Sigrand SG-16G
Sigrand SG-16G2
modem with E1/G.703 interface

SG-16G
SG-16G2

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

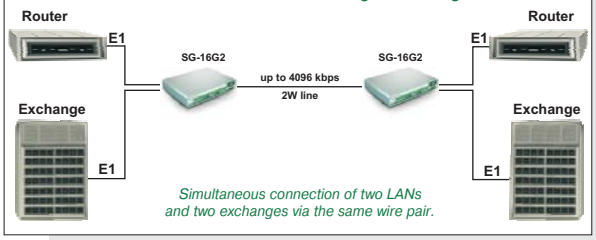
ООО **«Сигранд»,** Российская Федерация, г. Новосибирск, пр. Лаврентьева, 6. **www.sigrand.ru**
«Sigrand» LLC, Russia, Novosibirsk, 6-th Lavrentiev av. **www.sigrand.com**
☎☎ **+7(383)-332-02-43, 332-94-37, 330-81-66**

Examples of SG-16G/SG-16G2 applications

Connect two remote digital exchanges by two E1 channels with maximal rate 4096 kbps

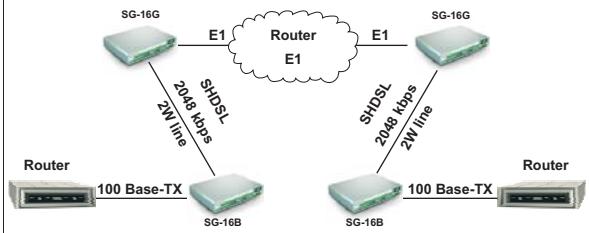
Connect two remote digital exchanges by two E1 channels with maximal rate 4096 kbps via 2W line, max reach 3 km (approx. 2 miles)

Connect two routers and two digital exchanges



Simultaneous connection of two LANs and two exchanges via the same wire pair.

Usage of existing E1 networks to connect routers via 100Base-TX

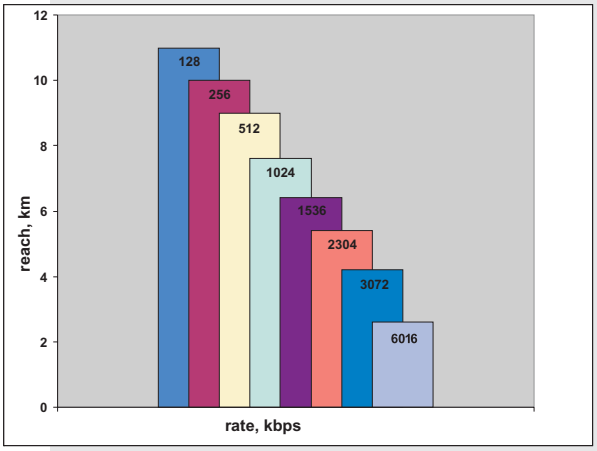


Connect Ethernet enabled routers via existing E1 transmission channels. The SG-16G modem is used as a protocol converter.

See full list of applications in the special document SG-16 "Select your solution!

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

Data rate and reach of SG-16 modems



OPTIONS OF SG-16 MODEMS WITH E1 INTERFACE FOR INTEGRATED ACCESS DEVICES

You need no additional telecommunication equipment and extra wires anymore!
Optional interface moves the Sigrand SG-16G modems into another class of equipment as integrated access devices.

You can connect some additional equipment of the branch in addition to the main connection for the branch LAN.

Featuring 2 services thorugh the same wire simultaneously:

- **Bridge** model

SG-16BG: Ethernet + E1 allows to connect together LANs of the remote branches as well as E1 (G.703/G.704) enabled telecommunication equipment (routers, multiplexors, PBXs) through the same line

- **Router** model

SG-16RG: Ethernet + E1

The **Sigrand SG-16G/SG-16G2** modems are the state-of-the-art of G.SHDSL technology. They are intended to connect telecommunication equipment (routers, multiplexors, PBXs). They make use dedicated 2W copper lines.

The **SG-16G/SG-16G2** are the modems equipped with one (SG-16G) or two (SG-16G2) E1 interface(s). It also is available as desktop model.

SG-16G/SG-16G2 features:

Providing of symmetric throughput via one twisted pair in extended data rate range from 64 kbps up to 4096 kbps when two E1 interfaces are used and from 64 kbps up to 2048 kbps when one E1 interface is used
Two options: **SG-16G** and **SG-16G2** which differ in the number of E1/G.703 interfaces
Firmware update through the terminal port

SG-16G/SG-16G2 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)
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

System E1 interface:

Port quantity:

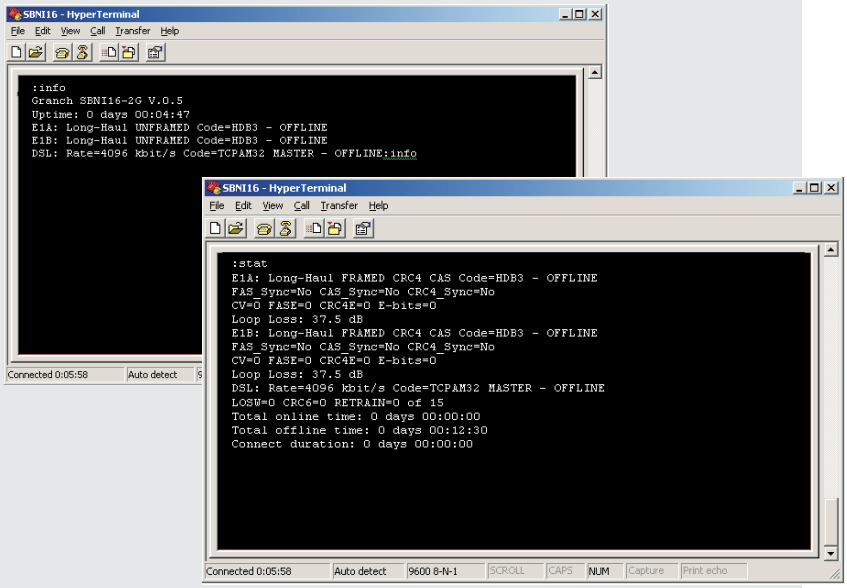
SG-16G: 1 **SG-16G2**: 2

Wire number per communication line:	4 (2 pairs)
Line coding (ITU-T G.703):	HDB3, AMI
Data rate:	Nx64 kbps where N=1...32 for each E1 interface (64...2048 kbps with 64 kbps step)
E1 interface reach, km/miles:	2.4/1.5 (24 AWG) 1.6/1 (26 AWG)
Framing:	G.704
Superframe types:	CRC4, CAS
Cyclic disabling (unframed mode):	supported

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



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