
MULTIMEDIA QUALITY ASSESSMENT EXPERIMENTS

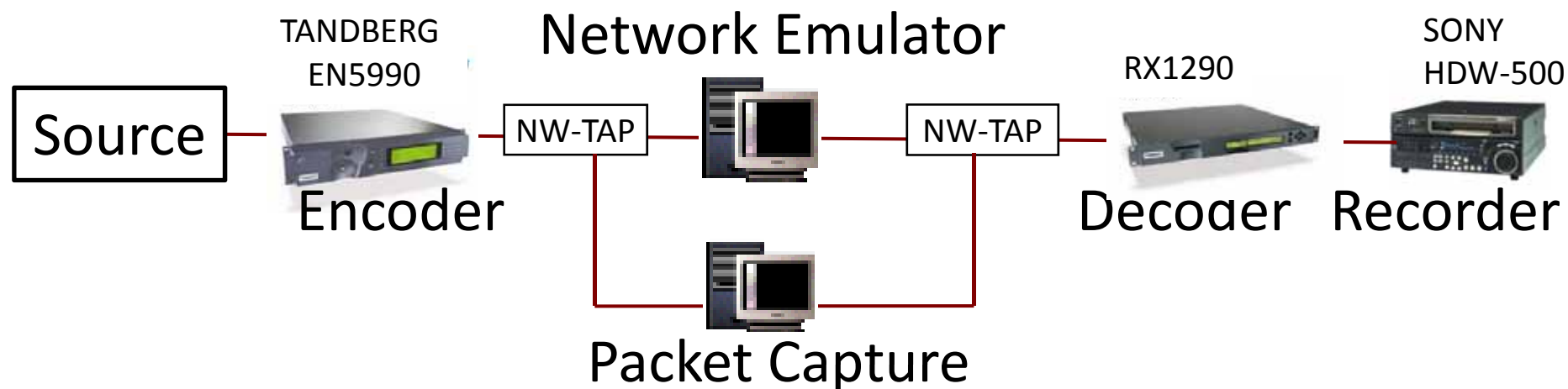
NTT Service Integration Laboratories
NTT Corporation

Subjective assessment tests

Comparing method A (evaluate the video, audio, and multimedia quality at the same time) with method B (evaluate one quality in each session).

	Method A (P.920 Appendix)		Method B	
Session	1. Multimedia	Answer: Video, audio, multimedia quality	1. Video (Audio off)	Answer: Video quality
			2. Audio (Video off)	Answer: Audio quality
			3. Multimedia	Answer: Multimedia quality
Test time (ratio)	1		3	

Test environment



Video codec

H.264

GOP: M=3, N=15

Frame rate: 30 fps

Resolution: 1440*1080

Audio codec

MPEG-2 audio AAC-LC

Quality parameter conditions

Video	Bandwidth	14, 10, 6 Mbps
	Random packet loss ratio (%)	14 Mbps: 0, 0.01, 0.03, 0.07 10 Mbps: 0, 0.015, 0.040, 0.100 6 Mbps: 0, 0.02, 0.08, 0.16
Audio	Bandwidth	192 kbps
	Random packet loss ratio (%)	0, 0.1, 0.2, 0.6
Source	Kinds	8
	Length	10 s

