



SPECIFICATION of the WAVESTORE DVRMS

This specification covers the basic requirements for physical installation of the WAVESTORE digital video recorder & management system. For detailed set up information, please refer to the latest installation and user manuals.

Introduction:

The WAVESTORE Digital Video Recorder/Digital Video Management System (DVR/DVMS) accepts standard analogue video camera inputs which are digitised, compressed, and written to internal hard disks. These stored images can be played back at any time on the recording device without interrupting the recording process, or on a standalone or networked PC. All units are supplied ready to use, with the powerful Wavestore operating system, based upon Linux, and licence key pre-installed.

Many WAVESTORES (“servers”) may be networked together, with or without PCs (“remote clients”) running a Windows™ operating system. It is important to be aware of any network cabling in addition to the camera cabling when planning an installation. Standalone servers will require a monitor for set up and reviewing recorded material. A mouse only is provided, a keyboard being optional, but provision should be made for installing & using a keyboard for diagnostic work & upgrading software. Networked servers may not require a monitor to be permanently installed.

Storage uses internal IDE hard drives (“HDDs”) specified and supplied with the unit. Large volume storage can be effected by adding RAID arrays. These have to be located close to the WAVESTORE servers, and connected via SCSI cables. Alternatively, mirror backup servers may be employed to mirror the data stored. The mirror is asymmetrical, allowing back up to be larger than in the WAVESTORE.

For other performance features, see the latest version of the WAVESTORE features list.

Data for Sapphire S16M-XXXX range

1) INPUTS (rear mounted)

Number of Video inputs	16 analogue inputs via BNC connectors
Image rate (global)	400 ips (480 ips NTSC)
Image rate per input	0.5 to 25 ips (0.5 to 30 ips NTSC)
Input level	1.0V p-p +/- 40%
Input impedance	75Ω (>1MΩ in loop-through mode)
Signal system	PAL/NTSC (auto-detected)
Audio Inputs:	2 channels as standard. Up to 20 channels available upon request.
Audio Resolution:	16 bit / 16 kHz

2) OUTPUTS & OTHER CONNECTORS (rear-mounted)

Loop-through outputs	16 via BNC connectors; automatic detect
Spot monitor outputs	4 via BNC, 75Ω, software programmable
SVGA port	1 via 15-way D-type VGA cable to monitor (not supplied)
RS232 serial ports	2 x 9-way D-type (COM1, COM2)
USB ports	2
Mouse	1: Logitech mouse with wheel (supplied)
Keyboard connection	1: mini-DIN connector
Printer	1: 25-way D-type
Network connector	2; via RJ-45
Alarm inputs	16, contact closure via external USB I/O board
Alarm outputs	16, open collector via USB (see alarm inputs)



3) STORAGE

Internal storage Up to 6 drives via IDE; 80GB to 1800GB (using 300GB drives)
Additional storage Effected via SCSI RAID arrays, up to 4200GB per unit (see also item 6)

4) NETWORKING

Signalling TCP/IP
Protocol 10/100 baseT
Speed Up to 10MBits/s per WAVESTORE
Bandwidth control User set by software; 1Kbits/sec increments
Remote client PCs Any using Windows™ (98, ME, 2000, NT, XP)

5) FRONT PANEL

Security Lockable hinge-down panel
System access Floppy disk drive as standard
CD-RW Standard

6) EXTERNAL STORAGE DEVICES

Mirror server WTML-MIRROR1000
(This is an identical server to the WAVESTORE, but without video capture hardware.)

7) ELECTRICAL

Input voltage 110/120V – 220/240V (switchable), 50-60Hz
Power consumption 200W continuous, typical
HDDs Add 10Watts/HDD, typical

8) MECHANICAL

Package 19" rack-mount; 4U height
Case dimensions 440w x 450d x 175h mm
Overall depth 510 mm (front handles to rear of BNC)
Outline drawings see attachment

9) GENERAL

Operating temperature range 5°C to 40°C (40°F to 105°F)
Storage temperature -25°C to 60°C (-13°F to 140°F)
Relative humidity maximum 80% non-condensing
Weight 15.5Kg with one HDD fitted
HDD 0.6 Kg each additional HDD
CD-writer add 0.5Kg if this option included

10) CERTIFICATIONS

CE No: RS010700C332
UL, VDE Pending

11) PACKING

WAVESTORE is delivered in a protected cardboard container approximately 600 x 550 x 300, weighing approx. 2.5Kg.

12) INSTALLATION

WAVESTORE uses multiple internal fans for cooling. Care should be takes to see that the vent holes (see outline drawings) are not be obstructed in any way.