

DIGITAL sprite² Line

6, 9 & 16 camera, high performance digital multiplex recorder range

The Digital Sprite 2 provides true flexibility by functioning as either a standalone plug and play system, or as part of a multiple unit installation.

Up to two internal hard disks provide more than 2 months high quality, continuous digital recording. Dedicated Micros RAID and JBOD units may also be used to provide an extended storage solution suitable for all applications and budgets. Recordings are accessible to the user at the touch of one button or via powerful GOTO and event preview facilities.

Models in the DS2 range are now available with a built in CD-R and Retail Solutions (RS) for text capturing. These options provide a quick and easy way of copying digitally signed key events to CD and allow the end-user to deter and detect internal theft and reduce shrinkage.

Password protected multiple user network viewing and control is available via the network viewer over a LAN, WAN or Internet. The optional remote keyboard provides local control of up to 16 units.

benefits

- FAST ACCESS TO 2 MONTHS OF HIGH QUALITY DIGITAL RECORDINGS*
- MODELS WITH INTERNAL CD-R AND/OR RETAIL SOLUTIONS (RS) AVAILABLE
- COMPATIBLE WITH DEDICATED MICROS RAID AND JBOD UNITS FOR EXTENDED STORAGE
- ALL RECORDINGS HAVE TAMPER PROOF MECHANISMS APPROVED FOR EVIDENCE
- SIMULTANEOUS RECORD, PLAYBACK, BACKGROUND IMAGE ARCHIVING, MULTIPLE USER NETWORK VIEWING AND PLAYBACK WITH NO LOSS OF PERFORMANCE
- VIDEO MOTION SEARCH- ALLOWS THE USER TO SEARCH BACK THROUGH RECORDINGS FOR MOVEMENT IN A PARTICULAR AREA OF THE IMAGE
- VARIABLE RECORD PRIORITY PER CAMERA TO ENABLE A HIGHER RECORD RATE FOR CAMERAS FOCUSED ON SENSITIVE AREAS
- FILE EXPORT OF DIGITALLY SIGNED IMAGES OVER THE NETWORK
- ALARM NOTIFICATION VIA E-MAIL
- AUDIO RECORDING
- NETWORK REMOTE SUPPORT ALLOWS REMOTE SYSTEM ADJUSTMENTS NEGATING THE NEED FOR SITE VISITS
- TWO OPTIONS FOR REMOTE VIEWING: VIA ETHERNET CONNECTION OR DIAL-UP PPP
- IR REMOTE CONTROL OFFERS FRONT PANEL CONTROL INCLUDING PLAYBACK AND VIEW OF EVENT LOG
- CE AND UL LISTED (1TE) 12LZ

* Applies to 600GB models recording at factory default setting of 6PPS with 18KB file size



Specification

LANGUAGES

English, French, German, Spanish, Italian, Chinese, Russian, Czech, Polish, Dutch, Hungarian and Swedish

CAMERAS

6, 9 and 16 camera models available
Loop through BNC connectors provided for each camera input, with software configured termination. Cameras auto detected on power up. Option to trigger light duty relay output R1 or R2 (500mA @ 12V-48V max) on alarm, activity, or keywords (RS).

HIDDEN CAMERAS

Option to view all or selected cameras, without affecting cameras recording.

Hidden cameras can be configured to be viewed via the network.

MONITOR VIEWING

Main monitor:

Full screen, programmable sequence.

Programmable multi-screens: picture-in-picture, quad, 9 way, 8+2, 12+1, 16 way

x2 electronic zoom, freeze frame.

Mon A: Composite video BNC connector or S-video 4 pin mini DIN connector.

Spot monitor:

Full screen, programmable sequence.

Mon B: Composite video BNC connector.

SCHEDULING

Choice of day, night or weekend offers the ability to automatically:

- Select the cameras to be recorded
- Switch alarms and activity on/off
- Select whether alarms and activity are interleaved or exclusively recorded
- Alter the record rate for standard, alarm and activity recording
Activation is via timer or alarm panel link to AUX input

VARIABLE RECORD PRIORITY PER CAMERA

Cameras connected to the Digital Sprite 2 can be recorded at a High, Medium (Standard) or Low priority for day, night, and weekend schedules. This allows cameras in sensitive areas to be recorded more frequently than cameras located in less sensitive areas without affecting the overall record rate.

