



CASE STUDIES

- MILITARY -

The Customer: [Orbital ATK Armament Systems](#) specializes in innovating low-cost, highly reliable and precise weapons and ammunition for artillery and mortar systems, medium caliber weapons platforms, battle tanks and the individual soldier. It is the world's top producer of medium-caliber live and training ammunition and gun systems. Orbital's precision guidance kit approach provides a common technology base that transforms conventional artillery and mortar munitions into precise, Global Positioning System (GPS) guided weapons.

The Challenge: An assembly was required to integrate a standard Panasonic miniature sensor into an Orbital 7.62mm machine gun. The small-caliber machine gun track provided very limited space to run an assembly.

The Details: As an authorized distributor for [Binder USA](#), [CDM Electronics](#) helped identify a standard Binder M5 socket connector engineered specifically for the miniature sensor market. While the connector fit into the allotted space, the overmold strain relief was too large. Moreover, both the sensor and connector were supplied standard with two leads that could not be crimped or soldered together in this application. It was determined Binder USA would incorporate both components into their process.

CDM Electronics worked with Binder USA to include the sensor's leads into the Binder USA termination and overmolding process. As a short assembly length was also critical, Binder USA also made significant modifications in their production tooling to provide assemblies that met the length restrictions.

Binder USA shipped the overmolded and terminated assemblies to CDM Electronics, where they underwent an additional process in which the overmold was further trimmed to accommodate the precise dimensions of the machine gun track.

The Result: Orbital received the assemblies according to schedule, and on budget. The project's success is attributed to the Orbital, Binder USA, and CDM engineering and manufacturing teams' joint commitment to supply the optimal solution.