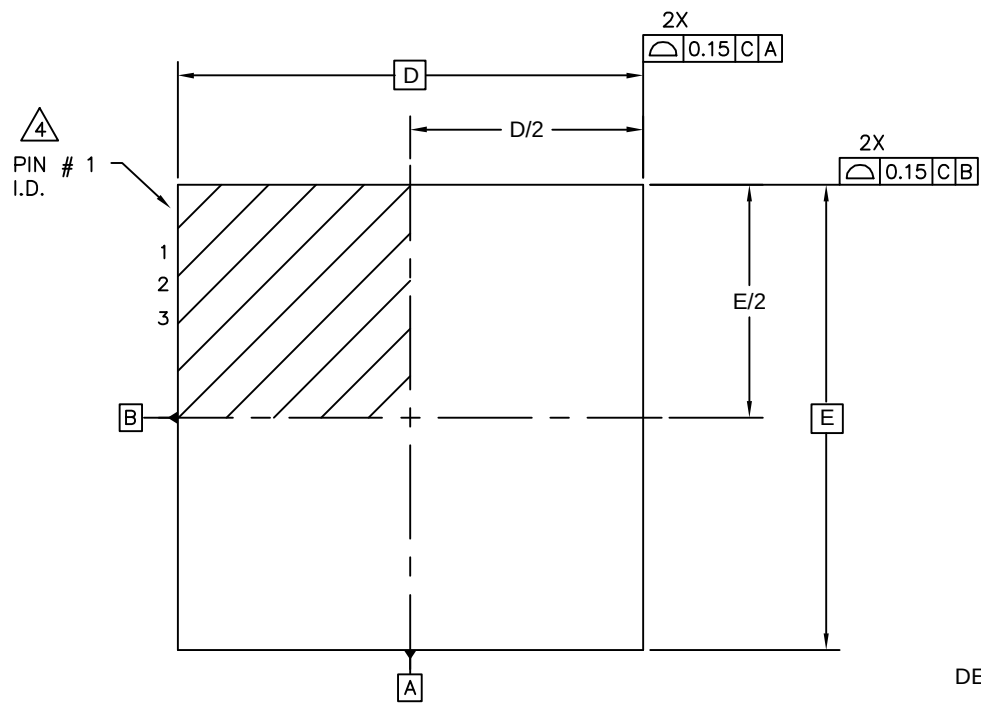
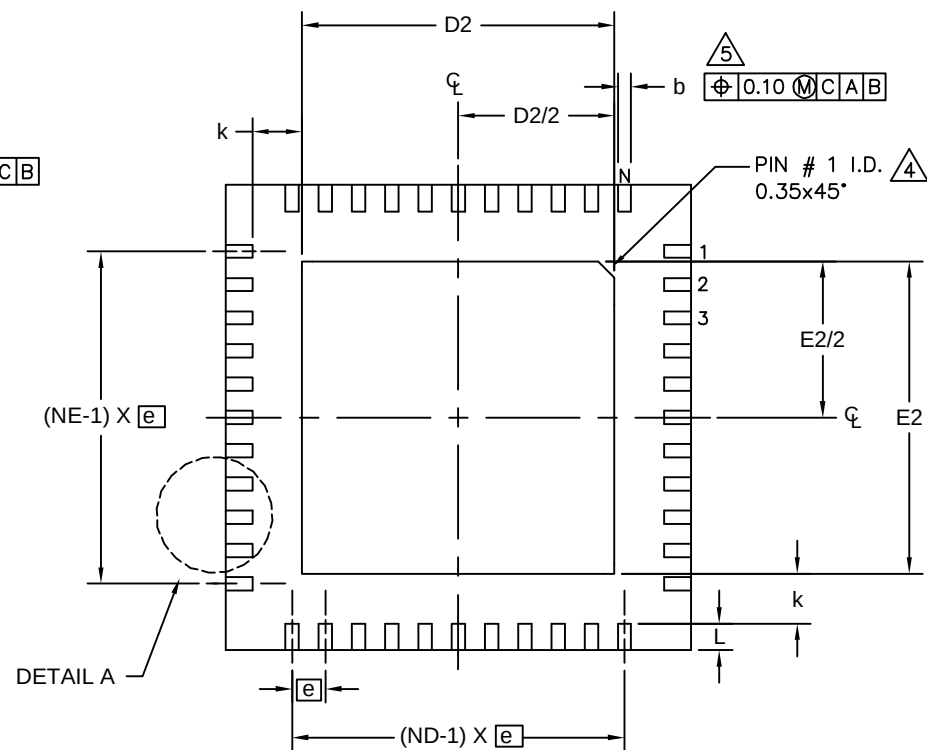
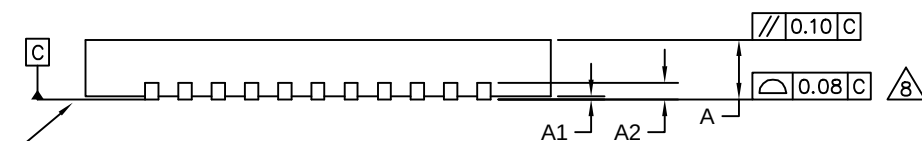
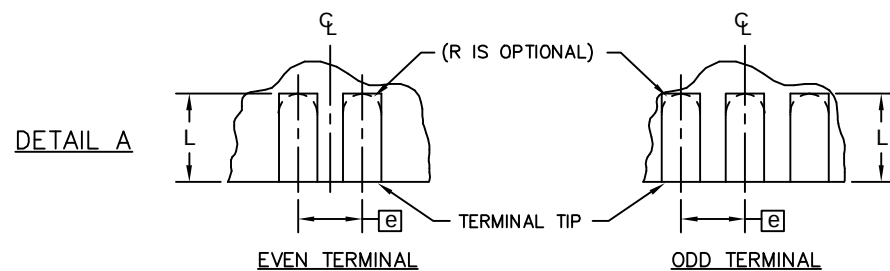




