

## Test Report No. EWA20026-46

### Transmission Performance Testing:

according to ISO/IEC JTC 1/SC 25 N 739 IT (2001-10-10)  
Channel Class E

### The Equipment Under Test (EUT)

Part 1:	Modular Patch Panel MPP /MPD Cat. 6
Part 2:	Outlet AMJ45 8/8 Cat. 6 / Class E
Part 3:	L00003A0049 (2x) TG Measuring Cable Cat. 6 - 5m (2x)
Part 4:	M06015A0079 (2x) Microtest Omniscanner 2 Channel Adapter Cat. 6
Installation Cable:	Kerpen Megaline 723 S/FTP Cat. 7

### Result:

The EUT has been verified as being compliant with the transmission specifications according to the standard ISO/IEC JTC 1/SC 25 N 739 IT (2001).

The minimum NEXT reserve of the Channel Class E is:  
@100 MHz = -5,3 dB and @ 250 MHz = -8,4 dB.

### Test location:

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### Tested by:



Frank Albert

Steinenbronn, August 06, 2002

## Products:

Electrically compatible with the following part numbers:

Modular Patch Panel MPP / MPD Cat. 6:

- J02023F0019 Mod. Patch Panel Cat. 6 MPP24-HS screened, RAL 7035
- J02023B0019 Mod. Patch Panel Cat. 6 MPP24-HS screened, RAL 7035
- J02023C0019 Mod. Patch Panel Cat. 6 MPP24-HS screened, RAL 7035
- J02023D0019 Mod. Patch Panel Cat. 6 MPP24-HS screened, RAL 7035
- J02023E0019 Mod. Patch Panel Cat. 6 MPP24-HS screened, RAL 7035
- J02023H0019 Mod. Patch Panel Cat. 6 MPP24-HS screened, RAL 7035
- J02022F0024 Mod. Patch Panel Cat. 6 MPP16-HS screened, RAL 7035
- J02022B0024 Mod. Patch Panel Cat. 6 MPP16-HS screened, RAL 7035
- J02022D0024 Mod. Patch Panel Cat. 6 MPP16-HS screened, RAL 7035
- J02022A0038 10" Mod. Patch Panel Cat. 6 MPP12-HS screened, RAL 7035
- J02022A0028 Distributor Cat. 6 MPD12-HS screened
- J02021A0019 Distributor Cat. 6 MPD12-HS 3HU/ 10PU screened
- J02021A0015 Distributor Cat. 6 Typ II MPD6-HS screened
- J02021A0017 Distributor Cat. 6 Typ II MPD6-HS screened
- J02021A0024 Distributor Cat. 6 MPD6-HS 3HU/8PU screened without front panel

Outlet AMJ45 8/8 Cat. 6 / Class E

- J00020A0393 Outlet AMJ45 8/8 UP/50 EK screenend, Cat. 6 / Class E alpine white
- J00020A0394 Outlet AMJ45 8/8 UP/50 EK screenend, Cat. 6 / Class E pearl white RAL 1013
- J00020A0395 Outlet AMJ45 8/8 UP/50 EK screenend, Cat. 6 / Class E without cover plate
- J00020H0393 Outlet AMJ45 8/8 UP/50 EK screenend, Cat. 6 / Class E alpine white
- J00020H0394 Outlet AMJ45 8/8 UP/50 EK screenend, Cat. 6 / Class E pearl white RAL 1013
- J00020A0392 Outlet AMJ45 8/8 UP/50 EK screenend, Cat. 6 / Class E without cover plate

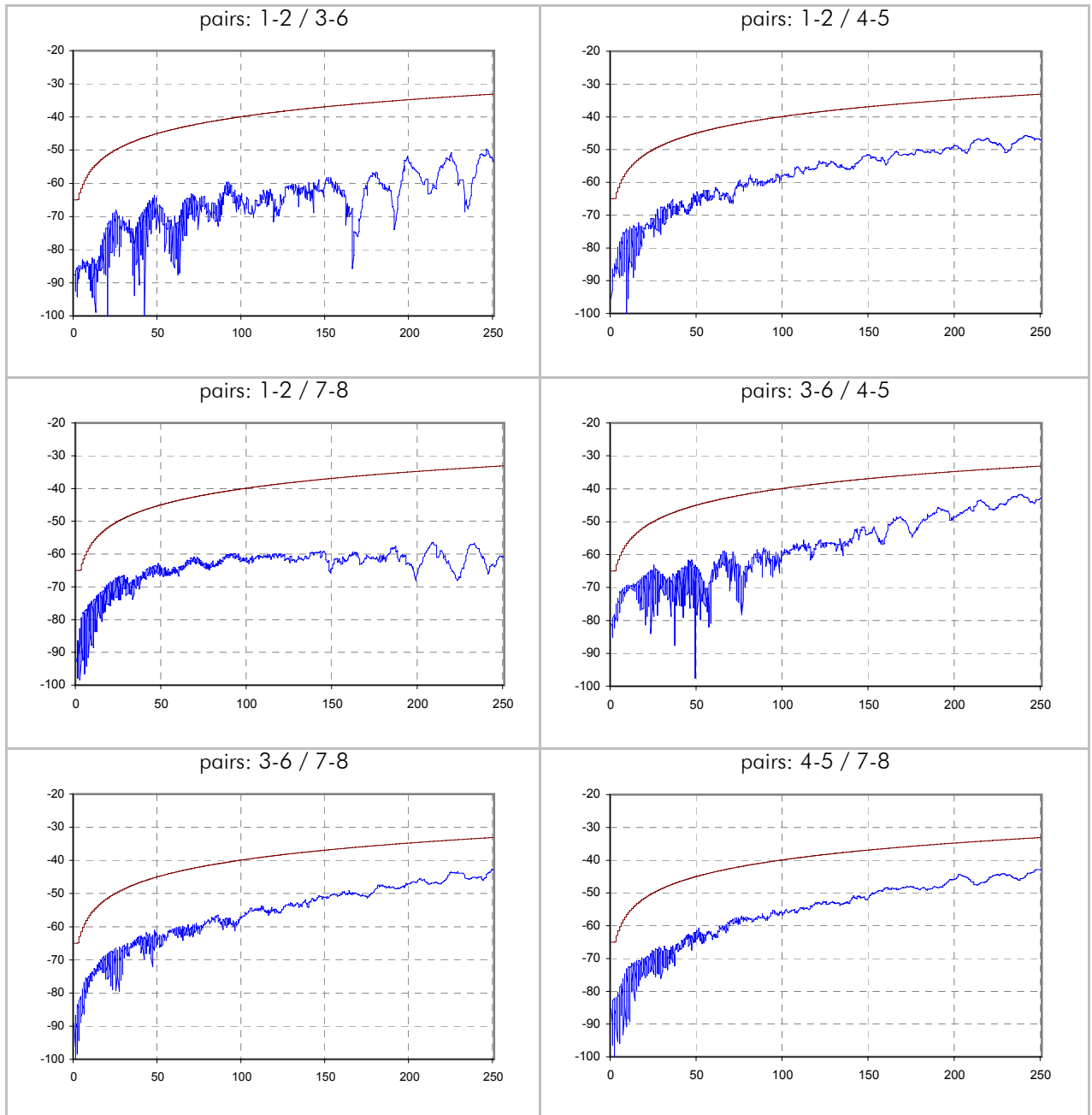
## Test Results

pairs	1-2	3-6	4-5	7-8	limit	skew / ns	limit
max Propagation delay / ns	460,0	460,0	462,0	459,0	546,3	3,0	50,0
Attenuation @ 100 MHz / dB	-20,8	-20,3	-20,5	-20,6	-21,7		
Attenuation @ 250 MHz / dB	-33,5	-33,0	-33,3	-32,8	-21,7		
min PSNEXT margin / dB	12,1	4,7	4,5	8,0			
@ f / MHZ	238,0	29,3	29,3	236,2			
PSNEXT limit / dB	-30,5	-46,2	-46,2	-30,6			
PSNEXT @ 100 MHz	-52,0	-44,6	-44,8	-49,5	-37,1		
PSNEXT @ 250 MHz	-45,2	-38,9	-39,3	-39,8	-30,2		
min PSELFEXT margin / dB	12,4	6,6	6,1	11,8			
@ f / MHZ	1,0	1,0	1,0	1,0			
PSELFEXT limit / dB	-60,6	-60,6	-60,6	-60,6			
PSELFEXT @ 100 MHz	-37,0	-28,8	-28,4	-34,3	-20,3		
PSELFEXT @ 250 MHz	-29,0	-21,6	-22,5	-27,6	-12,3		
min PSACR margin / dB	14,4	5,2	4,9	10,7			
@ f / MHZ	29,5	29,3	29,3	235,3			
PSACR limit / dB	34,7	34,8	34,8	-4,1			
PSACR @ 100 MHz	35,2	34,2	32,1	32,1	15,4		
PSACR @ 250 MHz	12,2	6,8	9,7	7,9	-5,7		
min Return Loss margin / dB	4,6	4,8	3,9	4,4			
@ f / MHZ	2,3	2,3	2,3	2,4			
Return Loss limit / dB	-19,0	-19,0	-19,0	-19,0			

