Examination principle

The purpose of this exam is to provide an objective and fast measurement of hemifield responses.

This is particularly useful for the examination of patients with chiasmatic or post-chiasmatic disorders.

For this purpose, the stimulator monitor generates two pattern stimuli at different temporal frequencies, for example 10 Hz for the right hemifield and 15 Hz for the left hemifield.

A discrete Fourier transform (DFT) is performed on the recorded signals and provides a real time, simultaneous measurement of the responses to both hemifield stimulations. This technique can detect a response extremely rapidly.

The camera is placed over the top of the stimulator.

It includes a near infra-red illumination and allows viewing the patient at a distance of about 1 meter.

Compatible stimulator

- MonPack One

Recommended options

- Additional camera for distance test
  - HVM-camera
Realization of examinations

The frequency spectrum of the recorded signal is displayed in real time on the control monitor and allows the operator to visualize the response that is characterized by two peaks at the two stimulation frequencies.

Example of examination result

Result from a patient with left hemianopsia

Frequency spectrum shown during the exam. The two vertical bars with gray and yellow colors indicate the stimulation frequencies used for the right and left hemifields.