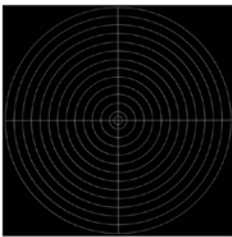


Content of the slide

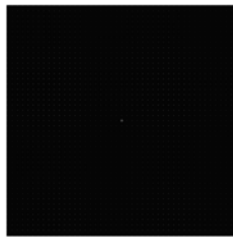
Each Argo-HM slide contains 16 fluorescent patterns.



Target

PAT-AG03-EM1-A1

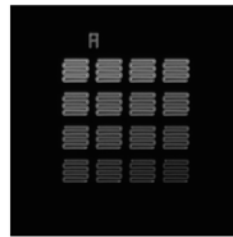
This pattern consists of concentric circles with increasing radii from $25\ \mu\text{m}$ to $325\ \mu\text{m}$ with a step of $25\ \mu\text{m}$, plus an extra circle with a radius of $12.5\ \mu\text{m}$, featuring a target.



Field of rings

PAT-AG03-EM1-B1

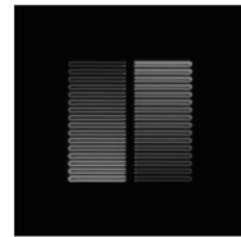
This pattern consists of a matrix of 45×45 rings, separated by $15\ \mu\text{m}$, on a total field of $660\ \mu\text{m} \times 660\ \mu\text{m}$. The field of rings is surrounded by eight landmarks and exhibits an $8\ \mu\text{m}$ long cross in its center.



4x4 Intensity gradation

PAT-AG03-EM1-C1

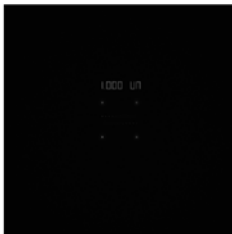
This pattern consists of sixteen $8.5\ \mu\text{m}$ -wide squares having different fluorescence intensity levels following a linear evolution, organized in a 4×4 matrix.



2x16 Intensity Gradation

PAT-AG03-EM1-D1

This pattern consists of twice sixteen $22.5\ \mu\text{m} \times 1.5\ \mu\text{m}$ rectangles having different fluorescence intensity levels following a linear evolution, organized in a 2×16 matrix.



3D Crossing stairs $1\ \mu\text{m}$ step

PAT-AG03-EM1-I1

This pattern consists of twice 11 empty cylinders embedded at different depths, like two crossing stairs, surrounded by four pillars. The step is: $1\ \mu\text{m}$.



3D Crossing stairs $0.75\ \mu\text{m}$ step

PAT-AG03-EM1-I2

This pattern consists of twice 11 empty cylinders embedded at different depths, like two crossing stairs, surrounded by four pillars. The step is: $0.75\ \mu\text{m}$.



3D Crossing stairs $0.5\ \mu\text{m}$ step

PAT-AG03-EM1-I3

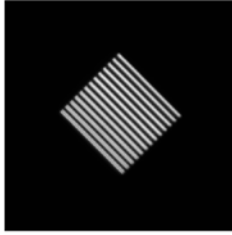
This pattern consists of twice 11 empty cylinders embedded at different depths, like two crossing stairs, surrounded by four pillars. The step is: $0.5\ \mu\text{m}$.



3D Crossing stairs $0.25\ \mu\text{m}$ step

PAT-AG03-EM1-I4

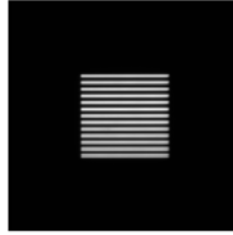
This pattern consists of twice 11 empty cylinders embedded at different depths, like two crossing stairs, surrounded by four pillars. The step is: $0.25\ \mu\text{m}$.



Gradually spaced lines descending

PAT-AG03-EM1-E3

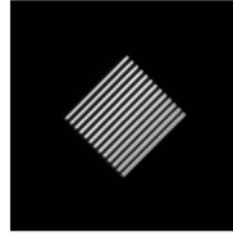
This pattern consists of pairs of 50 μm -long lines whose spacing gradually increases, from 100 nm to 700 nm, with a step of 50 nm. One set of lines is present: descending (-45°).



