Optical Coherence Tomography

3D OCT-1 MAESTRO
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3D OCT-1 Maestro
Based on a long history of product innovation, including the first to combine SD OCT with colour fundus photography, Topcon has set the bar for providing patient friendly, easy to use and completely automated comprehensive OCT for today’s eye care needs.

**Features**

» Fully automated operation with a simple finger touch
» Rich analysis and report functions
» Modular system: expandable modules & features
» Superb OCT technology
» True colour fundus photography
» Compact & space saving design
» EN VIEW OCT Imaging
» Network and DICOM connectivity

Discover the OCT world at your fingertips
The 3D OCT- Maestro is the most user-friendly OCT in the market due to its fully automated function. With one touch on the screen, the auto alignment, auto focus and auto shoot is activated.

Full-Auto capturing

3D OCT-1 Maestro requires nothing more than to touch the capture icon and [Start Capture] button. Alignement, focus, optimizing and capturing are performed in automatic procedure. After capturing, the report can be immediately displayed by clicking on the icon.
Fully automated operation with a simple finger touch
Though the OCT is fully automated, it is possible to activate additional functions for special cases.

Semi-auto capturing
With semi-auto the 3D OCT-I Maestro completes alignment, focus and optimizing automatically, then allows for an operator to start capturing at any convenience. This enables to easily find the best timing to capture with communicating with patients even in difficult cases.

Live Fundus View™
Live Fundus View (OCT-LFV) is a perfect tool for capturing small pupils with a diameter of ø2.5mm. OCT-LFV is a live projection image with reflection at the retina. It gives a clear live fundus image. Disc, retinal vessels and scanning position is very easy to see.

Cataract mode
In case there is opacity in the eye due to cataract, the operator can switch on the cataract mode with one finger touch. The cataract mode will automatically move the scanning position on the upper/ lower (or L/R) area. Thus you can avoid the cloudiness in the optic media.

Stereo-matching automatic alignment
Topcon's unique alignment technology realizes the quick and stable alignment.
Rich analysis and report functions
The 3D OCT-1 Maestro allows for rich analysis functions for Macula, Glaucoma or Anterior. Comprehensive, predefined report templates allow you to see and print diagnostic output in a clear way. Reports contain for example optic disc analysis, 3D macula analysis, 12 mm 3D wide scan and others. The anterior analysis is an option on the 3D OCT-1 Maestro.

5 Line cross scan
This scans with 5 line scan horizontally and vertically in an instant. This is useful for screening and for follow-up as it does not miss the target position by quick scanning.

Line scan
This enables high resolution B scan with a maximum of 50 slices’ overlapping.

3D Macula analysis
Horizontal box scan in macula area. 3D imaging is useful to understand the whole and precise form of the fovea area. Thickness map and normative database for retina thickness is available.

Radial scan
The radial scan is a fast solution to create an overview, with high resolution scans.
3D Wide scan (12mm x 9mm)
This allows to screen from the fovea to the optic nerve by single scanning. Thickness maps of RNFL, GCC and retina are available.

3D Disc analysis
Disc topography which combines fundus photography, various peripapillary parameters and RNFL thickness is available. The normative database for RNFL is also incorporated.

3D Macula (V) glaucoma analysis
Vertical box scan in macula area. GCC analysis is available and normative database for RNFL, GCC and retina thickness is incorporated.

Colour fundus photography/
peripheral fundus photography
Non mydriatic colour fundus photography is possible. The report template* is ready for colour fundus photography. Peripheral fundus photography is also available.

*Depends on Fastmap setting
Trend analysis (RNFL)
Maximum 4 3D disc scans can be compared and analysed periodically. Useful for glaucoma follow-up.

Anterior radial scan*
This allows to check the central cornea condition in 12 radial scan. Corneal curvature map and corneal thickness map is also available.

Trend analysis
Maximum 4 3D macula (V) scans can be compared and analysed periodically. Useful for preperimetory glaucoma follow-up.

Anterior line scan*
This allows to observe the Angle area.

*Anterior scanning is option. Anterior segment attachment is required
Compact & space saving design

Due to the rotatable touch screen control panel, the operator can use the 3D OCT-1 Maestro from several positions: the classic position, positioned behind the patient and from the side. This results in a superb patient interaction and a space saving set up. The compact design and small footprint of the 3D OCT-1 Maestro allows it to be installed on a refraction unit or a table like Topcon's IC-1.

Brightness shield

Light conditions in examination rooms have an influence on the image quality of non-mydriatic fundus images. In some rooms the light conditions are hard to control or adapt. The optional Topcon BS-1 Brightness Shield will help to reduce undesired light. The slim and sophisticated design will not interfere with patient interaction.

### Modular system

#### 3D OCT-1 Maestro modularity

The Topcon 3D OCT-1 Maestro is a very flexible OCT system. There is a set up for every individual wish and budget.

