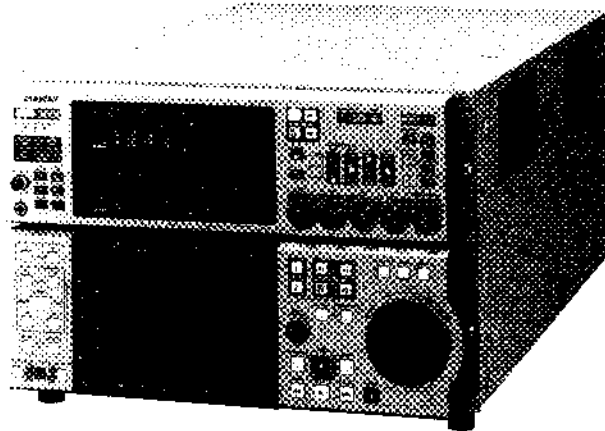


Multi-access Video Disk Recorder

- The MAV-555 is MPEG-based, multi-channel editing disk recorder.
- Capacity of 9 GB and 18 GB models are available.
- Simultaneous multiple I/O channels.
- Compact, all-in-one, design that includes a shock-proof HDD.
- Selectable bit rate – 30 Mbps, 40 Mbps or 50 Mbps.
- Fast scene search with a VTR-style jog/shuttle knob.
- Network file browsing capability for file searching, remote control and self-diagnosis/log extraction/setup.
- Independently editable, high-quality audio channels – 4 uncompressed, 20-bit/48 kHz AES/EBU digital audio on each video channel.
- Real-time editing capability.
- File transfer capability – synchronously at up to twice normal speed via SDTI or asynchronously to match a computer LAN.
- A variety of I/O boards and interface boards for system flexibility
- High reliability with parity drive and RAID technology.



Accessories Supplied: Operation manual (1)
 Installation manual (1)
 Rack mount metals (2)

Optional function Boards and support Components:
 BKMA-505, Disk Recorder Control Panel
 BKMA-510, Input and Output Processor Board
 BKMA-511, A/D Converter Board
 BKMA-512, D/A Converter Board
 BKMA-530, Input and Output Processor Board
 BKMA-540, SDTI Board
 BKMA-550, Asynchronous Network Board
 BKMA-560, Video Effect Board
 BKMA-570, Analog Audio Expansion Unit
 RMM-555, Rack Mount Kit

Specifications:

General

Power requirements: AC 90 V to 265 V, 48 Hz to 64 Hz
 Power consumption: Max. 600W (including all option boards)
 Operating temperature: +5°C to +40°C (+41°F to +104°F)
 Storage temperature: -20°C to +60°C (-4°F to +140°F)
 Humidity: 25% to 80% (relative humidity)
 Weight: 50 kg (110 lb) (including all option boards)
 Dimensions: 424(W) x 286(H) x 629(D) mm
 (16 3/4 x 11 3/4 x 24 3/4 inches")

Operational Performance

Recording/Playback time:
 (9 GB): Max.5 hours @30 Mbps
 (5 h @30 Mbps/4 h @40 Mbps/3 h @50 Mbps selectable)
 (18 GB): Max. 10 hours @30 Mbps
 (10 h @30 Mbps/8 h @40 Mbps/6 h @50 Mbps selectable)

Search Speed:
 SHUTTLE mode: Max. ±500 times normal speed
 (Maximum speed range ±32 /...±100 .../±500 selectable), frame by frame (±4 times), velocity modulated sound

JOG/VAR mode: ±1 times normal speed/±2 times normal speed** selectable, field by field, DJS

Program Play: ±10% normal speed*1
 Cue up time: Min. 0.5 seconds
 Time shift: Min. 60 frames
 Clip: Min. duration 1 frame, up to 5,000 clips

Note *1 Using optional BKMA-530(Output Processor Boards) and 2 ports

Digital Video Performance

CODEC:
 Compression: MPEG2 4:2:2 Profile@ML GOP N=1 (intra)
 Bit rate: Max. 50Mbps (50 Mbps/40 Mbps/30 Mbps selectable)
 Encoding samples: Y:720/ line, B-Y/R-Y:360/ line
 Encoding lines: 525:1 - 3, 10 - 265, 273 - 525
 625:7 - 310, 320 - 623

Sampling frequency: Y: 13.5 MHz, R-Y/B-Y:6.75 MHz
 Quantization: 8 bits/sample

Digital input to digital output:
 Bandwidth: Y: 0.5 - 5.75 MHz +0.5/-0.75 dB
 R-Y/B-Y: 0.5 - 2.75 MHz +0.5/-0.75 dB

Analog composite input to analog composite output:
 S/N ratio: More than 54 dB
 Differential gain: Less than 2%
 Differential phase: Less than 2°
 Y/C delay: Less than 10 ns
 K-factor(2T pulse): Less than 1%
 LF non-linearity: Less than 3% (including quantization noise)