Number of test conditions

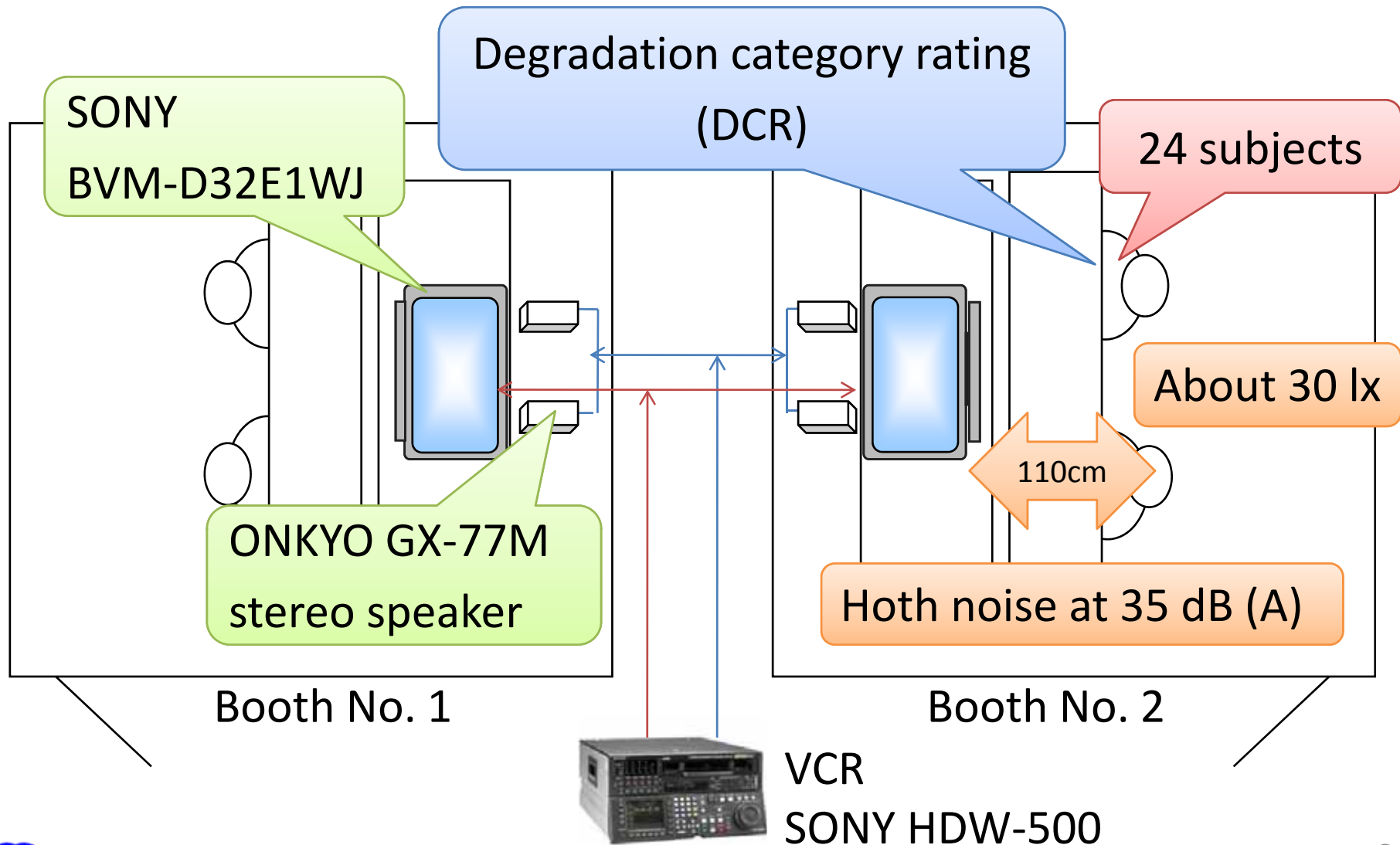
Audio	Video	Multimedia
24	24	24

Source Conditions

	Video	Audio
1	European market (ITU-R BT.1210 No. 7)	
2	Harbor scene (No. 12)	BGM (No. 30)
3	Crowded Crosswalk (No. 30)	Pop*
4	Green Leaves (No. 23)	Piano*
5	Weather report (No. 39)	Instrumental*
6	Streetcar (No. 10)	
7	Woman's speech	
8	Woman with Lego	