TOP VIEW



BOTTOM VIEW



SIDE VIEW

|                                                            |                      |      |     |
|------------------------------------------------------------|----------------------|------|-----|
|                                                            |                      |      |     |
| PROPRIETARY INFORMATION                                    |                      |      |     |
| TITLE: PACKAGE OUTLINE<br>32, 44, 48L QFN THIN, 7x7x0.8 mm |                      |      |     |
| APPROVAL                                                   | DOCUMENT CONTROL NO. | REV. | 1/2 |
|                                                            | 21-0144              | B    |     |

## COMMON DIMENSIONS

| PKG    | 32L 7x7   |      |      | 44L 7x7   |      |      | 48L 7x7   |      |      | CUSTOM PKG.<br>(T4877-1)<br>48L 7x7 |      |      |
|--------|-----------|------|------|-----------|------|------|-----------|------|------|-------------------------------------|------|------|
| SYMBOL | MIN.      | NOM. | MAX. | MIN.      | NOM. | MAX. | MIN.      | NOM. | MAX. | MIN.                                | NOM. | MAX. |
| A      | 0.70      | 0.75 | 0.80 | 0.70      | 0.75 | 0.80 | 0.70      | 0.75 | 0.80 | 0.70                                | 0.75 | 0.80 |
| A1     | 0         | 0.02 | 0.05 | 0         | 0.02 | 0.05 | 0         | 0.02 | 0.05 | 0                                   | 0.02 | 0.05 |
| A2     | 0.20 REF. |      |      | 0.20 REF. |      |      | 0.20 REF. |      |      | 0.20 REF.                           |      |      |
| b      | 0.25      | 0.30 | 0.35 | 0.20      | 0.25 | 0.30 | 0.20      | 0.25 | 0.30 | 0.20                                | 0.25 | 0.30 |
| D      | 6.90      | 7.00 | 7.10 | 6.90      | 7.00 | 7.10 | 6.90      | 7.00 | 7.10 | 6.90                                | 7.00 | 7.10 |
| E      | 6.90      | 7.00 | 7.10 | 6.90      | 7.00 | 7.10 | 6.90      | 7.00 | 7.10 | 6.90                                | 7.00 | 7.10 |
| e      | 0.65 BSC. |      |      | 0.50 BSC. |      |      | 0.50 BSC. |      |      | 0.50 BSC.                           |      |      |
| k      | 0.25      | -    | -    | 0.25      | -    | -    | 0.25      | -    | -    | 0.25                                | -    | -    |
| L      | 0.45      | 0.55 | 0.65 | 0.45      | 0.55 | 0.65 | 0.30      | 0.40 | 0.50 | 0.45                                | 0.55 | 0.65 |
| N      | 32        |      |      | 44        |      |      | 48        |      |      | 44                                  |      |      |
| ND     | 8         |      |      | 11        |      |      | 12        |      |      | 10                                  |      |      |
| NE     | 8         |      |      | 11        |      |      | 12        |      |      | 12                                  |      |      |

