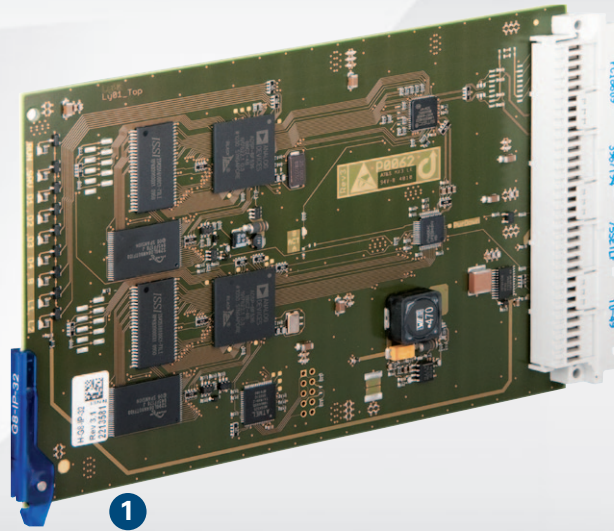


## G8-IP-32



## Plug-In Server G8-IP-32

The new plug-in Server G8-IP-32 from Commend introduces a new era of Intercom Expansion cards. Connection of up to 64 Intercom Terminals and extensive, distributed intelligence turn the card into a fully fledged Intercom Server. Unsurpassed capacity and performance reserves, critical for all

areas, in which many Intercom Terminals must be managed centrally in one location in an intelligent manner. This results in a maximum expansion of 896 Intercom Terminals per GE 800 housing (14 plug-in Servers G8-IP-32).

1. **G8-IP-32**  
Plug-In Server for Intercom Server GE 800 for connection of up to 32 subscribers per card. From the 32 subscribers the first 2 have feature level D (control desk function); the others feature level B (2D/30B).
2. **L8-IP-32-32B**  
License upgrade to 64 subscribers per Plug-In Server. From the 64 subscribers the first two have feature level D (control desk function); the other 62 subscribers have feature level B (2D/62B).
3. **L8-IP-32-32C**  
License upgrade to feature level C for 30 subscribers (with one license) or 62 subscribers (with two licenses) upgraded from feature level B to feature level C.
4. **L8-IP-32-2D**  
License upgrade to feature level D. The third and fourth subscribers are upgraded to feature level D.

# Technical Data – Benefits

## TECHNICAL DATA

Operating temperature range:	0 °C to +50 °C (32 °F to 122 °F)
Storage temperature range:	-20 °C to +60 °C (-4 °F to 140 °F)
Relative Humidity:	20 % to 80 %
Connection to the Intercom Server:	96-way PC board connector
Power supply:	from Intercom Server
Emergency power consumption:	130 mA
Cabling:	min. Cat. 5
Protocol:	IoIP®-Protocol based on UDP/IP Ethernet IEEE 802.3, 802.1q IP Protokoll (RFC 791) ICMP (RFC 792) UDP (RFC 768) TCP (RFC 793) QoS / Diffserv RFC 2474
Data rate:	2 x 10/100 MBit/s (Full/Half Duplex)
Measurements:	100 x 167 mm (3.94 x 6.58 inch)
Weight including package:	ca. 170 g (0.37 lbs)

## SYSTEM REQUIREMENTS

See also "Requirements of the network" on page 3.

### GE 800

- Intercom Server Software min. PRO 800 1.2
- Configuration Software min. CCT 800 1.2
- Network-Card Firmware min. 5.4

### Plug-In Server G8-IP-32

- Intercom Server Software min. PRO 800 1.2
- Card firmware min. 4.2

### GE 300

- It is not possible to use a G8-IP-32 with a GEI 300!

## CONNECTION

The G8-IP-32 is connected to the network (switch) via the RJ 45 sockets "UPLINK" or "DOWNLINK" of the G8A-NET installation board.

It is possible to use both connections redundantly with spanning tree compatible switches.

## EXTENT OF SUPPLY

### G8-IP-32

Plug-In Server including Short reference

## BENEFITS

- Up to 896 IP-Subscribers per Intercom Server GE 800
- Video support and full keypad for all subscribers.
- Up to 6,796 clients per GE 800 for inputs and outputs.
- All Plug-In Servers support independent (autarkic) operation.
- Increased fail safety and significant reduction of "Single Points of Failure" (SPOF) due to decentralised intelligence.
- 16 kHz audio quality (suitable e.g. for PA systems).
- NAT and Firewall friendly, because of Single Port IoIP® Protocol.
- Green IT with extra low standby energy consumption.