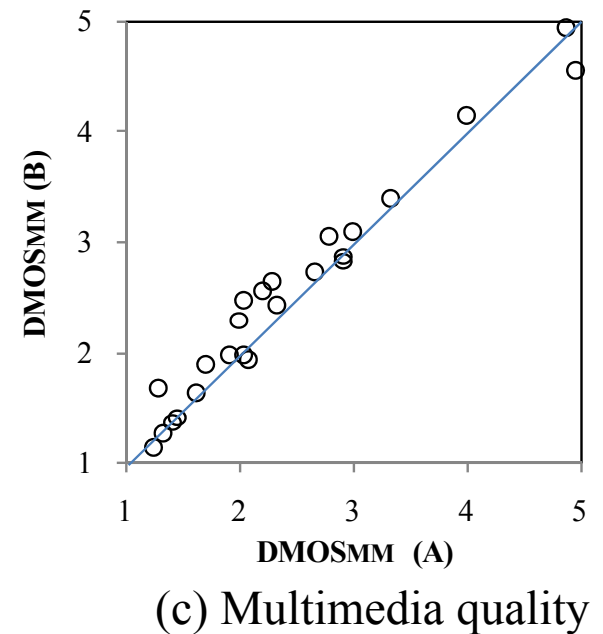
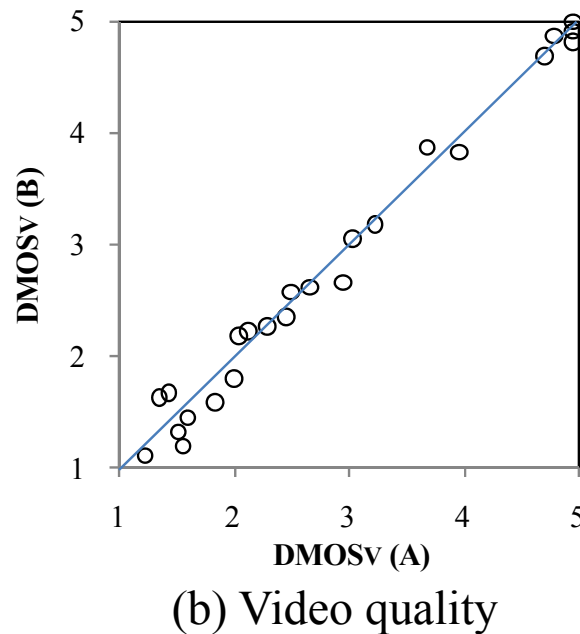
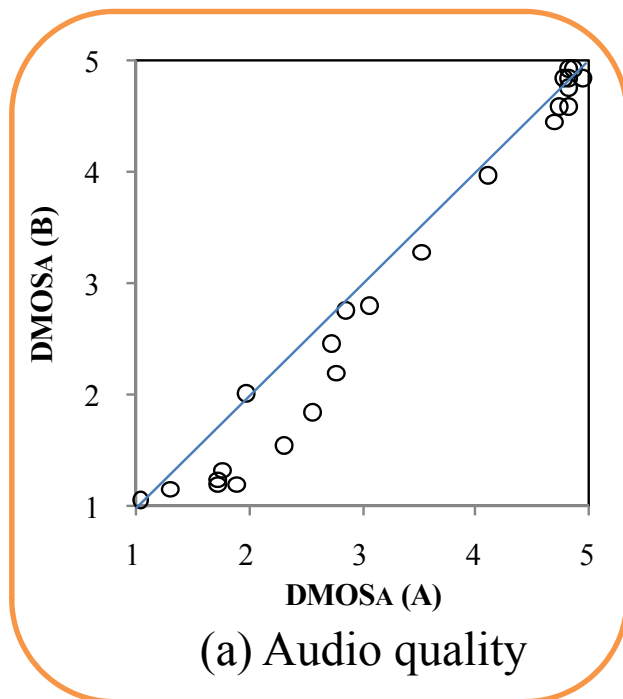


Subjective assessment test conditions



Subjective assessment test results

Audio quality of Method B(Audio only) isn't same that of method B(Audio,Video,MM together).



DMOS characteristics for methods A and B

Notes:

DMOS_{Media}(Method)