MTT Test Cassette Tape MTT Series

TEAC MTTシリーズカセットテストテープは、1981年3月に開催されたIECの会議で（International Electrotechnical Commission Meeting, IEC Recording Sub-Committee 60A）標準化された規格特性レベルに準拠しています。

特徴

- 開発、品質管理、製造ライン、サービス用などあらゆる用途に対応できる多種多様な製品を取り揃えました。
- 録音デッキを含む自社製機器による最新の設備、熟練した技術、そして豊富なノウハウに支えられた高い信頼性。
- テストテープ用に特に自社で開発、設計した高精度ハーフを採用することにより、アジマスロスを極限まで追求しました。厳選されたテープとともに高性能を実現しています。
- 絶対値は定期的に測定され、厳格な品質管理システムによって高い精度と安定性を維持しています。
- あらゆる特注品に対応できる万全の生産システム。
- テストテープの記録トラック構成は、クロストーク確認用など一部のテープを除き、テープの特性を最大限に引き出すためにすべてフルトラックで記録してあります。

TEAC cassette test tape MTT series is manufactured in conformity with the standard agreed upon in the International Electrotechnical Commission Meeting, IEC Recording Sub-Committee 60A, held in March 1981.

Outstanding Features

- Abundant product availability towards broad range of purposes covering from development, quality assurance, production line to after-sale service and repair.
- Extremely high reliability in products resulted from TEAC's own brand recording facilities and skilled technologies based on fifty years experience in recording industry including TEAC recording equipment.
- With specially high-precision cassette shells developed by TEAC, azimuth loss is cut to a minimum and optimum performance is realized, along with carefully-selected tapes.
- Each tape is individually mastered regularly on special recording equipment and passes strict quality assurance standard of TEAC.
- Any kind of custom-made requirements are welcome, supported by complete production system.
- Recording track configuration of all test tapes is full track recording except those for cross talk check.

Calibration Series

TITLE	MODEL	Description TIME CONSTANT	Description FREQ/LEVEL	APPLICATION
FLUTTER	MTT-111DN	3180 μs &120 μs	3kHz -4dB	Tape Speed Accuracy Test Wow and Flutter Test
FREQUENCY	MTT-256R	3180 μs &120 μs	31.5Hz～10kHz -10dB	Level Adjustment Head Azimuth Alignment Frequency Response Test
	MTT-256C		31.5Hz～10kHz -14dB	
	MTT-256		31.5Hz～14kHz -24dB	
	MTT-256U		31.5Hz～18kHz -20dB	
	MTT-356R	3180 μs &70 μs	31.5Hz～10kHz -10dB	
	MTT-356C		31.5Hz～10kHz -14dB	
	MTT-356		31.5Hz～14kHz -24dB	
	MTT-356U		31.5Hz～18kHz -20dB	

Calibration Series（Ultra Multi Spot for Level Recorder）

TITLE	MODEL	Description TIME CONSTANT	Description FREQ/LEVEL	APPLICATION
FREQUENCY	MTT-651A	3180 μs &120 μs	31.5Hz～10kHz -24dB	Level Adjustment Head Azimuth Alignment Frequency Response Test Recorder Paper Speed 1mm/sec
	MTT-651B		31.5Hz～14kHz -24dB	
	MTT-651C		31.5Hz～18kHz -24dB	
	MTT-751A	3180 μs &70 μs	31.5Hz～10kHz -24dB	
	MTT-751B		31.5Hz～14kHz -24dB	
	MTT-751C		31.5Hz～18kHz -24dB	

