Nidek Retina Scan DUO Macula Map overview – GCC (Ganglion Cell Complex) thickness and total retinal thickness 12 x 9 mm scan Overview Screen.

The Thickness map is a representation of total retinal thickness. The scale on the side is in microns. This is an excellent tool for spotting areas of thickening or thinning.

ETDRS map is a normative data comparison plot. This compares total retinal thickness to a normative database for this patients age, gender and ethnicity.
The colours represent the following:

PINK – <1% of the normal population have a retina this **thick**.
PALE YELLOW – 1-5% of the normal population have a retina this **thick.**
GREEN – 5-95% (the central 90%) of the normal population would have this thickness of retina.
YELLOW – 1-5% of the normal population have a retina this **thin.**
RED - <1% of the normal population have a retina this **thin**.

Please note this is not a 'traffic light' system. Avoid referring from this normative data alone. Examining change over time (progression analysis is often more valid).
The numbers shown in each of the nine sectors is the average total retina thickness in that sector.
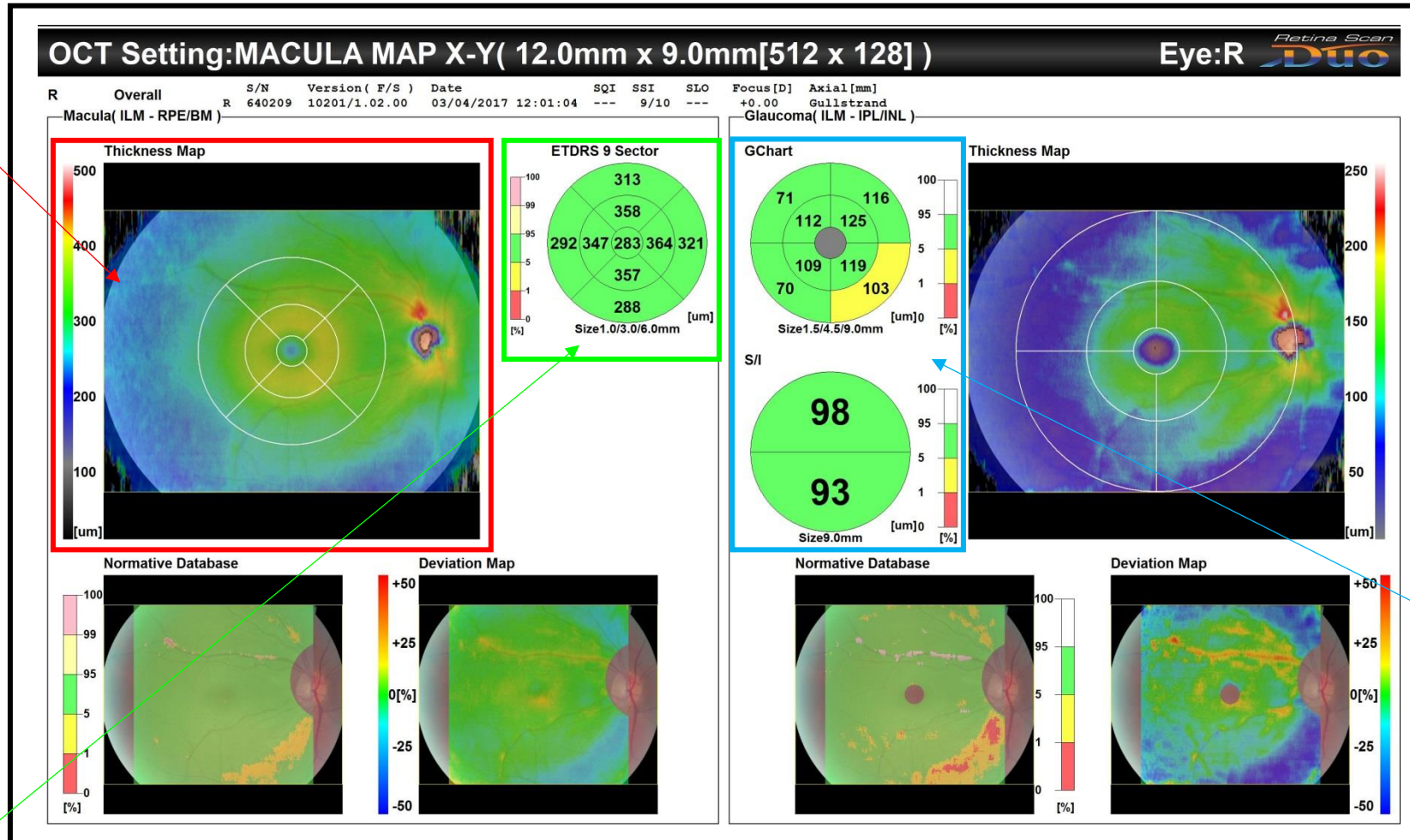
The **G-Chart** represents a normative comparison of the Ganglion Cell Complex (GCC). This is comprised of the inner most five layers of the retina (ILM, RNFL, GCL, IPL and INL). The GCC is clinically proven to be the only layers of the retina affected by **Glaucoma.**

