

PICTURE BOOK

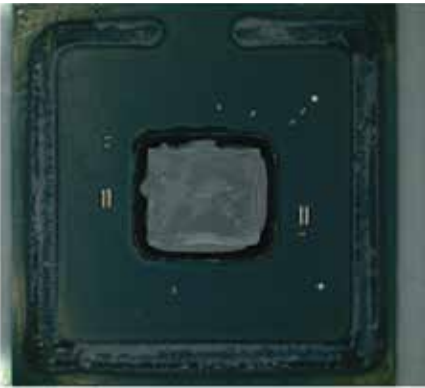
# Time Domain Reflectometry (TDR)

Timing measurements of reflected signals in packaged parts. Comparison to a known good part establishes deviation point of failing part. Used to identify location of failure to substrate, interconnect or die.

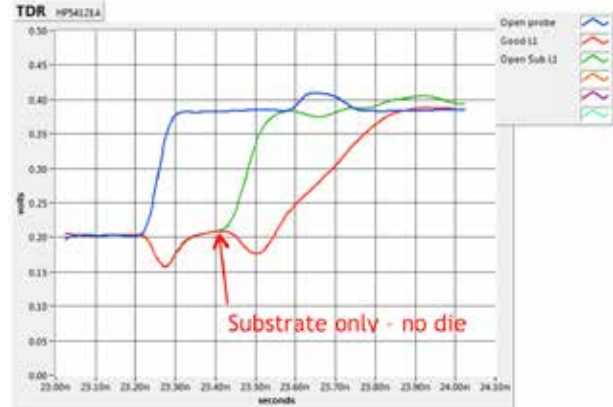
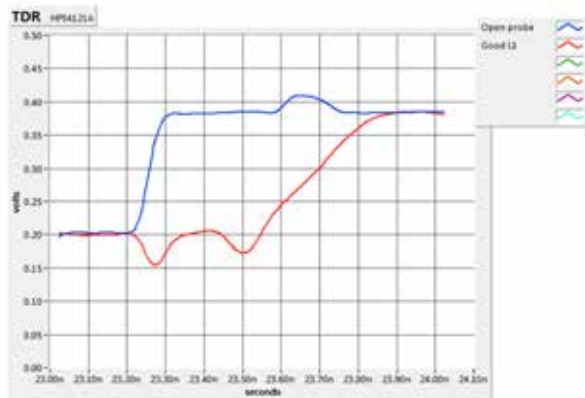
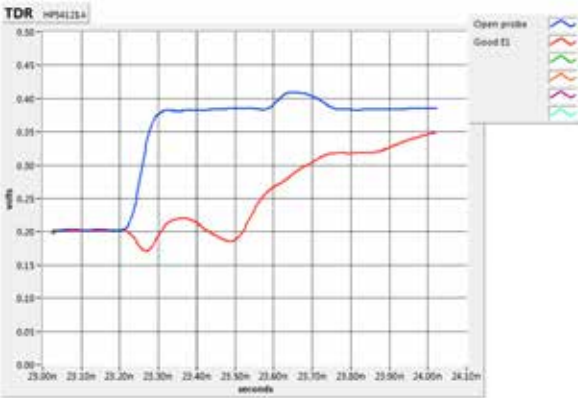
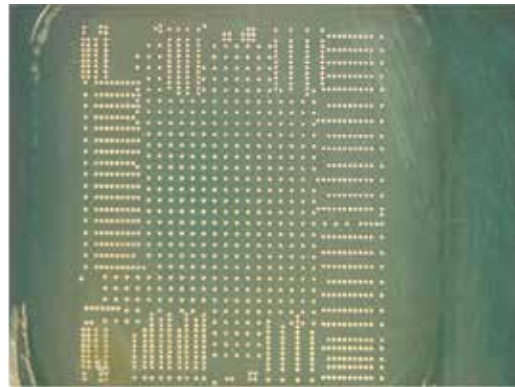
Each layer in the package may be inspected optically and probed electrically.

## TDR ON BGA, TWO PINS CHECKED

As received



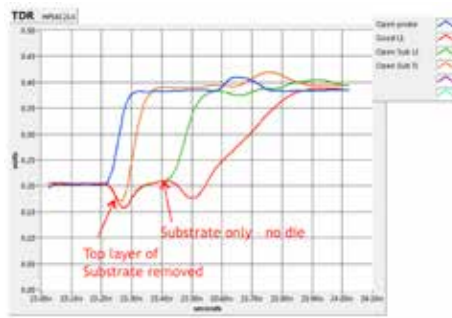
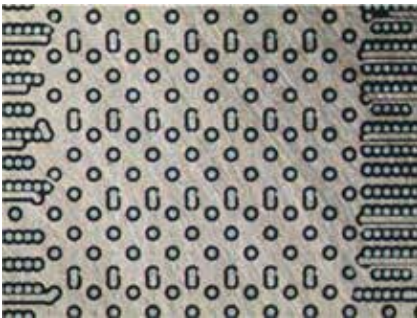
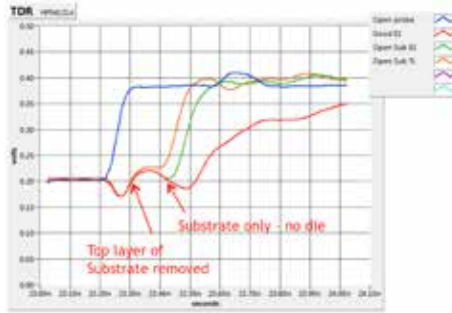
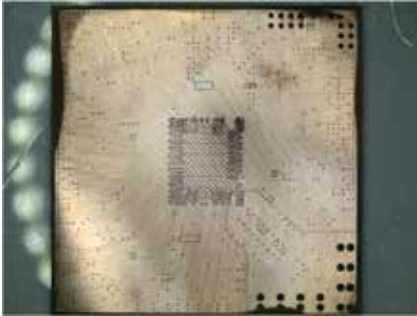
Die removed



# Time Domain Reflectometry (TDR)

## TDR ON BGA, TWO PINS CHECKED

Top layer of substrate removed



## TDR ON BGA, TWO PINS CHECKED

Last layer of substrate removed

