
Type of device:

playback stereo tape deck

Tape transport:

processor-controlled 3-motor direct drive with 1/4" tape width and international layering

Reel motors: 2 BLDC pancake motors with rotor angle controlled sinusoidal commutation

Capstan motor: 1 BLDC pancake motor with rotor angle controlled sinusoidal commutation

Electric brakes controlled by tape tension control

BLDC servo drive pinch roller

Operating position: all angles between horizontal and vertical

Tape path:

Tape tension scales mechanically damped with deflection rollers left and right with ball bearings above the head assembly

Tape speed:

19.05 cm/s and 38.1 cm/s

Tolerance of the set speed: < 0.03 %

Reel size:

up to a maximum of 300 mm reels, fastening via screw clamps

Minimum core diameter of reel: 60 mm

Wow & Flutter (weighted):

19.05 cm/s < 0.06 %

38.1 cm/s < 0.04 %

Tape slip (at every reel size):

1/4": < 0.05 %

Spooling time:

1 speed 8.2 m/s

Tape tension:

Playback: 0.7 N
(measured at left reel)

Spooling:
High speed: 0.9 N
(measured at the undriven reel)

Head assembly:

one ball bearing to the left, one flutter roller, 2 tape guides, one playback head + 2 head substitutes (erase and recording). Playback stereo head with 2.75 mm track width.

Head assembly cover with ferromagnetic shielding

Tape transport electronics:

processor-controlled, 2 sensors for tape tension

Real-time counter via high-resolution incremental encoder in time format hrs / min / sec / 100/sec

Audio electronics:

separate PCB for right and left channel. Equalization switching via solid state relays. Playback amplifier to calibrate level, treble and bass via conductive plastic trimmers separately for each equalization.

Automatic changeover when changing the speed. NAB/CCIR via manual switch.

Outputs:

XLR outputs electronically balanced. To calibrate from - 10 to + 12 dB
Default setting: + 6 dB

Equalizing (selectable)

19.05 cm/s: CCIR (IEC 1) 70 μ s
19.05 cm/s: NAB (IEC 2) 50-3180 μ s
38.1 cm/s: CCIR (IEC 1) 35 μ s
38.1 cm/s: NAB (IEC 2) 50-3180 μ s

Frequency response (measured with BASF calibration tape DIN 45513 (19 cm/s) and BASF Rundfunk Bezugsband (38 cm/s):

19.05 cm/s: 30 Hz - 14000 Hz +/- 1 dB
19.05 cm/s: 30 Hz - 18000 Hz +/- 2 dB
38.1 cm/s: 50 Hz - 18000 Hz +/- 1 dB
38.1 cm/s: 30 Hz - 18000 Hz +/- 2 dB

Signal to noise ratio(RMS weighted, measured with blank RTM SM900):

19.05 cm/s 320 nWb/m > 62 dB
38.1 cm/s 510 nWb/m > 70 dB

Crosstalk:

1/4" (0.75 mm sep. track) > 62 dB at 1000 Hz

Power supply:

separate PSU in aluminium housing with 28 V DC switching converter and 2 x +/- 18 V precision audio power supply with toroidal transformer. Length of the DC low voltage cable: 80 cm

Connection via IEC connector 3-pole
Protection class 1
240 V / 50 Hz European standard
105 W maximum power consumption

Operating ambient conditions:

Air humidity: 30 - 80 % relative humidity (non-condensing)
Ambient temperature: 5 - 45°C

Weight and dimensions:

460 mm x 380 mm x 109 mm (W x H x D)
Weight: 16 KG + 1.1 Kg (power supply)
