

**Target Applications:** Military | Space | Aerospace | Medical | Oil and Gas | Extreme Industrial



## Manufacturing

With 10 years of manufacturing experience, Twilight Technology has established automated manufacturing flows and processes to address the wide range of customer needs in the Military, Aerospace, industrial, and commercial market segments.

Twilight manufactures with known good or probed die from industry suppliers, or re-manufactures die at one of our qualified foundries for custom-designed ASIC solutions.

Twilight Technology has established a long history of providing high reliability products using the most current and cost effective technologies. Our manufacturing systems and processes are designed to provide the highest possible yields. Any subcontracted assembly is performed by a reputable facility with the required quality certifications that are pre-approved to Twilight Technology's high standards.

## Testing, Up-Screening, and Failure Analysis

The combination of our skilled engineering team and our state of the art testing equipment, allows Twilight Technology to offer customers automated and semi-automated testing procedures, test data, data analysis, up-screening, QCI qualifications, and failure analysis. Twilight Technology has a full range of test capabilities, including the ability to test even the most complex devices over the temperature ranges from commercial (0° to 70°C) to industrial (-40° to 85°C) to Military (-55° to 125°C) or even to extended ranges like those used in oil and gas down-hole drilling applications (-70° to 175°C).

We can test to the original manufacturer's data sheet specification, custom Source Control Drawing (SCD), Standard Military Drawing (SMD) or to any other specification as required by the customer. Twilight Technology can add or remove any testing option to fit customer's cost and quality requirements because it controls and maintains its own test engineering department that develops and modifies the programs and hardware.

## Nitrogen Die Banking

As the problem of component obsolescence increases, die banking has become a low cost, effective solution to guarantee component supply for long product life programs. The die banking service supplies and stores die in controlled conditions until the wafers (raw die) are cut into individual die for final packaging and test. With the component cost at its most basic level, package flexibility becomes a viable option, also allowing for current product date codes (when stored correctly, silicon will not have any wear-out mechanism).

With no design intervention or re-qualification from your engineering department, our customers are assured the same manufactured product without fear of poor solderability, moisture migration, and package degradation.

## Obsolescence Management

Twilight Technology utilizes several software programs to help identify and provide solutions for obsolete components.

Twilight Technology does not broker industry available replacement devices, and will gladly provide any information discovered on any second source found in order to extend further value to the customer.

Since obsolescence can often present multiple challenges which can be time consuming and expensive to manage, Twilight Technology offers a second pair of eyes to scrub your bill of materials, and offer solutions where no standard option exists.

