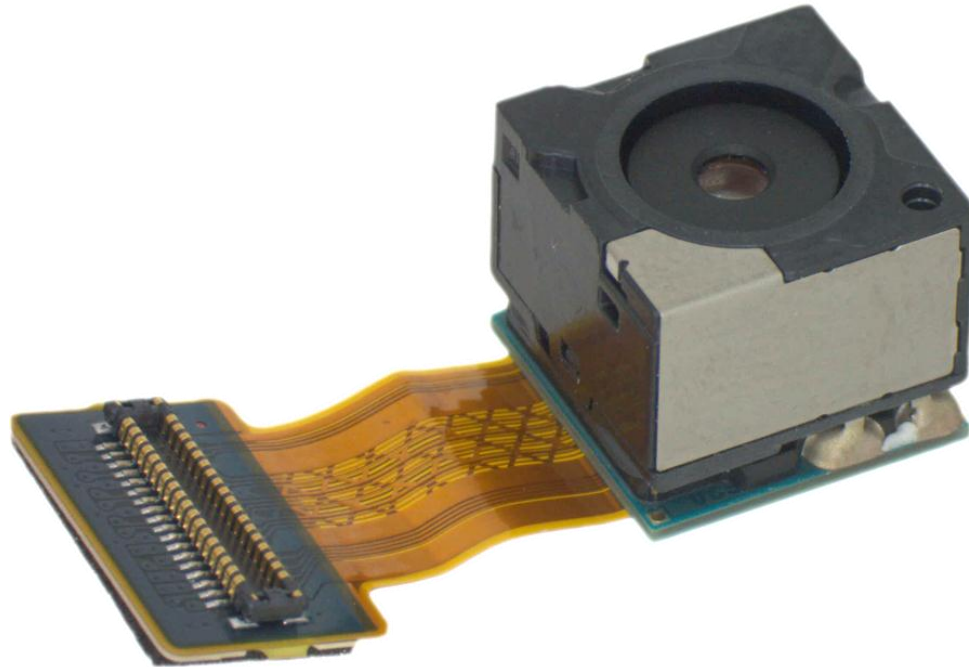


Reverse Costing analysis



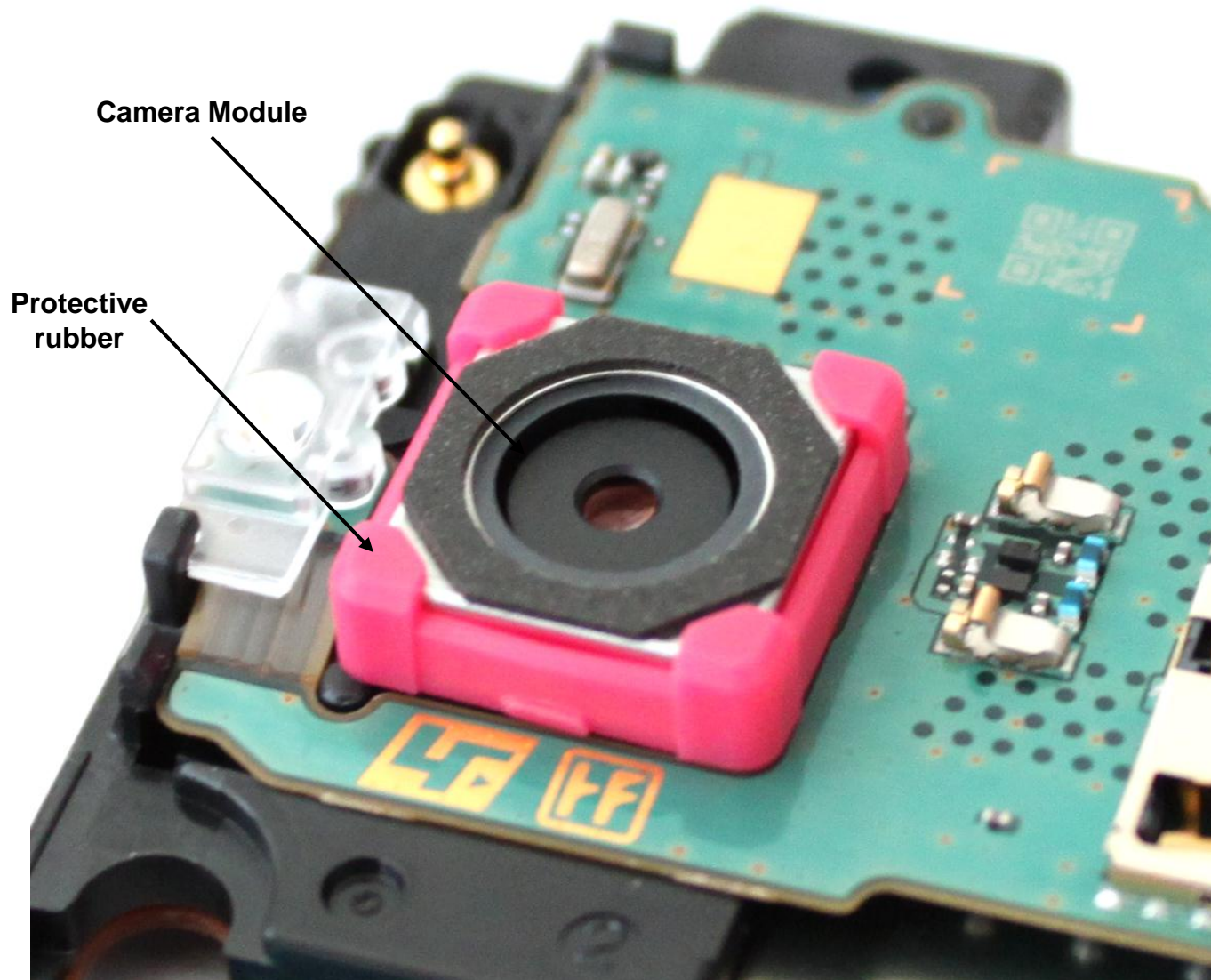
Sony Ericsson Cyber-shot S006 Camera Module Sony 16Mpixel 1.12 μ m BSI CIS