Calibration Series（Multi Spot for Level Recorder）

TITLE	MODEL	Description TIME CONSTANT	Description FREQ/LEVEL	APPLICATION
FREQUENCY	MTT-650A	3180 μs &120 μs	31.5Hz～10kHz -24dB	1mm/sec Level Adjustment Head Azimuth Alignment Frequency Response Test Recorder Paper Speed 1mm/sec
	MTT-650B		31.5Hz～14kHz -24dB	
	MTT-650C		31.5Hz～18kHz -24dB	
	MTT-650D		20Hz～18kHz -24dB	
	MTT-750A	3180 μs &70 μs	31.5Hz～10kHz -24dB	
	MTT-750B		31.5Hz～14kHz -24dB	
	MTT-750C		31.5Hz～18kHz -24dB	
	MTT-750D		20Hz～18kHz -24dB	
FREQUENCY	MTT-652A	3180 μs &120 μs	31.5Hz～10kHz -24dB	3mm/sec Level Adjustment Head Azimuth AlignmentFrequency Response Test Recorder Paper Speed 3mm/sec
	MTT-652B		31.5Hz～14kHz -24dB	
	MTT-652C		31.5Hz～18kHz -24dB	
	MTT-752A	3180 μs &70 μs	31.5Hz～10kHz -24dB	
	MTT-752B		31.5Hz～14kHz -24dB	
	MTT-752C		31.5Hz～18kHz -24dB	

Alignment Series

TITLE	MODEL	TIME CONSTANT	FREQ/LEVEL	APPLICATION
FLUTTER	MTT-111N	3180 μs &120 μs	3kHz -10dB	Tape Speed Test Wow and Flutter Test
	MTT-111NA		3kHz -4dB	
	MTT-111LN		3kHz -10dB	
	MTT-111LNA		3kHz -4dB	
	MTT-211N		3150Hz -10dB	
	MTT-211NA		3150Hz -4dB	
LEVEL	MTT-212N	3180 μs &120 μs	315Hz 0dB	Level Adjustment
	MTT-212CN		315Hz -4dB	
	MTT-112BN	3180 μs &120 μs	1kHz 0dB	
	MTT212EN		1kHz -4dB	
DISTORTION	MTT-118N	3180 μs &120 μs	1kHz -10dB	Distortion Check Level Adjustment
CROSSTALK	MTT-121N		1kHz -10dB	Crosstalk Check
	MTT-141N		1kHz -10dB	Crosstalk/Channel Separation Check
PROGRAM SEARCH	MTT-457	3180 μs &120 μs	400/kHz/ 0dB,-20dB (DOLBY LEVEL)	Program Search Check

Alignment Series

TITLE	MODEL	TIME CONSTANT	FREQ/LEVEL	APPLICATION
AZIMUTH	MTT-113N	3180 μs &120 μs	6.3kHz -10dB	Head Azimuth Alignment
	MTT-113CN		8kHz -10dB	
	MTT-114N		10kHz -10dB	
	MTT-114NA		12.5kHz -24dB	
	MTT-114NAL		12.5kHz -10dB	
	MTT-114NB		14kHz -24dB	
	MTT-114NBL		14kHz -10dB	
LEVEL& AZIMUTH	MTT-255	3180 μs &120 μs	6.3k/315Hz -10dB	Level Adjustment Head Azimuth Alignment Frequency Response Check
	MTT-255B		8k/315Hz -10dB	
	MTT-255C		10k/315Hz -10dB	
	MTT-255G		6.3k/1kHz -10dB	
	MTT-255H		8k/1kHz -10dB	
	MTT-255J		10k/1kHz -10dB	
	MTT-255M		12.5k/315Hz -24dB	
	MTT-255Q		12.5k/1kHz -24dB	
	MTT-255S		14k/315Hz -24dB	
	MTT-255V		14k/1kHz -24dB	
	MTT-257		6.3k/1kHz/125Hz -10dB	
	MTT-257B		8k/1kHz/125Hz -10dB	
	MTT-257C		8k/1kHz/125Hz -10dB	
	MTT-257E		10k/1kHz/63Hz -10dB	
	MTT-257G		12.5k/1kHz/40Hz -24dB	
	MTT-257H		10k/1kHz/125Hz -10dB	
FREQUENCY	MTT-257J		10k/1kHz/40Hz -10dB	
FREQUENCY	MTT-257K	3180 μs &120 μs	12.5k/1k/63Hz -24dB	Level Adjustment Head Azimuth Alignment Frequency Response Check
	MTT-257P		14k/1k/40Hz -24dB	
	MTT-257L		315/10k/6.3k/63Hz -10dB	
	MTT-355M	3180 μs &70 μs	12.5k/315Hz -24dB	
	MTT-355S		14k/315Hz -24dB	
	MTT-357E		10k/1k/63Hz -24dB	
	MTT-357G		12.5k/1k/40Hz -24dB	
	MTT-357K		12.5k/1k/125Hz -10dB	
	MTT-357P		14k/1k/40Hz -24dB	
	MTT-357L		315/10k/6.3k/63Hz -24dB	
FREQUENCY	MTT-25702	3180 μs &120 μs	12.5k/10k/6k/1k/250Hz -24dB	Level Adjustment Head Azimuth Alignment Frequency Response Check
	MTT-25704		14k/8k/6.3k/1k/250Hz -24dB	
	MTT-25705		14k/10k/6.3k/1k/250 -24dB	
W&F/ LEVEL/ AZIMUTH/ FREQUENCY	MTT-25706	3180 μs &120 μs	12.5k+6.3k+1k+250+3k -24dB	Tape Speed Test Wow and Flutter Level Adjustment Head Azimuth Alignment
	MTT-25707		12.5k+8k+1k+250+3kHz -24dB	
	MTT-25708		14k+8k+1k+250+3k -24dB	
	MTT-25709		14k+10k+1k+250+3k -24dB	
FREQUENCY	MTT-35702	3180 μs &70 μs	12.5k10k/6.3k/1k/250 -24dB	Level Adjustment Head Azimuth Alignment Frequency Response Check
	MTT-35704		14k/8k/6.3k/1k/250 -24dB	
	MTT-35705		14k10k/6.3k/1k/250 -24dB	
W&F/ LEVEL/ AZIMUTH/ FREQUENCY	MTT-35706	3180 μs &70 μs	12.5k+6.3k+1k+250+3k -24dB	Tape Speed Test Wow and Flutter Level Adjustment Head Azimuth Alignment
	MTT-35707		12.5k+8k+1k+250+3k -24dB	
	MTT-35708		14k+8k+1k+250+3k -24dB	
	MTT-35709		14k+10k+1k+250+3k -24dB	