## PRECAUTIONS

- ESD precautions must be observed.
- Cards may be exchanged only with voltage switched off.
- Mounting and installation of the Intercom Servers and of the equipment may be carried out by authorised service personnel only.

## LEGAL NOTICE

The manufacturer guarantees the functionality of its products as described in the data sheets and / or technical documentation. For error-free operation of the Intercom system, faultless transmission paths are mandatory. The functionality of the transmission paths, in particular of IP-networks, exclusively is the responsibility of the operating company of the transmission path and therefore the manufacturer can not be responsible in any manner, for errors and problems, which result from problems or malfunctioning of the transmission path.

## LICENCES FOR G8-IP-32

**Attention:** The following licences are not in the extent of supply. The licences have to be ordered separately!

### PRO 800 upgrade licence

More than 150 standard features (a detailed list is available separately). Further features depend on the PRO 800 version licence which is used (as of version 2.0).

### Subscriber licence

- L8-IP-32-32B
- L8-IP-32-32C
- L8-IP-32-2D

# Network Requirements

## REQUIREMENTS OF THE NETWORK

IP-Addresses and Ports:

- Each G8-IP-32 must have 2 fixed IP-address
- The communication to the Intercom Server (UDP-Protocol) requires Port 16400 (can be changed)
- VPN compatible

QoS Requirements:

- Maximum one-way-delay 100 ms
- Delay-Jitter not above 50 ms
- 0% packet loss for perfect speech quality

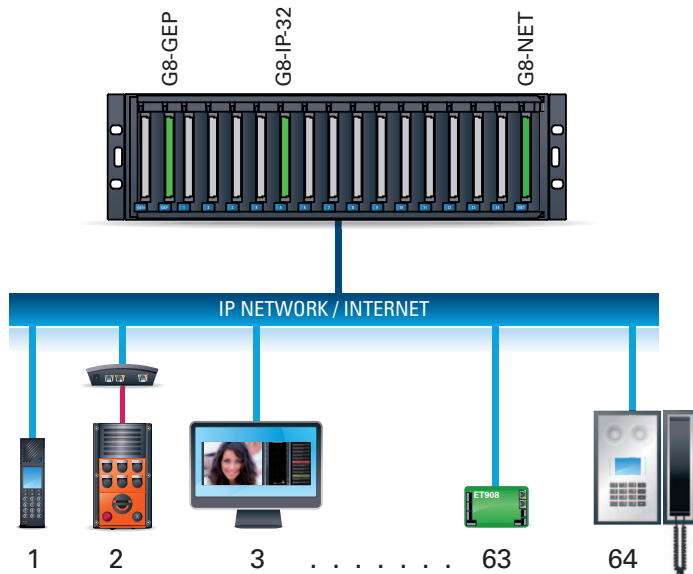
Bandwidth:

- The required bandwidth depends on the desired number of speech links:
  - Bandwidth incl. protocol overhead per IP-Intercom terminal, for upload and download:

	3.5 kHz	7 kHz	16 kHz
Bandwidth (speech and date):	96 kBit/s	96 kBit/s	143 kBit/s
Speech is compressed to:	G.711 standard	G.722 standard	G.722 standard

## SYSTEM OVERVIEW

The following diagram shows an example of connection of Intercom terminals via an IP-network.



- Allows connection of:
- IP-Intercom Terminals
  - Analogue and digital stations via IP-boxes ET 901
  - Intercom Clients

	PER G8-IP-32	MAXIMUM EXPANSION (14 PLUG-IN SERVERS IN A GE 800)
Max. subscribers	32 subscribers	448 subscribers
Max subscribers with licence L8-IP-32-32B	64 subscribers	896 subscribers
Conversations within a Plug-In Server	16 conversations	16 conversations per G8-IP-32 (14 x 16 conversations = 224 conversations per GE 800)
Conversations within a Plug-In Server with licence L8-IP-32-32B	32 conversations	32 conversations per G8-IP-32 (14 x 32 conversations = 448 conversations per GE 800)
Conversations to other cards in the Intercom Server GE 800	4 conversations	4 conversations per G8-IP-32 (max. 32 conversations per GE 800)



## QUALITY TESTED. RELIABLE. SMART.

COMMEND products are developed and manufactured by Commend International in Salzburg, Austria.

The development and manufacturing processes are certified in accordance with **EN ISO 9001:2015**.

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## A STRONG WORLDWIDE NETWORK

COMMEND is represented the world over by local Commend Partners and helps to improve security and communication with tailored solutions.

[www.commend.com](http://www.commend.com)