These layers are not present in the foveal pit, so this area is greyed out.

The lower **S/I** plot shows the comparison between superior and inferior GCC. The RNFL is part of the GCC and follows the horizontal temporal mid line – so this plot can show up altitudinal defects and early glaucomatous damage.

WHITE - 0-5% of the normal population will have GCC this **thick.** There is no known condition where there is 'too much' GCC.
GREEN – 5-95% (the central 90%) of the normal population would have this thickness of GCC.
YELLOW - 1-5% of the normal population have a GCC this **thin.**
RED - <1% of the normal population have a GCC this **thin.**

Glaucoma is apoptosis of the Retinal Ganglion Cells, hence we can detect glaucoma at the macula, sometimes sooner than at the disc.
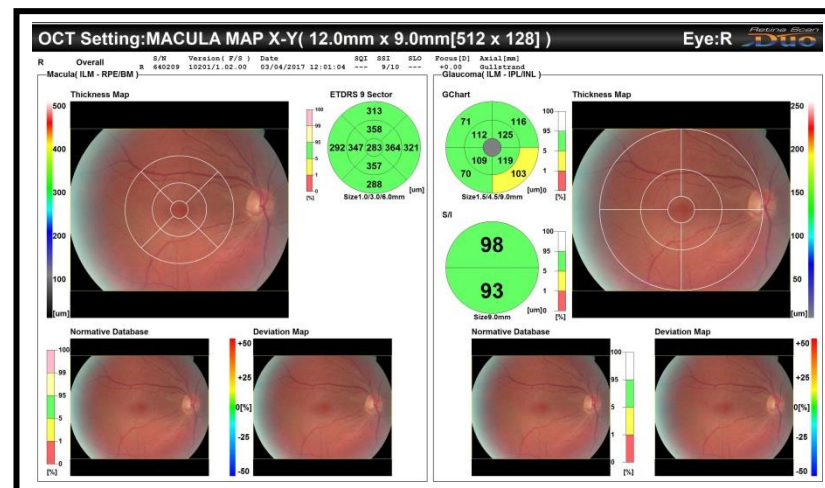
You can remove the thickness map and overlays and show the varying fundus images available on the device. You can display the colour fundus image (as shown opposite) as well as the phase fundus image.
REMEMBER – You can also view 3D colour fundus overlay, Macula only, Glaucoma only, Image B-Scan scroll and also En-Face imaging of the 12 x 9 mm posterior pole macula map scan.

The **Disc Map** also provides assessment of the optic nerve head and **RNFL** thickness as well as RNFL normative data comparison.

Please see the overview for disc map on the other sheet.

