

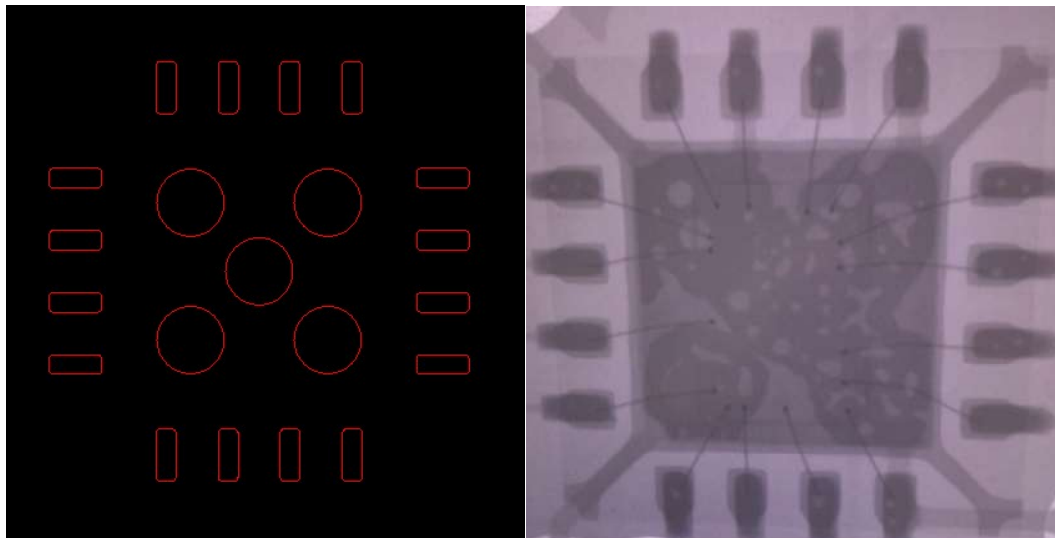
# QFN Aperture Design, Solving a Major Customer Problem

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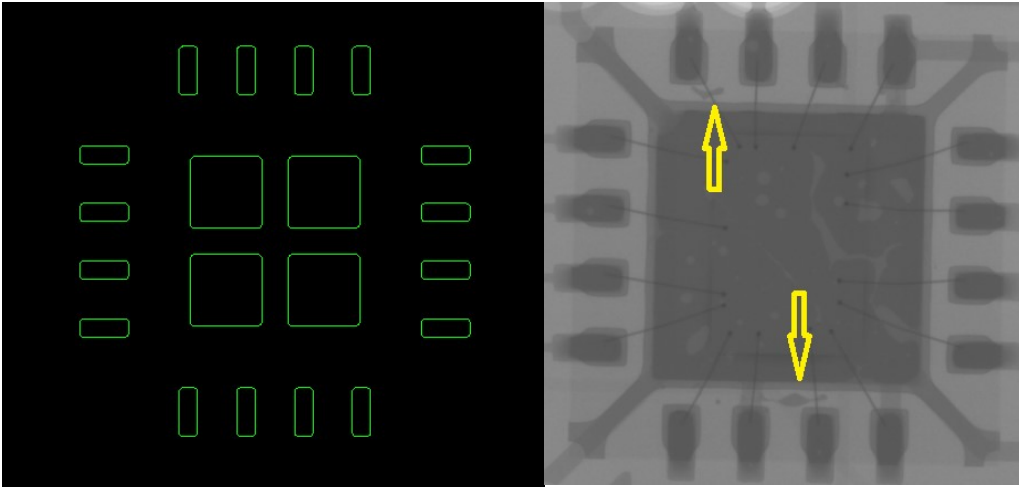
Recently, a local customer came to AGI with a critical issue pertaining to a QFN. The customer was using another stencil source and they were having major issues with solder balls and solder spatter on a QFN that ran on several assemblies. This issue had become a major boiling point and was adversely affecting their quality and deliveries to their end customer. Unfortunately, they had gone through several different stencil designs, none of which resolved the issue. Sitting down with the customer, the previous designs were looked at along with their results. You can see clearly in “Failed Designs” 1 thru 3, that the issue of solder balls and solder spatter weren’t being resolved. Fortunately, AGI had seen this issue before with other customers and had a clear solution for this issue. By designing circles, vs windowpanes, the outgassing has less restrictions thus reducing the chances of solder spatter through reduced outgassing pressures. On this particular QFN/Customer, the observed voiding was acceptable.

When challenges with your process are presented, AGI has the experience, support, and capabilities to offer permanent solutions.

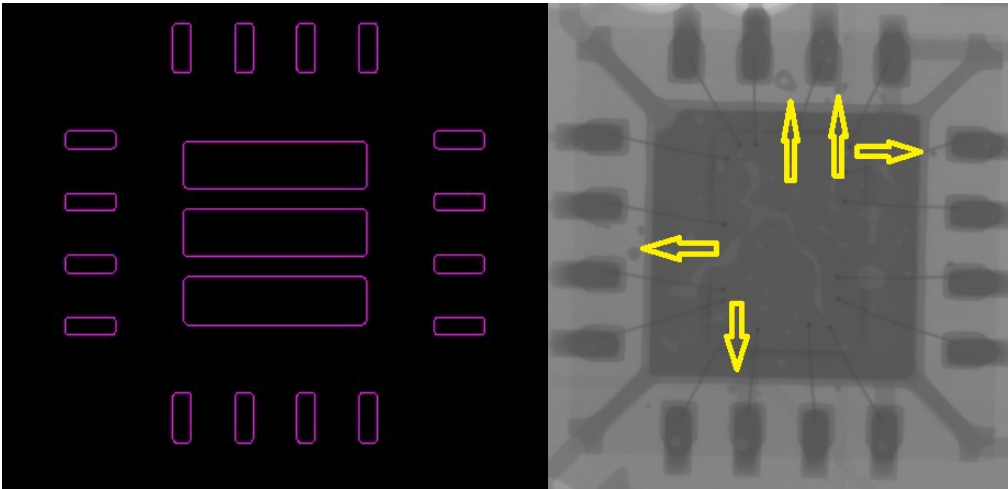
## AGI Design 1



Failed Design 1



Failed Design 2



Failed Design 3