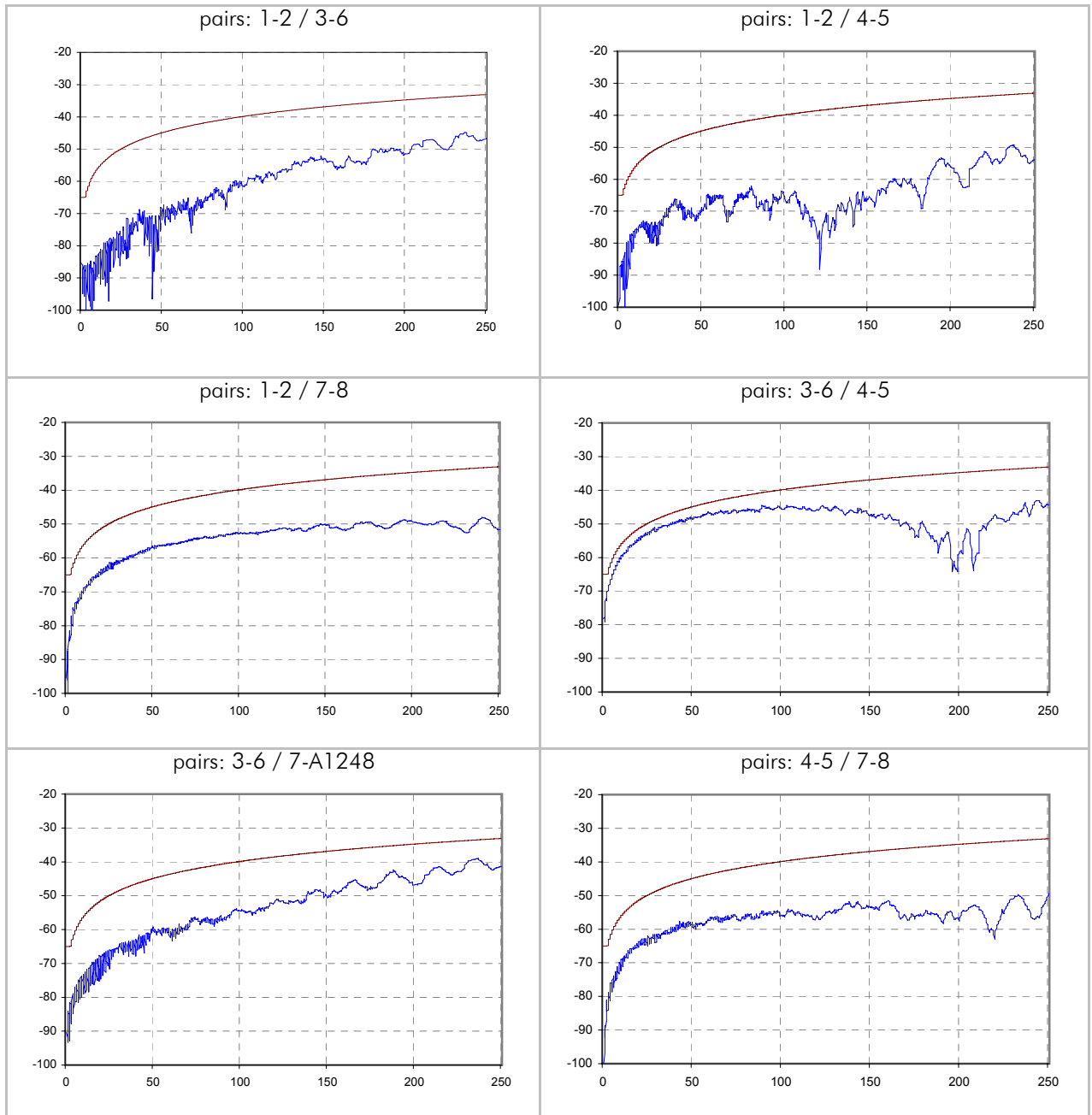
pairs	1-2 / 3-6	1-2 / 4-5	1-2 / 7-8	3-6 / 4-5	3-6 / 7-8	4-5 / 7-8	limit
min NEXT margin / dB	11,3	12,3	11,6	2,2	5,5	9,7	
@ f / MHZ	237,1	241,6	50,7	29,2	237,1	247,9	
Next limit / dB	-33,5	-33,4	-44,9	-48,9	-33,5	-33,2	
NEXT @ 100 MHz	-61,3	-58,1	-52,8	-45,2	-54,3	-55,7	-39,9
NEXT @ 250 MHz	-47,0	-46,9	-51,6	-43,2	-41,5	-42,9	-33,1
min ACR margin / dB	13,6	14,1	11,9	2,5	8,2	11,9	
@ f / MHZ	234,4	241,6	25,9	29,3	233,5	203,8	
ACR limit / dB	-1,1	-1,9	39,1	37,5	-1,0	2,6	
ACR @ 100 MHz	40,6	37,3	32,0	24,7	33,7	35,1	18,2
ACR @ 250 MHz	13,5	13,3	18,1	9,9	8,4	9,6	-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	12,4	11,2	15,9	4,3	10,8	12,3	
@ f / MHZ	236,2	1,4	1,0	1,0	141,3	26,4	
ELFEXT limit / dB	-15,8	-60,3	-63,6	-63,6	-20,3	-34,8	
min ELFEXT margin / dB	13,1	11,2	15,9	4,2	10,6	12,3	
@ f / MHZ	236,2	1,3	1,0	1,0	141,3	26,4	
ELFEXT limit / dB	-15,8	-61,0	-63,6	-63,6	-20,3	-34,8	
ELFEXT @ 100 MHz	-43,4	-37,8	-47,9	-29,5	-36,7	-38,6	-23,3
ELFEXT @ 250 MHz	-30,3	-34,2	-41,0	-23,3	-28,5	-34,4	-15,3
ELFEXT @ 100 MHz	-43,8	-38,0	-48,1	-29,3	-36,5	-38,5	-23,3
ELFEXT @ 250 MHz	-30,8	-34,4	-41,8	-23,0	-28,7	-34,9	-15,3