Nidek Retina Scan DUO Disc Map overview – RNFL (Retinal Nerve Fibre Layer) thickness and TSNIT profile 6 x 6 mm scan Overview Screen.
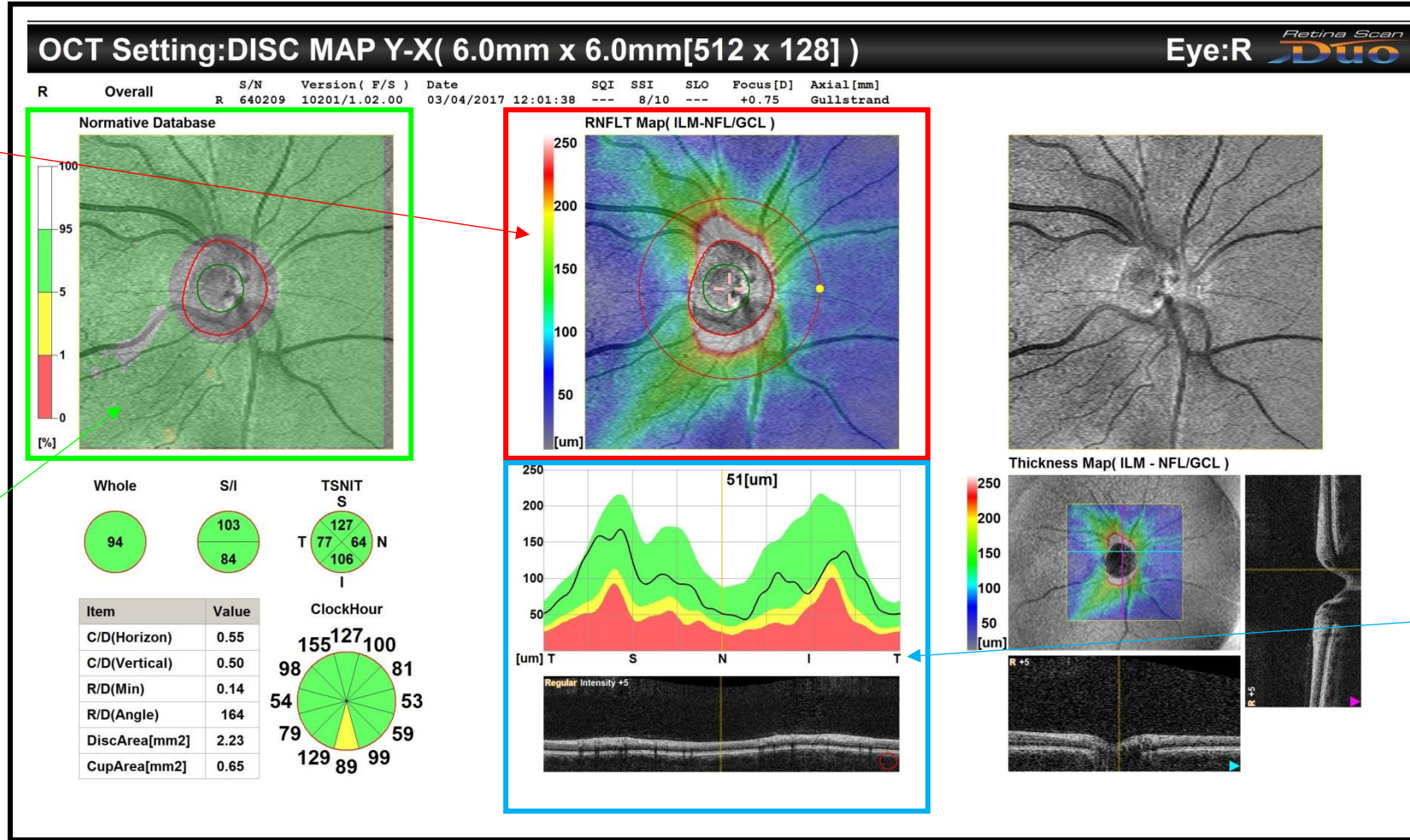
The Thickness map is a representation of RNFL thickness. The scale on the side is in microns. Note the usual 'white' areas for the superior and inferior nerve fibre bundles.

RNFL Normative Database map is a normative data comparison plot. This compares RNFL thickness to a normative database for this patients age, gender and ethnicity.
The colours represent the following:

WHITE - 0-5% of the normal population will have RNFL this **thick.** There is no known condition where there is 'too much' RNFL.
GREEN – 5-95% (the central 90%) of the normal population would have this thickness of RNFL.
YELLOW – 1-5% of the normal population have RNFL this **thin.**
RED - <1% of the normal population have RNFL this **thin**.