The **3D OCT-1 Maestro** incorporates standard OCT imaging and analysis for the posterior segment of the eye and an integrated true colour fundus camera. It takes simultaneously an OCT image and a colour fundus image. This combination is unique and has a great impact on the analysis and diagnosis of the patient.

The **3D OCT-1 Maestro Solo** incorporates standard OCT imaging and analysis for the posterior segment of the eye. The Maestro Solo has no integrated colour fundus camera, but it can be upgraded at any time.

Both 3D OCT-1 Maestro and 3D OCT-1 Maestro Solo can be upgraded at any time with a the Anterior Module, for anterior OCT imaging and analysis.

The Topcon 3D OCT-1 Maestro modularity offers the following possibilities.

<table>
<thead>
<tr>
<th>Instrument</th>
<th>OCT</th>
<th>Fundus</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Posterior</td>
<td>Anterior</td>
</tr>
<tr>
<td>3D OCT-1 Maestro</td>
<td>Standard</td>
<td>Option</td>
</tr>
<tr>
<td>3D OCT-1 Maestro Solo</td>
<td>Standard</td>
<td>Option</td>
</tr>
</tbody>
</table>
**3D OCT-1 Maestro**

**EN VIEW OCT Imaging**
Topcon’s EN VIEW software, based on EN FACE technology, allows for independent dissection of the vitreoretinal interface, retina, REP and choroid and will uniquely project these layers so that macula pathology throughout the posterior pole can be studied and correlated with a patient’s symptoms, their disease and its progression.

**True colour fundus photography**
The 3D OCT-1 Maestro has an integrated full colour fundus camera. With one finger touch you can acquire simultaneously a posterior OCT image and a true colour fundus image. This real fundus photo helps you quickly to locate the exact position of the OCT-scan and gives you additional information for diagnosis.

**Peripheral fundus photography**
The 9-point fixation target in the 3D OCT-1 Maestro allows the operator to make 9 different colour fundus photos and compose them into one total overview of the fundus. With optional software, a panoramic or mosaic overview can be created.

**Superb OCT technology**
**50,000 A-scans per second - More details in less time**
A scanning speed of 50,000 A-scans/sec allows for faster tomography acquisition and produces clear cross-sectional retinal images.

A clear, High-Definition, B-scan image is acquired with a high speed of 50,000 A-scan/sec by the simplest operation ever.

**Wide field OCT scan**
With the 3D OCT-1 Maestro you can produce the perfect overview capture in a single image. The 12mm x 9mm wide field OCT scan for the optic nerve & macula is perfect for fast screening. (image of 12x9mm)
High quality / high resolution OCT and colour fundus photography

50,000 A-scans/sec. speed produces fine B-scan and smooth 3D graphics, which facilitates the observation of pathology form and condition on each layer. High quality colour fundus photography gives fundamental and additional information. The OCT and colour fundus can be said to be the inseparable combination for daily diagnosis.

85-years old, male, OD, branch retinal vein obstruction

62-years old, male, OS, diabetic retinopathy and circinate exudate

97-years old, female OD, age related macular degeneration

71-years old, male OD, macular hole (full thickness)
## Specifications

<table>
<thead>
<tr>
<th>Observation &amp; photography of fundus image***</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scan mode</strong></td>
<td>Colour, red-free*</td>
</tr>
<tr>
<td><strong>Picture angle</strong></td>
<td>45°/30° or equivalent (digital zoom)</td>
</tr>
<tr>
<td><strong>Operating distance</strong></td>
<td>34.8mm (in fundus photography) 62.6mm (in anterior segment photography)**</td>
</tr>
<tr>
<td><strong>Photographable Diameter of pupil</strong></td>
<td>45°: Ø 4.0mm or more Small pupil diameter: Ø 3.3mm or more</td>
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### Observation & photographing of the fundus/anterior segment tomogram

<table>
<thead>
<tr>
<th>Scan range</th>
<th>(on fundus)</th>
<th>Horizontal direction 3 - 12mm, Vertical direction 3 - 9mm</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>(on cornea)</td>
<td>Horizontal direction 3 - 6mm, Vertical direction 3 - 6mm</td>
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</table>

| **Scan speed** | 50,000 A-Scans per second |
| **Lateral resolution** | 20 μm |
| **In-depth resolution** | 6 μm (digital resolution 2.6 μm) |
| **Photographable diameter of pupil** | Ø 2.5mm or more |

| Internal fixation target | Dot matrix type organic EL (The display position can be changed and adjusted. The presenting method can be changed.) |

### Electric rating

| **Source voltage** | AC 100-240V |
| **Power input**    | 70-150VA |
| **Frequency**      | 50Hz-60Hz |

### Dimensions and weight

| **Dimensions** | 307-442mm (W) X 472-668mm (D) X 518-722mm (H) |
| **Weight**      | 21kg |

*Display digital red-free **Anterior scanning is option, with anterior segment attachment. *** Colour fundus image is an option for Maestro Solo

Subject to change in design and/or specifications without advanced notice.

To obtain the best results with this instrument, please be sure to review all user instructions prior to operation.

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