**USB3.0 Support**

PARTNER Jet2 supports USB3.0 SuperSpeed mode which has 5Gbps communication speed. Supporting USB3.0, even 4GB of flash data on Jet2 Modem2 can be transferred to host computer about 25 to 30 seconds. In addition to it, by reviewing each implementation, PARTNER Jet2 is dramatically improved in operation speed than PARTNER Jet even on USB2 operation.

**High Speed JTAG Clock Support**

Supporting higher JTAG clock from PARTNER-Modem configuration up to 100MHz on Modem2 and 75MHz on Modem3 are available. By more optimization on JTAG signals sending higher JTAG clock is available than PARTNER-Jet even on the same environment. Higher JTAG clock improves overall debugging operation in speed.

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**Speed Comparison on PARTNER-Jet and PARTNER-Jet2**

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<thead>
<tr>
<th></th>
<th>Speed Comparison</th>
<th>Methodology</th>
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<tbody>
<tr>
<td>Download</td>
<td>PARTNER Jet2</td>
<td>Jet2 Modem2</td>
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<td>Upload 4.5x faster</td>
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</tbody>
</table>

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**Download Speed**

- PARTNER Jet2: 300MB/s
- PARTNER-Jet: 50MB/s
- PARTNER-Jet2: 1500MB/s

**Upload Speed**

- PARTNER Jet2: 200MB/s
- PARTNER-Jet: 10MB/s
- PARTNER-Jet2: 1200MB/s
USB Bus Power Support

PARTNER heaV 2 Model HU supports USB bus power. The bus power option is available not only on USBS, but even on USBS models for mutual access. Operation without AC power can make the equipment handling easier.

Intel Processor Support

On PARTNER heaV 2, in addition to AMD and Intel processors which have been popular so far, Intel processor is newly supported. From the latest Intel® Atom™ processor, E8000 family, is supported. And supporting Intel® Quark X1000 is also planned. Supporting both of real mode and protected mode, proper to Intel processor. While 74520 debugging on Intel processor, including system boot up and interrupt handling, becomes available.

64bit Support

PARTNER heaV 2 is ready to support Intel x64 architecture processor such as XMA, which is expected to be used after an extended system in future. On Intel® QuarkX1000, a physical memory is also allocated in 64bits. In addition, a separate debugging can be supported, so that a user can do both 64bit and 32bit debugging. And another functionality, such as address convention commands, also supports the LPAE.

48bit LPAE Support

Automatically mapping systems with a 48bit LPAE, memory display and editing is made by 48bit addresses.

For debugging software, PARTNER heaV 2 edition is available. Also, OS edition is also available and installed by preference. Native operation on 48bit Windows make it possible to support debugging of more growing software.
Probe Hot-Plug Support (on ARM and Intel processor)

Probe Hot-Plug is supported which enables to connect and remove debug probe during target system operation. If something unusual occurs, it is possible to start debugging by selecting the debug probe on the fly. As debugging can be started even on the last stage of troubles occurrence without complexing back and forth for debugging mode, it allows avoiding unnecessary delays.

ARM CoreSight TM Trace Support

PARTNER-A32 supports ARM CoreSight EM trace not only on M323Als but also on M323. EM (Embedded Trace) is a hardware supporting SWO output at SWI debug connection. This makes possible to provide debugging output in joint mode in addition to usual debugging only by SWO debug function.

Improving Trace Clock Support

These clock up to over 2GHz is supported on standard ARM ETM (Event Trace) probe, it is possible to adjust sampling points to support high-speed and sensitive trace signals. And signal noise compensation by setting each bit individually is available.

PARTNER-A32 M323Als has been designed consisting much wider bandwidth and the support, such as ETM M570, is also planned in future.

Enhanced Collaboration with QProbe

QProbe is already provided as small firmware application so that data analysis process for larger trace memory does not cause any problem. 64MB application has much capacity even for analyzing 4GB of trace memory. And according to growth of data in analysis, new analysis options such as histogram display of function execution time are added.

Large Capacity Trace Memory

PARTNER-A32 M323Als contains 4GB trace memory, this is 4 times larger than PARTNER-J2 M323Als, which host 1GB. With 4GB memory trace data corresponding to about 30 seconds of execution on ARM Cortex A15 dual-core (at 100MHz) becomes available. For an example,
Include whole PARTNER-Jet functions.

**Multicore CPU Support**
Multicore processor debugging is also available.
Just the same as PARTNER-J2X.
Debugging on both SMT and SMP processor is possible and downmixed multi-thread is also supported.
ARM Compiler architecture is also supported and enhanced features, such as synchronous break by CPU and multicore trace, are available.
PARTNER-J2X supports 16 cores, while PARTNER-J2X supports up to 12 cores.

**Linux Support**
Debugging functionality on Linux systems which had been achieved with PARTNER-J2X, is available just the same.
The technology of (P)JDI Technology is now being used on the architecture which Linux kernel provides.
Enables to create breakpoint functionality on normal ma and snapshot.
Of course, it is also available on platforms and SW environment.

**Event Tracker**
The event tracker, which graphically displays several events at event source on embedded software, is also available just the same.
The Multi-JDI to event tracker is compatible with PARTNER-J2X and able to be used without changes.

**VLINK Support**
VLINK, which is also compatible with eventJDI, is also available.
VLINK program on PARTNER-J2X, while able on PARTNER-J2X without changes.
And VLINK data transfer is generally improved in speed by high performance of PARTNER-J2X.

**Profiling Function**
Profiling function, which periodically samples program counter and displays execution occurrence per program function msilh also available.
And it is available only with an infrastructure.
On PARTNER-J2X, more precise profiling becomes available.
In addition of program counter in is higher frequency.
### List of Connector Support

For ARM:
- USB (2p): 19-way [ARM only]
- Ethernet (2p): 19-way [ARM only]
- HDMI (2p): 19-way [ARM only]
- DisplayPort (2p): 19-way [ARM only]
- FireWire (4p): 19-way [ARM only]
- 100BaseT Ethernet (2p): [ARM only]

For XILINX:
- USB (2p): [ARM only]
- Ethernet (2p): [ARM only]
- DisplayPort (2p): [ARM only]
- FireWire (4p): [ARM only]
- 100BaseT Ethernet (2p): [ARM only]

### Specifications

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<td>DisplayPort Connectors</td>
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<tr>
<td>100BaseT Ethernet Connectors</td>
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**Annual Maintenance Service**

*Service is available for a fee. Contact your sales representative for more information.*

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**For PARTNER Jet2**, we offer a free 1-year maintenance service. The service includes:
- Hardware repairs
- Software updates
- Parts and labor for maintenance

Please contact your local sales representative for more information. For orders outside of the USA, please contact our international sales department at sales@partnerjet.com.