

Universal ASF

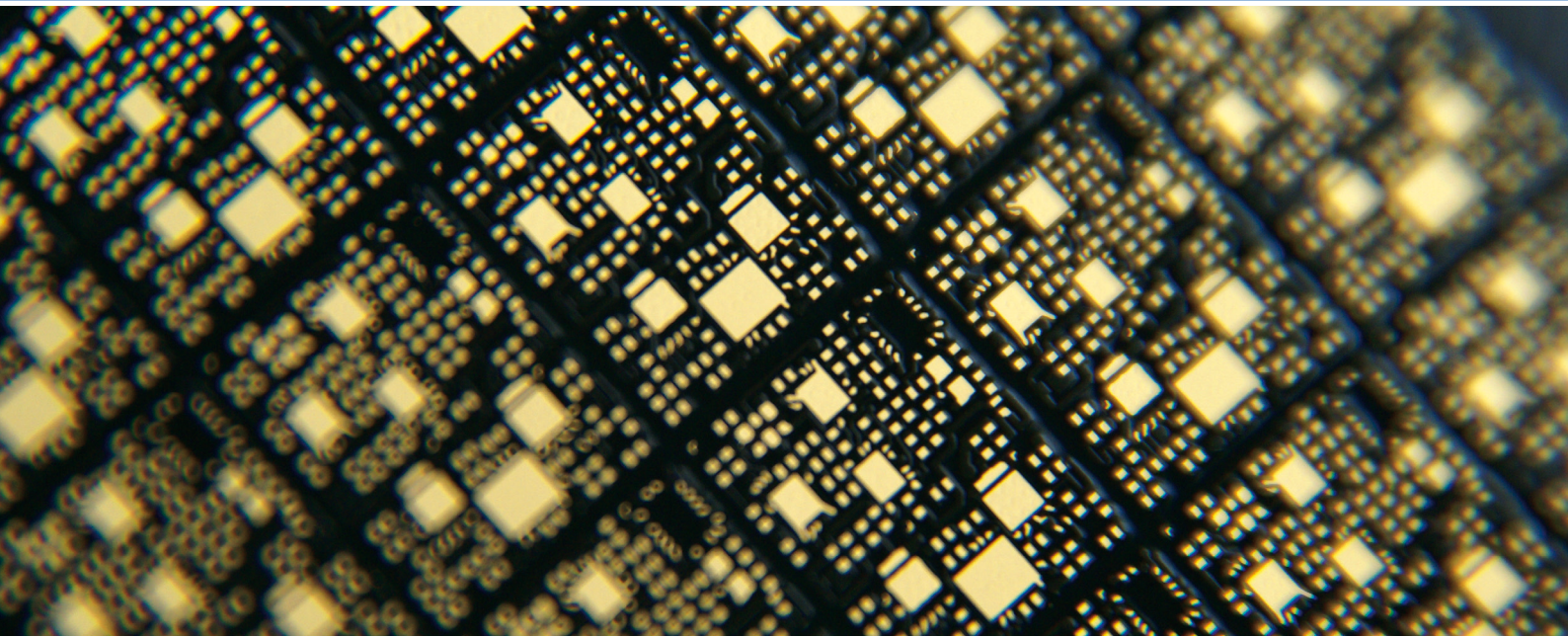
The ENPIG choice for OEMs



Electronics

Final finishing technology

atotech.com



First choice for OEMs

Application

Including palladium as a diffusion barrier is well known with regards to enhancing the performance of the traditional precious metal finishes. Furthermore, Universal ASF has been strenuously tested to ensure that it meets the criteria demanded from high end OEMs.

A key attribute of Universal ASF is the predictable and constant performance over lifetime. Not only is the plating speed is uniquely consistent over lifetime but the stability is also second to none.

A new nickel has been developed in combination with the palladium.

High quality and yield come together with economic streamlining in Universal ASF.

Process compatibility

- Vertical processing
- Palladium phosphor
- Al, Au, Ag and copper wire bondable
- Excellent solder joint integrity

Reliable package substrate production using Universal ASF

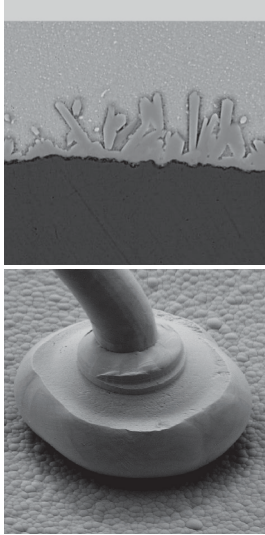


Figure 1-2:
Applications and benefits

Assembly benefits

Universal ASF is an ideal finish for soldering for high IO flip chip package devices. The 'needle like' IMC formed using Universal ASF is an excellent indication of a superior solder joint integrity.

Aluminum, gold, silver copper and palladium coated copper wire are all compatible with the Universal ASF finish. This satisfies the requirements of a CSP environment.

Deposit structure

The palladium diffusion barrier creates an amorphous dense deposit. As part of the system the specialized gold bath contributes only to function without detrimentally impacting the foundation deposits below.

Universal ASF is optimized to achieve maximize high speed shear test (HSS) values.

Features and benefits

- System designed with OEM evaluation
- Excellent HSS values achieved
- IMC structure similar to OSP
- Unrivalled stability performance for process control and lifetime
- Planar surface
- Long term storage and multiple Pb-free solderability even in air
- Soldering and bonding on the same surface
- Ideal for package substrate production