November 2011 - Version 1

Written by: Romain FRAUX

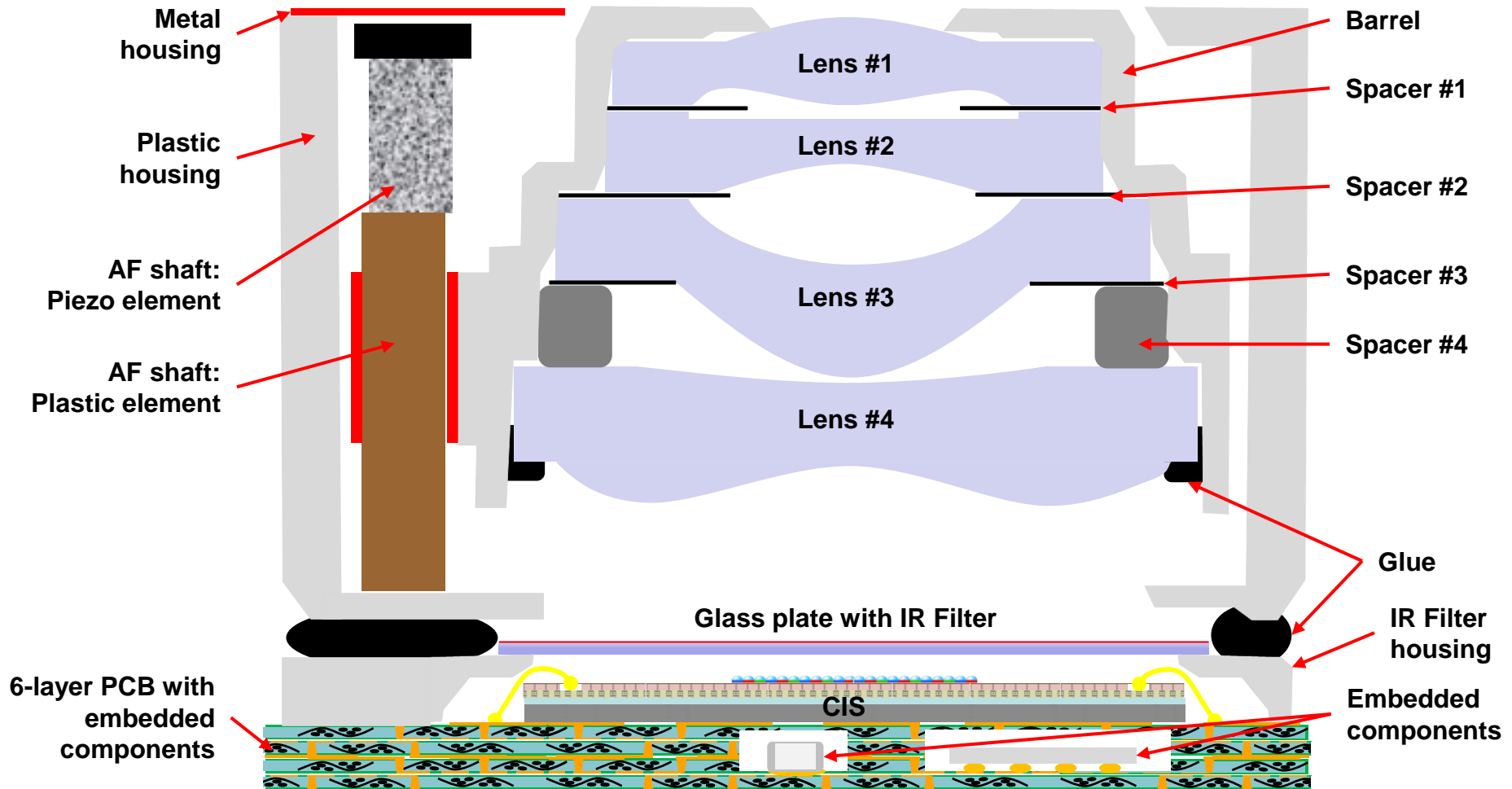
