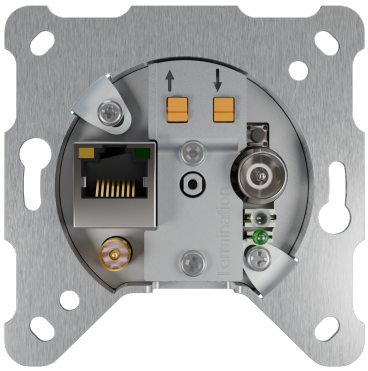
Digital Devices

Product Information: EOC 2000



1500 Mbps	1.0 GBit	DVB-C	AES 128
net over coaxial cable	Ethernet (RJ-45)	cable 240 – 860 MHz	hardware encryption

At a glance

- 1500 Mbps over existing coaxial cable
- Simultaneous transmission of DVB-C and network data
- Coax socket: broadband cable 240 – 860 MHz
- GBit LAN via RJ-45 (network data)
- Hardware encryption AES 128-bit
- Operation via remote power supply or 24V/1A power supply unit
- Installation in single and multiple flush-mounted boxes

Description

The EOC 2000 outlet is a **DVB-C pass-through outlet** with an integrated GBit LAN interface. An existing coaxial cable is used for the simultaneous transmission of DVB-C and network data; Internet and network data can be used via the GBit Ethernet connection.

The coax socket provides a broadband cable signal (240 – 860 MHz) and can be used with a standard receiver. TV signal extraction is via the coax socket, network data extraction via the RJ45 socket. The individual wall sockets / G.hn modules are networked automatically.

The EOC 2000 can be powered via remote power supply from an AMP X8 or with a 24V/1A power supply unit; up to 4 subsequent EOC 2000 can be supplied this way. It can be installed in both single and multiple flush-mounted boxes; each EOC 2000 exchanges data with every other box.

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Recommended application

Building upgrade to Gigabit using existing coaxial cabling and a small budget.

- home users
- small company networks
- Hotels
- Hospitals
- Sanatoriums
- Retirement homes
- renovation of old buildings

Specifications

- DVB-C single outlet for series distribution
- Can be integrated into single and multiple outlets
- Frequency range (G.hn): 2 – 199 MHz
- Network standard: G.Hn
- Data rate gross: 2000 Mbps
- Data rate net: 1500 Mbps
- Attenuation 300…860 MHz: -2 dB (16 dB coupling)
- Attenuation 300…860 MHz: -3 dB (10 dB coupling)
- Directional coupler: 10 dB or 16 dB
- Hardware encryption: AES 128-bit
- Quality of Service: VLAN/TOS/Packet Classifier
- Remote management: TR-069 (optional)

Power consumption

Net data rate	Power
50 Mbit/s	2,06 Watt
100 Mbit/s	2,27 Watt
200 Mbit/s	2,47 Watt
300 Mbit/s	2,68 Watt
400 Mbit/s	2,81 Watt
500 Mbit/s	2,90 Watt
800 Mbit/s	3,09 Watt
1000 Mbit/s	3,15 Watt

✔ Only suitable for DVB-C cabling (broadband cable)

✘ Not suitable for satellite cabling

Connections

- Coax in (screwless connection)
- Coax out / Termination
- RJ-45 socket (GBit)
- IEC TV socket
- Power connection for remote powering: 24V / 1A (sufficient for 5 flush-mounted boxes connected in series)

