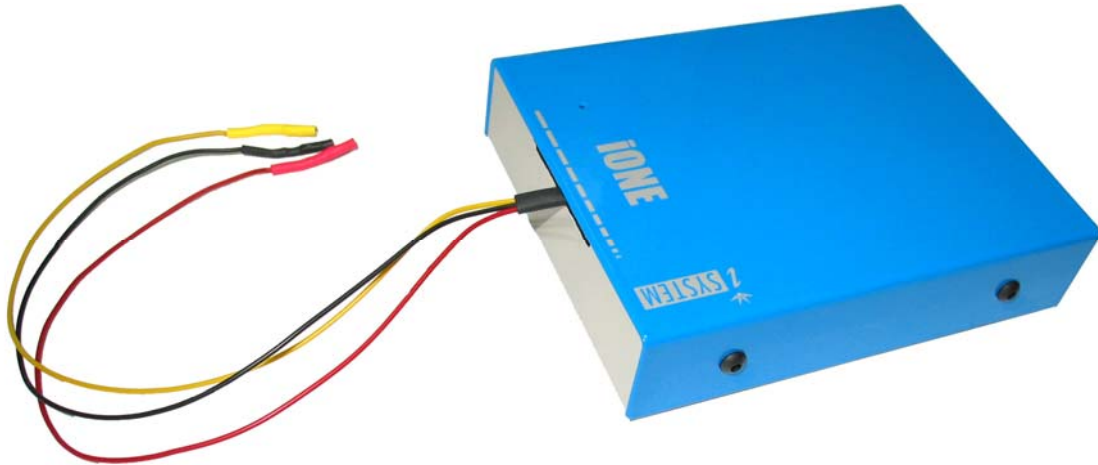

Hardware Reference

CR16C JOWI iONE Debug Unit

Ordering code	IONE213
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Thank you for purchasing this product from iSYSTEM. This product has been carefully crafted to satisfy your needs. Should any questions arise, do not hesitate to contact your local distributor or iSYSTEM directly. Our technical support personnel will be happy to answer all your technical support questions.

All information, including contact information, is available on our web site www.isystem.com. Feel free also to explore our alternative products.

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Hardware Reference

iONE

iONE is a development tool for On-Chip debugging solutions. Various advanced debug features and easy connectivity to the host PC, bundling it with a powerful and easy to use Integrated Development Environment are among its most important features.

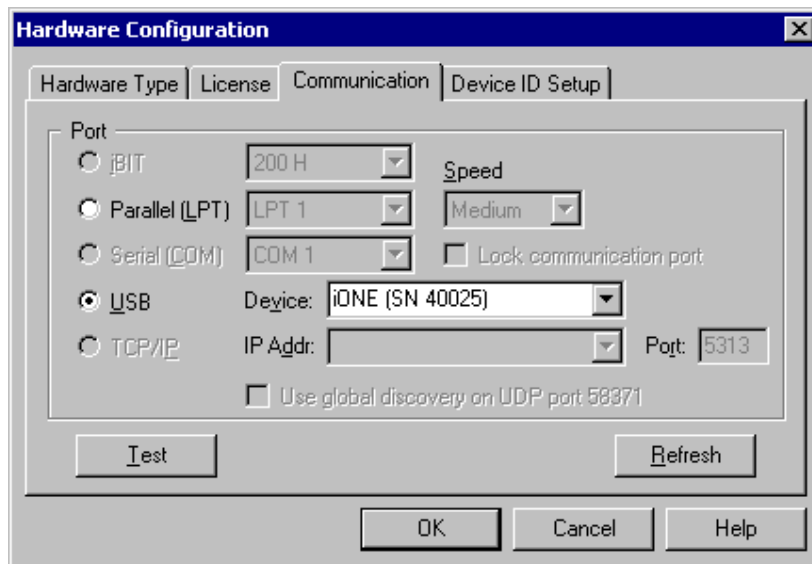
The iONE is designed to enable connection to a single CPU family.

To connect the iONE to the target, connect it using the target cable.

Note: Whenever connecting to the target both target and the Emulator must be switched off. The Emulator is first switched on, and the target right afterwards. Note that otherwise during connecting the target a massive current spike may flow during static discharge or ground potential equalization.

Setting up Communication

On the Hardware/Hardware/Communication menu specify the communication port where the Emulator is attached.



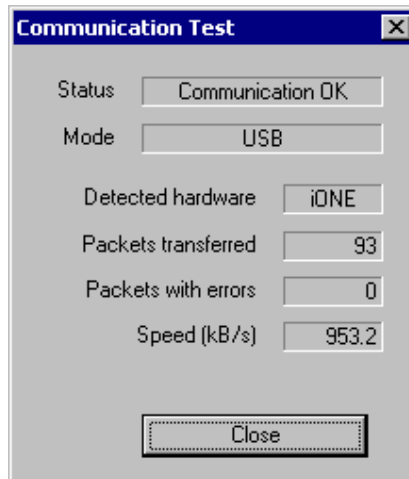
Hardware Configuration dialog, Communication page

- Universal Serial Bus (USB) - select when the Emulator is attached to the PC's USB port. The Emulator is selected in the Device pull-down menu, if more Emulators are connected to the PC's USB ports. When the Emulator is connected to the USB port of a computer for the first time, Windows will detect a new device and prompt you for the driver for it. Specify the path to the USB directory in the winIDEA installation directory or the distribution CD.

When USB is selected, the Device must be specified in the pull-down list only if there is more than one iSYSTEM Emulator connected to the PC. If the Device selection is left blank, the system will auto-detect the connected device and work with any iSYSTEM Emulator of the same type connected to the PC. If the Device is selected in the pull-down list, the software will only operate with the specified Emulator and if the Emulator is changed, it will have to be specified again.

Test

Use the 'Test' button to test communication settings.



Communication test window

Temperature range

All iSYSTEM devices, unless explicitly otherwise noted, are specified to operate at room temperatures (specifically, between 10°C/50°F and 40°C/105°F).

Hardware Reference

CR16C JOWI iONE Debug Unit

Ordering code	IONE213
Dimensions (WxLxH, mm)	93x120x34

Supported CPUs
SC 14428
SC 14429
SC 14430
SC 14434
SC 14438
SC 14450
SC 14470
SC 14480

Note: for the latest list of supported CPUs please check the iSYSTEM Web site.

This iONE uses only one line (JTIO) for JTAG communication, on which the data is transferred serially.

The iONE is connected to the target using three wires:

- Red – +5V/300mA output

The target can be optionally powered from the iONE. The target should not be powered by iONE when the target consumption exceeds 300mA.

- Black – GND
- Yellow – JTIO

The on-chip JOWI debug module must be initialized when the CPU is powered on. To do this, the JTIO line must be low at power-up. If the JTIO line is high, the JOWI module will be disabled and can not be enabled later.

If the 5V power supply from the iONE is used (the red wire), the debugger will take care of proper startup sequence at power-up. If the target uses its own power supply (red wire not used), the emulator must be turned on first, then the target in order to connect to on-chip JOWI debug module. Before the target is initialized, no emulator initialization must occur (no download or reset), since the emulator forces the JTIO to 0 until it is initialized.

For more information, please consult the Hardware User's Guide.