Mix Series

TITLE	MODEL	TIME CONSTANT	FREQ/LEVEL	APPLICATION
W&F/ AZIMUTH	MTT-X255A	3180 μs &120 μs	6.3k+315Hz −10dB	Tape Speed Test Wow and Flutter Test Head Azimuth Alignment
	MTT-X255B		8k+315Hz −10dB	
	MTT-X255C		10k+315Hz −10dB	
	MTT-X255M		12.5k+315Hz −24dB	
	MTT-X255S		14k+315Hz −24dB	
	MTT-X253AS		6.3k+3k −10dB	
	MTT-X253CS		8k+3k −10dB	
	MTT-X254AS		10k+3k −10dB	
	MTT-X254BS		12.5k+3k −24dB	
	MTT-X254CS		14k+3k −24dB	
W&F/ LEVEL/ AZIMUTH/ FREQUENCY	MTT-X257A	3180 μs &120 μs	6.3k+1k+125Hz −10dB	Tape Speed Test Wow and Flutter Level Adjustment Frequency Response Check
	MTT-X257C		8k+1k+125Hz −10dB	
	MTT-X257H		10k+1k+125Hz −10dB	
	MTT-X257F		10k+1k+40Hz −10dB	
	MTT-X257E		10k+1k+63Hz −10dB	
	MTT-X257M		12.5k+1k+63Hz −24dB	
	MTT-X257G		12.5k+1k+40Hz −24dB	
	MTT-X257S		14k+1k+40Hz −24dB	
	MTT-X255AS		6.3k+315+3k −10dB	
	MTT-X255BS		8k+315+3k −10dB	
	MTT-X255BSL		8k+315+3k −14dB	
	MTT-X255CS		10k+315+3k −10dB	
	MTT-X255CSL		10k+315+3k −14dB	
	MTT-X255MS		12.5k+315+3k −24dB	
	MTT-X255MSL		12.5k+315+3k −14dB	
	MTT-X255SS		14k+315+3k −24dB	
	MTT-X255GS		6.3k+1k+3k −10dB	
	MTT-X257L		10k+6.3k+63+315Hz −10dB	
	MTT-X257MS		12.5k+1k+63+3kHz −24dB	
	MTT-X255HS		8k+1k+3k −10dB	
	MTT-X255JS		10k+1k+3k −10dB	
	MTT-X255QS		12.5k+1k+3k −24dB	
	MTT-X255VS		14k+1k+3k −24dB	
	MTT-X257AS		6.3k+1k+125+3k −10dB	
	MTT-257CS		8k+1k+125+3k −10dB	
	MTT-257ES		10k+1k+63+3k −10dB	
	MTT-257HS		10k+1k+125+3k −10dB	
	MTT-257GS		12.5k+1k+40+3k −24dB	
	MTT-257PS		14k+1k+40+3k −24dB	
	MTT-259AS		10k+6.3k+1k+315+63+3k −24dB	
	MTT-259BS		12.5k+6.3k+1k+315+40+3k −24dB	
	MTT-259CS		14k+6.3k+1k+315+40+3k −24dB	
	MTT-357ES	3180 μs &70 μs	10k+1k+63+3k −24dB	
	MTT-357GS		12.5k+1k+40+3k −24dB	
	MTT-X253AW	3180 μs &120 μs	6.3k+3150 −10dB	
	MTT-X253CW		8k+3150 −10dB	
	MTT-X254AW		10k+3150 −10dB	
	MTT-X254BW		12.5k+3150 −10dB	

