Bluetooth-IrDA Multi-Slot Kiosk Reader
ICS-255
910-0255-01

Rev. 2.7
Overview:

The ICS-255 multi Slot and multi Function device allows to transfer files from Flash Memory Cards & Microdrives and from wireless connected devices (e.g. mobile phones) to the PC. This will be achieved by the five Slot Media Readers and the Infra-Red & Bluetooth Receivers.

The following standards are supported:

Memory Cards Reader:

- Compact Flash Card, Type I & II,
- IBM Micro Drive (via Compact Flash slot Type II)
- Smart Media Card
- xD-Picture Card
- SD Secure Digital Memory Card
- MMC Multimedia Memory Card
- MS Memory Stick and Memory Stick Pro

Wireless Connection:

- Infra Red (IRDA)
- Bluetooth

In total there are four active USB devices build into the ICS-255:

- 4 Slot Card Reader (CF/Microdrive, SMM, MS, SD/MMC)
- xD-Picture Card Reader
- IRDA
- Bluetooth

To minimize the demand for free USB Ports on the PC motherboard to connect all the devices by an own USB Port, a four Port USB HUB is integrated in the ICS-255. Therefore the ICS-255 will be connected via only one USB port to the PC.
Details:

Chassis:
- Standard 5.25” Insertion Bay (145,70mm x 42,05mm x 150 mm)

Electrical Connections to the PC:
- USB Type B upstream connector
- 4 wire Power connector

USB Specification
- The ICS-255 is USB 2.0 device

Mainboard: (see pictures below)
There are two active devices soldered on the PC:
- SMSC USB97C210, USB 2.0 Flash Media Controller controls the CF/SMM/SD-MMC/MS Slots
- CY7C65640, TetraHub High Speed USB Hub Controller (USB 2.0) connects the Flash Media Controller and the three Type A USB onboard connectors to the PC
PCB, Front Side

PCB, Back Side
PCB, side view
Other USB Components:

To realize the wireless connection via IRDA, Bluetooth and the x-D Memory Card Reader, three different USB devices are in use:

- **IrDA, Infra Read Receiver/Transmitter**  
  USB IrDA Adapter, fully compatible to IrDA 1.1 and USB 1.1 specification  
  Support SIR (up to 115kbps) and FIR (4Mbps) Data Transfer rate  
  Backward compatible to MIR and 56Kpbs ASK  
  **FCC and CE certified**

- **USB Bluetooth Adapter**  
  Bluetooth V1.1 compliant  
  USB UHCI/OHCI spec 1.1 compliant  
  4dBm Class 2,30 meter working distance  
  Frequency band: 2.4GHz~2.4835GHz unlicensed ISM band  
  Modulation: GFSK  
  Piconet: Supports 7 slaves  
  Link mode: ACL and SCO  
  Data rate: 723 kbps ACL; 64 b/s SC  
  Certifications: FCC, CE  
  Sensitivity: -80dbm@0.1% BER  
  **FCC, CE and BQB certified**

- **Olympus MAUSB-100 LAB**  
  USB 2.0 xD-Picture Card Reader  
  **CE certified**
IrDA and Bluetooth USB devices

Olympus MAUSB-100 xD-Picture Card reader USB device
Plastic Holder for MAUSB-100 xD-Picture Card Reader
PCB with BT and IrDA devices installed

Open ICS-255 Chassis showing xD-Picture Card Reader mounted on PCB and connected to the USB Type A connector via short USB cable
Cables

Standard-cable for ICS-255: 5pin to USB-B plug, length 680 mm