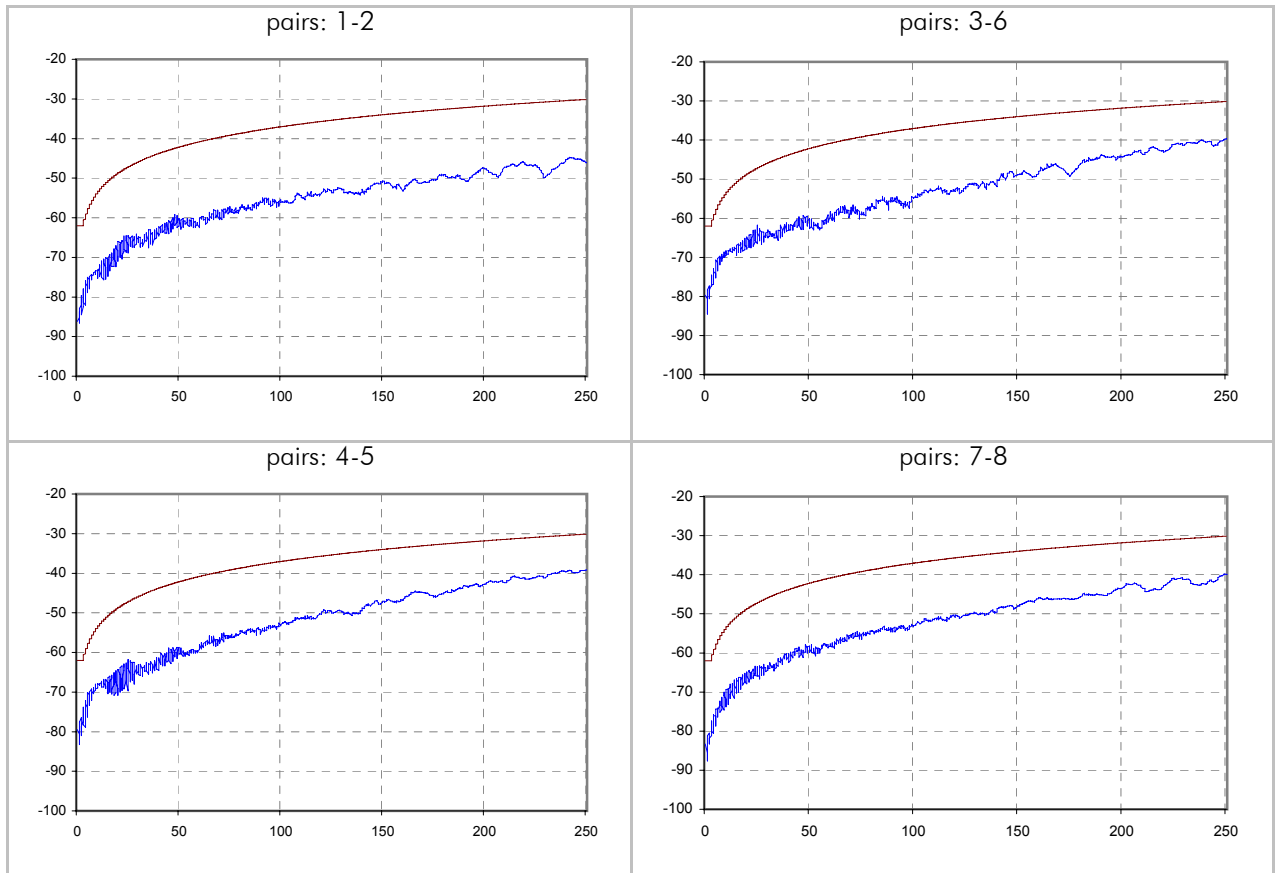
NEXT / dB (scanner side - type 1 side)



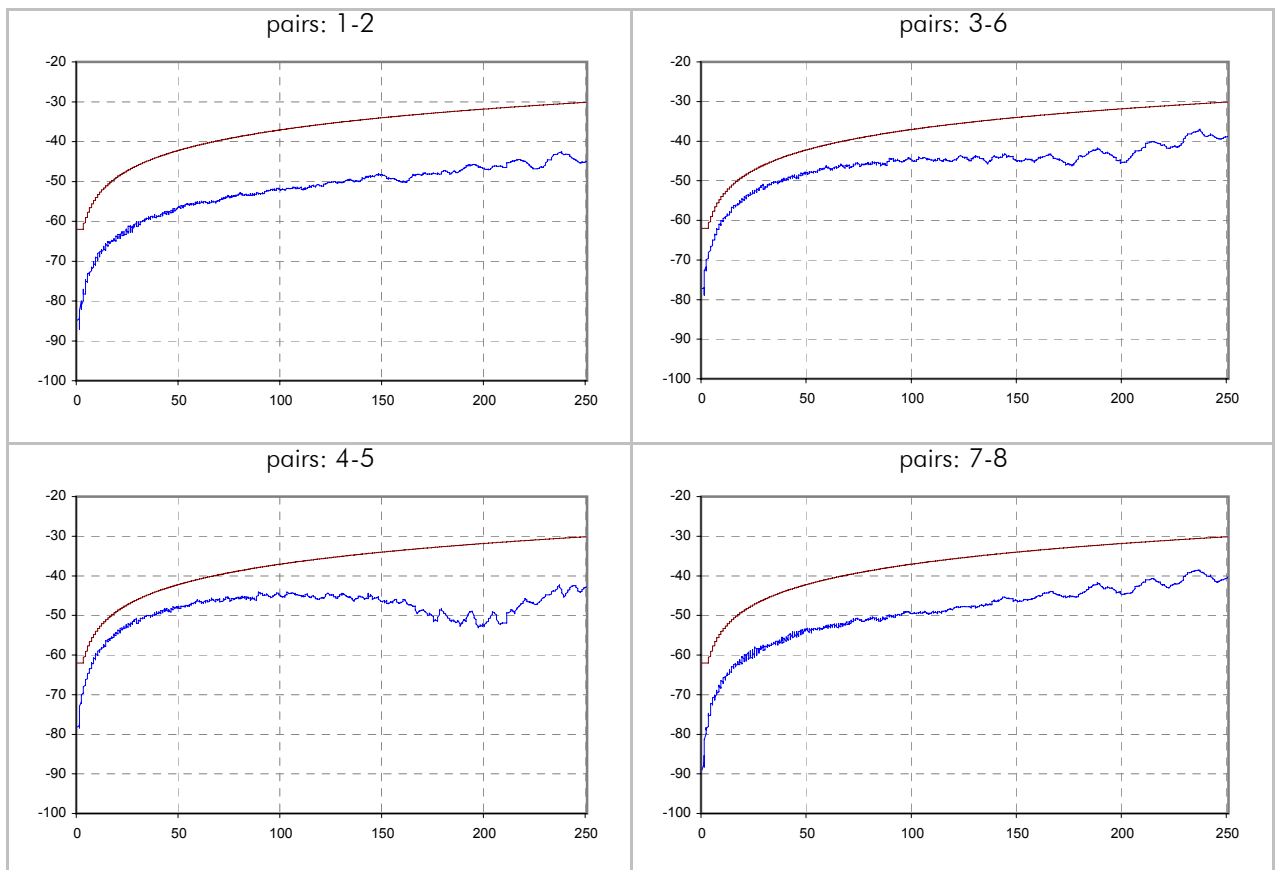
NEXT / dB (remote side - type 2 side)



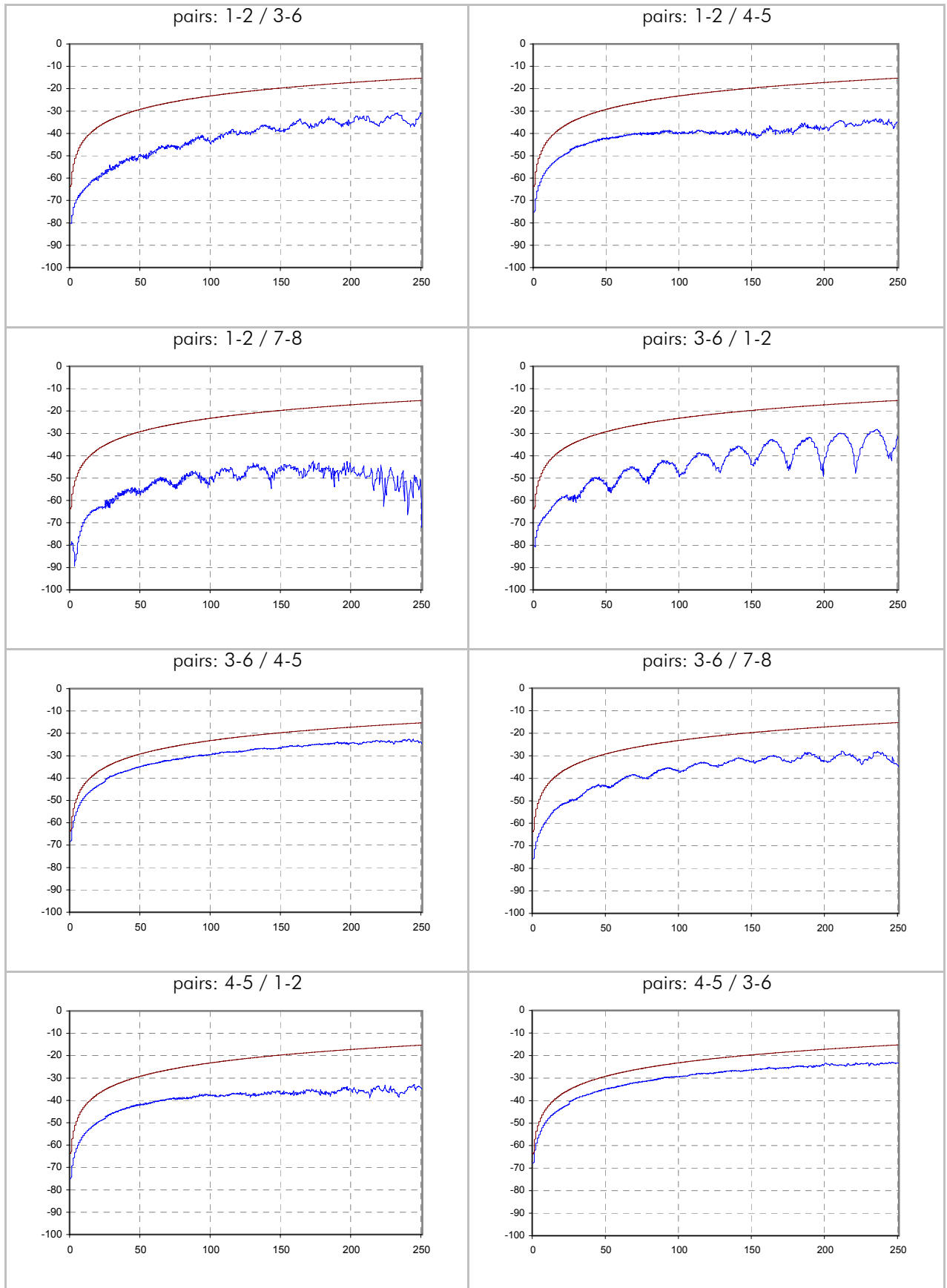
PSNEXT / dB (scanner side - type 1 side)