Mix Series

TITLE	MODEL	TIME CONSTANT	FREQ/LEVEL	APPLICATION
W&F/ LEVEL/ AZIMUTH/ FREQUENCY	MTT-X254CW	3180 μs &120 μs	14k+3150 −24dB	Tape Speed Test Wow and Flutter Test
	MTT-X255AW		6.3k+315+3150 −10dB	
	MTT-X255BW		8k+315+3150 −10dB	
	MTT-X255CW		10k+315+3150 −10dB	
	MTT-X255CWL		10k+315+3150 −20dB	
	MTT-X255MW		12.5k+315+3150 −24dB	
	MTT-X255MWL		12.5k+315+3150 −20dB	
	MTT-X255SW		14k+315+3150 −24dB	
	MTT-X257AW		6.3k+315+125+3150 −20dB	
	MTT-X2547CW		8k+315+125+3150 −20dB	
	MTT-X257EW		10k+315+63+3150 −20dB	
	MTT-X257GW		12.5k+315+40+3150 −20dB	
	MTT-X257PW		14k+315+40+3150 −20dB	

MXT Series for high speed double deck.

TITLE	MODEL	TIME CONSTANT	FREQ/LEVEL	APPLICATION
FLUTTER	MXT-111	3180 μs &70 μs	3kHz 0dB	Tape Speed Test Wow and Flutter Test
LEVEL	MXT-112		315Hz 0dB	Level Adjustment
FREQUENCY	MXT-116		63~14kHz −10dB	Level Adjustment Head Azimuth Aignment Frequency Response Test
	MXT-117		12.5k/6.3k/315Hz −10dB	Level Adjustment Head Azimuth Aignment Frequency Response Check
	MXT-1161	3180 μs &35 μs	63~14kHz	Level Adjustment Head Azimuth Aignment Frequency
	MXT-1171		10k+6.3k+1k+3150+63	

Test Tape for Dolby N.R. System

TITLE	MODEL	TIME CONSTANT	FREQ/LEVEL	APPLICATION
DOLBY LEVEL CALIBRATION	MTT-150	3180 μs &120 μs	DOLBY B/C/S-TYPE TONE 200nwb/m (SHORT-CIRCUIT)	DOLBY NR Level Adjustment (B-TYPE·C-TYPE·S-TYPE)
ALIGNMENT	MTT-15000		Bulk	Electric Noise check
	MTT-15070	3180 μs &70 μs	Bias	DOLBY N.R. Effect check
	MTT-15120	3180 μs &120 μs	Bias	DOLBY Effect check
	MTT-94201		400,440Hz −10dB	Head height check

Aignment Blank Tape

TITLE	MODEL	APPLICATION
ALIGNMENT BLANK TAPE	MTT-5513	Recording Response Test For IEC I (Normal) Tape Thickness 18 μm
	MTT-5513M	Recording Response Test For IEC I (Normal) Tape Thickness 18 μm
	MTT-5563	Recording Response Test For IEC II (CrO2) Tape Thickness 18 μm
	MTT-5563M	Recording Response Test For IEC II (CrO2) Tape Thickness 18 μm
	MTT-5572	Recording Response Test For IEC IV (METAL) Tape Thickness 18 μm
	MTT-5572M	Recording Response Test For IEC IV (METAL) Tape Thickness 18 μm
R/P W&F BLANK TAPE	MTT-5523	R/P W&F Response Test For IEC I (Normal) Tape Thickness 12 μm
	MTT-5523L	R/P W&F Response Test For IEC I (Normal) Tape Thickness 12 μm

