

# COMEGA®



QP 2001 QPSK/PAL RECEIVER

# COMEGA QP 2001

professional modular QPSK to PAL Satellite receiver system

QP 2001 is a QPSK/PAL satellite receiver with QPSK input and standard PAL Audio/Video output. QP 2001 can be used with a wide range of headend modulator types.

The need for reception of QPSK signals is increasing and will increase even more. Almost all TV - and many radio programs will be available via this digital transmission. During the development of QP 2001 we have focused on reaching stability and reliability under almost any operating condition of the equipment - That means automatic reboot after current drop-out, signal drop-out, signal errors etc. QP 2001 is very flexible and can be used for head-ends with few subscribers up to many thousand subscribers.

## Features:

- **Compact - quick and simple installation**
- **Embedded Viaccess or Conax (others on request)**
- **Recommended by Telenor - approved by Viasat**
- **CA module not necessary - better stability**
- **Several automatic control functions**
- **Managable with the QPT Hand Terminal or a PC from remote locations**
- **Teletext re-inserted**
- **Switchable subtitling**
- **Adjustable audio level**
- **Video filter**
- **Built-in transient- and polarisation protection**
- **Low Power consumption - 12 W**
- **Power supply types for 1, 3 or 7 modules**
- **Supports all modulator types**
- **Physical protection of Smart Card**
- **Wall mounting**
- **Accessories for 19" mounting**

### Language selection

Features of the QP 2001 allows a selected mono audio channel to appear in both channels. This avoids two different languages to be mixed in Stereo-mode.

### Teletext

Subtitles are placed over the video signal from the Teletext pages, where available.

### Adjustable Audio Level

Because the audio level happens to vary on satellite signals the QP 2001 has adjustable audio level (-2/+8dB). The level is easily adjusted with the QPT Hand Terminal. QP 2001 has an extra adjustable audio output for Nicam-encoders. A2 stereo modulators can also be used with the QP 2001.

### Videofilter

To ease the use of different modulators with the QP 2001, it is equipped with a video filter which minimizes possible adjacent channel operation problems.

### Low Power Consumption

The external power supply and the very low power consumption of the QP 2001 receiver reduces the temperature in the receiver cabinet and life time is extended.

### Automatic Signal Monitoring

QP 2001 monitors the satellite video/audio signal and reboots the receiver if critical signal problems is found.

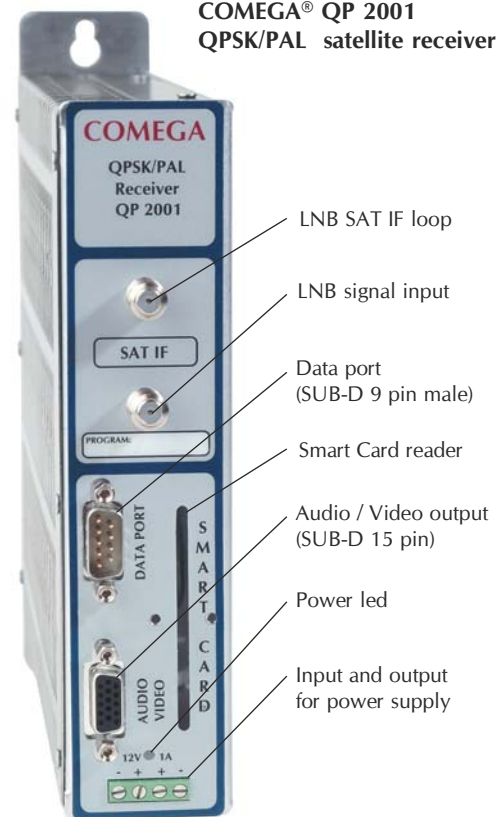
### Smart Card Protection

Physical protection of the Smart Card avoids removal of the Card.

### Embedded Conax/Viaccess

QP 2001 is available in two versions - Conax or Viaccess. The CA system is software based which means that no CA-modules are needed. Other coding systems are available on request.

