Competence in Communication Technologies

Ethernet over Coax Master-Endpoint – building digitization at 1800 Mbps

- ✓ EoC master or dual master for up to 16 or 32 endpoints
- ✓ Endpoints with or without WiFi
- ✓ Data transmission range 5 ... 204 MHz
- ✓ Net data rate 1800 Mbps (PHY)
- ✓ 128 bit AES encryption
- ✓ Data transfer of the endpoints only with the master.
- ✓ Configuration of the entire network from the master
- ✓ Complex networks possible (VLAN, multiple WiFi, etc.)
- ✓ Ideal for Internet coverage in apartment buildings, hotels and senior residences /student housing complexes

Available devices:

EOC 30-01 | Ethernet over Coax | Master for 16 Endpoints | 1800 Mbps
EOC 30-21 | Ethernet over Coax | Dual-Master for 32 Endpoints | 1800 Mbps
EOC 30-02 | Ethernet over Coax | Endpoint | WiFi
EOC 30-03 | Ethernet over Coax | Endpoint

Accessories:

TZU 40-05 | RF- and EoC inserter
TZU 19-68X | High-pass filter | return path blocker
TZU 198-64 | EoC low-pass filter 5 … 65 MHz

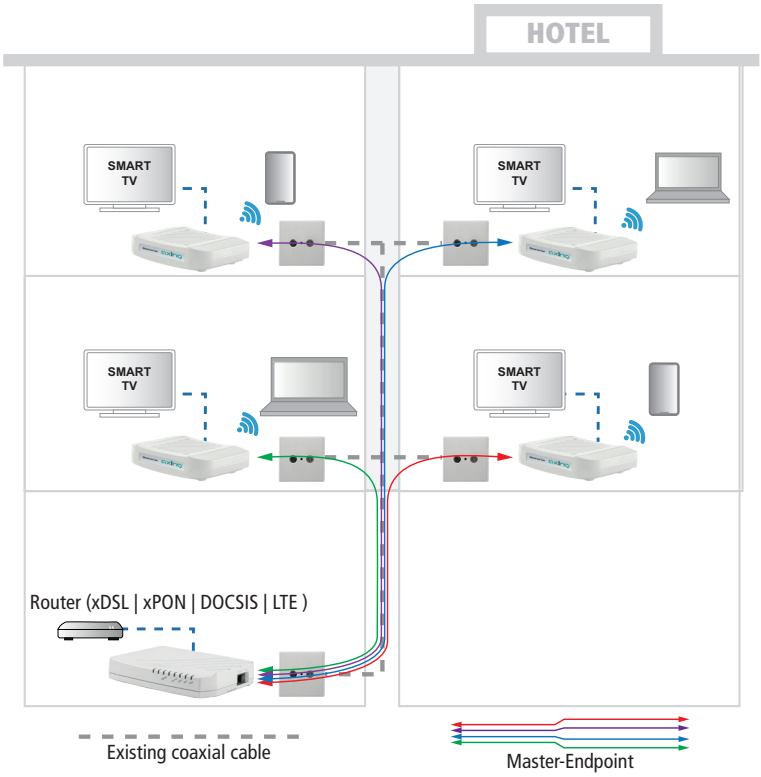
The EOC master is connected to the Internet via Gigabit Ethernet. Using the G.hn standard, the EoC devices set up an encrypted Ethernet-over-Coax network via the coaxial cable of the TV cabling (TV and radio are of course still transmitted).

The EOC 30-xx use the return channel range from 5 to 204 MHz and achieve a net data rate of 1800 Mbps* (PHY) due to the bandwidth. This is possible without any problems in a SAT reception system. In a CATV network, however, it is only possible if the forward path frequency range starts at 258 MHz or if transmitters below 258 MHz can be dispensed with.

Each endpoint has 2 Gigabit Ethernet ports. You can connect common network devices such as a PC, smart TV, game console or streaming box to these, or switches for even more connections. WiFi is also available at the EOC 30-02 endpoints to connect smartphones, tablets and notebooks wirelessly.

All settings (including those of the WiFi) are made at the master. The highest possible security is achieved for the users through security-oriented administration with encryption of the signals and access protection.