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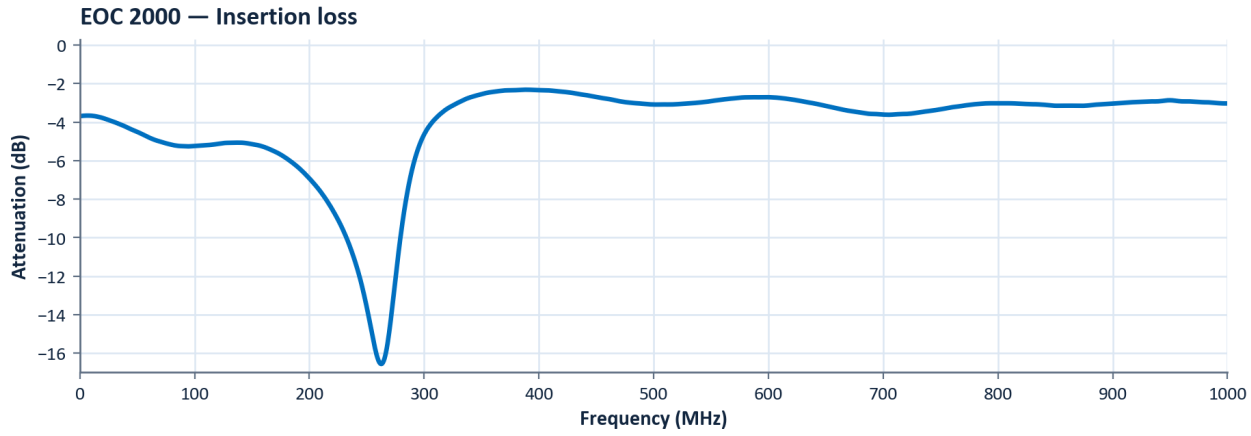
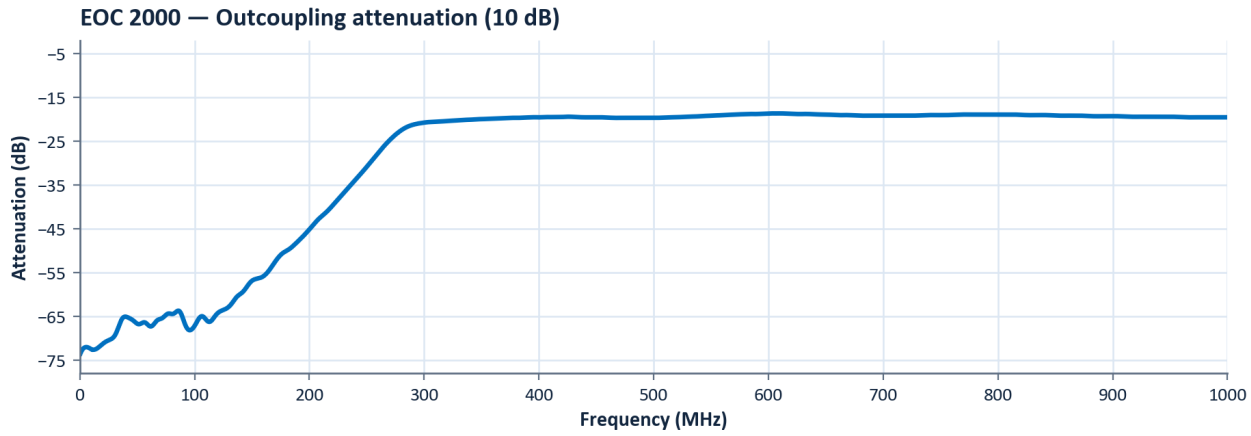
Frequency response

Measured frequency response of the EOC 2000 – insertion loss and outcoupling attenuation over frequency.





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Criterion	G.Hn via Coax or Phoneline	WLAN	Powerline	DOCSIS 3.0/3.1
net data rate	🟢 up to 1.5 Gbit (net)	🟠 240 Mbit – Wi-Fi 4[2] 🟢 600 Mbit – Wi-Fi 5[2] 🟢 800 Mbit – Wi-Fi 6[2]	🟠 up to 400 Mbit (AV1200/2000)[2]	🟢 1600 / 240 Mbit (Down/Up)[3]
Acquisition cost	🟠 medium	🟢 Wi-Fi 4 devices cheap 🟠 Wi-Fi 5 devices medium 🔴 Wi-Fi 6 devices expensive	🟢 AV1200 devices cheap 🟠 AV2000 devices medium	🔴 high (DOCSIS-CMTS server required)
Power consumption	🟢 up to 3 W/GBit	🔴 > 6 W/GBit (incl. access point)	🔴 up to 6 W/GBit	🔴 > 8 W/GBit (incl. server)
Susceptibility to interference	🟢 not susceptible	🔴 by many users	🔴 by electrical consumers	🟢 not susceptible
Eavesdropping security	🟢 yes (AES 128-bit)	🟢 WPA3 yes 🟠 WPA2 no	🟢 yes	🟢 yes
visual impact	🟢 small – disappears in the wall	🟠 medium – router stands in the room	🔴 large – protrudes from the wall socket	🟠 medium – modem stands in the room

🟢 Advantage 🟠 neutral / conditional 🔴 Disadvantage

[2] Source: https://de.wikipedia.org/wiki/Datendurchsatz [3] Source: https://de.wikipedia.org/wiki/Data_Over_Cable_Service_Interface_Specification

Available switch ranges

Switch program compatibility table from different manufacturers for 50x50mm and 55x55mm

