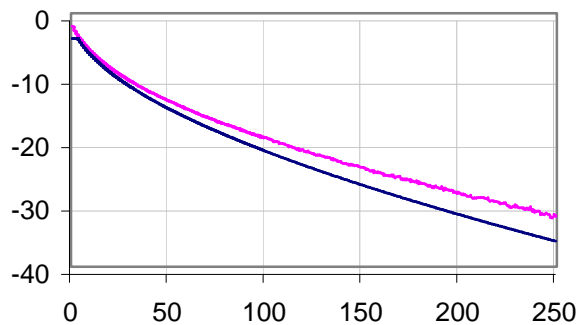
pair: 1-2



pair: 3-6



pair: 4-5



pair: 7-8

