

OUTLINE

This specification provides a description for the TEAC FT-3010 micro streamer: Mini Data Cartridge Unit (hereinafter, referred to as the MTU).

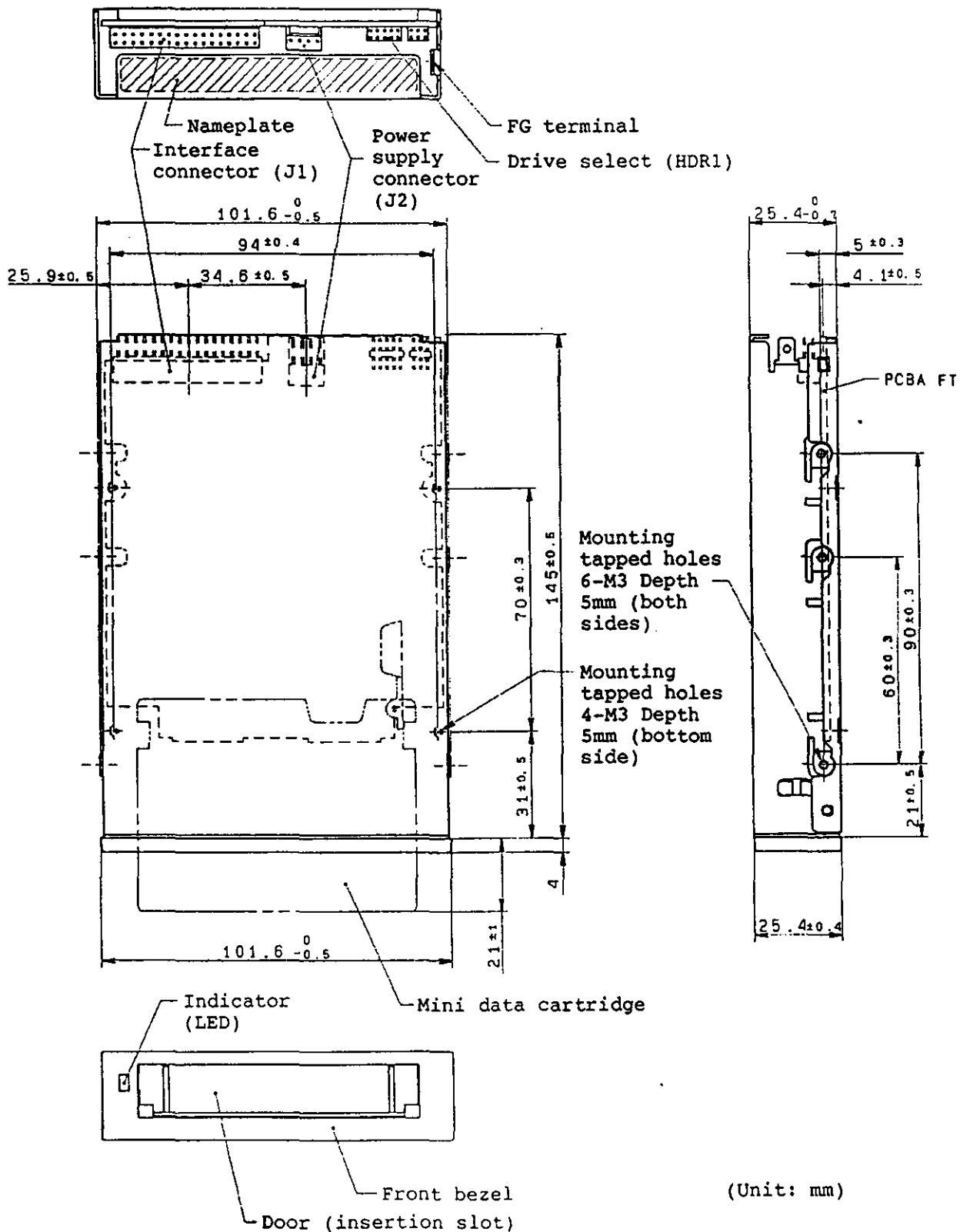
Model	FT-3010-505
TEAC Part number	19305135-05
Front bezel color	Light gray
Indicator LED color	Green
Form factor	3.5-inch (height: 1 inch)
Safety standards	UL 1950 CSA No.950 TÜV EN60950
Tape used (mini data cartridge)	Uses the mini data cartridge specified in QIC-143. (Refer to item 3 for the details) Ref. 1. Coercivity : 9000e (72,000A/m) 2. Width : 0.247 ±0.0005in (6.27 ±0.013mm) 3. Length : 400ft (121.9m)
Recording format	QIC-3010-MC
Readable format	QIC-3010-MC/QIC-80-MC
Recording density	22,125ftpi
Data density	22,125bpi
Formatted data capacity	Approx. 346MB (approx. 692MB when data is compressed by a factor of 50%)
Power supplies	+5V DC, +12V DC
Interface	In compliance with QIC-117 (alias FDD interface)
Drive select setting	SOFTWARE PHANTOM SELECT 0 at factory-preset
Terminator	1kΩ (fixed)