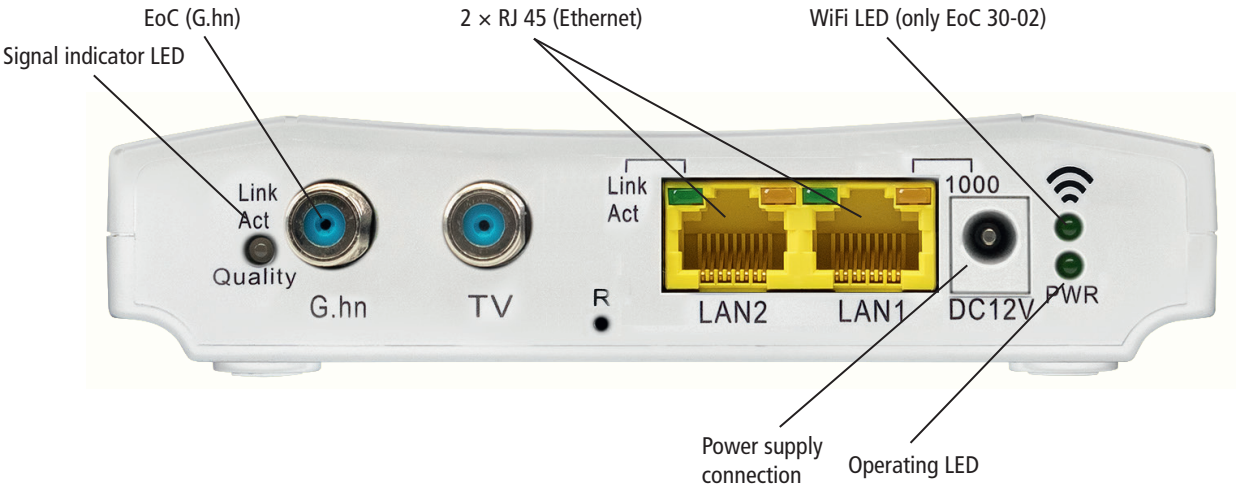
The example shows hotel rooms with endpoints and smart TVs connected to them as well as WiFi and, below, the master with Internet access.



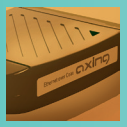
AXING AG
Gewerbehaus Moskau
Phone +41 52 - 742 83 00
Fax +41 52 - 742 83 19
8262 Ramsen
info@axing.com
www.axing.com

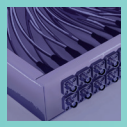
Competence in Communication Technologies

Rear side of the Endpoints



Type	EOC 30-01	EOC 30-21	EOC 30-02	EOC 30-03
Frequency range	5…1800 MHz			
Frequency range transmission	5…204 MHz			
Frequency range TV bypass	258…1800 MHz			
Maximum allowed attenuation in coaxial network	77 dB			
Transmission level in coaxial network	113 dBµV ± 1dB			
EoC				
Standard	ITU-T G.9960 G.hn over Coax			
Net data rate (PHY)	1800 Mbps*			
Encryption	AES 128 Bit			
Max. number of devices in EoC network	16	32	16/32**	16/32**
Connectors (G.hn | TV)	2 × F-female			
Interfaces				
Ethernet connectors (LAN)	2 × RJ 45			
Ethernet standards	IEEE 802.3u 100BaseT Fast Ethernet | IEEE 802.3ab 1000BaseT Gigabit Ethernet | IEEE 802.3az Energy Efficiency Ethernet			
WiFi standard	-	-	IEEE 802.11 b/g/n/a/ac	-
WiFi encryption	-	-	WEP, WPA/WPA2, WPA/ WPA2 with PSK	-
General				
Operating voltage	12 VDC			
Power consumption	<5 W	<7 W	8 W	4 W
Operating voltage over Coax	60 VAC ± 20%	60 VAC ± 20 %	-	-
Operating voltage over LAN (PoE)	37…57 V	37…57 V	-	-
Operating temperature range	–10°C…55°C	–10°C…55 °C	0°C…50°C	0°C…50°C
Operating humidity (non-condensing)	10…95%	10…95 %	10…95%	10…95%
Dimensions (W × H × D) appr.	178 x 136 x 35 mm	178 x 136 x 35 mm	130 x 95 x 32 mm	130 x 95 x 32 mm
Weight	0.375 kg	0.380 kg	0.210 kg	0.150 kg
External accessories				
Switching power supply		100…240 V~/50/60Hz 12 V=/1 A		100…240 V~/50/60Hz 12 V=/0.5 A
General				
Comments	* The data rate indicates the data throughput between the EoC devices. For technical reasons, a maximum of 1000 Mbps is available at each Ethernet interface. ** depending on the EoC Master			





AXING AG
Gewerbehaus Moskau
Phone +41 52 - 742 83 00
Fax +41 52 - 742 83 19
8262 Ramsen
info@axing.com
www.axing.com