

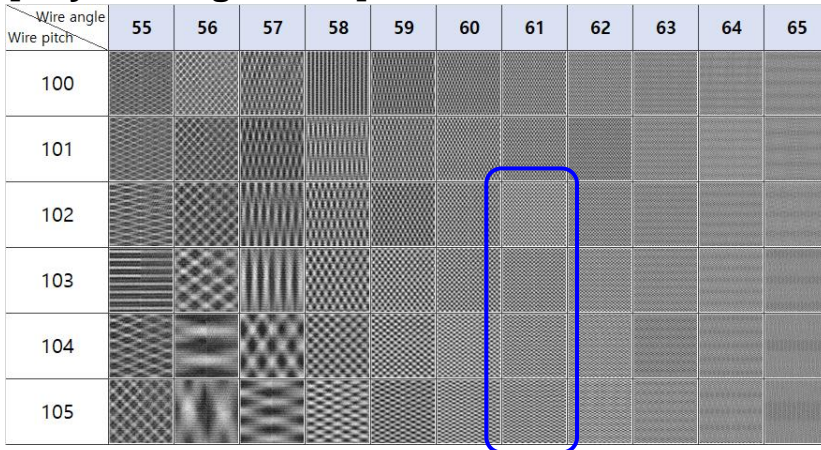
Moire analysis based on human eyes

For checking Moire pattern by wire angle, pixel shape & size

Analysis Moire phenomenon with Ray Tracing + FFT (Fast Fourier Transform)

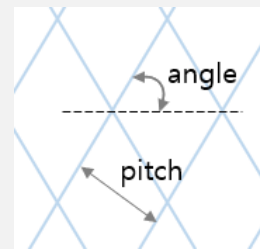
- Generating Moire patterns to be seen by human eyes.
- Considering real structure of touch panel.

[Ray Tracing Result]

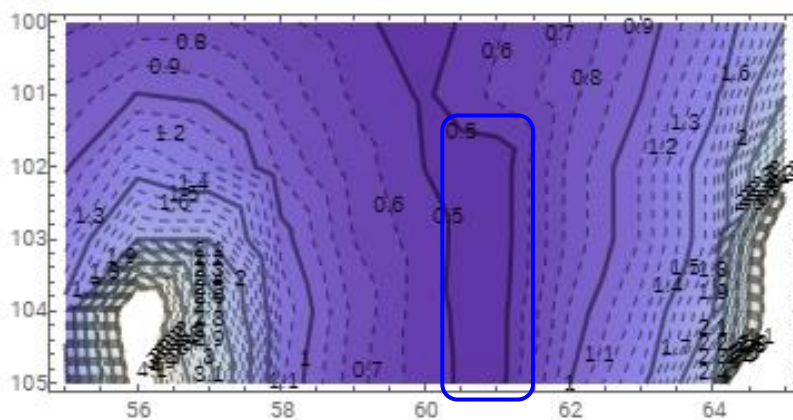


[Wire Split condition]

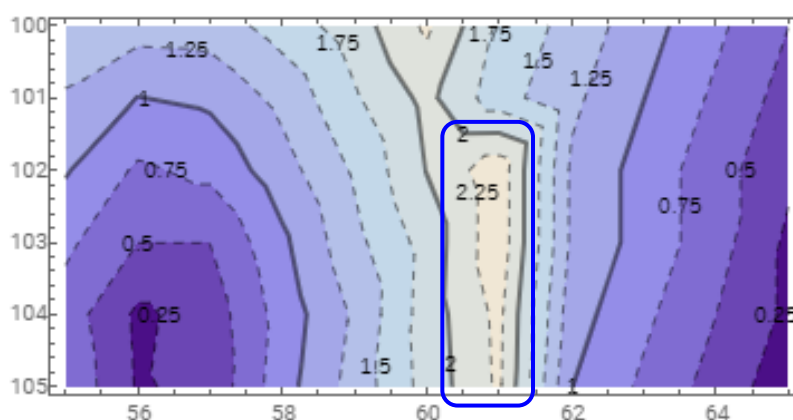
- Area for Sim. : 1cm x 1cm
- Pitch : 100~105 [um]
- Angle : 55 ~ 65 [°]



[Moire Pattern Pitch MAP]



[Moire Pattern Frequency MAP]



User can select wire pattern, Through analyzing the cycle of Moire with MAP results.