(Table 1) General specifications

CONSTRUCTION

External Construction

- (1) Height : 25.4mm (1.00 in), Nom.
 - (2) Width : 101.6mm (4.00 in), Max.
 - (3) Depth : 145.0mm (5.71 in), Nom.
 - (4) Weight : Approx. 420g (Approx. 0.93 lbs)
 - (5) Direction of installation : as described below.
 - (a) The cartridge may be inserted horizontally from the front. However, the orientation with the indicator positioned on the right side is not permitted.
 - (b) The cartridge may be inserted vertically from the front.
 - (c) In case of (a) and (b), the front side can be tilted to upward or down-ward maximum 15 degrees.
 - (6) Mounting method : The drive is mounted with screws through the mounting holes at the sides and bottom. Refer to Fig.1 for the positions of the mounting holes.
- Note: When mounting the drive with screws, use a tightening torque of 4kg·cm (55.5oz·in) or less.
- (7) Color of front bezel : Refer to Table 1.
 - (8) Indicator LED color : Refer to Table 1.
 - (9) External view : Refer to Fig.1.



(Fig.1) MTU external view

ENVIRONMENTAL CONDITIONS

Items		Conditions
Ambient temperature	In operation	5-45°C (41-113°F)
	During storage or transportation	-22-60°C (-8-140°F)
Temperature gradient	In operation	6°C (10.8°F) or less per hour(non-condensing)
	During storage or transportation	30°C (54°F) or less per hour(non-condensing)
Relative humidity	In operation	20-80% (non-condensing) Maximum wet-bulb temperature: 26°C (79°F)
	During storage	10-90% (non-condensing) Maximum wet-bulb temperature: 40°C (104°F)
	During transportation	10-90% (non-condensing) Maximum wet-bulb temperature: 45°C (113°F)
Vibration	In operation	1G or less (10-100Hz, sweeps at 1oct/min.) 0.5G or less (100-600Hz, sweeps at 1oct/min.)
	Non-operating, During transportation	1.5G or less (10-100Hz, sweeps at 1/4oct/min.)
Shocks	In operation	5G (sine half-wave 11msec) or less
	One shock at non-operating, One shock during transportation	70G (sine half-wave 11msec) or less
Transportation conditions		The general rule level I of the appropriate package goods test method in JIS-20200 should be satisfied when specified packing case is used. When a long period (48 hours or more) is required for transportation such as by ship, storage environmental conditions should be applied.

(Table 2) Environmental conditions

6. RECORDING CHARACTERISTICS

(1) Recording format	: In compliance with QIC-3010-MC
(2) Number of tracks (on tape)	: 40
(3) Encoding system	: MFM
(4) Recording form	: Single track serpentine recording
(5) Recording density	: 22,125ftpi
(6) Data density	: 22,125bpi
(7) ECC	: Reed Solomon (3-order)
(8) Data capacity per tape (at full write)	: Approx. 346MB
(9) Data capacity per track	: Approx. 8.67MB
(10) Number of segments per track	: 292 (Min.)
(11) Number of sectors per segment	: Data 29, ECC 3
(12) Number of data per sector	: 1,024 bytes

Notes: 1. Data capacity when fully written is approx. 346MB, but approx. 692MB with a data compression factor of 50%.

2. Data capacity is under the following conditions.

(a) Speed tolerance : $\pm 0\%$

(b) Number of defect (on tape) : 0

STANDARDS OF RECORDING FORMAT AND INTERFACE

This MTU complies with the following standards in order to be compatible with the recording format and interface.

- (1) QIC-3010-MC
SERIAL RECORDED MAGNETIC TAPE MINICARTRIDGE FOR INFORMATION INTERCHANGE
- (2) QIC-117
COMMON COMMAND SET INTERFACE SPECIFICATION FOR FLEXIBLE DISK CONTROLLER BASED MINICARTRIDGE TAPE DRIVES
- (3) QIC-113
HOST INTERCHANGE FORMAT

TAPE USED (MINI DATA CARTRIDGE)

Mini data cartridge specified in QIC-143 should be used.

TEAC recommends the following tapes, which have been confirmed suitable for use with the MTU.

- (1) Preformatted tape
3M : MC3000XL PIMAT (400ft)
- (2) Unformatted tape
3M : MC3000XL (400ft)

Note: If the above tapes are difficult to obtain, the following tape may also be used although its data capacity is a little smaller.

- (a) Unformatted tape
3M : MC3000 (300ft)
- (b) Preformatted tape : not commercially available

DATA COMPATIBILITY

- (1) Write compatible : In compliance with QIC-3010-MC
- (2) Read compatible : In compliance with QIC-3010-MC/QIC-80-MC

RELIABILITY OF DATA AND DRIVE

- (1) Soft error : 1 or less per 1×10^7 bits read
- (2) Unrecoverable error : 1 or less per 1×10^6 bits read
- (3) Mean Time to Repair (MTTR) : 20 min. or less
- (4) Mean Time Between Failures (MTBF) at duty cycle 10% : 119,000POH or more