DL Micro™ Digital Data Link and Video Processor

Transmission of quality video from unmanned air and ground vehicles is essential to counter today’s security threats. The DL Micro™ digital data link offers significant advantages for these sensor platforms.

This OEM module uniquely combines H.264 encoding and an IP-based digital data link with the fundamental benefits of image stabilization. Weighing only 46 grams, the module is also incredibly light, compact, and power efficient, making it ideal for SWaP-constrained applications.

The DL Micro digital link maximizes image quality for better compression. Without image stabilization, video from moving vehicles is shaky, making it hard for operators to interpret images. Critical information can become ambiguous or compromised. And worse, image shake wreaks havoc on data compression, stealing bandwidth away from detail.

With the DL Micro digital data link, video becomes easier to transmit. Decision-making becomes faster and more accurate.

Features

- H.264 encoding
- Electronic image stabilization
- Digital video transmission
- Edge sharpening and contrast enhancement
- Serial communication pass through (UART and I2C)
- AES 128/256 encryption
- Two-channel video input
- Supports Sony Block and FLIR or DRS LWIR
- Incorporates Microhard digital radios

Maximize real-time information from unmanned systems

Applications

- Unmanned air and ground vehicles
- Border and perimeter security
- Mobile security
### Specifications

<table>
<thead>
<tr>
<th></th>
<th>Analog Interface</th>
<th>Digital Interface</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dimensions</strong></td>
<td>63 mm x 63 mm x 16 mm (2.5 in x 2.5 in x 0.6 in)</td>
<td>63 mm x 63 mm x 16 mm (2.5 in x 2.5 in x 0.6 in)</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>52 g</td>
<td>46 g</td>
</tr>
<tr>
<td><strong>Power (During Transmission)</strong></td>
<td>5.8 W at 12 VDC typical</td>
<td></td>
</tr>
<tr>
<td><strong>Environmental</strong></td>
<td>-30° C to + 70° C</td>
<td></td>
</tr>
<tr>
<td><strong>Two-Channel Switchable Video Input</strong></td>
<td>NTSC(30)/PAL(25)</td>
<td>CCIR, BT.656</td>
</tr>
</tbody>
</table>

### Video Processing

- **H.264 Compression**
  - Video encoder bit rate selection
  - Variable or fixed rate
  - High quality or high speed selectable

- **Electronic Stabilization**
  - Corrects for translation, rotation, and scale;
  - Stabilization on/off control via hardware or software

- **Image Enhancement**
  - Edge sharpening;
  - Contrast enhancement

- **Metadata (Future)**
  - KLV format; MISB RP0604

<table>
<thead>
<tr>
<th><strong>Transmitter</strong></th>
<th>5.8</th>
<th>2.4</th>
<th>2.3 GHz</th>
<th>2.4 GHz</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wireless Link</strong></td>
<td>Spread Spectrum</td>
<td>Broadband</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Modulation</strong></td>
<td>COFDM</td>
<td>OFDM</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>RF Link Rate</strong></td>
<td>Up to 12 Mbps</td>
<td>Up to 54 Mbps</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Channel Bandwidth</strong></td>
<td>4 or 8 MHz</td>
<td>20 MHz</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>802.11 Compatible</strong></td>
<td>No</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ethernet</strong></td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Serial</strong></td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Output Power</strong></td>
<td>10 dBm – 30 dBm</td>
<td>10 dBm – 30 dBm</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Encryption</strong></td>
<td>AES 128/256</td>
<td>WEP/WPA/WPA2</td>
<td></td>
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</tbody>
</table>

For Ethernet-only transmission, SRI offers the ILS-6500 video processor.

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**Stay Connected**

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