* Conditions with low visibility of Moire Pattern

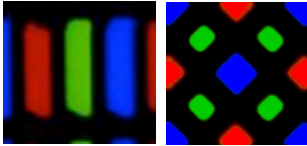
We provide CSF Contrast Value. The smaller the CSF Contrast Value, the weaker the moire.

WORK PROCESS

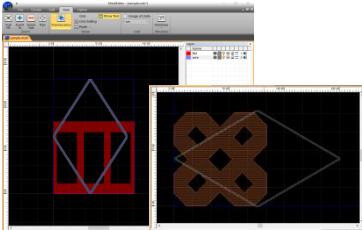
GDS II Import & Structure generation



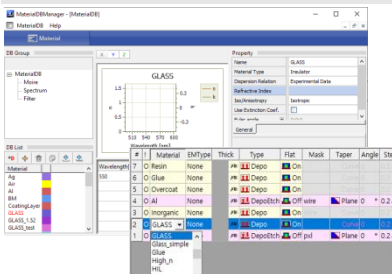
Import GDS II & Build Mask File
Structure generation
Ray Tracing



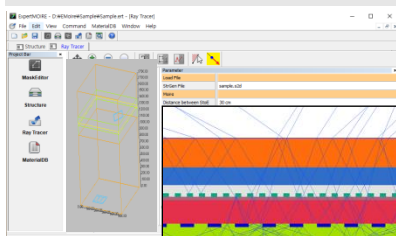
Import .gds file



Make Mask file



Set Material & Layer thickness

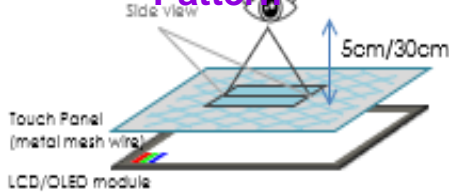


Set Ray tracer

Viewer



Check Moire Pattern



Distance condition(μm)	5cm	30cm
A		
B		
C		

material	RI	thickness
Glass	1.5	1.0mm
Resin	1.4	0.5mm
Film	1.6	0.1mm
Glass	Glass+Resin	film

Viewing Location

Layer Thickness/

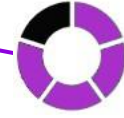
PXL Type condition	Wire condition	Sim. Result
	Change of Angle, Fitch 	
	Wire Rotation 	
- Other types are also sim. available	Unusual shape wire 	- Input in .gds file format : Sim. available

PXL / Wire Split

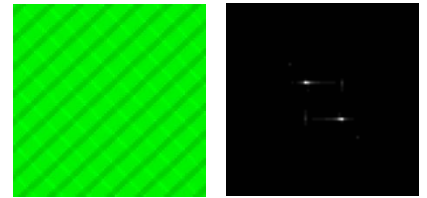
	LCD pattern mode	Wire condition	Actual Result	Sim. Result
White + 0deg				
Green + 5deg				

White / Green pattern

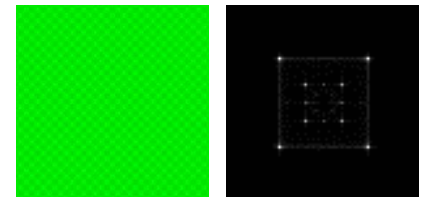
FFT Analysis



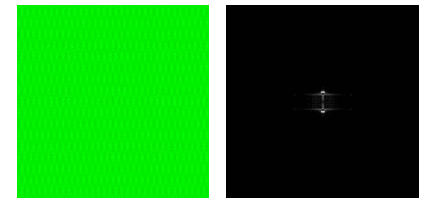
Analysis Moire Pattern
(Ray Tracing & FFT & Contrast Value)



Contrast Value : 0.029



Contrast Value : 0.002



Contrast Value : 0.0016

RayTracing + FFT
Moire Pattern Result

Expert Moire Key Benefits

Expert Moire

Strength

- ✓ Generating Moire pattern to be seen by human eyes
- ✓ Optimized engine for High Speed.
- ✓ Considering real structure with any patterns.

Contact Us

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