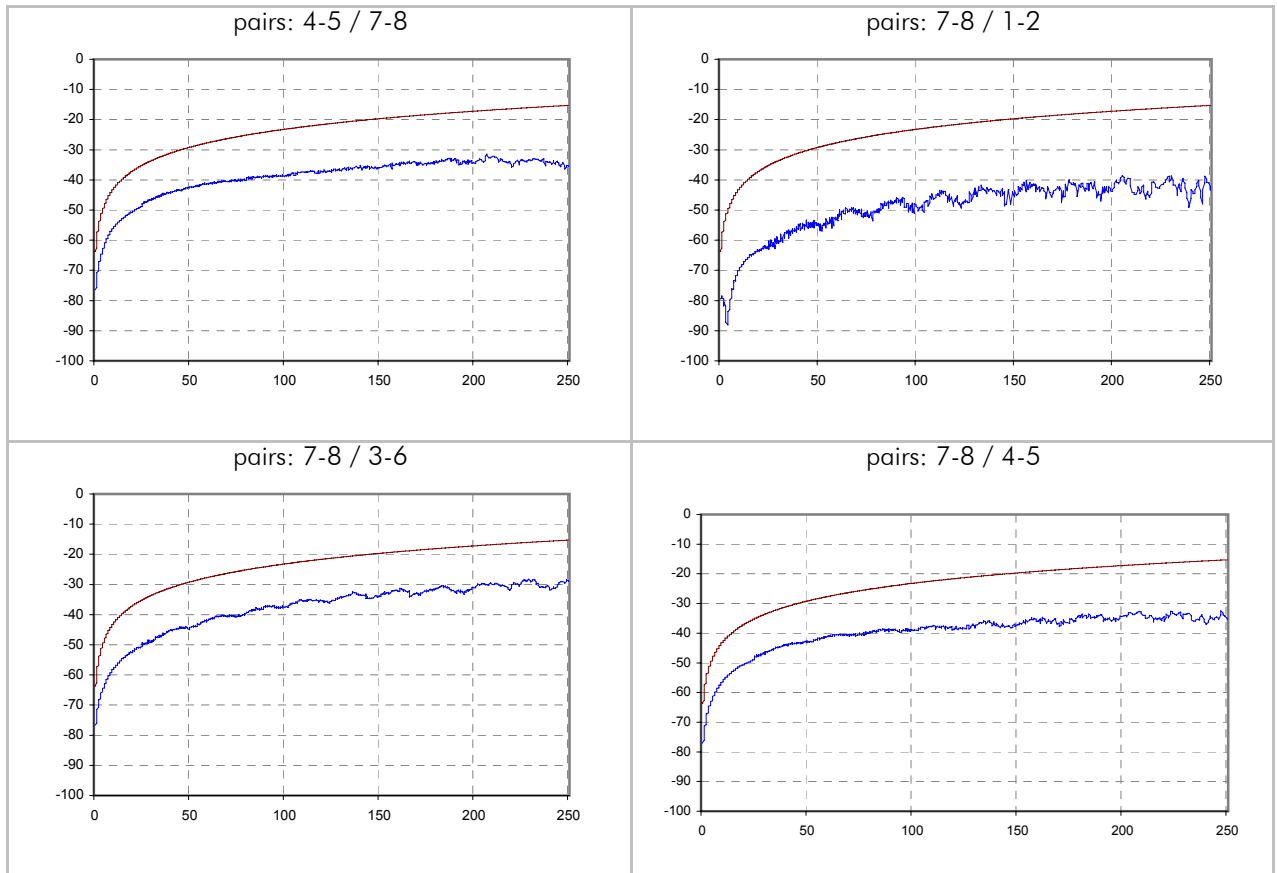
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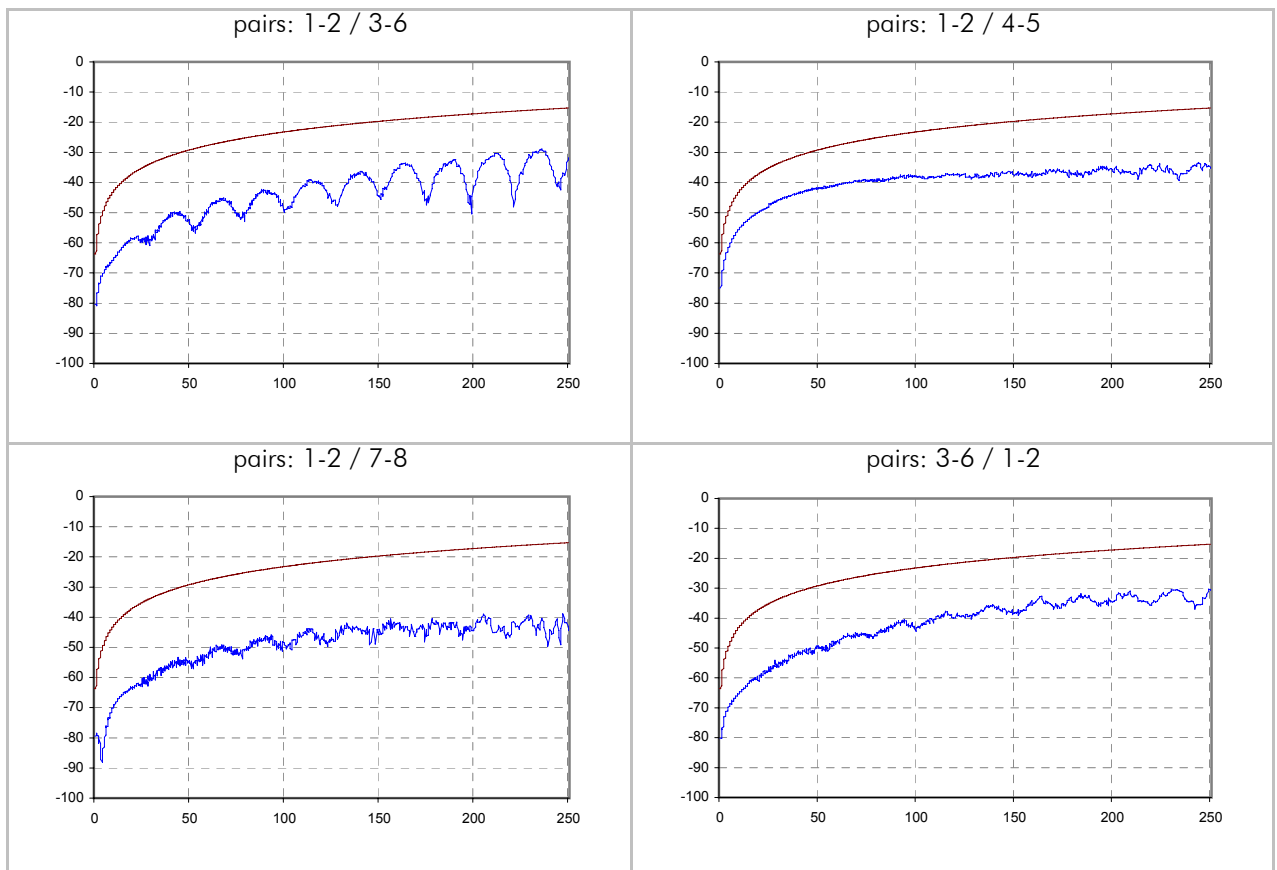
ELFEXT / dB (scanner side - type 1 side)