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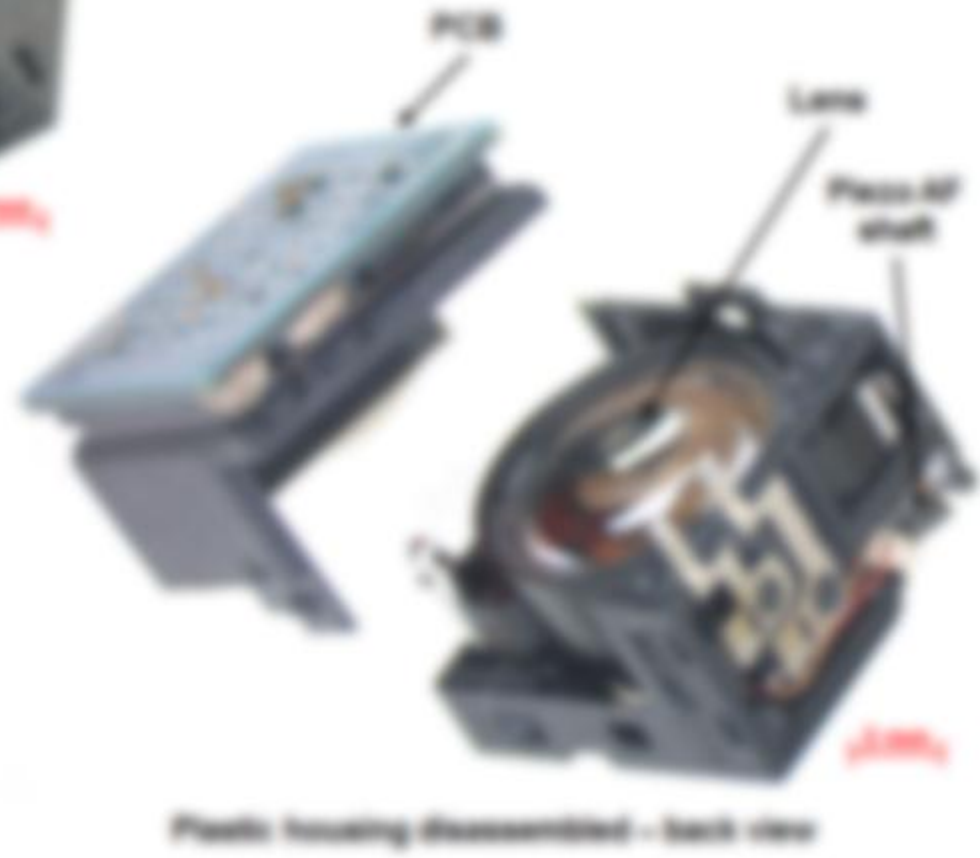
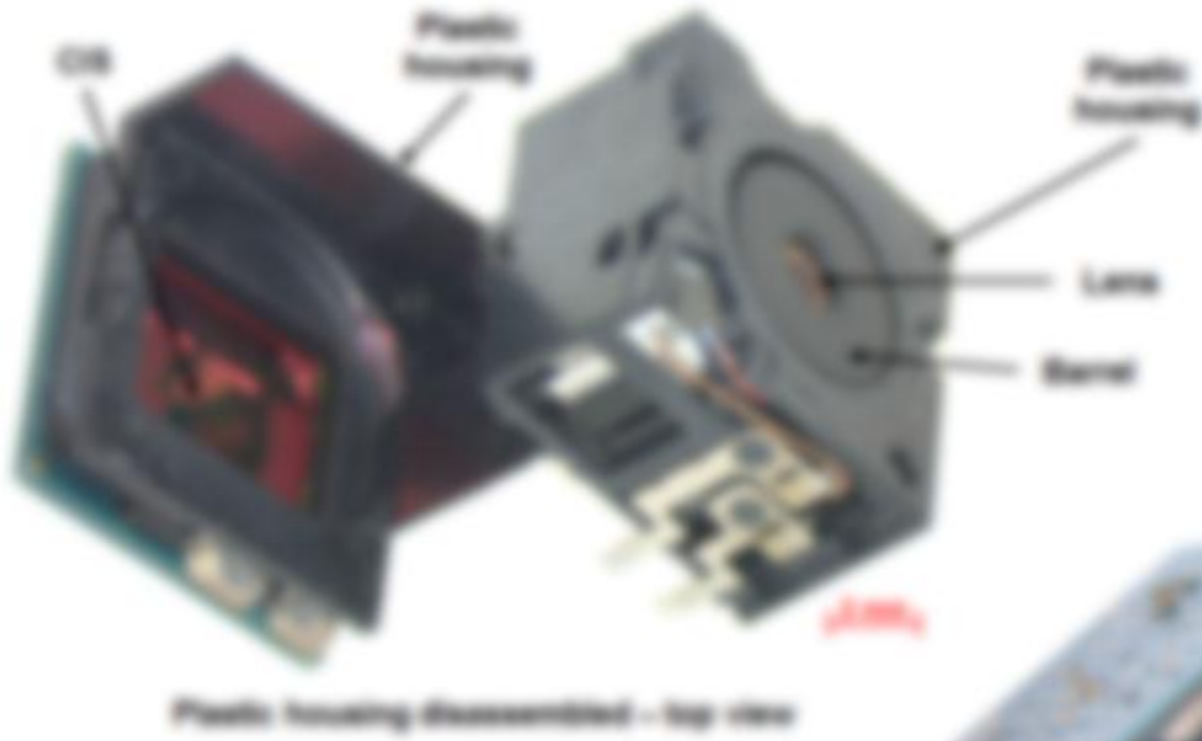


