

**Sigrand SG 16BVo**  
**Sigrand SG16BVs**  
**integrated access device G.SHDSL**  
**Ethernet + Voice channels**



# SG-16BVo

# SG-16BVs



**Feature two services through the same line simultaneously** — you need no additional telecommunication equipment and extra wires anymore! It is possible to connect both branch LAN by the main interface (Bridge) and to transmit POTS signals by means of Voice-over-DSL technology

**Up to 6 Mbps via 2W line** — this is the only modem allowing so high data rates via 2W line

**Ease of installation** — configuring modem either by DIP switches or by terminal program through RS-232 port

**Reliable operation on noisy lines** — comparing to other modems it has been tested by many customers in real life

**Reach up to 11 km** — this feature allows to connect remote peers through 24 AWG cabling without additional regenerators

**Feature several services through the same line** — optional interface moves the Sigrand SG-16B modems into another class of equipment as integrated access devices

**Optimal data rate** — feature of automatic data rate adjusting, data rate step 64 kbps if configuring by terminal program

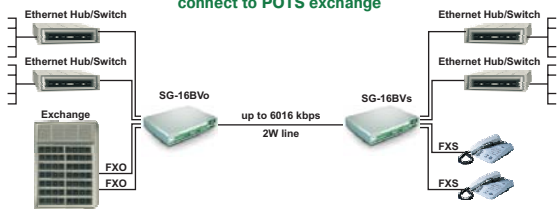
**Compatibility** — it is compatible with equipment of other vendors which complies with "Ethernet-over-DSL" standard

**High reliability** — 5 years of warranty, 100% pre-sale live quality checking

**High service level** — prompt technical support, wide dealer network

## Example of SG-16BVo/SG-16BVs applications

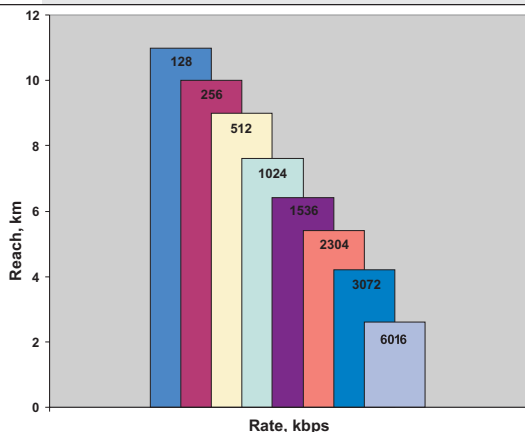
Connect LANs via bridges and connect to POTS exchange



LANs enter to one or several VLANs. Local traffic is prevented on MAC-level. In addition to data transferring feature a remote branch with up to 2 phones connected to HQ POTS exchange by means of FXO/FXS ports.

**SG-16 modems feature unsurpassed line rate, faster than rivals ever do!**

## Data rate and reach of SG-16 modems



The **Sigrand SG-16BVo/SG-16BVs** modems are the state-of-the-art of G.SHDSL technology. They can create two POTS channels, connect remote networks together, remote workstations to Ethernet-enabled networks. They make use dedicated 2W copper lines.

The **SG-16BVo/SG-16BVs** are the modems featuring Ethernet Bridge and additional telephone modules. It also is available as desktop model.

The SG-16BVo modem should be connected with the exchange (as FXO), the SG-16BVs one should be connected with phones (as FXS).

### SG-16BVo/SG-16BVs features:

Providing of symmetric throughput via one twisted pair in extended data rate range from 64 kbps up to 6016 kbps

Two system interfaces: Ethernet 10/100Base-T (2 ports) and telephone port (2 channels)

G.SHDSL channel bandwidth sharing among the system interfaces

Built-in Ethernet Bridge with wide set of management and statistics collecting facilities

Firmware update through the terminal port

**Using of SG-16BVo/SG-16BVs modem is especially attractive if 2 SERVICES SIMULTANEOUSLY is a MUST.**

### Ethernet interface allows:

Connect remote LANs together

Connect a remote workstation to the LAN

### FXO/FXS telephone interface allows:

Transmit POTS signals by means of VOice-over-DSL technology

### SG-16BVo/SG-16BVs interfaces:

G.SHDSL interface to connect with the remote modem via dedicated 2W copper line

G.SHDSL line interface specifications:

Interface type:	G.SHDSL (ITU-T G.991.2)
Link type:	point-to-point
Wire number:	2 (1 pair)
Data rate range:	64-6016 kbps
Automatic data rate adjusting in the range of 192-2304 kbps	
Line coding:	TC-PAM
Transmission type:	full duplex

### SG-16BVs

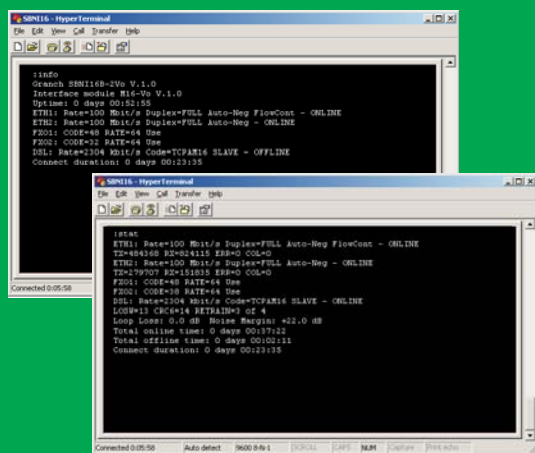
#### FXS interface

The number of ports:	2
Connector type:	RJ-11
Nominal battery voltage, V:	48
Hang-off loop currency, mA:	30
Peak ring voltage, V:	70
Ring voltage frequency, Hz:	25
Load capacity, phones per line:	2
Nominal impedance of 2W termination, Ohm:	600

### SG-16BVo

#### FXO interface

The number of ports:	2
Connector type:	RJ-11
Permitted battery voltage range, V:	30-72
Permitted ring voltage range, V:	30-120
Permitted ring signal frequency range, Hz:	16-50
Nominal impedance of 2W termination, Ohm:	600



Management software allows define operation modes for each interface, collect statistics for each interface, make use test mode to determine error rate of the line, do configuring of the remote modem. In any case customer can flexibly share SHDSL channel bandwidth among interfaces in use. Step size is 64 kbps for each interface.

### Special and bonus programs

- Marketing support
- Special program for buyers
- Cumulative discounts, gifts
- Upgrade
- Test-drive
- Lottery for modem serial numbers every year

### Specifications of voice channel:

Standard/protocol:	G.729
Data rate per one channel, kbps:	64
Sampling rate, Hz:	8000
Compression:	A-law
Nominal gain, db:	0
Frequency range, Hz:	300-3400
Flatness of frequency response, max dB:	0.5
Nonlinear distortion ratio, max dB:	-35
Noise level, max dB:	-60

### RS-232 management terminal port

Management software allows:

- Define operation modes for each interface
- Collect statistics for each interface
- Make use test mode to determine error rate of the line
- Do configuring of the remote modem