HEIM DATaRec® MDR series
BEYOND ENGINEERING –
A NEW RECORDER FAMILY

NEW STANDARDS OF FLIGHT TEST INSTRUMENTATION

The HEIM DATaRec® MDR family of ZODIAC Data Systems sets new standards for flight test instrumentation: smaller, lighter and price-optimized.

The HEIM DATaRec® MDR product family offers the user a flexible system: the simple swap and exchange of signal interface modules by the user himself allows customized fittings and set-ups of the tasks at hand.
The HEIM DATaRec® MDR-2s is a digital data acquisition system that can be equipped with user changeable signal conditioning modules to meet various applications. The cockpit mountable housing contains a CF card slot for the recording media.

- cutting edge technology
- integrated signal conditioning
- rugged and reliable
- compact size
- feature rich mainframes
- designed to applications
- scalable performance
- end user can easily swap signal modules
HEIM DATaRec® MDR SIGNAL MODULES

The HEIM DATaRec® MDR signal modules can be integrated in a MDR mainframe and combined with any other HEIM DATaRec® MDR modules to a multi channel recording system. This provides full flexibility and ensures the right FTI system for your demands.

<table>
<thead>
<tr>
<th>Modules</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MANA8</td>
<td>8 analogue input channels, up to 100 kHz sampling rate per channel</td>
</tr>
<tr>
<td>MARR16</td>
<td>16 ARINC 429 input channels</td>
</tr>
<tr>
<td>METH2</td>
<td>2 Ethernet input channels 10BaseT, 100BaseT, 1 Gbit/s</td>
</tr>
<tr>
<td>MMRG8</td>
<td>8 PCM input channels, up to 30 Mbit/s data rate per channel</td>
</tr>
<tr>
<td>MUAR6T</td>
<td>6 dual redundant MIL STD 1553B input channels, transformer coupled</td>
</tr>
<tr>
<td>MUAR6D</td>
<td>6 dual redundant MIL STD 1553B input channels, direct coupled</td>
</tr>
<tr>
<td>MUSM16</td>
<td>16 asynchronous serial input channels</td>
</tr>
<tr>
<td>MVCR1</td>
<td>2 high definition analogue video input channels</td>
</tr>
</tbody>
</table>
WHAT IS YOUR REQUIREMENT TODAY?

MCSR COCKPIT
REMOTE CONTROL

• eSATA connection to MDR (PoE Ethernet: work in progress)
• Protected Start/Stop switch
• Sealed memory cartridge slot for SSD (≤ 500 GB) and CF cards (≤ 64 GB)

MDR SIGNAL INTERFACE MODULES

• ARINC 429 (16 channels)
• MIL-STD-1553 (6 channels dual redundant)
• PCM (8 ch., throughput 30 Mb/sec, max. 100 Mb/s)
• Video I (2 ch. analogue PAL/NTSC, HD H.264/AVC)
• Video II (2 channels HD SDI, H.264/AVC)
• Analog I ICP (8 channels, 100 kHz sampling)
• Ethernet 2 channels 10/100/1000 Mb/sec
• Asynchronous serial (16 channels)
• Hybrid Avionics (PCM, MIL, ARINC)

MDR-2S MAINFRAMES

• Built in Ethernet 10/100/1000 Mb/s
• Built in 2 channels voice
• Built in serial RS232 / RS422
• Time code IRIG A, B, G, IEEE1588 and GPS NMEA
• Sealed CompactFlash slot
• External media via eSATA and Ethernet
• System bus speed 800 Mbit/s
• IRIG-106 chapter10 data format
• Easy setup via front panel USB, serial or Ethernet
• Contact remote connector w. 6 discrete in & out
• Full UDP broadcasting
REPLAYING YOUR RECORDS

THE HEIM MDR
is a record only system

REPRODUCING
WITH GSR/HEIM DATaRec® 3
Usage of existing equipment to reduce flight test costs

REPLAY OPTION
with any IRIG 106 chapter10 software

REPRODUCING OPTION
with GSSr/HEIM DATaRec® 4 interfaces

FULL FLEXIBILITY
with HEIM DATaRec® 4
**HEIM DATaRec® MDR SERIES AT A GLANCE**

<table>
<thead>
<tr>
<th>Description</th>
<th>The HEIM DATaRec® MDR series is a flexible record only data acquisition system</th>
</tr>
</thead>
<tbody>
<tr>
<td>System bitrate</td>
<td>100 Mbit/s</td>
</tr>
<tr>
<td>Bus data rate</td>
<td>800 Mbit/s</td>
</tr>
<tr>
<td>Data format</td>
<td>HEIM DATaRec® format. IRIG 106-07 chapter 10 complaint</td>
</tr>
<tr>
<td>Internal storage device</td>
<td>removable CF card</td>
</tr>
<tr>
<td>Storage capacity</td>
<td>16 GB / 32 GB / 64 GB available. GF cards up to 128 GB supported</td>
</tr>
<tr>
<td>Slots</td>
<td>2 slots are available for signal conditioning modules. All modules are interchangeable and can be exchanged by the customer</td>
</tr>
<tr>
<td>Power supply</td>
<td>11–38 V DC designed to MIL-STD-704E including power interruption of 50 ms</td>
</tr>
<tr>
<td>Shock resistance</td>
<td>20 g, 11 ms MIL-STD-810E</td>
</tr>
</tbody>
</table>