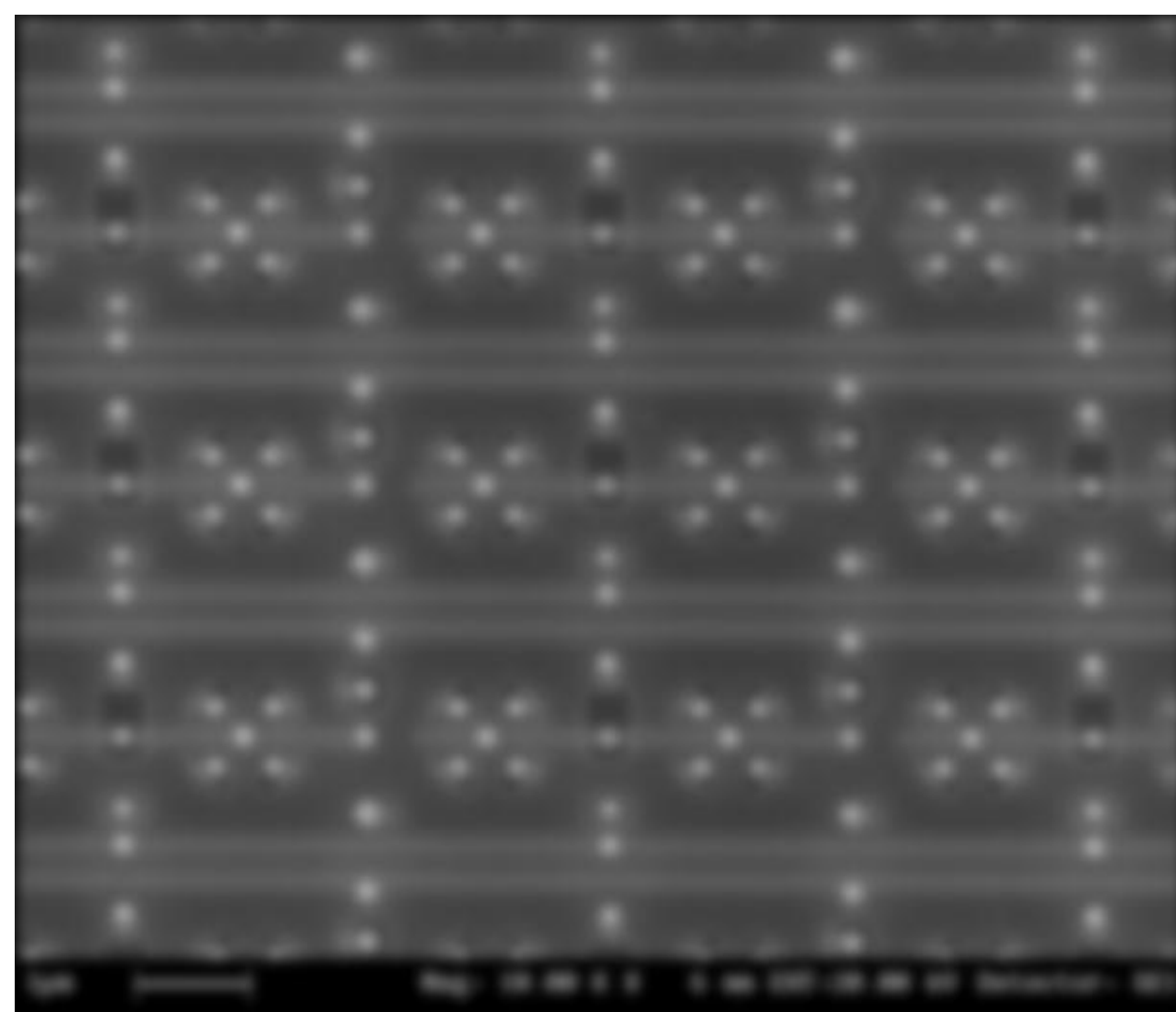
Main board with camera module

- Package is analyzed and measured.
 - X-ray pictures are used to identify the package construction and the redistribution.
- Package is opened in order to identify the elements constituting it.
- Cross-section are realized to get overall package data : dimensions, main characteristics.
- An analysis of the technologies and of the materials used is performed.