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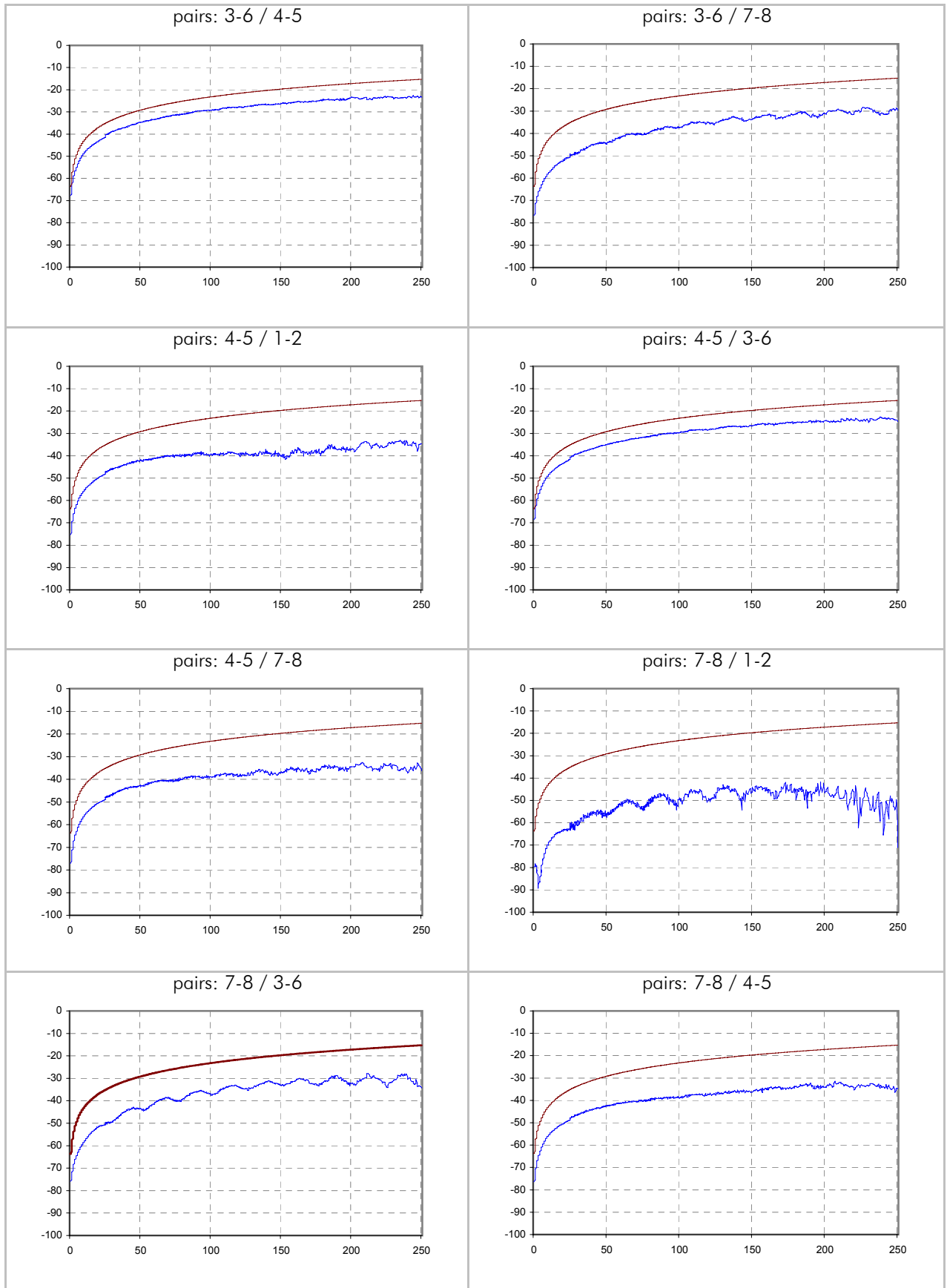


ELFEXT / dB (remote side - type 2 side)