Please note this is not a 'traffic light' system. Avoid referring from this normative data alone. Examining change over time (progression analysis is often more valid).
Always cross reference RNFL data to GCC at the macula. Scans of the optic nerve head can be affected by tilted discs and may show not change of GCC.

OCT Setting:DISC MAP Y-X(6.0mm x 6.0mm[512 x 128])   Eye:R

Item	Value
C/D(Horizon)	0.55
C/D(Vertical)	0.50
R/D(Min)	0.14
R/D(Angle)	164
DiscArea[mm2]	2.23
CupArea[mm2]	0.65

Whole 94   S/I 103 / 84

TSNIT: S 127, T 77, 64 N, 106 I

ClockHour: 155 127 100 / 98 81 / 54 53 / 79 59 / 129 89 99

The **TSNIT** plot represents the patients optic nerve head profile compared to the normative data. It examines the **DISC CIRCLE** scan that is part of the disc map and compares **RNFL** thickness to the normative data. The classic 'double hump' plot shows a healthy optic nerve head (3.4 mm circumference circle around the disc). Again, we are only interested in thinning, not thickening of the RNFL. There is also a Whole, S/I and ISNT rule plot to the right. The Clock Hour plot can also highlight notching.

TSNIT:
WHITE - 0-5% of the normal population will have RNFL this **thick.** There is no known condition where there is 'too much' RNFL.
GREEN – 5-95% (the central 90%) of the normal population would have this thickness of RNFL.
YELLOW - 1-5% of the normal population have RNFL this **thin.**
RED - <1% of the normal population have RNFL this **thin**.

Sometimes, you may find GCC loss at the macula sooner than RNFL at the disc. This may be due to shrinkage (but not death) of the Retinal Ganglion Cell in Glaucoma prior to loss of the axon (RNFL).
If there is central RNFL loss showing prior to GCC loss, it is possible that tilting discs may be present.
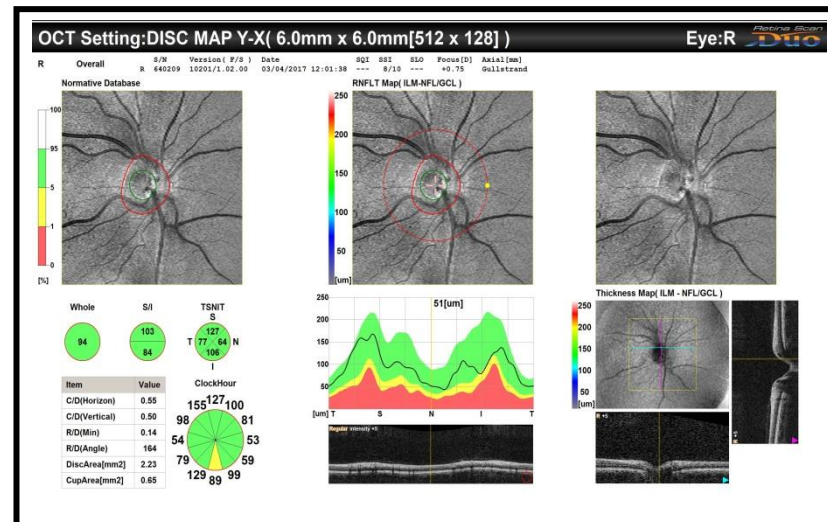
You can remove the thickness map and overlays and show the varying fundus images available on the device. You can display the phase fundus image (as shown opposite) as well as the colour fundus image if taken separately.
REMEMBER – You can also view 3D disc overlay, Image B-Scan scroll and also En-Face imaging of the 6 x 6 mm optic nerve head area disc map scan.

The **Macula Map** also provides assessment of posterior pole, total retinal thickness and **GCC** thickness as well as normative data comparison.

Please see the overview for macula map on the other sheet.