

# JIS

**JAPANESE INDUSTRIAL STANDARD**

**9-Track, 12.7 mm Wide  
Magnetic Tape for Information  
Interchange-Format and Recording,  
Using Phase Encoding at 63 cpmm**

**JIS X 6104**<sup>—1988</sup>

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**by**

**Japanese Standards Association**

**In the event of any doubt arising,  
the original Standard in Japanese is to be final authority.**

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## 1. Scope

This Japanese Industrial Standard specifies the format and recording standard for 9-track, 12.7 mm wide and data density 63 cpmm magnetic tape, hereafter referred to as the "tape", using phase encoding system, hereafter referred to as the "PE (Phase Encoding) system", to be used for information interchange between the digital computers and similar machines.

## 2. Definitions

For the purposes of this Standard, the following definitions apply:

- (1) PE system In the case where a series of binary codes are recorded successively on the track of a tape in positive travel direction, the recording system in which the polarity of saturated magnetization is reversed respectively from the polarity opposite to the block gap portion to the same polarity when recording code "1", and from the same polarity as the block gap portion to the opposite polarity when recording code "0", and also the polarity is reversed again at the midpoint when the adjacent 2 codes are identical.
- (2) reference tape A tape which is to be used for the reference of the electromagnetic transducing characteristics of the tapes, and the characteristic values of which are specified by the International Organization for Standardization (ISO).
- (3) secondary reference tape This is a tape to be described as follows. It is to be used for comparing the electromagnetic transducing characteristics of a tape with those of the reference tape, and the deviations of its characteristics from those of the reference tape are clearly indicated, and by correcting the deviations of the actually measured values, it is made possible to carry out an indirect comparison between the characteristics of the tape to be tested and those of the reference tape.
- (4) reference magnetic field The minimum magnetic field applied to the reference tape which causes an output signal equal to 95 % of the maximum (saturated) output, when consecutive flux transitions recorded at the specified packing density of 126 ftpmm on the reference tape are reproduced.
- (5) reference peak output voltage The average peak (P-P) output voltage obtained when the reference tape is reproduced on which consecutive flux transitions are recorded with the recording current 1.8 times the current sufficient to generate the reference magnetic field at the packing density of 126 ftpmm.