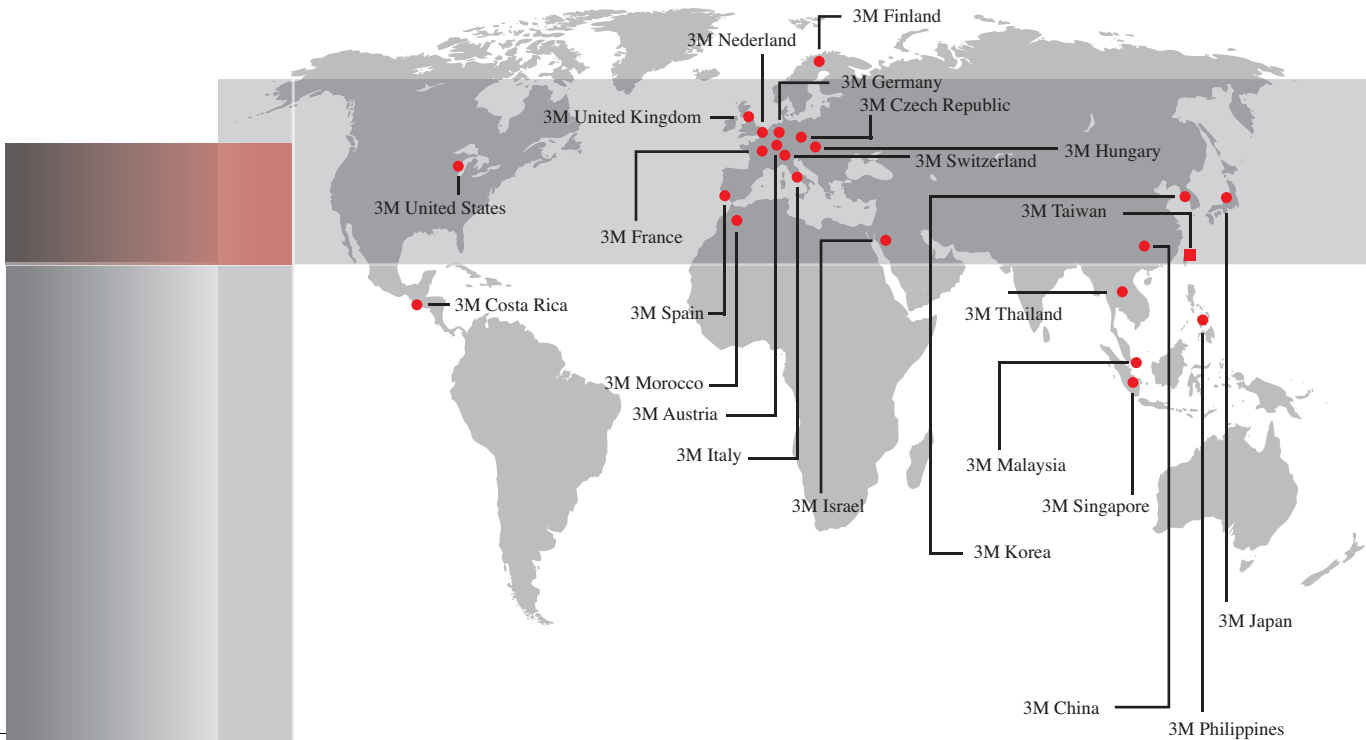


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UPC Perfect fit & Precise care



3M™ UPC-Ultra Precision Carrier

UPC-Ultra Precision Carrier 3000UP & 3000UB

3M™ Polycarbonate Ultra Precision Carrier Tape 3000UP and 3000UB (for clean room applications) are designed to meet current challenges associated with packaging small, ultra thin component devices in tape and reel as follows:

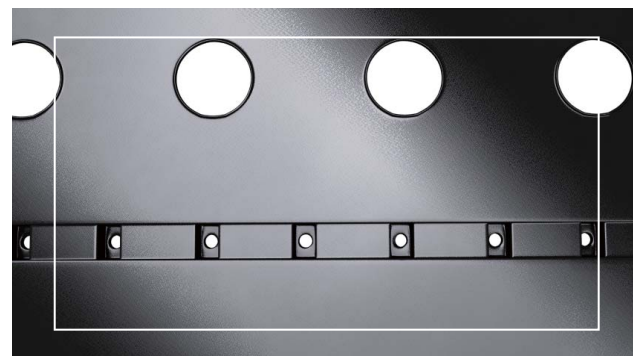
▪ Ultra Precision Pocket

- Tighter (Ao, Bo, Ko) dimensional tolerances of ± 0.03 mm
- Small, thinner and complex pocket forming capability
- Small pocket hole diameter of 0.20 mm
- Draft angle of $< 2^\circ$
- 2mm and 4mm pitch

▪ Ultra Small Pocket Forming Capability

- 3M unique tooling and precision processing technology has the capability to form size down to 0603 (0201)
- High temperature resistance and tensile strength
- Low shrinkage for dimensional accuracy for consistent component in pocket fit

3000UP Carrier for 0603 (0201) Package



3M™ UPC



▪ Low Level of Cation and Anion

- The organic and inorganic contaminants in the packaging can create component failure. 3M Ultra Precision Carrier contains a minimum of identified corrosive, water-extractable ionic contaminants, less than 0.01 ug/cm^2 (Cl^- , NO_3^- , SO_4^{2-} , K^+ , and Ca^{++}).

▪ Low Particle Count

- Ultra Precision Carrier 3000UB is cleaned and therefore has 60-70% less particles than standard carrier tapes. As the solder bump diameter and pitch continue to decrease in size, particulates will continue to be a concern to the industry.

Benefits to Customer and End User

▪ Ultra Small Pocket Hole

- Nominal Ultra Precision Carrier pocket hole forming capability, down to 0.20mm, will effectively restrict movement and tilting to allow component placement into pocket cavities accurately during component insertion applications (taping).

▪ Total System

- Ultra Precision Carrier 3000UP & 3000UB in combination with 3M™ Universal Cover Tape (UCT) 2688 provides an ultimate ESD protection.
- 3M Polycarbonate Ultra Precision Carrier exhibits a nominal surface resistivity (in the pocket cavity) of $\geq 10^4$ ohm/square and $\leq 10^8$ ohm/square.
- Flat pocket bottoms.
- Smoother, more uniform peel force (maximum range 12 grams) minimizes die bounce or migration.

▪ Clean Room Compatible Packaging

- 3M™ Ultra Precision Carrier 3000UB is cleaned and packaged in a class 10,000 clean room environment. Each 13" plastic reel is sealed individually into a 3M™ 1900 Static Shielding Bag for protection. They are then placed in a polyethylene bags. All 3M™ Pressure Sensitive Adhesive Cover Tapes are double bagged on plastic core for clean room compatibility.

▪ EIA Compatible

- 3M™ Ultra Precision Carrier is EIA compatible and therefore works on all standard processing equipment and does not require any additions or modifications.