Gradually spaced lines horizontal

PAT-AG03-EM1-E1

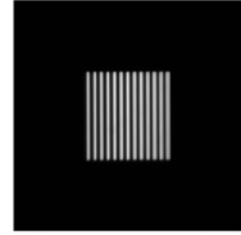
This pattern consists of pairs of 50 μm -long lines whose spacing gradually increases, from 100 nm to 700 nm, with a step of 50 nm. One set of lines is present: horizontal.



Gradually spaced lines ascending

PAT-AG03-EM1-E4

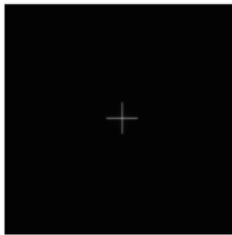
This pattern consists of pairs of 50 μm -long lines whose spacing gradually increases, from 100 nm to 700 nm, with a step of 50 nm. One set of lines is present: ascending (+45°).



Gradually spaced lines vertical

PAT-AG03-EM1-E2

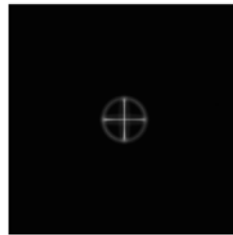
This pattern consists of pairs of 50 μm -long lines whose spacing gradually increases, from 100 nm to 700 nm, with a step of 50 nm. One set of lines is present: vertical.



Repositioning crosses

PAT-AG03-EM1-H1

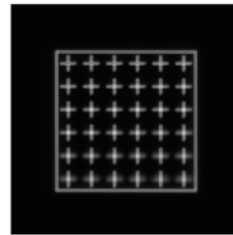
The repositioning crosses are 40 μm long.



Sphere

PAT-AG03-EM1-G1

This pattern consists of three circles with a diameter of 50 μm in different orthogonal planes, featuring the equator and two meridians of a sphere.



Matrix of crosses

PAT-AG03-EM1-F1

This pattern consists of a matrix of 6x6 crosses, having a length of 5 μm and a step of 8 μm , surrounded by a 50 μm -wide frame.

The crosses are composed of vertical lines that are in the same plane, and by horizontal lines, going gradually deeper within the glass.

The spacing between the vertical and horizontal lines gradually increases, from 0.1 μm to 3.6 μm , with a step of 0.1 μm .



Word ARGOLIGHT

PAT-AG03-EM1-J1

This pattern consists of the letters forming the company name "Argolight", and surrounded by a 220 μm x 50 μm frame.

Lifetime warranted fluorescence presence

Dimensions:75x25x1.5 mm

Materials:Anodized aluminum enclosure with an AG03 glass core

Excitation range:continuum 250-650 nm

Emission range:continuum from the excitation wavelength plus 15 nm,to 800 nm

Immersion medium compatibility:dry, oil: no limitation,water objectives: less than 20 min at a time

Storage conditions:room temperature (10-40 °C)and under normal relative humidity(20-70 % RH)

Imaging technology compatibility:any fluorescence-based imaging except depletion-based technology and multiphoton imaging

Light exposure damage threshold:50 GW/cm² irradiance (peak or average)

Analyze

More than 12 automated quality tests, several tens of relevant metrics.



FIELD
UNIFORMITY



FIELD
DISTORTION



LATERAL CO-
REGISTRATION
ACCURACY



LINE SPREAD
FUNCTION



RING SPREAD
FUNCTION



LATERAL
RESOLUTION



OPTICAL
SECTIONING
STRENGTH



STAGE
REPOSITIONING
REPEATABILITY



STAGE DRIFT
DURING
TIMELAPSE



STAGE DRIFT
DURING Z
STACKING



ACCURACY OF 3D
RECONSTRUCTION



INTENSITY
RESPONSE



SPECTRAL RESPONSE



POWER METER



POINT SPREAD
FUNCTION



ACCURACY OF CO-
REGISTRATION



UNIFORMITY OF FIELD