COMEGA® QP 2001  
QPSK/PAL satellite receiver



## General

**Power (ext. PSU)** 13.5 V DC, 12 W (without LNB power)

**Measures (mm)** H:215 x W:45 x D:240

**Weight (kg)** 0.9 kg

**Video system** DVB to PAL  
QP2001V = Embedded Viaccess  
QP2001C = Embedded Conax

## Connectors

**IF** F-connector, female

**Data port** D-SUB 9-pin, male

**Audio/Video** D-SUB 15-pin, female

**Power** Power terminal

## Tuner

**Input freq.** 950 - 2150 MHz

**Input level** 65 - 25 dBm

**Symbol rate** 2 - 31 MS/s

**LNB power** 13 V / 18 V / 400 mA

**Demodulator** QPSK

## Video

**Output freq.** 25 Hz - 5 MHz

**Output level** 1V p-p / 75 Ohm

**Impedance** 75 Ohm

**Signal/noise ratio** > 56 dB

**Group delay** 40 nS

**Differential gain** 2 %

**Differential phase** 2 %

**2T K response** 2 %

## Audio

**Output level** 0 dBm / 600 Ohm

**Audio attenuation** 0 - 26 dB in 20 steps + mute

**Audio mode** Stereo / mono / Left / Right

**Distortion** 0.5 %

## Other

**Opr. temp.** +20 - 45 °C

# ACCESSORIES

wide range of accessories

## Mounting & Installing QP 2001

- The QP 2001 receiver module can be mounted directly on the wall.
- **FP-19"/2 (A)** provides 19" rack-mounting of two QP 2001 receivers in only 1U.
- **GP08 (B)** mounting plate for up to 8 modules is also available. Combining the mounting plate with 19" sides **GP08-19 (D)** turns the setup into a 19" rack-installable chassis of 7U.



## Programming QP 2001



QPT is especially designed to operate with the QP 2001. The hand terminal (C) is built to be a very robust and "intel-ligent" unit for effective configuration of the QP 2001.

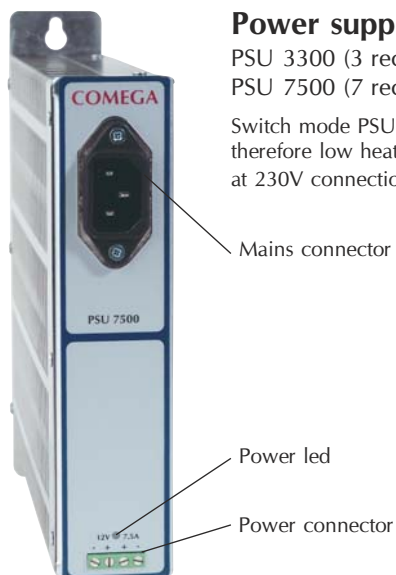
Configuration and monitoring can also be done from a very simple Command Line Interface (CLI) which is accessed through a Terminal connection (for example with HyperTerm which is a software application provided with Microsoft Windows) to the QP 2001's data port. Connecting one or more QP 2001 receivers to a serial server box allows management and monitoring to be done from a distance through the Internet or a dial-up connection.

For more information about solutions for your QP 2001 remote management needs - please contact us.

## Power supplying QP 2001

- PSU 3300 (3 receivers)
- PSU 7500 (7 receivers)

Switch mode PSU's with high efficiency and therefore low heat loss. EMC/Transient filter at 230V connection.



PSU 1700 (1 receiver)  
(acc. for wall mounting included)



### General

**Power**  
PSU 1700 13.5 V DC, 1700 mA  
PSU 3300 13.5 V DC, 3300 mA  
PSU 7500 13.5 V DC, 7500 mA

### Measures (mm)

PSU 3300/7500  
H:215 x W:45 x D:240  
PSU 1700  
H:35 x W:60 x D:125

### Weight (kg)

PSU 1700: 0.3 kg  
PSU 3300: 0.8 kg  
PSU 7500: 1.14 kg

### Connectors

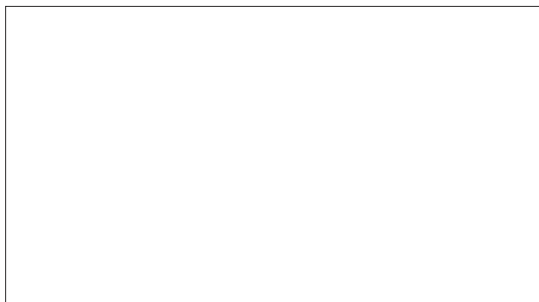
**Power** Power terminal

## PRODUCT OVERVIEW:

<i>Item no.</i>	<i>Type</i>	<i>Description</i>	<i>Item no.</i>	<i>Type</i>	<i>Modulator cables</i>
72700	QP2001V	QPSK – PAL Satellite receiver w/Viaccess	20100	15-15 SUB D	2 x SUB D for Polytron or Blankom
72701	QP2001C	QPSK – PAL Satellite receiver w/Conax	20101	15-3 RCA	SUB D to 3XRCA
72705	QPT	Hand Terminal for configuration of QP2001	20102	15-6 DIN	SUB D to 6-pin DIN, Televes Star 2000
22700	PSU3300	Power Supply 13.5V 3300 mA	20103	15-8 DIN	SUB D to 8-pin DIN, Arcodan 5000
22701	PSU7500	Power Supply 13.5V 7500 mA	20104	15-BNC/5DIN	SUB D to BNC and 5-pin DIN
22702	PSU1700	Power Supply 13.5V 1700 mA	20105	9-PIN SUB D	Data cable for FP-19"/2
30850	FP-19"/2	19 inch 1U front for mounting of 2 QP2001	20106	DC/DC	DC-loop cable for QP 2001
30851	GP8	Mounting plate for 8 modules	20107	SUB D/SUB D	Serial cable for QPT Hand Terminal
30852	GP8-19	19 inch sides for GP8 mounting plate			



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