L : 45min M : 30min None : 10min

Alignment Blank Tape Recording Specification

ITEM \ SERIES			TYPE-I MTT-5513 MTT-5513M	TYPE-II MTT-5563 MTT-5563M	TYPE-IV MTT-5572 MTT-5572M
Recording & Playback Response	SENSITIVITY (dB)	315Hz 0dB	±0.5	±0.5	±0.5
	FREQUENCY RESPONSE (dB) -20dB	315Hz 10kHz 14kHz	±0.5 ±1.0 ±1.5	±0.5 ±1.0 ±1.5	±0.5 ±1.0 ±1.5
	MAXIUM OUTPUT LEVEL (dB)	MOL 315Hz (315Hz/3%) MOL 10kHz (10kHz/saturation)	±1.0 ±2.0	±1.0 ±2.0	±1.0 ±2.0
	THIRD (3rd) HARMONIC DISTORTION (dB)	315Hz	−54±2.0	−40±2.0	−40±2.0
	BIAS NOISE (dB)	CCIR ARM (AVE)	−56±2.0	−60±2.0	−60±2.0
REFERENCE TAPE			MTT-5513 REF	MTT-5563 REF	MTT-5572 REF

M : 30min None : 10min

Test Equipment

TITLE	MODEL	APPLICATION	APPLICATION	REMARKS
MIRROR EQUIPPED	MTT-901	Tape path/Tape Skew Test	10min. Half Thickness 18 μm	
	MTT-902	Tape path/Tape Skew Test	15min. Half Thickness 12 μm	
	MTT-901A MTT-901AP	Tape path/Tape Skew Test	10min. Half Thickness 18 μm	semitransparent casette shell
	MTT-902A MTT-902AP	Tape path/Tape Skew Test	15min. Half Thickness 12 μm	semitransparent casette shell
	MTT-909AP	Tape path/Tape Skew Test	20min. Half Thickness 9 μm	semitransparent casette shell
	MTT-90801	Head height check mono/4Tr 2ch/4Tr 4ch	W=3.81 $^{0}_{-0.05}$ A=1.89±0.03 B=1.89±0.03 mm	scrath line
	MTT-90802	Head height check	W=3.81 $^{0}_{-0.05}$ A=1.87±0.03 B=2.10±0.03 mm	scrath line
	MTT-90803	Head height check mono/4Tr 2ch/4Tr 4ch	W=3.81 $^{0}_{-0.05}$ A=1.89±0.03 B=1.89±0.03 mm	black line
	MTT-90804	Head height check 4Tr 4ch Reverse	W=3.81 $^{0}_{-0.05}$ A=0.8±0.03 B=0.8±0.03 mm	black line