VIDEO MOTION DETECTION

Programmable 16 x 8 masking grid for each camera view.

5 levels of sensitivity

Options:

- Up to 30 minutes of tagged pre and post activity recording per event.
- Main monitor display of last alarm, 2 second dwell return to pre-alarm display
- Buzzer activated on activity detection
- Trigger light duty relay output R1 or R2 (500mA @ 12V-48V max)

ALARMS

Normally open/closed alarm contacts available via on board 25 way D-type connection (or optional remote alarm module).

Up to a total of 8 contacts may be assigned to each camera input. Multiple alarms can trigger one camera and/or 1 alarm can trigger multiple cameras

Options:

- Up to 30 minutes of tagged pre and post alarm recording per event.
- Main monitor display of last alarm, 2 second dwell per alarmed camera, return to pre-alarm display
- Trigger telemetry preset on alarm
- Buzzer activated on alarm
- Relay closure on hard disk failure
- Trigger light duty relay output R1 or R2 (500mA @ 12V-48V max)

Standard Alarm/Relay Connections:

Alarms: 17 internal programmable alarm inputs.

Relays: 6 on board relay outputs (500mA @ 12V-48V max).

E-MAIL NOTIFICATION

Up to five email addresses can be emailed on alarm or other critical events. Notifies the following events on a camera by camera basis:

- Alarm
- Activity
- Camera fail
- Keyword (RS)

Also power up, global alarm, panic alarm or date change

E-mail contains - JPEG picture of camera image on first alarm, machine I.D., camera number, alarm number, time and link to network viewer.

Access to mail server is required via Ethernet or dial-up over PPP for this feature.

IR REMOTE CONTROL

Provides operator with remote front panel control of single or multiple racked units including:

- The ability to change cameras and camera views
- Search using the GOTO function and review of the event list
- Playback of images from the hard disk

AUDIO

The user has the option to record and play back a single channel of audio in real time. Recorded with images from camera one, audio can be played back either directly from the unit via powered external speakers.

Recorded audio is automatically copied when images from camera 1 are archived to CD-R or exported across a network.

Connections:

Mic in: 3.5mm jack socket (requires an electret/condensor microphone with a sensitivity of -50dBV or better)

Line in: 47KW input impedance, 1V pk-pk, RCA phono socket

Line out: 1V pk-pk, RCA phono socket

SEARCH AND PLAYBACK

VCR style keys offer:

- One button touch playback.
- Frame advance/rewind, fast picture search and pause keys
- Event list, including event list filter with unique quadrant preview facility
- GOTO time and date
- Playback in quad, picture in picture and full screen

VIDEO MOTION SEARCH FACILITY

Allows the user to search through hard-disk recordings for movement in a particular area of the image. The unit is then able to search back through the hard drive and create a list of activities for the user to view and archive as required. Searching can also be filtered to limit the search to user-defined times and dates. *RS units include any character and keyword search facilities.

RECORDING

Playback and record to hard disk simultaneously

Hard disk sizes are constantly increasing in capacity. Please contact customer service or consult the DM web site, for latest available disk size configurations for the Dedicated Micros product range.

At time of press the maximum internal storage for the DS2 with internal CD is 600GB, providing 2 months of digital recordings at a factory default setting of 6PPS with 18KB file size

Event partition and protected images:

Separate area on disk can be defined to extend the storage time of alarms and events. The event partition area in Gigabytes (GB) is configured by the installer and overwrites itself when full.

The system can be configured to protect images permanently from being overwritten when the global alarm is activated. The end user can also manually configure sections of recorded images to be permanently protected from overwrite, and remove permanent protection.

EXTERNAL RAID DEVICES

We recommend that only DM approved external RAID devices should be used with the DS2 range.

Please contact Technical Support in your region for further information on recommended devices or visit the web site at www.dedicatedmicrosus.com.

The table below shows the disk size required for low, medium and high image qualities, at the equivalent of 24 hour record speeds - 6 pictures per second (shared across all cameras), and audio disabled.

RECORD DURATION	IMAGE QUALITY*		
	LOW	MEDIUM	HIGH
	14K	18K	25K
DISK SIZE			
1 day	9GB	11GB	14GB
7 days	53GB	68GB	94GB
31 days	231GB	297GB	412GB
62 days	463GB	595GB	825GB

* Please refer to our record calculator on the DM website for other possible calculations.

