

# Packaging for Despatch

The table on the previous page illustrates the physical appearances of CML's integrated circuit packages (for clarity, suffixes used in older documentation are shown within the relevant cell).

For handling/loading ease and convenience, CML products are packed for despatch in industry-standard bulk or individual packaging as described below:

- Trays and cardboard boxes with conductive foam
- Pocketed conductive trays for surface-mount microcircuits
- Antistatic coated tubes, of various sizes, with thumbplugs or pins
- 13-inch reel Tape-and-Reel packaging which fully conforms to the latest International Electrotechnical Commission (IEC) specification. The conductive embossed tape provides a secure cavity sealed with a peel-back cover tape.



Relevant configurations are shown in the table below; no partial reel counts are available.

CML can provide RoHS compliant, lead-free (Pb-free) products. CML's Environmental Policy can be found in the 'Quality' section of the CML website ([www.cmlmicro.com](http://www.cmlmicro.com))

**Note:** For the purposes of this document, the physical IC connection descriptions of 'lead', 'leadless' and 'pin' etc. are represented by the single term of 'pin'. The relevant descriptions are given by the images on the previous page.

| Suffix  | Description         | Tube | Tape                     | Tray               |
|---------|---------------------|------|--------------------------|--------------------|
| D1      | 28-pin SOIC         | 27   | 1000/1500                |                    |
| D2      | 24-pin SOIC         | 31   | 1000/1500                |                    |
| D3      | 20-pin SOIC         | 38   | 1000/1500                |                    |
| D4      | 16-pin SOIC         | 47   | 1000/1500                |                    |
| D5      | 24-pin SSOP         | 59   | 1000/1500                |                    |
| D6      | 28-pin SSOP         | 47   | 1000/1500                |                    |
| E1      | 28-pin TSSOP        | 50   | 1000/2000/3000           |                    |
| E2      | 24-pin TSSOP        | 62   | 1000/2000/3000           |                    |
| E3      | 20-pin TSSOP        | 74   | 1000/2000/3000           |                    |
| E4      | 16-pin TSSOP        | 95   | 1000/2000/3000           |                    |
| J1      | 14-pin cerdip DIL   | 25   |                          |                    |
| J2      | 16-pin cerdip DIL   | 25   |                          |                    |
| J3      | 22-pin cerdip DIL   | 18   |                          |                    |
| J4      | 24-pin cerdip DIL   |      |                          | 20                 |
| J5      | 28-pin cerdip DIL   |      |                          | 20                 |
| L1 (LG) | 24-pin PLCC (Gull)  |      | 500                      | 50                 |
| L2 (LS) | 24-pin PLCC (Hook)  | 45   | 500                      |                    |
| L3 (LH) | 28-pin PLCC (Hook)  | 39   | 500                      | 50                 |
| L4      | 48-pin LQFP (Gull)  |      | 1000/2000                | 250                |
| L6      | 44-pin PLCC (Hook)  | 27   | 500                      |                    |
| L7      | 44-pin LQFP (Gull)  |      | 1000                     | 160                |
| L8      | 100-pin LQFP (Gull) |      | 1000                     | 90                 |
| L9      | 64-pin LQFP (Gull)  |      | 1000                     | 160                |
| L10     | 144-pin LQFP (Gull) |      | <i>contact CML</i>       |                    |
| L11     | 32-pin TQFP (Gull)  |      | <i>contact CML</i>       |                    |
| M1      | 28-pin CLCC (Hook)  |      | 500                      | 50                 |
| P1      | 8-pin PDIP          | 50   |                          |                    |
| P2      | 14-pin PDIP         | 25   |                          |                    |
| P3      | 16-pin PDIP         | 25   |                          |                    |
| P4      | 24-pin PDIP         | 15   |                          |                    |
| P5      |                     |      |                          |                    |
| P6      |                     |      |                          |                    |
| Q1      | 64-pin VQFN         |      | 1000/2000/3000/3500      | 260                |
| Q2      | 56-pin VQFN         |      | 1000/2000/3000/3500      | 260                |
| Q3      | 48-pin VQFN         |      | 1000/2000/3000/3500      | 260                |
| Q4      | 40-pin VQFN         |      | 1000/2000/3000/3500      | <i>contact CML</i> |
| Q5      | 32-pin VQFN         |      | 1000/2000/3000/4000/5000 | <i>contact CML</i> |

Where your packaging requirement is not detailed above, please contact CML Microcircuits or your local distributor or representative. Tape and Reel products are ordered by adding the suffix "T/R" to the part number.