

**CW-4971, -72 QPSK DEMODULATOR QUAD**  
**CW-4973, -74 QAM DEMODULATOR QUAD**  
**CW-4975, -76 OFDM DEMODULATOR QUAD****USER'S GUIDE**

to be used along with the CW-487x User's Guide

*Dear User!*

*In digital technology the ASI transmission is going to loose importance and IP transmission over Ethernet network will be used in more and more places. CableWorld Ltd beyond the devices with 100Mbit/s connection brought out their 1 Gigabit/s versions, which are capable of transmitting at their input/output even 4 transport streams, and by their wide configuration facilities they can easily be used in any system.*

The devices of the CW-497x series differ from that of the CW-487x series in delivering the output signal in spite of ASI outputs at a single 1000Base-T Ethernet output. Without being set-up the device does not deliver output signal; for producing output signal the device has to be programmed.

Steps of programming:

- Program the four input units according to the description of the CW-487x series and (at versions CW-4972, -74 and -76) also the CAM module. For the input units use the same software as for the CW-487x series, and for the CI modules use the SW-4872 software 1.04 or later versions.
- For generating the proper output signal program the Gigabit Ethernet Controller according to your demands. For programming use the SW-4901 Gigabit Ethernet Controller software.

In the CW-497x series devices both the device control and the output signal generation will be done by the CW-4901 Gigabit Ethernet Controller. Its data sheet (4901p-a.pdf) and detailed description (4901k-a.pdf) are available at [www.cableworld.eu](http://www.cableworld.eu).

The basics of transmitting the transport stream over IP network are described in our 'Transport Stream Managing over IP' publication (TSmanaging\_a.pdf).

The software for programming the Gigabit Ethernet Controller is the SW-4901. Its instruction manual is included in its Help. The descriptions of the help file are available also in pdf format (GECHELP.pdf).

**Additional information:**

In basic state the Gigabit Ethernet Controller is compatible with the 100 Mbit version; it executes the commands of the 100 Mbit version's instruction set according to the sense. This compatibility can be switched on and off with an instruction of the gigabit system.

The instruction set and the services provided by the Gigabit system are many times the amount of those of the 100 Mbit system, but these services can only be accessed with its own software. The programmability of the Gigabit Ethernet Controller can be locked with the user's individual key. On this, the module reacts in answering ACK messages only. It is practical to take care of the key, because the locked state can only be unlocked with this key. For loosing the key, help is given in the 4901k.pdf file.

The Gigabit Ethernet Controller can work in 100Base-T and 1000Base-T systems alike; if the extremely high data rate is not really needed use it preferably in 100Base-T mode.

The IP output and the multicast operating mode have several surprises in store for beginners. As an example note, if you sample in unicast mode the output signal of a device delivering multicast output signal, the device stops sending multicast signal, serves the unicast sample request and then it waits for the next instruction without delivering signals further, that is, it works always according to the last instruction.