RECORD RATE

Digital Sprite 2 can record at 60PPS (NTSC) and the Digital Sprite 2 Plus at 120PPS (NTSC).

TIMED EXPIRY

- Timed expiry option allows images to be held for a selected number of days.
- Images on the disk which are older than the number of days selected are not accessible

EVENT COPYING

Individual images, event sequences, audio from camera 1 and user defined recorded sequences can be saved to the internal CD-R drive of DS2 (or an external CD-R* connected to the SCSI port for models without CD). The CD containing the images, the sequences and images themselves are digitally signed for authentication purposes. Playback of images from the CD is via a standard CD ROM drive. The CD playback software will auto-run and does not require the installation of software on the users PC.

DIGITAL SIGNATURE

The use of digital signatures makes it possible to detect whether single image or a sequence of images has been tampered with.

NETWORK CAPABILITIES

A standard Ethernet connection allows live and recorded viewing on a networked PC using DM's Network Viewer software or via web pages using a standard Internet browser. Network viewing is independent and does not affect the recording or local operation. The Digital Sprite 2 includes a network bandwidth limitation option, which allows the bandwidth used by the Digital Sprite 2 to be reduced.

Network Viewer software features include:

- Live full, quad, 6, 9 and 16 way screens
- VCR style fast forward and rewind, playback and frame advance/rew
- GOTO time and date and unique quadrant event review
- File export of digitally signed images over the network to the user's PC using Network Viewer software.
- Archived images can be viewed using DM's PC Playback software, supplied with the product and as a free download from the DM website. (PC Playback operates on PC's installed with Windows 95 and above).
- Copy single images as JPEG and sequence of images as AVI to save to a PC
- Operation of relay output on the unit – via Network Viewer
- Telemetry control, including PTZ and telemetry presets
- Multiple user access
- Configurable password protection
- Event log

Web pages features include:

- Viewing of live images in full screen and quad format including telemetry control
- Playback (full screen only) including GOTO function
- Password authentication.

Web pages are also compatible with Mac and Linux Netscape browsers version 4.78.

NETWORK REMOTE SUPPORT

Enables system adjustments to be made remotely to a networked unit. One user may connect to the unit in a password protected admin mode, that allows access to the menus as they appear on the unit themselves. System adjustments can then be made remotely over the network, such as change the record rate, set up the activity grid, program presets and more – without the need for a site visit.

COLOR RESOLUTION

Sampling rate: 13.5 MHz to CCIR 601
 Number of pixels: NTSC 720h x 448v
 PAL 720h x 512v
 16.8 million colors 256 levels of grey, 8-bit luma.

COMPRESSION

Standard JPEG format files
 User definable compression

DATA

- SCSI - 50-pin HD SCSI-2 connection.
- NET - RJ-45 10-baseT Ethernet connection.
- BUS A - RS-485 telemetry port 1.
- BUS B - RS-485 telemetry port 2 (Used in conjunction with BUS A with Sensormatic telemetry).
- 485 BUS - 2x MMJ ports for DM 485-BUS accessories.

- SERIAL 1 - 9 way (Male) D Type RS 232 serial port.
- SERIAL 2 - 9 way (Male) D Type RS 232 serial port.
- (Either SERIAL 1 or SERIAL 2 can be used for PPP)

CD-R

- DVMR with CD: Built in slim-line CD-R for Compact Disc Recordable High Speed Media.
- DVMR without CD: Use optional external SCSI CD Writer.

TEMPERATURE RANGE

Operating temperature 41 – 113°F (5 – 45°C)

RELATIVE HUMIDITY

10% - 85% Non-condensing

DIMENSIONS

DVMR with CD: 3 1/2" (H) x 17 5/16" (W) x 17 1/2" (D)
 89mm (H) x 440mm (W) x 445mm (D)

DVMR without CD: 2 5/8" (H) x 17 5/16" (W) x 16 1/8" (D)
 66mm (H) x 440mm (W) x 409mm (D)

Optional Keyboard: 2 9/16" (H)* x 16 1/8" (W) x 7 1/4" (D)
 (* 4 1/8" including Joystick)
 65mm(H)* x 410mm (W) x 183mm (D)
 (* 100mm including Joystick)

WEIGHT

DVMR with CD: 25.1 lbs (11.4 kg) with built-in PSU
 DVMR without CD: 15 lbs (6.8 kg) without PSU
 16.8 lbs (7.6 kg) with PSU

