

Digital VTR Format

		Unit	NTSC											HDTV							
			D-1	D-2	D-3	D-5	Digital BETACAM	BETACAM SX	D-7 (DVCPRO)	DVCPRO 50	DVCPRO P	DVCAM	D-9 (Digital S)	MPEG IMX	1 inch Digital	D-6	HDD5	HDCAM	HDCAM SR	DVCPRO HD	DVCPRO HD EX
Tape width		mm	19.01	19.01	12.65	12.65	12.65	12.65	6.35	6.35	6.35	6.35	12.65	12.65	25.4	19.01	12.65	12.65	12.65	6.35	6.35
Tape thickness		μm	12.5	12.5	11.0/14.0	11.0/14.0	14.0	14.0	8.5	8.5	8.5	7.0	14.4	13.5	18.0	11.0	11.0	14.0	11.0	6.5/8.5	6.5/8.5
Tape material		-	oxidant	metal	metal	metal	metal	metal	metal	metal	metal	vapor deposition	metal	metal	metal	metal	metal	metal	metal	metal	metal
Track pitch		μm	45.0	39.1	20.0	20.0	21.7	32.0	18.0	18.0	18.0	15.0	20.0	21.7	37.3	22.0	20.0	21.7	13.2	18.0	9.0
Shortest recording wavelength		μm	0.89	0.85	0.77	0.63	0.69	0.74	0.49	0.49	0.49	0.49	0.59	0.56	0.69	0.81	0.63	0.49	0.29	0.49	0.43
Video input signal		-	4:2:2 Component	Composite	Composite	4:2:2 Component	4:2:2 Component	4:2:2 Component	4:1:1 Component	4:2:2 Component	4:2:0 Component	4:1:1 Component	4:2:2 Component	4:2:2 Component	4:2:2 Component	4:2:2 Component	4:2:2 Component	4:2:2 Component	4:2:2 Component	4:2:2 Component	4:2:2 Component
Sampling frequency	Video	MHz	13.5	14.3	14.3	13.5	13.5	13.5	13.5	13.5	27.0	13.5	13.5	13.5	74.25	74.25	74.25	74.25	74.25	74.25	74.25
	Audio	KHz	48	48	48	48	48	48	48	48	48	48/28	48	48	48	48	48	48	48	48	48
Quantization	Video	bit	8	8	8	10	10	8	8	8	8	8	8	8	8	8	8/10	8/10	10	8	8
	Audio	bit	16~20	20	16/20	20	20	16	16	16	16	16/12	16	16/24	20	20/24	20	20	24	16	16
Audio channels		-	4	4	4	4	4	4	2	4	4	2/4	4	8/4	8/D + 1/A	10	4	4	12	8	8
Compression		-	-	-	-	Intrafield DCT compression	MPEG2 422P @ML	Intraframe DCT compression	Intraframe DCT compression	Intraframe DCT compression	Intraframe DCT compression	Intraframe DCT compression	Intraframe DCT compression	MPEG2 422P @ML	-	-	Intrafield DCT compression	Intrafield DCT compression	MPEG-4 studio profile	Intraframe DCT compression	Intraframe DCT compression
Compression ratio		-	-	-	-	1/2	1/10	1/5	1/3.3	1/5	1/5	1/3.3	1/3.3	-	-	1/4	1/7	1/2.7	1/6.7	1/6.7	
Video recording rate		Mbps	173.0	94.0	94.0	250.0	88.0	18.0	25.0	50.0	50.0	25.0	50.0	50.0	958.5	958.5	235.0	140.0	440.0	100.0	100.0
Tape transfer		mm/s	286.6	131.7	83.9	167.2	96.7	59.6	33.8	67.6	67.6	28.2	57.7	64.5	805.2	497.0	167.2	96.7	117.7	135.3	67.6
Relativity		m/s	35.6	27.4	21.4	21.4	22.9	19.1	10.2	10.2	10.2	10.2	14.5	15.3	51.5	46.0	21.4	22.9	22.9	20.4	20.4
Drum rotation		rps	150	90	90	90	90	75	150	150	150	150	75	60	120	150	90	90	90	300	300
Drum diameter		mm	75.0	96.4	76	76.0	81.4	81.4	21.7	21.7	21.7	21.7	62.0	81.4	134.6	96.5	76.0	81.4	81.4	21.7	21.7
Track/Field		units	10	6	6	12	6	10/2 frame	10/1 frame	20/1 frame	20/1 frame	10/1 frame	10/1 frame	8/1 frame	16	40	12	6	12	40/1 frame	40/1 frame
Maximum recording time		min.	94(L) 34(M) 6(S)	208(L) 94(M) 32(S)	185(L) 94(M) 50(S)	124(L) 63(M) 23(S)	124(L) 40(S)	194(L) 62(S)	184(L) 66(M)	92(L) 33(M)	92(L) 33(M)	184(L) 40(S)	124	184(L) 60(S)	64	64(L) 28(M) 8(S)	124(L) 63(M) -	124(L) - 40(S)	124(L) 40(S)	46(L) 16(M)	126(XL) 92(L) 33(M)
Maximum tape length		m	1640(L) 604(M) 121(S)	1653(L) 751(M) 260(S)	935(L) 481(M) 254(S)	1249(L) 635(M) 233(S)	732(L) 241(S)	707(L) 231(S)	377(L) 137(M)	377(L) 137(M)	377(L) 137(M)	315(L) 71(S)	437	725(L) 239(S)	3120	1920(L) 850(M) 285(S)	1249(L) 635(M)	732(L) - 241(S)	893(L) - 293(S)	377(L) 137(M)	515(XL) 377(L) 137(M)
Maxell tape lineup		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-