Digital Audio Performance

Sampling frequency: 48 kHz
 Quantization: 20 bits/sample

Analog input to output:
 A/D and D/A quantization: 20 bits/sample
 Frequency response: 20 Hz to 20 kHz +0.3/-0.5 dB (0 dB at 1 kHz)
 Dynamic range: More than 95 dB (at 1 kHz, emphasis ON)
 Distortion: Less than 0.04%
 (at 1 kHz, emphasis ON, ref. level=+4 dBm)
 Cross talk: Less than -90 dB
 (at 1 kHz, between any two channels)
 Head room: 20 dB (18 dB selectable)
 Emphasis: T1=50 us, T2=15 us (ON/OFF selectable)
 Input reference level: +4 dBm (+4/ 0 / -3 / -20 dBm selectable)

Processor Adjustment Range

Video:
 Video level: ±3 dB / -∞ to 3 dB selectable
 Chroma level: ±3 dB / -∞ to 3 dB selectable
 Set up/Black level: ±30 IRE / ±210 mV
 Hue/Chroma phase: ±30°
 System sync phase: ±30 us (SC step)
 System SC phase: ±200 ns (0.3 ns step)

Audio:
 Input level: -∞ to 20 dB
 Output level: -∞ to 12 dB
 Output phase: ±30 frames in FULL mode,
 ±100 samples in FINE mode

Audio mixer:
 Fade Time: 0 to 10 s in FULL mode, 0 to 500 ms in FINE mode

Analog Signal Input

Video reference: BNC (x2 loop-through connection), composite, 0.3 Vp-p, 75 Ω, sync negative

Analog composite(option*1): BNC (x2 loop-through connection) x 2 ports, 1.0 Vp-p, 75 Ω, sync negative

Analog audio(option**1*2): XLR (x4) x 2 ports
 -60 dBu,high impedance,balanced /
 +4 dBu,high impedance,balanced /
 +4 dBu,600 Ω termination balanced selectable

Timecode reference: BNC x1, 0.5 Vp-p – 18 Vp-p, 10 kΩ, unbalanced

Timecode: BNC(x1) x2 ports, 0.5 Vp-p
-18 Vp-p, 10 k Ω , unbalanced

Note*1 Using optional BKMA-511(A/D Converter Board)
Note*2 Using optional BKMA-570(Analog Audio Expansion Unit)

Analog Signal Output

Analog composite (option*1): BNC (x2) x 3 ports, 1.0 Vp-p, 75 Ω , sync negative

Analog audio (option*1 *2): XLR (x4) x 3 ports,
+4 dBu at 600 Ω load, low impedance, balanced

Timecode: BNC (x1) x3 ports
2.2 Vp-p at 600 Ω load, low impedance
unbalanced

Video monitor: BNC x1, composite, 1.0 Vp-p, 75 Ω , sync negative
with character super

Audio monitor L/R: XLR x2
+4 dBu at 600 Ω load, low impedance, balanced

Headphones: JM-60 stereo phone jack
- ∞ to -12 dBu at 8 Ω load, unbalanced

Note*1 Using optional BKMA-511(A/D Converter Board)
Note*2 Using optional BKMA-570(Analog Audio Expansion Unit)

Digital Signal Input/Output

Inputs

SDI: BNC (w/2 active-through connection) x 2 ports,
SMPTE 259M

SDTI(option*1): BNC x1

Digital audio: BNC(stereo pair x2) x 2ports, AES/EBU

Outputs

SDI: BNC (x2) x 3 ports, SMPTE 259M

SDTI(option*1): BNC (x1)

Digital audio: BNC(stereo pair x2) x 3 ports, AES/EBU

Video monitor: BNC x1, SMPTE 259M, with character super

Note*1 Using optional BKMA-540 (SDTI Board)

Remote

RS-422A:

Remote In 1/2/3/4: D-SUB 9-pin (F) x4, Sony 9-pin VTR protocol,
Sony 9-pin Disk protocol

Remote Out 1/2: D-SUB 9-pin (F) x2, for external VTR control
(Sony 9-pin VTR protocol)

GPI: D-SUB 50-pin (F) x1, 24 inputs (5 V CMOS),
24 outputs (Open collector)

Ethernet: RJ45 x1, 100BaseT

AUX: D-SUB 9-pin (F) x1

Video Effects

Sampling frequency: Y: 13.5 MHz, R-Y/B-Y:6.75 MHz, K: 13.5 MHz

Quantization: 8 bits/sample

Delay: 1 frame

Effect: Location, Trail, Lighting, Shadow, DSK

Pattern:

Dissolve

Wipe: Single, Rotary, Matrix

2D: Still Mirror, Dynamic Mirror, Stream, Accordion,
Multi-Screen, Slide, Split Slide, Compression,
Expand, Bound, 2D Rotation

Screen: Mosaic, Y&C Modify, Zoom up, Cropping, Real
Paint, Stained Glass, Wave Modulation

Lighting: Spot light/Center image

3D: 3D Rotation, Split 3D Rotation,
3D Rotation + Compression + Slide,
Door, Album page turn, Flip/Tumble, Twist, Page
turn, Split Page turn, Sphere

P in P: Normal, 3D, Skew, Sphere

Note Using optional BKMA-560 (Video Effect Board)