

successive characters is nominally measured greater than 900 μin .

(2) The timing between the first detected bit and the last detected bit of a character is nominally measured less than 425 μin .

4.4 Erase

4.4.1 Erase Direction. The tape shall be magnetized so that the rim end of the tape is a north-seeking pole.

4.4.2 Erase Width. The full width of the tape is dc erased in the direction specified in 4.4.1.

4.4.3 Erase Function. The erase function, whether by the write head or the erase head, shall ensure that the level of the read-back signal amplitude is below 4% of the Standard Reference Amplitude at 800 frpi.

4.5 Standard Reference Amplitude. The Standard Reference Amplitude is the average peak-to-peak output signal amplitude derived from the NBS Amplitude Reference Tape (SRM 3200) on a measurement system using the 800 CPI recording system with the recording current of $2.1 \times I_r$. The longitudinal recording pattern in the tracks to be tested shall be 10001000 (200 frpi). The signal amplitude shall be averaged over a minimum of 4000 consecutive flux reversals.

The Standard Reference Current (I_r) is the minimum current applied to the Amplitude Reference Tape which causes an output signal amplitude equal to 95% of the maximum output signal.

4.6 Signal Amplitude

4.6.1 Average Signal Amplitude. The average peak-to-peak output signal amplitude of an interchanged tape at 800 frpi shall deviate no more than + 15%, - 30% from the Standard Reference Amplitude. Averaging shall be done over a minimum of 4000 flux reversals.

4.6.2 Maximum Signal Amplitude. An interchanged tape shall contain no adjacent reversals whose peak-to-peak output signal amplitude exceeds 1.2 times the Standard Reference Amplitude.

4.6.3 Minimum Signal Amplitude. An interchanged tape shall contain no adjacent flux reversals whose peak-to-peak output signal amplitude is less than 0.35 times the Standard Reference Amplitude.

5. Format

See Fig. 2.

5.1 Track Format. The track format shall consist of nine parallel tracks.

5.2 Track Dimensions

5.2.1 Track width on tape is 0.043 inch minimum.

5.2.2 Centerline distance between tracks is 0.055 inch nominal.

5.2.3 Centerline of track 1 is to be 0.029 inch \pm 0.003 inch from reference edge.

5.3 Reference Edge. The reference edge of the tape shall be the top edge when viewing the oxide-coated side of the tape with the rim end of the tape to the observer's right.

5.4 Track Identification. Tracks shall be numbered consecutively, beginning at the reference edge with track No. 1, and assigned as follows:

Track:	1	2	3	4	5	6	7	8	9
Environment:	E3	E1	E5	P	E6	E7	E8	E2	E4
Binary weight:	2^2	2^0	2^4	P	2^5	2^6	2^7	2^1	2^3
ASCII bits:	b_3	b_1	b_5	P	b_6	b_7	Z	b_2	b_4

5.4.1 Bits b_1 - b_7 correspond to the bit assignments in ASCII.

5.4.2 Bit P is the parity bit. Character parity is odd.

5.4.3 Bit Z shall be zero and treated as a bit of higher order than the ASCII bits.

5.5 Block Length (See Fig. 2)

5.5.1 The data portion of a block shall contain a minimum of 18 ASCII characters. The Tape Mark is excluded from the minimum block length requirements (see 5.8).

5.5.2 The data portion of a block shall contain a maximum of 2048 ASCII characters.

5.6 Density Identification Area. The identification area shall be fully saturated in the erased direction. This area begins 1.3 inches minimum before the trailing edge of the BOT marker and extends to the initial gap.

5.7 Gaps (See Fig. 2)

5.7.1 Interblock Gap

- (1) Nominal - 0.6 inch
- (2) Minimum - 0.5 inch
- (3) Maximum - 25 feet

(Gap depends upon the number of consecutive erase operations.)

5.7.2 Initial Gap. The gap between the trailing edge of the BOT marker and the first recorded character shall be 3 inches minimum, 25 feet maximum.

5.8 Tape Mark. The Tape Mark shall be a single character block consisting of the Device Control Character, DC3 ("1" bits in tracks 2, 3, and 8 only).

5.9 CRC Character. At the end of each tape block a character shall be written on tape for the possible recovery of single-track errors. This character shall be called the Cyclic Redundancy Check (CRC) character. In Tape Mark blocks, zero bits are written in all tracks for the CRC character.

5.9.1 Consider the contents of a 9-position register