

Advanced Metal Tape Technology Evolves Again. New Pinnacle of Picture Quality with Original Nanotechnology. HDCAM SR BCT-SR Series.

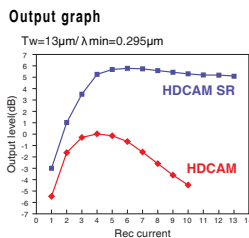
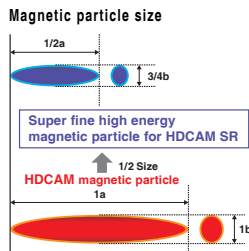
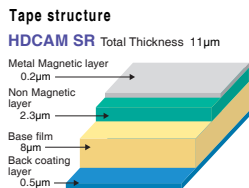
The new tape coating uses newly developed ultrafine high-performance metal particles, an original new binder dispersion system and new calendering technology. This permits high density recording with a recording wavelength of $0.29\mu\text{m}$. With its ultrathin magnetic recording layer, this high-performance metal tape delivers high picture quality, high durability, and high reliability in a digital recording length of up to 40 minutes for the small-size cassette, and 124 minutes for the large-size cassette.

Ultrafine high-performance metal particles and new calendering technology realize high output and high C/N

To assure dependable recording at the shortest wavelength of $0.29\mu\text{m}$, Sony developed an ultrafine high-performance metal particle with the highest coercivity in the industry, half the size of the HDCAM tape particle and with about two times greater energy, and then packed it at high density on the tape. The non-magnetic lower double-layer structure permits a thinner magnetic layer, realizing +6dB high output compared to HDCAM.

Outstanding archival characteristics

To assure long term archival stability with consistently high output, Sony gives each high-performance metal magnetic particle a protective layer with an anti-oxidation effect. Sony also developed a special process that minimizes dimensional alteration shrinkage of the tape over time, thereby achieving high-precision tracking for accurate playback.



Durability to withstand repeated playbacks and edits, with outstanding tape transport stability

Sony's newly developed HR (High Rigidity) binder system confers the exceptional durability demanded in a broadcast professional tape, which must withstand repeated playback and editing. In addition, Sony's specially-developed base film is ideally suited to high-performance metal tape transport; it is slit for high dimensional precision and assures tape travel stability to maintain optimum head contact.

Physical properties

Item	Unit	Typical value
		BCT-SR
Thickness: Base	μm	8.0
Thickness: Backcoating	μm	0.5
Thickness: Magnetic layer	μm	0.2
Thickness: Non Magnetic layer	μm	2.3
Thickness: Total	μm	11.0
Width	mm	12.65

Magnetic properties

Item	Unit	Typical value
Intrinsic coercivity (Hc)	kA/m	220
Retentivity (Br)	mT	390
Squareness (Br/Bm)	-	0.91

Video and Audio performance*

Item	Unit	Typical value
RF playback output	dB	0
C/N	dB	0

*Compared with Sony reference tape.