Product line	Colour RAL 9010*) / finish	Frame ”50×50” (No.)	”55×55”
BERKER			
S.1/ B.1	pure white (matt)	1109 19 19	**Yes**
S.1	pure white (glossy)	1109 90 89	**Yes**
Modul 2	pure white (glossy)	1109 09	No
Arsys	pure white (glossy)	1108 01 69	**Yes**
B.3	Alu/pure white (glossy)	1109 90 89	**Yes**
B.3	Alu/pure white (matt)	1109 19 19	**Yes**
B.7 Glas	glass/pure white (glossy)	1109 90 89	**Yes**
B.7 Glas	glass/pure white (matt)	1109 19 19	**Yes**
K.1	pure white (glossy)	1108 71 09	No
Q1	pure white (glossy)	1108 71 09	No
BUSCH-JÄGER			
Reflex SI Linear	alpine white (glossy)	1746-214-101	No
alpha exclusive	studiowhite (RAL 9016* glossy)	1746/10-24G	No
alpha nea	studiowhite (RAL 9016* matt)	1746/10-24	No
impuls	alpine white (glossy)	1746/10-74	No
solo	studiowhite (RAL 9016* glossy)	1746/10-84	No
future / future linear	studiowhite (RAL 9016* glossy)	1746/10-84	No
axcent	studiowhite (RAL 9016* glossy)	1746/10-84	No
carat (Glas, Bronze, Gold)	studiowhite (RAL 9016*)	1746/10-84	No
GIRA			
Flächenschalter	pure white (glossy)	0282 112	No
GIRA (System 55)			
Standard	pure white (silk matt)	0282 27	**Yes**
Standard	pure white (glossy)	0282 03	**Yes**
E 2	pure white (silk matt)	0282 27	**Yes**
E 2	pure white (glossy)	0282 03	**Yes**
E 22	pure white (glossy)	0282 03	**Yes**
Event	pure white (silk matt) + opaque…	0282 27	**Yes**

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Product Information: EOC 2000

Product line	Colour RAL 9010*) / finish	Frame ”50×50” (No.)	”55×55”
Event	pure white (glossy) + opaque…	0282 03	**Yes**
Esprit	pure white (silk matt)+Glas, Alu…	0282 27	**Yes**
Esprit	pure white (glossy)+Glas, Alu…	0282 03	**Yes**
GIRA			
S-Color	pure white (high gloss)	0282 40	No
JUNG			
ST 550	alpine white (glossy)	CD 590 Z WW	No
CD 500 / CD plus	alpine white (glossy)	CD 590 Z WW	No
A 500 / A plus	alpine white (glossy)	A 590 Z WW	**Yes**
AS 500	alpine white (glossy)	A 590 Z WW	**Yes**
LS 990	alpine white (glossy)	LS 961 Z WW	No
LS plus	alpine white (glass)	LS 961 Z WW	No
A creation	alpine white (glossy)	A 590 Z WW	**Yes**
LS Design	alpine white (glossy)	LS 961 Z WW	No
MERTEN (System M)			
M-Smart	pure white (matt)	5181 19	**Yes**
M-Arc	pure white (matt)	5181 19	**Yes**
M-Plan	pure white (matt)	5181 19	**Yes**
M-Star	pure white (matt)	5181 19	**Yes**
M-Smart	pure white (glossy)	5185 19	**Yes**
M-Arc	pure white (glossy)	5185 19	**Yes**
M-Plan	pure white (glossy)	5185 19	**Yes**
M-Star	pure white (glossy)	5185 19	**Yes**
MERTEN (System Basis)			
M1	pure white (glossy)	5171 19	No
Atelier	pure white (glossy)	5171 19	No
1-M	pure white (glossy)	5185 19	**Yes**
Atelier-M	pure white (glossy)	5185 19	**Yes**
MERTEN (System Fläche)			
Artec	pure white (glossy)	5160 99	No
Trancent	pure white (glossy)	5160 99	No
Antik	pure white (glossy)	5160 99	No

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Product line	Colour RAL 9010*) / finish	Frame ”50×50” (No.)	”55×55”
MERTEN			
Octocolor	pure white (glossy)	5171 19 + Adapter 5170 99	No
PEHA			
Standard	pure white (glossy)	80.670.02 ZV	No
Dialog	pure white (glossy)	95.670.02 ZV	No
Aura	pure white (matt) / glass	20.670.02 ZV	No

☞ **Note:** Most light switch programs are produced in a colour shade similar to RAL 9010, for which the switch manufacturers use different names. Coloured, glass or aluminium frames are also combined with white rockers or sockets, so controllers with white covers can be integrated into these frames as well. The exact use must be checked in each individual case. The frames have different surface textures (matt/glossy). For design reasons, the controller cover should have the same surface (standard is glossy; covers are however also available in matt).

50x50mm: The housing covers of the 50x50 controllers have an edge dimension of 50x50 mm. They can therefore be integrated into almost all light switch programs using 50x50 mm intermediate frames in accordance with DIN 49075. The 50x50 mm intermediate frames can be ordered from the light switch manufacturer or from the wholesale trade.

55x55mm: The housing cover of the 55x55 mm variant has an edge dimension of 55x55 mm. Many light switch programs have an internal dimension of 55x55 mm, so the 55x55 mm cover plates can be integrated directly into these frames without an intermediate frame. Whether the 55x55 mm cover plate fits the respective light switch program is shown in the column ”Variant 55×55…” (→ ”Yes”).

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