POWER SUPPLY

DVMR with CD: 180W Internal Power Supply
 Input Voltage: 100-240 V AC 50/60 Hz
 DVMR without CD: 72W External Power Supply
 Input Voltage: 100-240 V AC 50/60 Hz
 Output Voltage: 5, +12, -12 V DC

KBS3

remote keyboard



TELEMETRY DATA

Built-in RS485/Twisted pair protocols provide direct control of the following domes:

- Dennard 2050, 2055
- JVC TK-C675BE, TK-C676 & TK-C553E
- Ultrak Ultradome™ KD6
- Ademco Orbiter & Jupiter Microspheres™
- Airtech/Kalatel CyberDome™
- BBV RS485 StarCard
- Bosch/Philips G3
- Ernitech
- Mark Mercer
- Panasonic WV-CS850A, WV-CS854, WV-CW860 external
- Sensormatic Speeddome™ IV & Speeddome™ V (Using 4-wire RS-422)
- Pelco P Spectra II, Spectra III
- Samsung SCC-641
- Vista Power Dome
- VCL
- Kalatel

DM 485-bus telemetry is also available via DTMF with external TAD3 device

COAX TELEMETRY

- Dennard C
- BBV RX100
(protocol converter for control of major manufacturer's domes)
- Pelco Spectra II & III
(Please note that patrol modes are not available)

REMOTE KEYBOARD OPTION

Keyboard features include:

- Joystick control of telemetry camera with twist zoom facility
- Wash/wipe, focus, iris, lamps, preset, patrol and auto-pan keys
- Up to 16 DS2 units can be controlled from one keyboard – up to 16 keyboards can be connected to the 485 BUS providing a flexible configuration of up to 256 cameras
- Onboard LCD identifying connected unit name and number
- Removal of tracked telemetry cameras from sequence
- May be connected directly or remotely via 485 BUS cabling.
(please note maximum cabling distance is 4500 feet)

*PLEASE CHECK THE WEBSITE FOR DETAILS OF COMPATIBLE SCSI AND CD-R PRODUCTS AND OTHER LATEST DEVELOPMENTS

FOR FURTHER INFORMATION PLEASE CONTACT



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range

6 camera color duplex	60 PPS	DS2A DX6C
9 camera color duplex	60 PPS	DS2A DX9C
16 camera color duplex	60 PPS	DS2A DX16C
6 camera color duplex, Plus	120 PPS	DS2P DX6C
9 camera color duplex, Plus	120 PPS	DS2P DX9C
16 camera color duplex, Plus	120 PPS	DS2P DX16C
6 camera color duplex with CD	60 PPS	DS2A 6CD
9 camera color duplex with CD	60 PPS	DS2A 9CD
16 camera color duplex with CD	60 PPS	DS2A 16CD
6 camera color duplex with RS (A or Plus)	60 / 120	DS2A/P 6RS
9 camera color duplex with RS (A or Plus)	60 / 120	DS2A/P 9RS
16 camera color duplex with RS (A or Plus)	60 / 120	DS2A/P 16RS
6 camera color duplex with RS and CD	60 PPS	DS2A 6RS/CD
9 camera color duplex with RS and CD	60 PPS	DS2A 9RS/CD
16 camera color duplex with RS and CD	60 PPS	DS2A 16RS/CD
Optional remote keyboard		KBS3
IR Remote Control		IRC
Remote Alarm Module/Relay Output Module		C101 / C102

A choice of hard disk options are available including the latest storage option of 600GB available on the DS2CD. Please contact customer service or check the website at www.dedicatedmicrosus.com Please note drive sizes may vary from time to time which may result in a larger drive capacity than stated being supplied with the unit.

RETAIL SOLUTIONS RANGE

Dedicated Micros also offers the Retail Solutions (RS) range of digital video recorders specifically designed for retail applications, in order to deter and detect employee and customer theft.

The RS range consists of DVMRs based on the D4, Digital Sprite 2A/Plus and BX2; alongside interface units that support more than 300 types of cash register and POS terminals to allow seamless integration. By associating point of sale transaction data with the relevant CCTV video footage RS allows the end-user to detect internal theft and reduce shrinkage. For more information please contact Customer Service or visit www.dedicatedmicrosus.com