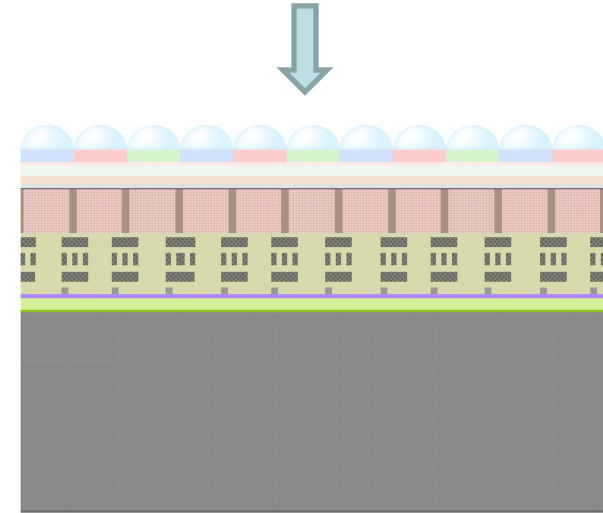


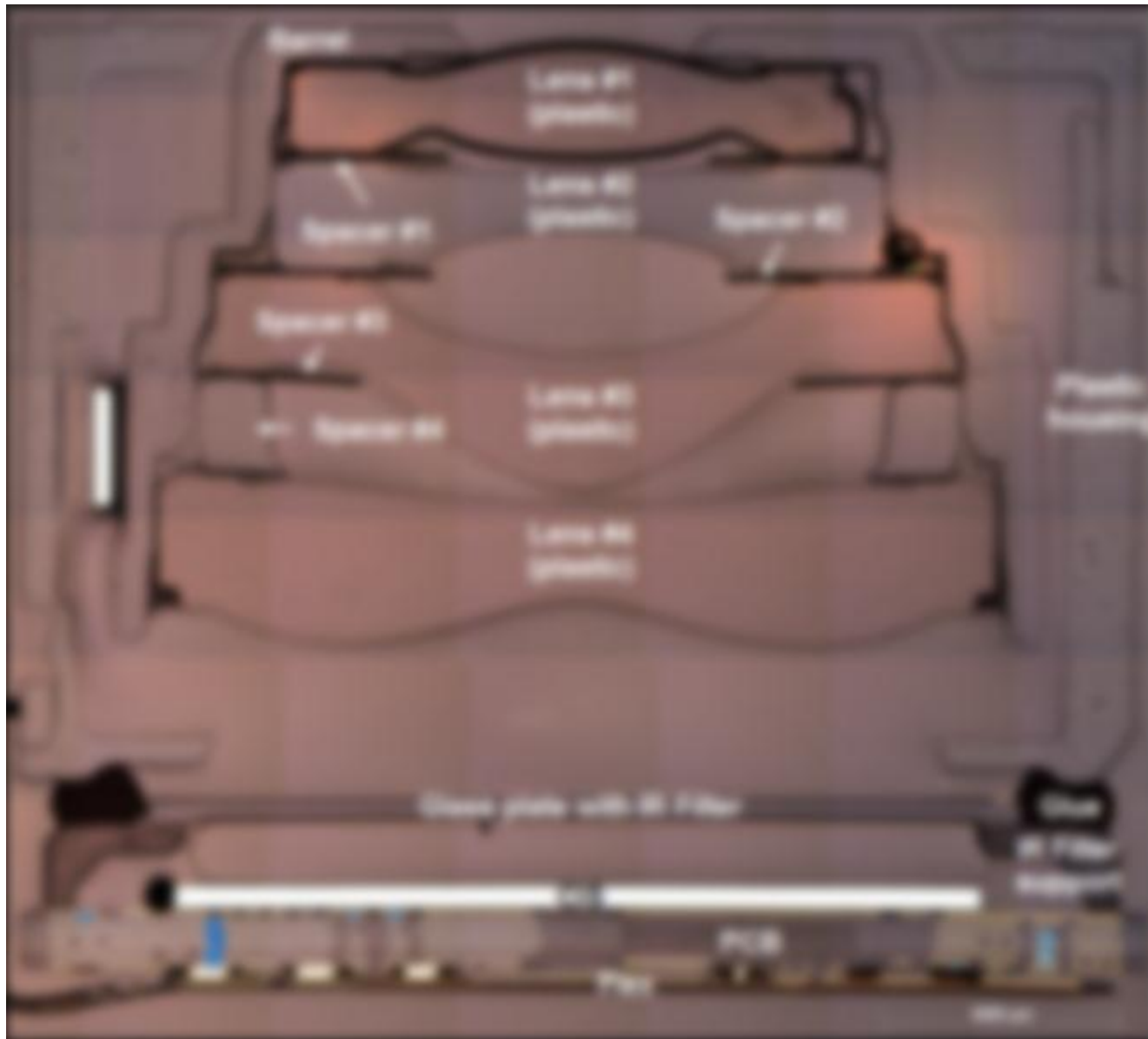
Camera Module Disassembly



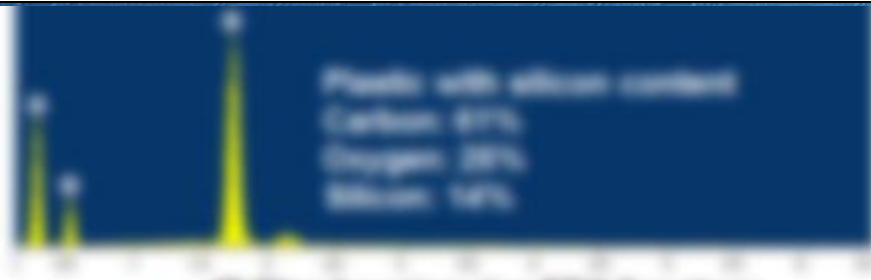


Pixels (microlenses removed) – SEM view

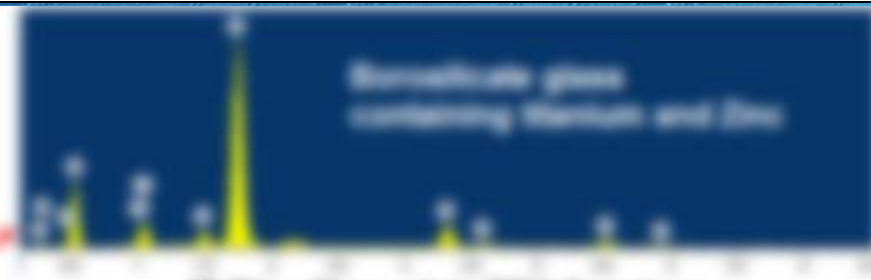




Camera module cross-section – Optical view



IR filter focusing glue EDX Spectrum



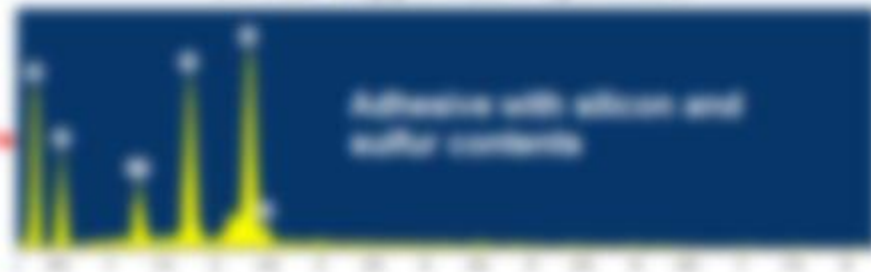
IR filter Glass plate EDX Spectrum



Glass plate glue EDX Spectrum



IR filter support EDX Spectrum



IR Filter cross-section – SEM view

IR filter support glue EDX Spectrum

CIS Die Cost Breakdown

