

# MAGNETIC REFERENCE LABORATORY, INC.

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## Four-Frequency Calibration Tapes: 1 kHz, 10 kHz, 16 kHz, and 50 Hz, ¼ each

These "minimalist" four-frequency Calibration Tapes contain a 1 kHz signal for setting level, a 10 kHz signal for setting azimuth and high-frequency equalization, a 16 kHz signal for checking high-frequency response, and a 50 Hz signal for checking the low-frequency equalization. They are shown in the table below for ¼-, ½-, 1-, and 2-inch widths; and 3.75-, 7.5-, 15-, and 30-in/s tape speeds.

Catalog numbers are shown for reference fluxivities of both 250 nWb/m ("+3 dB") and 355 nWb/m ("+6 dB"). All tones are recorded at 0 dB on 15- and 30-in/s tapes; all tones are recorded at -10 dB on 3.75- and 7.5 in/s tapes, to avoid saturating the tape at high frequencies. All of these recordings

are fringing compensated. For 2-track ½ inch, or 2- or 4-track 1 inch use, inquire for the catalog numbers of non-fringing compensated tapes. Please also see Publication LF, on the other side.

Catalog numbers and prices are given for total durations of 4 minutes (54 s per tone) and for 8 minutes (115 s per tone).

See "Choosing and Using MRL Calibration Tapes for Audio Tape Recorder Standardization", MRL Publication Choo&U, for more information on choosing and converting between different equalizations and levels, as well as descriptions of other test signals that are available from MRL, and notes on using Calibration Tapes.

Find prices at <http://mrltapes.com/pubpl2019.pdf> .

Table of Four-Frequency Calibration Tapes with 1 kHz, 10 kHz, 16 kHz, and 50 Hz, ¼ each

Medium	Tape Speed	Equalization Standard	Level of Recorded Signals*	4 minutes total (54 s per tone)			8 minutes total (115 s per tone)		
				Catalog Number for Reference Fluxivity of:		Price	Catalog Number for Reference Fluxivity of:		Price
				250 nWb/m ("+3 dB")	355 nWb/m ("+6 dB")		250 nWb/m ("+3 dB")	355 nWb/m ("+6 dB")	
¼ in	3.75 in/s	IEC & NAB	-10 dB	<b>221-043-382-104</b>	<b>221-043-412-100</b>		<b>221-043-382-120</b>	<b>221-043-412-120</b>	
		IEC (IEC1)	-10 dB	231-043-382-101	231-043-412-107		231-043-382-127	231-043-412-123	
	NAB (IEC2)	-10 dB	<b>233-043-382-107</b>	<b>233-043-412-103</b>	<b>233-043-382-123</b>		<b>233-043-412-129</b>		
	IEC (IEC1)	0 dB	241-043-482-101	241-043-512-107	241-043-482-127		241-043-512-123		
	NAB (IEC2)	0 dB	<b>243-043-482-107</b>	<b>243-043-512-103</b>	<b>243-043-482-123</b>		<b>243-043-512-129</b>		
7.5 in/s	AES (IEC2)	0 dB	<b>251-043-482-108</b>	<b>251-043-512-104</b>	<b>251-043-482-124</b>	<b>251-043-512-120</b>			
½ in	3.75 in/s	IEC & NAB	-10 dB	<b>321-043-382-103</b>	<b>321-043-412-109</b>		<b>321-043-382-129</b>	<b>321-043-412-125</b>	
		IEC (IEC1)	-10 dB	331-043-382-100	331-043-412-106		331-043-382-126	331-043-412-122	
	NAB (IEC2)	-10 dB	<b>333-043-382-106</b>	<b>333-043-412-102</b>	<b>333-043-382-122</b>		<b>333-043-412-128</b>		
	IEC (IEC1)	0 dB	341-043-482-100	341-043-512-106	341-043-482-126		341-043-512-122		
	NAB (IEC2)	0 dB	<b>343-043-482-106</b>	<b>343-043-512-102</b>	<b>343-043-482-122</b>		<b>343-043-512-128</b>		
7.5 in/s	AES (IEC2)	0 dB	<b>351-043-482-107</b>	351-043-512-103	<b>351-043-482-123</b>	<b>351-043-512-129</b>			
1 in	3.75 in/s	IEC & NAB	-10 dB	<b>421-043-382-102</b>	<b>421-043-412-108</b>		<b>421-043-382-128</b>	<b>421-043-412-124</b>	
		IEC (IEC1)	-10 dB	431-043-382-109	431-043-412-105		431-043-382-125	431-043-412-121	
	NAB (IEC2)	-10 dB	<b>433-043-382-105</b>	<b>433-043-412-101</b>	<b>433-043-382-121</b>		<b>433-043-412-127</b>		
	IEC (IEC1)	0 dB	441-043-482-109	441-043-512-105	441-043-482-125		441-043-512-121		
	NAB (IEC2)	0 dB	<b>443-043-482-105</b>	<b>443-043-512-101</b>	<b>443-043-482-121</b>		<b>443-043-512-127</b>		
7.5 in/s	AES (IEC2)	0 dB	<b>451-043-482-106</b>	<b>451-043-512-102</b>	<b>451-043-482-122</b>	<b>451-043-512-128</b>			
2 in	7.5 in/s	IEC (IEC1)	-10 dB	531-043-382-108	531-043-412-104		531-043-382-124	531-043-412-120	
		NAB (IEC2)	-10 dB	<b>533-043-382-104</b>	<b>533-043-412-100</b>		<b>533-043-382-120</b>	<b>533-043-412-126</b>	
	IEC (IEC1)	0 dB	541-043-482-108	541-043-512-104	541-043-482-124		541-043-512-120		
	NAB (IEC2)	0 dB	<b>543-043-482-104</b>	<b>543-043-512-100</b>	<b>543-043-482-120</b>		<b>543-043-512-126</b>		
	AES (IEC2)	0 dB	<b>551-043-482-105</b>	<b>551-043-512-101</b>	<b>551-043-482-121</b>		<b>551-043-512-127</b>		

\* Because of tape saturation at the higher frequencies at lower speeds, 3.75- and 7.5 in/s tapes are recorded at -10 dB.