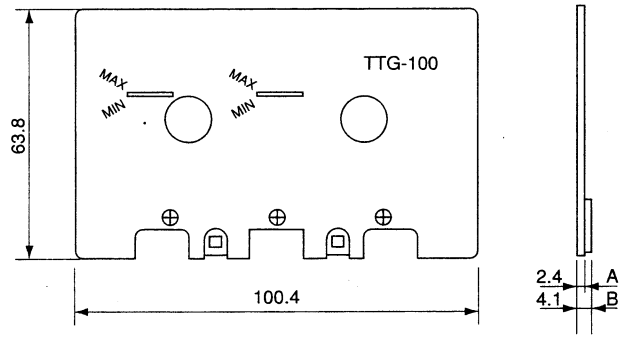
Test Equipment

TITLE	MODEL	APPLICATION	REMARKS				
SPECIAL HALF	MTT-903	Insertion,Detachment Test		10min.	Half Thickness	8.9mm	
	MTT-903L	Quick Reverse Function Test	(Leader Tape only)	5sec.	Half Thickness	8.9mm	
	MTT-9032	Insertion,Detachment Test		10min.	Half Thickness	9.0mm	
	MTT-904	Insertion,Detachment Test		10min.	Half Thickness	8.5mm	
	MTT-906	Insertion,Detachment Test		10min.	Half Depth	64.1mm	
	MTT-907	Insertion,Detachment Test		10min.	Half Depth	63.5mm	
	MTT-908	Leaf switch ON/OFF Test		10min.	Half Depth	63.5mm	
	MTT-900WT	Tape Path check (Weight)	10min.	Half Thickness	8.7mm	Weight	72g±2g
	MTT-903WT	Insertion,Detachment Test (Weight)	7min.	Half Thickness	8.9mm	Weight	72g±2g
	MTT-9032WT	Insertion,Detachment Test (Weight)	5min.	Half Thickness	9.0mm	Weight	72g±2g
	MTT-904WT	Insertion,Detachment Test (Weight)	10min.	Half Thickness	8.5mm	Weight	72g±2g
	MTT-907WD	Leaf switch ON/OFF Test	3min.	Half Depth	63.5mm	Weight	72g±2g

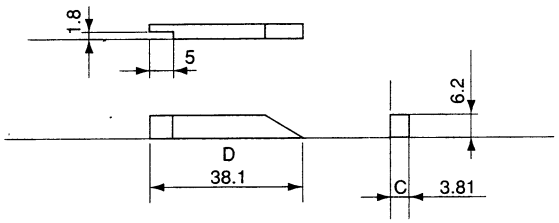
Head & Guide Gauge

TTG-100	Head & Guide Mechanical Alignment	IECpub-94.7に準拠 In conformity with IEC Pub. 94-7

Gauge Plate 寸法 (mm)



Check Bar 寸法 (mm)



Specifications (MTT-111N~X250 Series)

ITEM \ SERIES	111N 211N	112BN 212EN	150 212N,CN	118N	121N	141N	113N 114N	255 257	256 650's	355 357	356 750's	X250's X350's
Tape Width (mm)	3.80 $^{0}_{-0.05}$											
Tape Thickness (μm)	16 $^{+2.0}_{-1.0}$											
Tape Speed (mm/s)	47.6											
Speed accuracy (%)	±0.2	±0.3		±0.8					±0.5	±0.8	±0.5	±0.2
Wow/flutter (W.rms%)	0.03	0.1										0.03
Wow/flutter (W.peak%)	±0.06	±0.15										±0.06
Azimuth	90° ±2'											
Time constant (μs)	3180&120		—	3180&120						3180&70		3180& $^{70}_{120}$
Third (3rd) Harmonic distortion (%)	2.0	3.0		1.0	2.0				3.0	2.0	3.0	3.0
Crosstalk (dB)	—				60	60	—					
Separation (dB)	—					55	—					
Level deviation (dB) 31.5~4kHz	±1.0	±0.3		±0.5			±0.5					
Level deviation (dB) 6.3k~14kHz							±1.0					
Level deviation (dB) 16k~18kHz							±1.5					
Level fluctuation (VU) 31.5~6.3kHz	1.0	0.5		0.5			0.5					
Level fluctuation (VU) 8k~14kHz							1.0					
Level fluctuation (VU) 16k~18kHz							1.5					

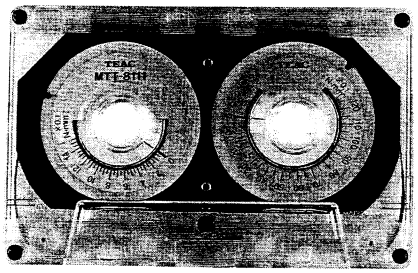
0dB : DIN REFERENCE LEVEL 250nWb/m at 315Hz (EXCEPT MTT-150,MTT-457,MXT Series)

- トルクメーター用に、自社で開発設計した専用金型によるカセットハーフの採用で、読み取り易さ、高品質、高耐久性を実現しています。
- うず巻きスプリングの絶対値の定期的測定、リテーナーの精度向上と厳格な品質管理システムで、高い精度と安定性を維持しています。

TEAC torque meters feature an original cassette shell design that allows easy, accurate readout, while providing superior quality and reliability.
TEAC torque meters feature a high-precision spring, and maintain excellent retainer precision.

