The BAE Systems Digital Video Recording System (DVR) provides a fully integrated systems approach to multi-channel digital and analog video recording while providing real-time multicast of selected videos over an Ethernet based TSPI Network.

### EXAMPLE CAMERA SUITE CONFIGURATION

<table>
<thead>
<tr>
<th>#</th>
<th>CAMERA INTERFACE</th>
<th>CAMERA COMPATIBILITY</th>
<th># CAMERAS SUPPORTED</th>
<th>FUNCTIONS SUPPORTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CAMERA LINK</td>
<td>MC1310 (MIKROTRON)</td>
<td>1 CAMERA</td>
<td>1 FUNCTION HIGH SPEED AND METRIC 1280X1000 @ 30-510 FPS MONOCHROME</td>
</tr>
<tr>
<td>2</td>
<td>NTSC ANALOG</td>
<td>NTSC/RS-170 (SELECTABLE)</td>
<td>1 CAMERA</td>
<td>1 FUNCTION TRACK @ 60 FIELDS/S MONOCHROME</td>
</tr>
<tr>
<td>3</td>
<td>CAMERA LINK</td>
<td>MC1302 (MIKROTRON)</td>
<td>1 CAMERA</td>
<td>1 FUNCTION ADDITIONAL METRIC 1280X1024 @ 30 FPS MONOCHROME</td>
</tr>
<tr>
<td>4</td>
<td>LVDS/HOTLINK</td>
<td>NIGHT CONQUEROR II (CMC)</td>
<td>1 CAMERA</td>
<td>1 FUNCTION 640 X 512 30 FPS MONOCHROME</td>
</tr>
<tr>
<td>5</td>
<td>NTSC</td>
<td>NIGHT CONQUEROR (CMC) VIDEO STREAM ONLY</td>
<td>1 CAMERA</td>
<td>1 FUNCTION 640 X 480 6 FPS AGC VED</td>
</tr>
<tr>
<td>6</td>
<td>NTSC</td>
<td>VIDEO TRACKER VIDEO STREAM ONLY NO RECORDING</td>
<td>NO CAMERA VIDEO TRACKER</td>
<td>1 VIDEO WITH TV TRACKER SYNTHETIC DATA</td>
</tr>
</tbody>
</table>

Four channels of digital video recording are provided at frame rates up to 510 fps with over 30 minutes of recording time. This is accomplished via remote or local control providing the ultimate in flexibility, mobility and capability. The DVR provides synchronization for all cameras and each frame is recorded with appropriate time and TSPI related data. The DVR is rack mounted and compatible with any pedestal where rack space is available.

### KEY FEATURES

- 6 Channel input with Digital Video Recording of 4 of the 6 channels
- Any 2 of the 6 input channels can be video streamed (multi-cast) over the network
- Greater than thirty minutes of recording on all channels
- Remotely controlled via ethernet
- Flexible export software
- Removable hard drives for exported data
- Synchronization for all cameras
- Additional data recording information embedded in exported image
- Audio Recording
- Event Recording
- IRIG Time Synchronization
- Azimuth, Elevation, Range, Status
ABOUT US
At BAE Systems, Inc. in the United States, our employees design and deliver advanced defense, aerospace and security solutions that keep the nation at the forefront of modern technology. Our pride and dedication show in everything we do, from innovative electronic systems to intelligence analysis and cyber operations, from combat vehicles and weapons to the maintenance and modernization of ships, aircraft and critical infrastructure.

FOR MORE INFORMATION
BAE Systems
557 Mary Esther Cut-Off, NW
Fort Walton Beach, FL 32548
Telephone 850-664-1354
Fax 850-664-1365
www.esdradar.com
esdinfo@baesystems.com

TYPICAL SYSTEM CONFIGURATION

VIDEO RECORDING
The DVR records video from multiple cameras as commanded over the network via a remote control workstation. The DVR is capable of simultaneously recording up to four channels of video with the following performance:

<table>
<thead>
<tr>
<th>CHANNEL</th>
<th>CAMERA</th>
<th>RESOLUTION (PIXELS)</th>
<th>TYPICAL FRAME RATE</th>
<th>SUSTAINED RATE (MB/s)</th>
<th>RECORDING CAPACITY (MINUTES)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>MC1310</td>
<td>1280 X 1000</td>
<td>510</td>
<td>622.56</td>
<td>44</td>
</tr>
<tr>
<td>2</td>
<td>HITACHI</td>
<td>640 X 480</td>
<td>30</td>
<td>8.79</td>
<td>260</td>
</tr>
<tr>
<td>3</td>
<td>MC1302</td>
<td>1280 X 1000</td>
<td>30</td>
<td>36.62</td>
<td>63</td>
</tr>
<tr>
<td>4</td>
<td>I/R</td>
<td>640 X 480</td>
<td>30</td>
<td>18.4</td>
<td>132</td>
</tr>
</tbody>
</table>

1 At typical frame rate  2 Estimated
Recording can be initiated or terminated on any channel independent of the current state of the other three channels.

LIVE VIDEO DISPLAY
The DVR also creates two IP multicast channels on the primary network. These channels broadcast live video to remote workstations. Any workstation on the network running appropriate software can receive live video on either or both channels. Each multicast channel broadcasts video from a single camera. Prior to transmission, the video is compressed using a Wavelet-based algorithm to maximize utilization of the available network bandwidth.

ANCILLARY DATA RECORDING
As well as video, the DVR records up to four channels of sound and a single channel of angle range and sensor data that is received on the secondary network interface. The sound data is received on the primary network interface from a remote workstation. All ancillary data is recorded in the Streams video library file and stored on the hard disk.

NETWORK CONTROL
Control of the DVR is via a Streams SDK application that receives commands from remote workstations and broadcasts status information. All control/status traffic uses the primary network interface.

PLAYBACK AND EXPORT
The DVR uses the two IP multicast channels to transmit recorded video on the primary network interface to remote workstations. Playback and record are mutually exclusive operations. Each multicast channel can transmit recorded video from a single camera.

Recorded data is exported to an “archive” video library that resides on a 4-drive SATA disk array designed to be the destination for all archive operations. Once archived, the SATA drives can be relocated to a remote workstation for analysis or further processing.

© 2015 BAE Systems, All Rights Reserved
All trademarks used are the property of their respective owners. This document gives only a general description of the product(s) or service(s) offered by BAE Systems and, except where expressly provided otherwise, shall not form part of any contract. From time to time, changes may be made in the products or the conditions of supply.