

Please consider the following points when preparing and sending samples to NovaCentrix for PulseForge® processing. We recognize circumstances may prevent adherence to one or more of these guidelines, so please contact us to discuss the potential resulting impact on the quality of the results.

### ***For Samples that Utilize NovaCentrix Metalon® Inks***

- NovaCentrix manufactures and sells Metalon® conductive inks for printed electronics applications. We have an in-house inks expert on staff to assist you in evaluation of the best ink for your application.
- If NovaCentrix is printing the samples using our in-house printers and inks please provide the print file in vector-based (non-rasterized) 1:1 file print size. Preferred image format is “.pdf”.

### ***For Samples that Require Inks Processing***

- If NovaCentrix is using Customer-provided inks or materials please include information such as MSDS sheets, information about viscosity, solvent type, and known mechanisms of processing such as thermal or UV which would normally be used for processing that material.
- We need to have a clear understanding of the performance targets.
- Ideally the performance targets are such that we can measure or otherwise detect when we have reached the right exposure settings for the materials. Examples are measuring conductivity or visually detecting a color change indicating a successful or unsuccessful exposure.
- Be sure to communicate if the samples require any special handling, have sensitivities to temperature, or may be damaged by exposure particular wavelengths.
- Please include a return shipping label or shipping account, and indicate desired delivery option: next day, 2<sup>nd</sup> day, etc.

### ***For Samples Fully Prepared by the Customer***

- Please provide 10-20 examples of each sample configuration to allow us enough material to test a number of PulseForge photonic curing exposure settings.
- Minimum sample size is generally 1 cm x 1 cm (exceptions can be discussed).
- Maximum sample size for our in-house tools is 15 cm x 30 cm (this may change depending on the specifics of the sample composition and the performance targets).
- We can use a large sample sheet and mask areas to expose only small areas per sheet. In this way we can use one larger sheet to obtain many data points.
- Substrate thicknesses and thin-film thicknesses should be known, so we can most effectively configure the exposure settings.
- When possible use the final intended substrate and not a temporary surrogate. If the intended substrate is PET, consider sending the samples on PET and not on glass for example as the cure conditions are very different.