MTT-8111

FORWARD TORQUE & BACK TENSION

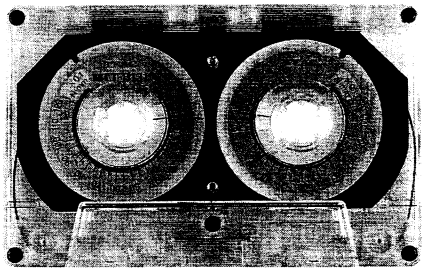


フォワードプレイ状態で巻き取りトルクとバックテンションを同時に測定するメーターです。
Forward take-up torque and back tension can be measured simultaneously in the forward play mode.

- **巻き取りトルク**
  (FWD Take Up Torque) : 0～10+0.5/−0 N·mm
- **バックテンション**
  (Back Tension) : 0～1+0.1/−0 N·mm
- **使用テープ全厚** (Tape Thickness) : 18 μm
- **長さ** (Tape Length) : 8.6m

MTT-8131

FORWARD & REVERSE TORQUE

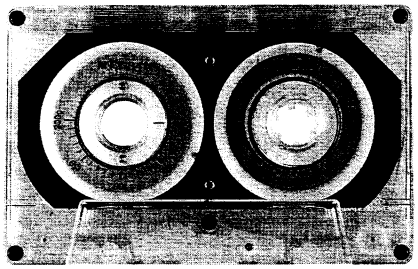


フォワードプレイとリバースプレイ両方の巻き取りトルクを測定するメーターです。
Take-up torque can be measured in the forward and reverse play modes.

- **フォワード巻き取りトルク**
  (FWD Take Up Torque) : 0～10+0.5/−0 N·mm
- **リバース巻き取りトルク**
  (REV Take Up Torque) : 0～10+0.5/−0 N·mm
- **使用テープ全厚** (Tape Thickness) : 18 μm
- **長さ** (Tape Length) : 8.6m

MTT-8411/MTT-8412

FORWARD TRACTION



テープガイドやヘッドの影響を受けずにフォワードプレイでのテープ牽引力を測定するメーターです。
Measarement of forward traction without being affected by the tape guide or head in the forward play mode.

- **フォワード牽引力**
  (FWD.Traction Power) : 0～200g
- **フォワード牽引力**
  (FWD.Traction Power) : 0～300g

- The scale unit described on the products are number (×0.1) N·mm.
- 製品のスケール表示は (×0.1) N·mmとなっています。

Torque Meter Series

Model	Application	Left	Right	FWD Take Up Torque	REV Take Up Torque
MTT-8101	Forward & Reverse Back Tension	1N·mm	1N·mm		
MTT-8111	Forward Torque & Back Tension	1N·mm	10N·mm	0～10+ 0.5/-0 N·mm	
MTT-8121	Reverse Torque & Back Tension	10N·mm	1N·mm		0～10+ 0.5/-0 N·mm
MTT-8131	Forward & Reverse Torque	10N·mm	10N·mm	0～10+ 0.5/-0 N·mm	0～10+ 0.5/-0 N·mm
MTT-8331	Forward & Reverse FF & REW Torque	20N·mm	20N·mm	0～20+ 1.0/-0 N·mm	0～20+ 1.0/-0 N·mm
MTT-8242	Fast Forward & Rewind Torque	20N·mm	20N·mm	0～20+ 1.0/-0 N·mm	0～20+ 1.0/-0 N·mm
MTT-8411	Forward Traction	200g	-		0～200g (FWD Traction)
MTT-8421	Reverse Traction	-	200g		0～200g (REV Traction)

Model	Fast Forward & Rewind Torque	Take Up & Back Tension		Tape Thickness	Tape Length
MTT-8101		B.T.	0～1+ 0.1/-0 N·mm	18 μm	8.6m
MTT-8111			0～1+ 0.1/-0 N·mm	18 μm	8.6m
MTT-8121		T.U.	0～1+ 0.1/-0 N·mm	18 μm	8.6m
MTT-8131			0～10+ 0.5/-0 N·mm	18 μm	8.6m
MTT-8331	0～20+1.0/-0N·mm		0～20+ 1.0/-0 N·mm	35 μm	3.0m
MTT-8242	0～20+1.0/-0N·mm		0～20+ 1.0/-0 N·mm	Reels fixed with the center bar	
MTT-8411				35 μm Leder	
MTT-8421				35 μm Leder	

MEMO