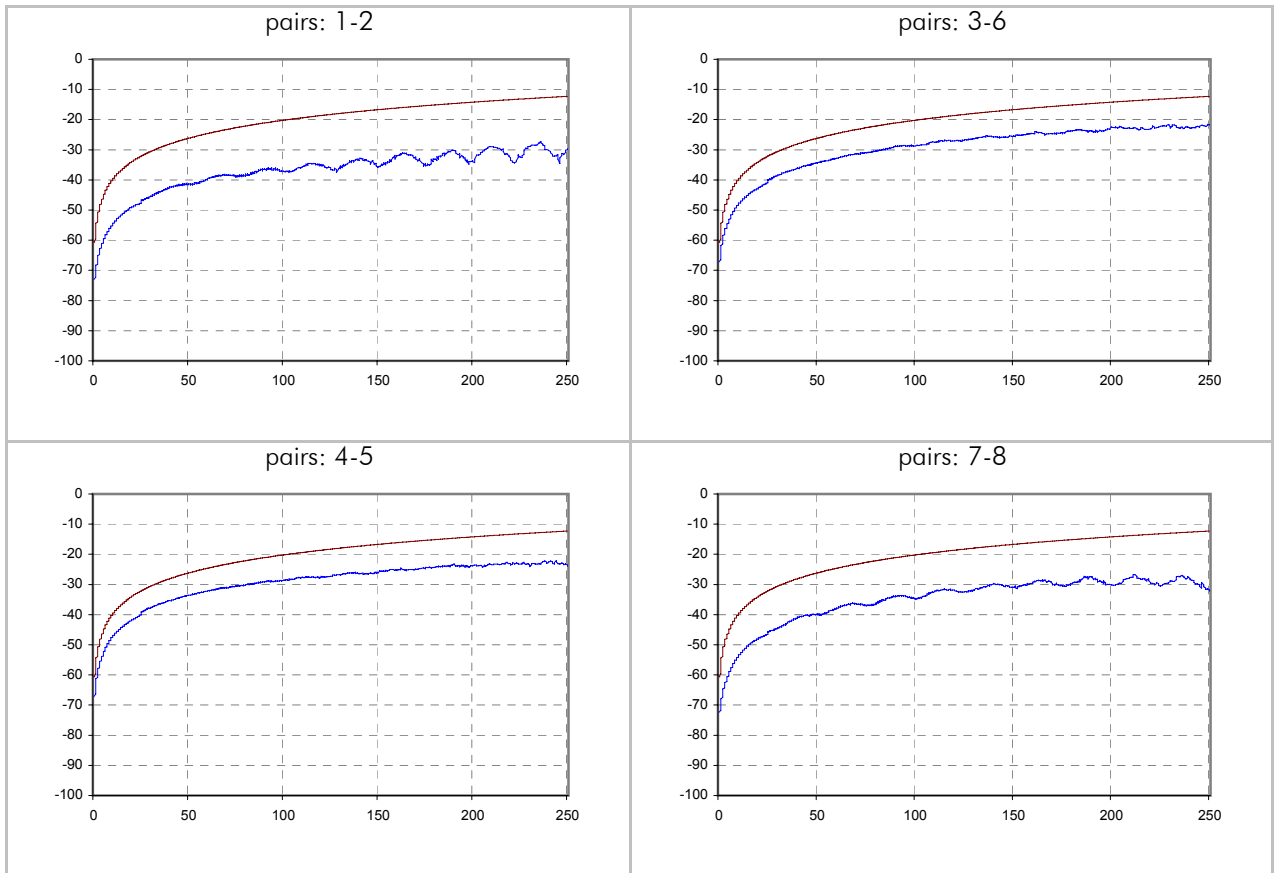




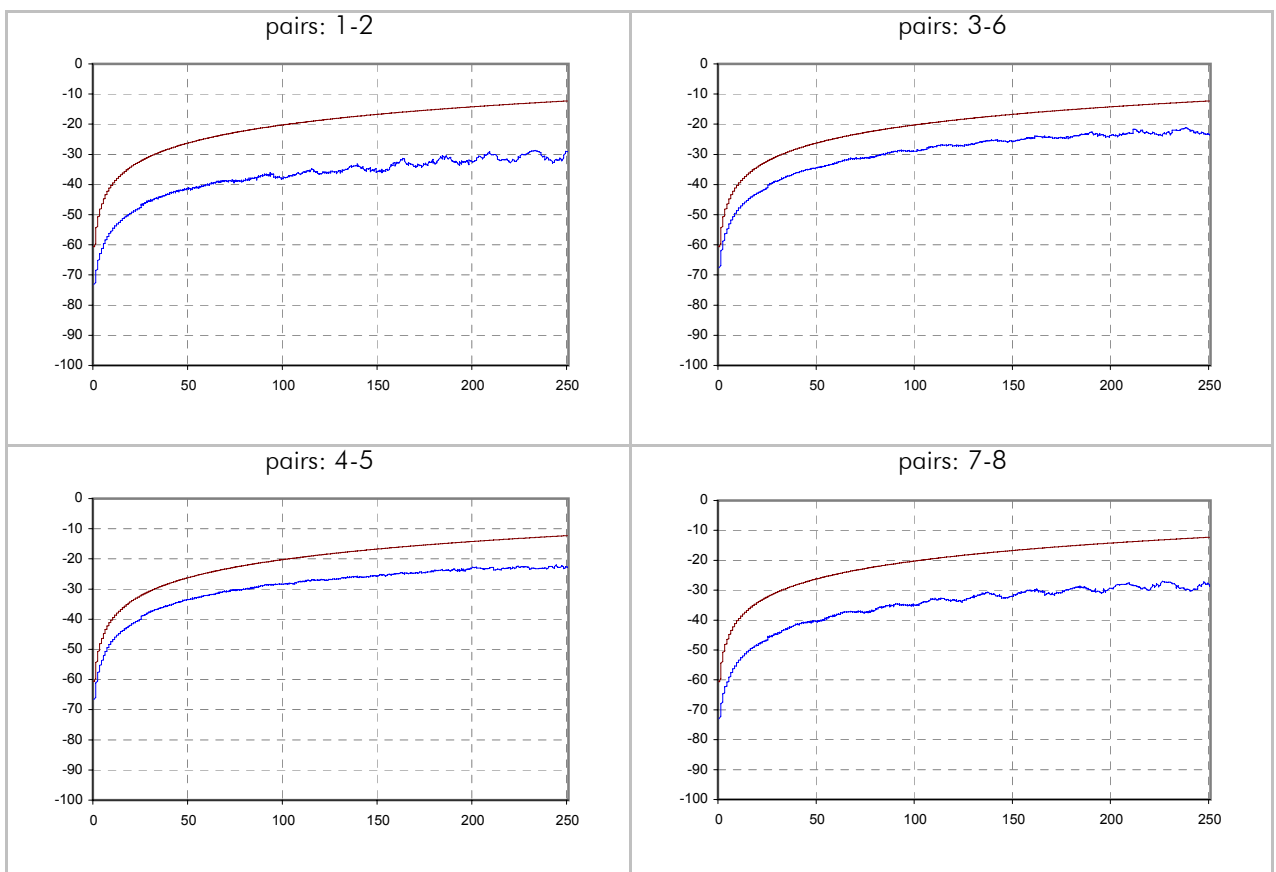
ELFEXT / dB (remote side - type 2 side)



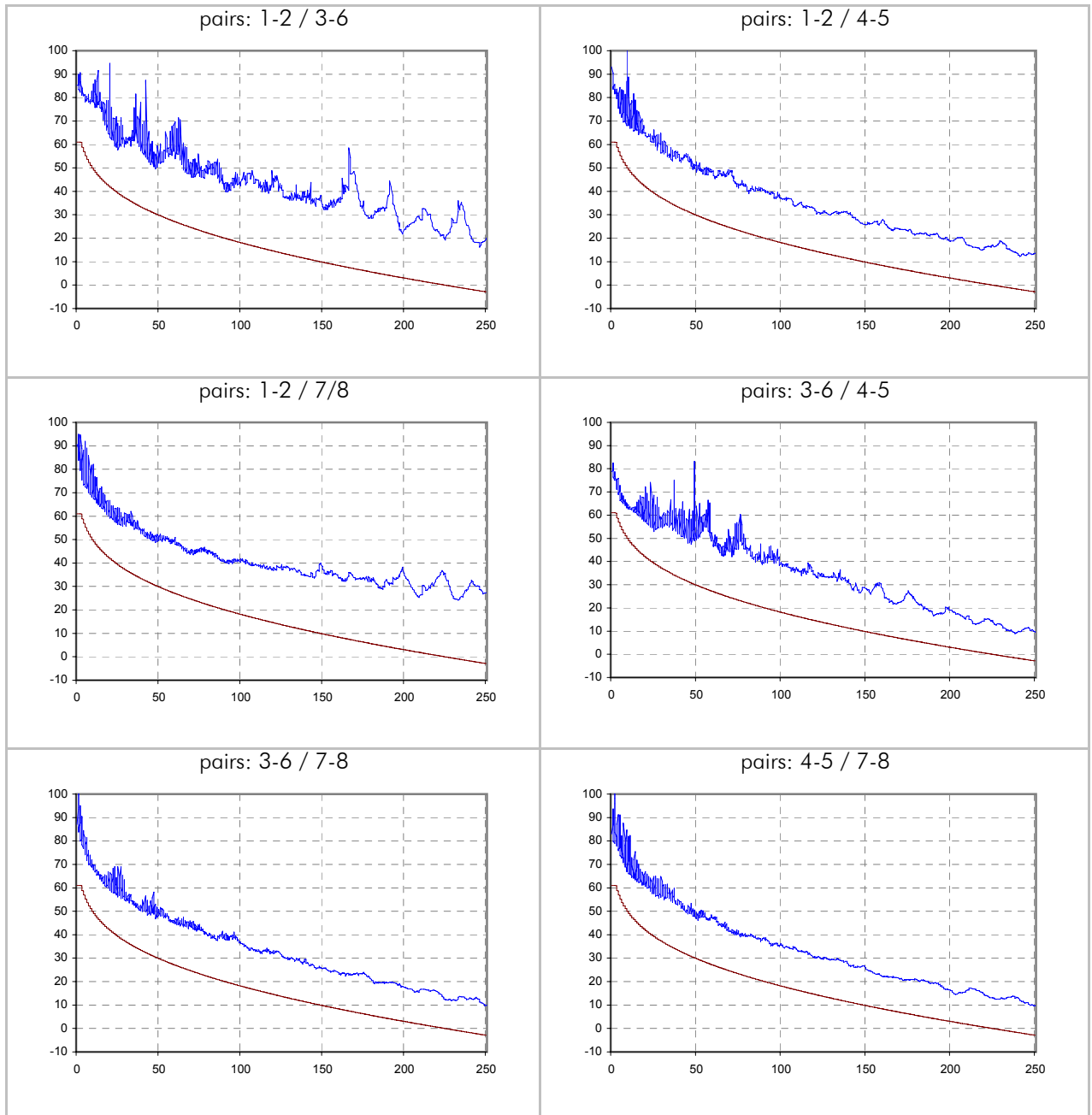
PSELFEXT / dB (scanner side - type 1 side)



