

# EyeSDN USB-4S / EyeSDN USB-4SBX

call recorder for four ISDN basic rate interfaces (4x ISDN2/S0/BRI)

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**1. Technical Data**

	EyeSDN USB-4S	EyeSDN USB-4SBx
S0-Interface	ITU Standard I.430	
Connector	4x RJ45, Western Modular	
Weight	ca. 70g	ca. 85g
Dimensions	120x97x13 mm	120x102x21 mm (with a black case)
Power	< 100 mA	
Tests	Layer 1, 2 and 3 active, Protocol	
Channel	8x (D, B1, B2), E, M, A, Q, S	
USB	1.1 and 2.0 (full speed)	
USB cable	USB Connector Type A	Socket USB Type B
LED	4x red/green	
Disk space (non-compressed WAV files)	16 KB/s per call and channel	
WAV-Formats	A-Law Stereo / Mono, MP3, GSM	
Sample Frequency	8000Hz	
Operating Systems	Windows 2000, Windows XP, Windows Server 2003, Windows Vista	
Processor Clock per device	min 500 MHz	
Disk Space Software	max 145 MB (depends on installation)	
Connection to Telephone System	Point to Point, Point to Multipoint	
Device package includes	EyeSDN USB-4S/4SBx device, call recording software, manual, Y-Adaptors, USB and ISDN cables	

## 2. LEDs Indicators

### LEDs display

LEDs	Status Display
green blinking	device power, USB transfer
red blinking	device not active
red permanent	layer 1 active
yellow permanent	layer 2 active
green permanent	layer 3 active, channel busy

## 3. Usage Scenarios

### Call Recording

Innoventif's call recorder solutions consist of USB-based measuring devices and high-performance software. Connected to a PC or a laptop they form a versatile system that can be used to compile all data on existing telecommunication interfaces.

With the EyeSDN USB-devices you can record telephone conversations easily using an ordinary PC. The conversations you have can be recorded either automatically, and can be evaluated any time you wish.

Check the effectiveness of your own phone communications and optimise your success on the phone!

### Protocol Analysis

Network administrators can use the EyeSDN USB-4S/-4SBx to find misconfiguration of telecommunication switches or terminal endpoints.

For educational purposes you can utilise the device to visualise the practical operation of the network protocols.

Malicious network use can be detected and proven by analysing the trace files generated by the device.

### Collection of Call Related Data

The EyeSDN USB-4S/-4SBx device collects call detailed record (CDR) data for calculation of

charge information or measurement of service quality parameters (e.g. number of calls, time from ring to answer or engaged parties). The collected data can be exported to a comma separated list for further processing (e.g. in Excel).

### Integration with OEM Software

The open and documented socket interface makes it easy for third parties to use the call recording service in their applications. So the EyeSDN USB-4S/-4SBx represents a low cost measurement probe for ISDN interfaces.

## 4. Recording and Management of Calls

The Call Browser (call recording software) on the support CD enables you to manage the recorded calls easily and to access specific call quickly. This allows you to influence the call recording and data management process on many levels.

The recorded calls can be played back with a WAV Player.

The filter dialogue "Selective Recording" allows you to determine which calls or which numbers should be recorded and stored at what times. You define the rules for recording, and these rules can be set differently for each connected device.

You can also define the direction in which the conversation is to be recorded. You can decide to record only the party on the incoming line, or on the outgoing line, or both.

Telephone conversations can also be encrypted for storage, allowing only authorized personnel access to the recordings.

You can sort the list by a specific column in ascending or descending order. The stored calls to be displayed can be selected using a filter expression (post filter).

Certain calls can also be deleted or archived.

It is possible to listen to active calls discreetly.

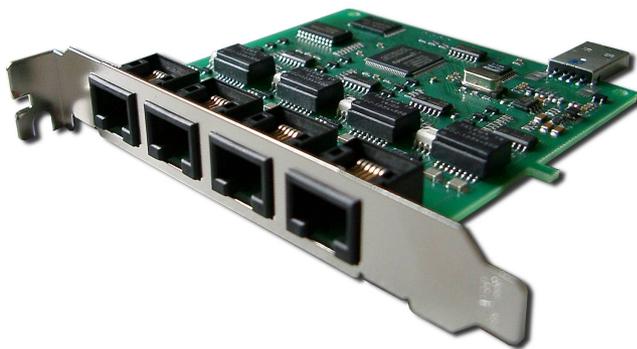
If the computer connected to the EyeSDN USB-4S/-4SBx is part of a network you can run the Call Browser on a remote computer via an exported share.

## 5. Protocol Analysis

The EyeSDN USB-4S/-4SBx is a flexible measurement probe. The HDLC-frames of the D and B channel will be extracted from the bit stream and will be stored in a trace file for a later analysis.

You can use the software Wireshark to decode these communication protocols. So it is possible to interpret Q.921 and Q.931 framing as well as TCP/IP/PPP based data sessions.

If you have trouble with ISDN data calls this device helps you to analyse the PPP-traffic and to find dial-in or other connection problems.



EyeSDN USB-4S



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