

# maxell

## MS STUDIO AUDIO CASSETTES (IEC TYPE II)



1. The new **Maxell** Professional MS Studio Audio Cassettes with the **Maxell** XLII formulation make use of a pure epitaxial magnetic particle. The use of ultra fine High Epitaxial magnetic particles combined with our unique Multi-Orientation Technology produces high output and low noise.

The major characteristics of these cassettes are as follows:

### 2. **Newly Developed High Endurance Binder**

The use of a three-dimensional bridge structure, like a solid mesh, produces outstanding dispersion and packing. Moreover, it also improves tape strength and durability dramatically as well as delivering superior heat resistance. In addition, the technology to produce a dense, even dispersion of the magnetic particles has been enhanced. New calendering, moreover, means a smoother surface for the magnetic layer, the key to Low Noise and improving high frequency response.

### **High Resonance-Damping Cassette Mechanism**

The New MS Series Studio Tape uses our innovative oval window shell creating a high precision cassette shell with superior rigidity and low inter-modulation noise. The use of different shell in window materials integrated into a single unit makes remarkable improvement in anti-resonance. In addition Maxell's own R combination (a combining method for curved surfaces) was used to unite the body and a window to enhance rigidity even further. The result: a significant increase in anti-resonance effect.

### 3. **Fixed Low Distortion Screening Shield**

The screening shield is another part of the cassette shell with a major role in anti-resonance. Conventional shields vibrate easily and are slow to dampen the vibration that is readily transmitted from the shell. The fixed Low Distortion screening shield however, is fixed to the shell to reduce resonance. In addition, Maxell used a new shields material which has no effect on magnetic fields for improved clarity of sound.

### 4. **Newly Developed Dual Damping Sheet**

A sophisticated slip sheet is also essential in reducing resonance. In the new MS Series Studio Tape, Maxell used its newly developed Dual Damping slip sheet, which has two protections (to the left and right) which were designed not to extend to the edges of the sheet, to keep the tape height constant. The new Dual Damping sheet means improved anti-resonance, with less layer fluctuation during fast winding modes. The result is decreased travel noise and smooth tape pack which extends tape life.

The MS Studio Cassettes are available in 20, 30, 60 and 90 minute lengths.

### **MS Tape Specifications**

Items		Specified Values			
		MS-20	MS-30	MS-60	MS-90
Physical Properties	Tape width (mm)	3.81			
	Tape thickness (μm)	17 ± 1.5			
	Tape length (m)	31 ± 1.0	46 ± 1.0	90 ± 2.0	135 ± 3.0
Mechanical Properties	Residual elongation (%)	max. 0.2			
	Layer to layer adhesion (degree)	max. 45°			
	Yield strength (N)	min. 5			min. 3.5
	Coating resistance ( /sq.)	max. 1x10			
Electro-Acoustic Properties	Bias ratio (%)	+ 20			
	Frequency Sensitivity (dB)	-0.2 ± 0.7			
	Uniformity at 315 Hz (dB)	+ 2.5 ± 1.0			
	Out-put uniformity at 7 kHz (VU)	+ 4.0 ± 1.5			
	NQL	min. 315 Hz		max. 0.7	
		min. +2.5		min. -1.0	
	Signal to noise ratio (dB)	min. 59.5			
	Erasability (dB)	min. 65			
	Print-through (dB)	min. 51			min. 48
	Drop-out (times)	max. 3			

Note: These specifications are average. They define typical performance rather than property limits. Data taken from a limited sampling may produce figures differing from those quoted by as much as +10% or ±1dB.

PM-98002

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