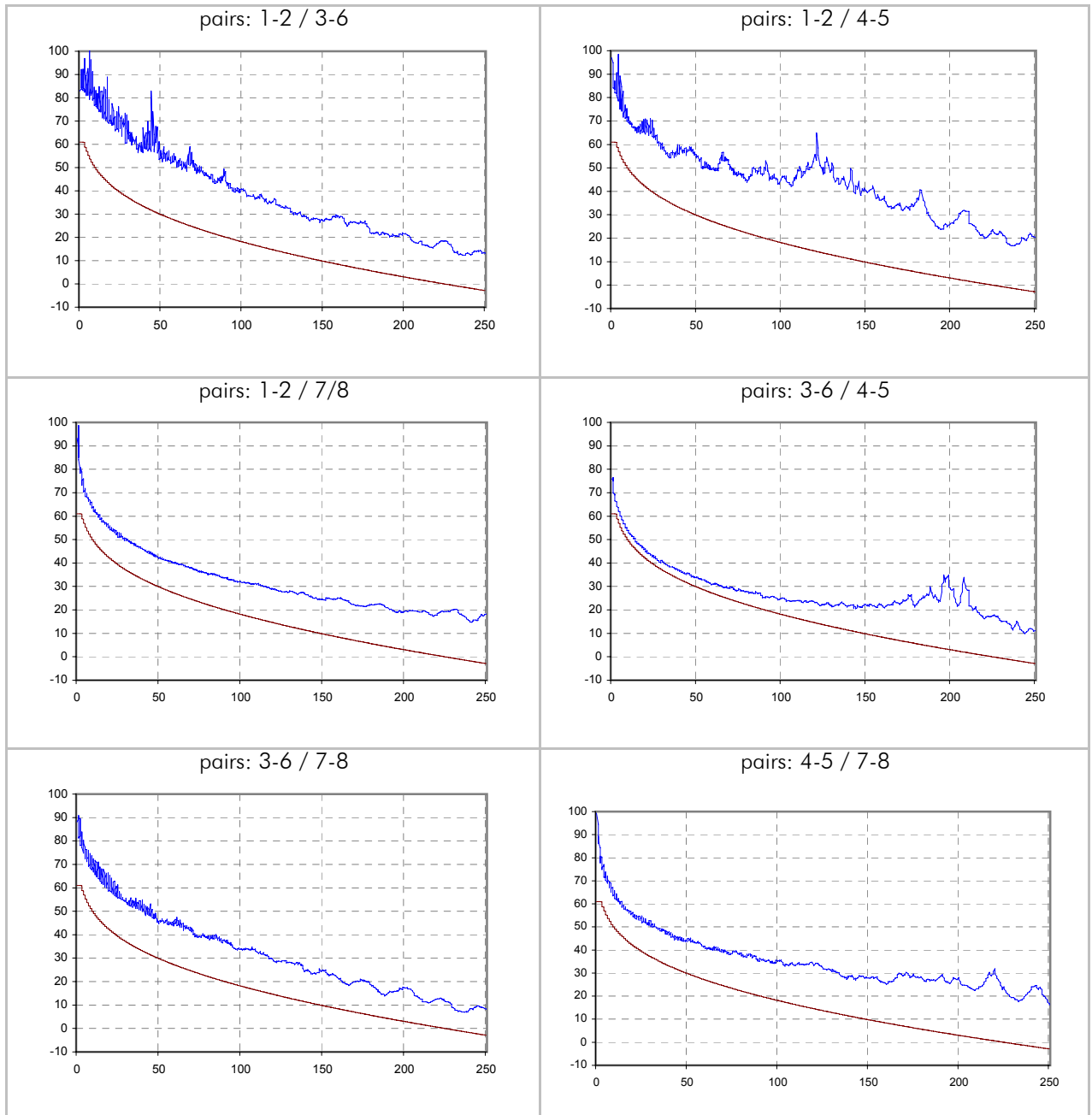
PSELFEXT / dB (remote side - type 2 side)



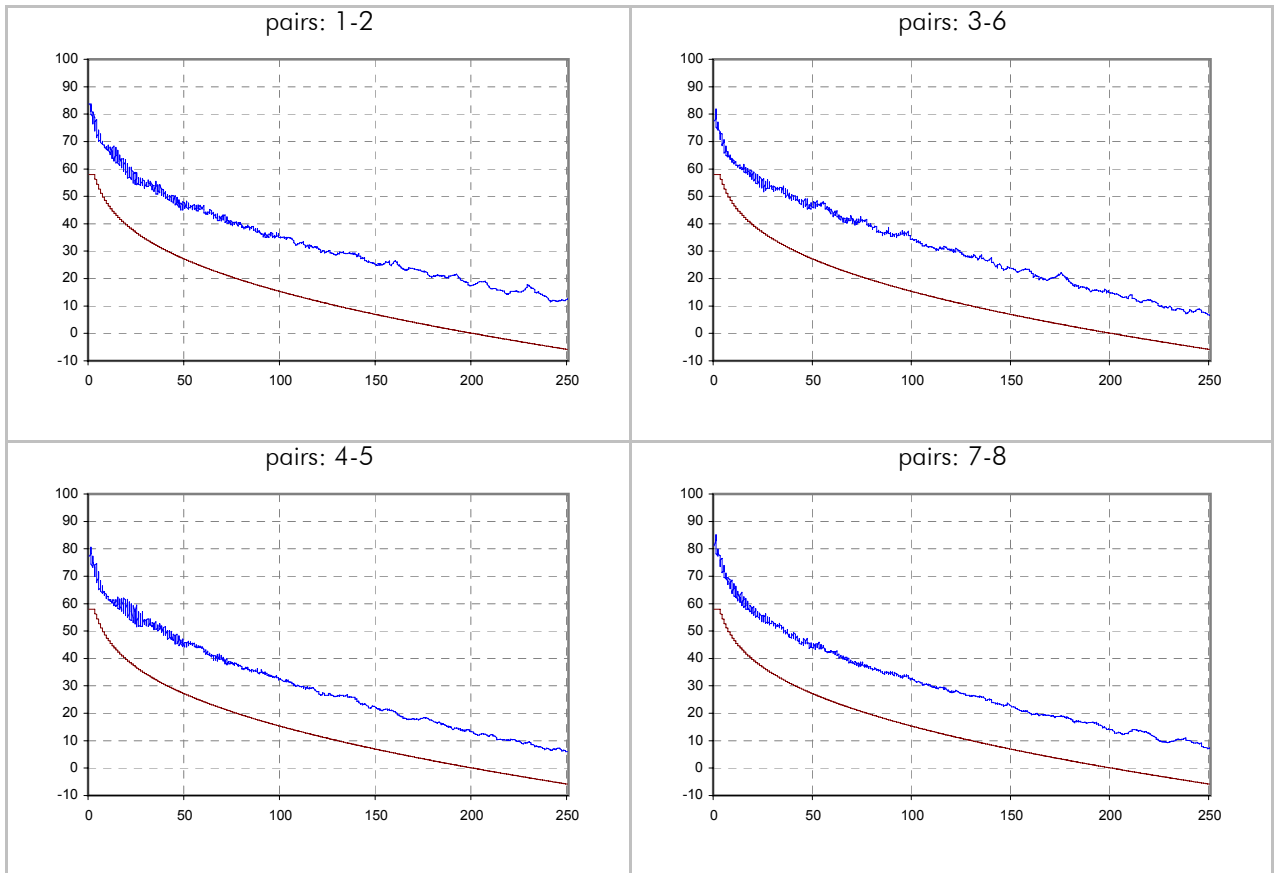
ACR / dB (scanner side - type 1 side)



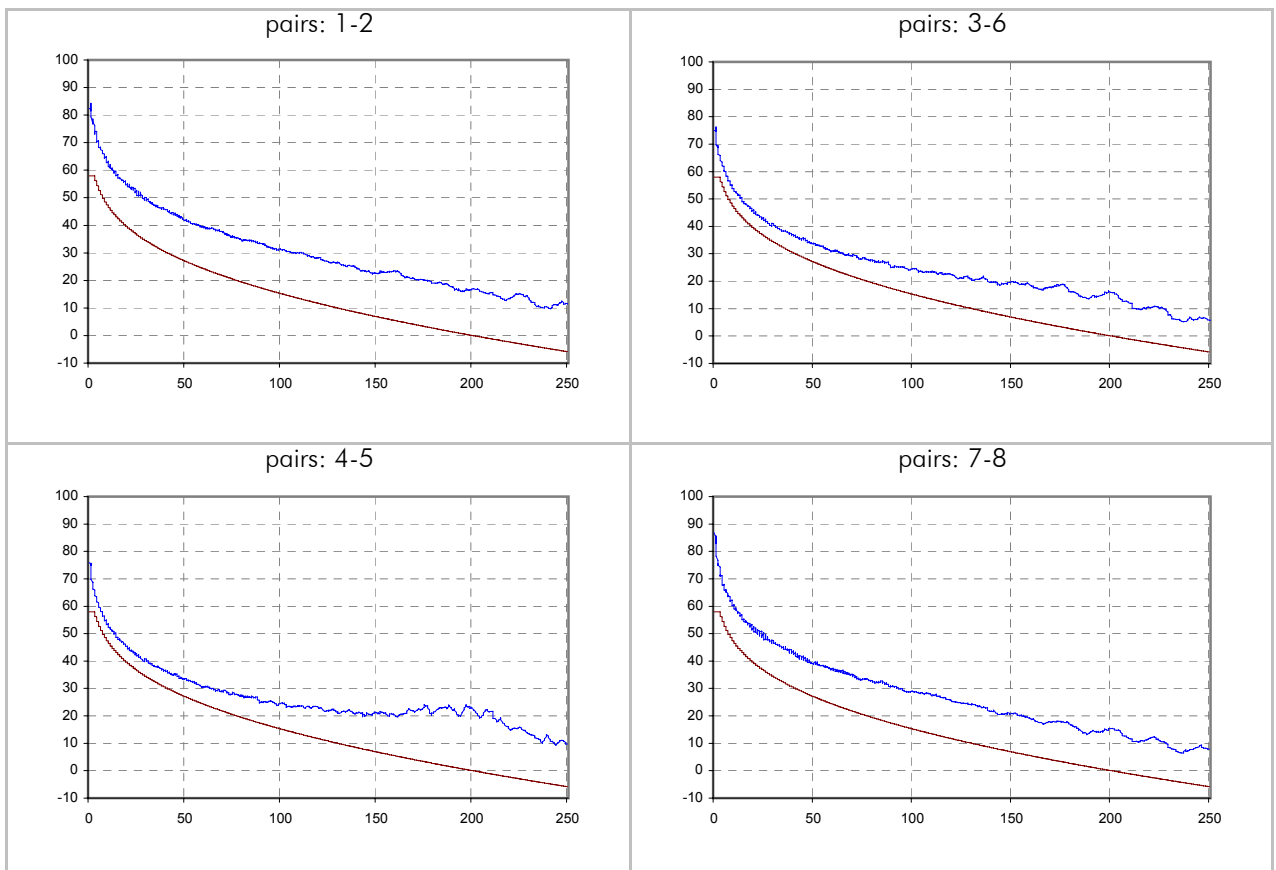
ACR / dB (remote side - type 2 side)



