Telematics units for more connectivity

IoT Gateways by Liebherr
Discover the opportunities

Wide range of application
The increasing interconnection of mobile machinery and their integration into the Internet of Things opens up numerous new opportunities. Use the potential for higher productivity, lower costs and more safety – with Liebherr IoT gateways.

Protection against manipulation
Protect your machines from unauthorized access: With us, you have the complete security life cycle in view – secure at every level, from development to the end of the product’s life:

- Public-Key-Infrastructure
- Secure communication
- Secure boot and update mechanism
Stable communication
Our portfolio supports all available mobile communication standards enabling stable and area-wide data exchange. The integrated modem manager handles the control and monitoring of the modem. It provides a simple connection for data transfer for the application – ensuring high connectivity.

Future-proof interconnection
Life Cycle Management: Active technology scouting ensures the cyclical further development of our IoT gateways without technology discontinuity. This ensures the long-term availability of our products.

Always with our finger on the pulse
In terms of technology upgrades, the form-fit-function programme enables trouble-free hardware replacement. This ensures your communication infrastructure is always up to date – and in terms of security too.
**Prepare**
Collect, process and transfer all relevant machine data on your IoT gateway for optimization.

**Visualize**
Display and access key data for your machine – thanks to the cloud wherever you want.

SECURE FROM BOOT TO CLOUD:
TOTAL FOCUS ON YOUR APPLICATION

PREPARED FOR CLOUD CONNECTION:
ACCESS YOUR DATA FROM ALL OVER THE WORLD

SOURCE CODE, BUILD SYSTEM, DEMO APPLICATION PREPARED FOR QUICK AND FLEXIBLE MACHINE INTEGRATION
Analyze
Implement cost-saving and safety-enhancing applications such as condition monitoring or geofencing.

Be proactive or respond quickly
Be in control: predictive maintenance or updates via software-over-the-air enable valuable efficiency gains.
Satellite navigation
With all the leading navigation systems on board, you’ll never lose sight of your machine.

Processing power
Our IoT gateways offer increased flexibility in system architecture.

Ready for the future
Our powerful IoT gateways enable the implementation of an “electronic tow bar” for virtual coupling of two machines. One machine guides and the other one follows – unmanned and fully automatically thanks to real-time enabled WLAN.

Free space for your ideas
Our IoT gateways offer the prerequisites for the implementation of OEM-specific, process-oriented applications – meaning you can increase the productivity of your machine.
**Optimum availability**

Our IoT gateways automatically connect you to all available mobile communication standards worldwide.

**Better reception**

Higher connection quality and more data transfer: with antenna diversity, you can use two antennas simultaneously.

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**Technical data**

<table>
<thead>
<tr>
<th></th>
<th>MCG</th>
<th>MTG</th>
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<tbody>
<tr>
<td>Processor</td>
<td>Single-core Freescale i.MX 6</td>
<td></td>
</tr>
<tr>
<td>Software build system</td>
<td>Linux/Yocto 2.0 Jethro</td>
<td></td>
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<tr>
<td>Mobile communications</td>
<td>2G/3G/4G</td>
<td></td>
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<tr>
<td>Satellite navigation</td>
<td>GPS/GLONASS/Galileo/Beidou/QZSS</td>
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<tr>
<td>Rated voltage</td>
<td>12V/24V</td>
<td>12V/24V</td>
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<td>Hardware security</td>
<td>ECDSA-256/SHA-256/AES-256</td>
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<tr>
<td>Interfaces</td>
<td>3 x CAN/1 x ETH</td>
<td>2 x CAN/1 x ETH</td>
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<tr>
<td>Wireless interfaces</td>
<td>WLAN (antenna diversity)</td>
<td>WLAN (optional)</td>
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<tr>
<td></td>
<td>Bluetooth</td>
<td></td>
</tr>
<tr>
<td>Inputs</td>
<td>1 x analogue</td>
<td>4 x universal</td>
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<tr>
<td>Outputs</td>
<td>1 x digital</td>
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<td>Battery (optional)</td>
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<td>Operating temperature</td>
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<td>-20 °C to +60 °C (with battery)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-40 °C to +85 °C (without battery)</td>
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<tr>
<td>IP rating</td>
<td>IP5K2</td>
<td>IP5K4</td>
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Benefit from our experience
For more than 10 years, our telematics solutions have been ensuring fast and secure communication in demanding industries, such as construction machines and agriculture.