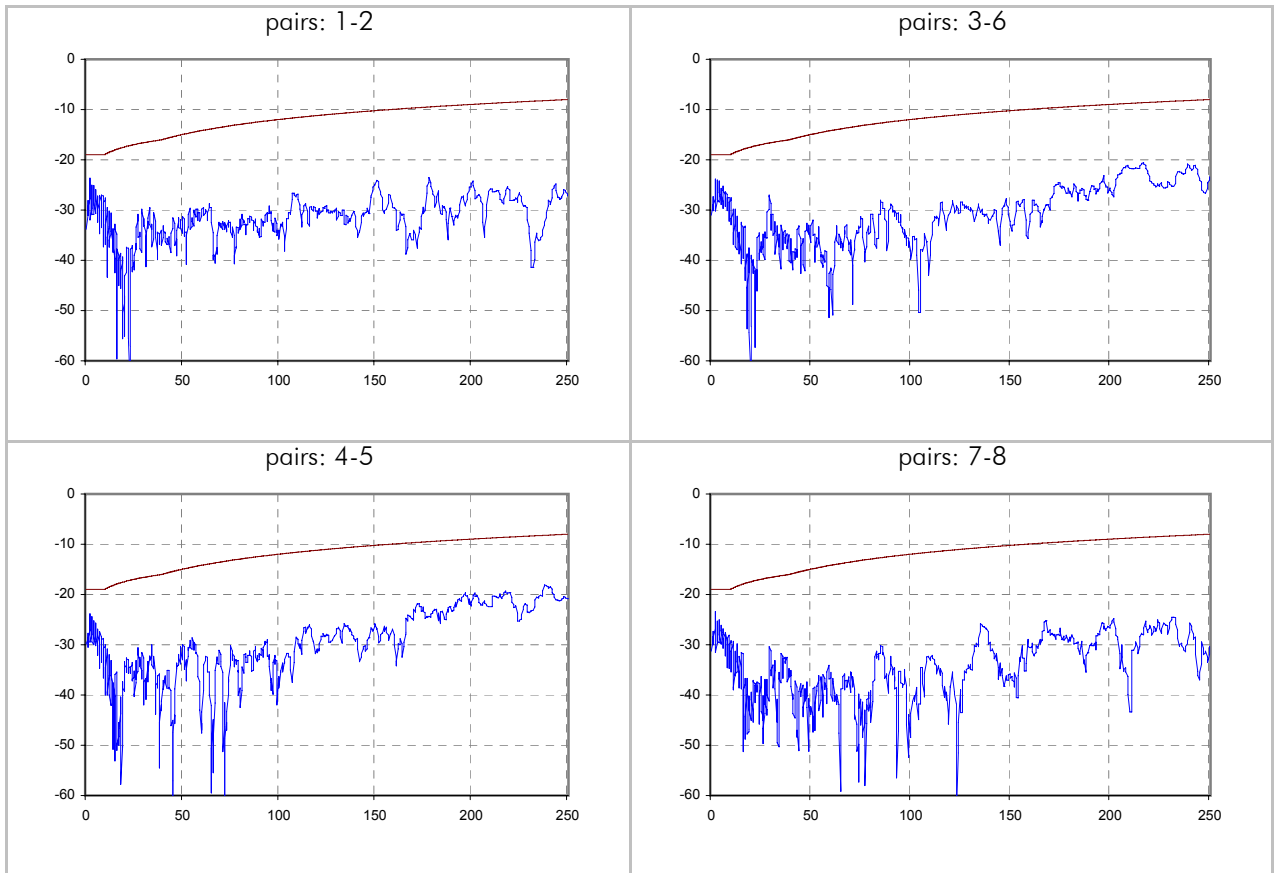
PSACR / dB (scanner side - type 1 side)



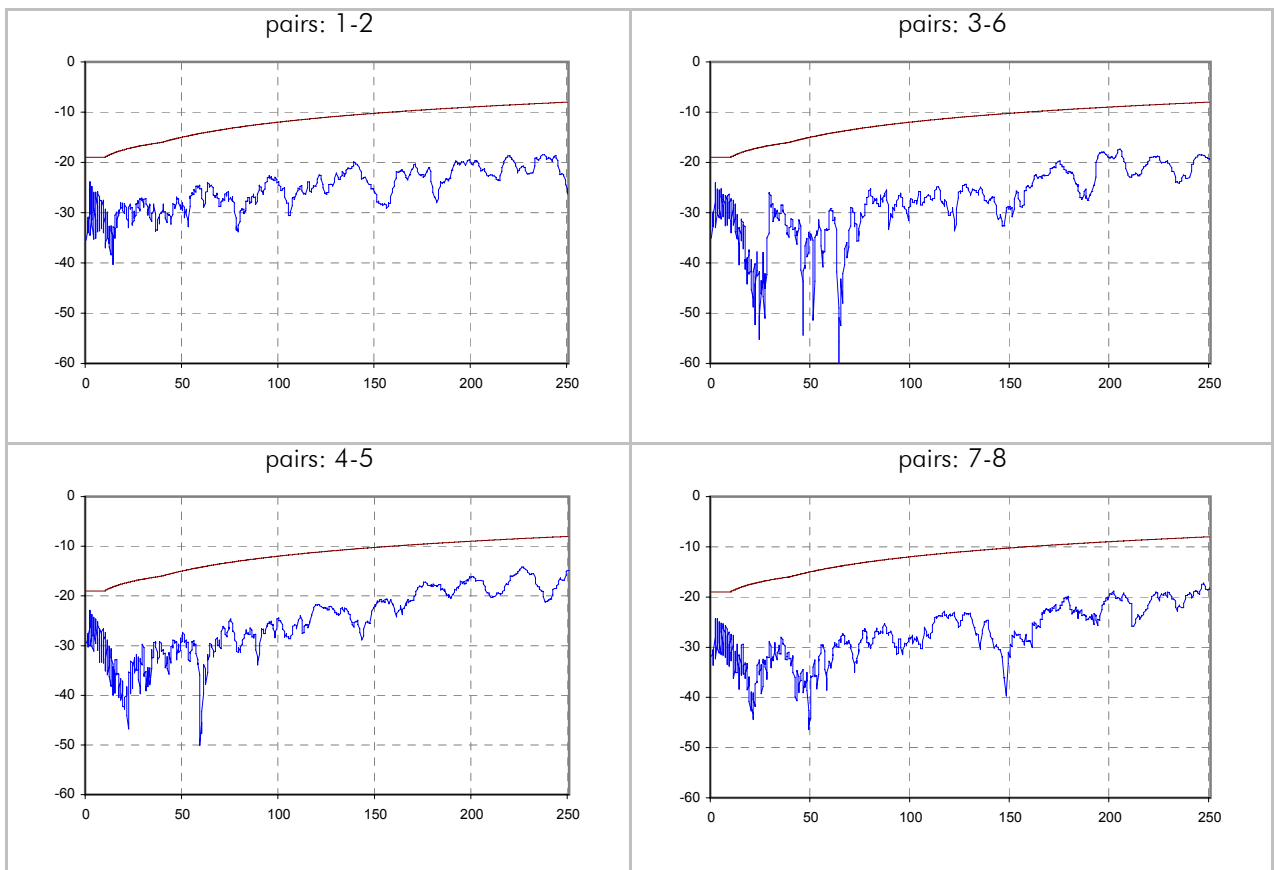
PSACR / dB (remote side - type 2 side)



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



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



Attenuation / dB