## EXPOSED PAD VARIATIONS

| PKG. CODES | DEPOPULATED LEADS | D2   |      |      | E2   |      |      | JEDEC MO220 REV. C |
|------------|-------------------|------|------|------|------|------|------|--------------------|
|            |                   | MIN. | NOM. | MAX. | MIN. | NOM. | MAX. |                    |
| T3277-1    | -                 | 4.55 | 4.70 | 4.85 | 4.55 | 4.70 | 4.85 | -                  |
| T4477-1    | -                 | 4.55 | 4.70 | 4.85 | 4.55 | 4.70 | 4.85 | WKKD-1             |
| T4877-1**  | 13, 24, 37, 48    | 4.20 | 4.30 | 4.40 | 4.20 | 4.30 | 4.40 | -                  |
| T4877-2    | -                 | 5.45 | 5.60 | 5.63 | 5.45 | 5.60 | 5.63 | WKKD-2             |

\*\* NOTE: T4877-1 IS A CUSTOM 48L PKG. WITH 4 LEADS DEPOPULATED.  
TOTAL NUMBER OF LEADS ARE 44.

### NOTES:

- DIMENSIONING & TOLERANCING CONFORM TO ASME Y14.5M-1994.
- ALL DIMENSIONS ARE IN MILLIMETERS. ANGLES ARE IN DEGREES.
- N IS THE TOTAL NUMBER OF TERMINALS.
- THE TERMINAL #1 IDENTIFIER AND TERMINAL NUMBERING CONVENTION SHALL CONFORM TO JESD 95-1 SPP-012. DETAILS OF TERMINAL #1 IDENTIFIER ARE OPTIONAL, BUT MUST BE LOCATED WITHIN THE ZONE INDICATED. THE TERMINAL #1 IDENTIFIER MAY BE EITHER A MOLD OR MARKED FEATURE.
- DIMENSION b APPLIES TO METALLIZED TERMINAL AND IS MEASURED BETWEEN 0.25 mm AND 0.30 mm FROM TERMINAL TIP.
- ND AND NE REFER TO THE NUMBER OF TERMINALS ON EACH D AND E SIDE RESPECTIVELY.
- DEPOPULATION IS POSSIBLE IN A SYMMETRICAL FASHION.
- COPLANARITY APPLIES TO THE EXPOSED HEAT SINK SLUG AS WELL AS THE TERMINALS.
- DRAWING CONFORMS TO JEDEC MO220.
- WARPAGE SHALL NOT EXCEED 0.10 mm.

|                                                                                       |                      |      |     |
|---------------------------------------------------------------------------------------|----------------------|------|-----|
|  |                      |      |     |
| PROPRIETARY INFORMATION                                                               |                      |      |     |
| TITLE: PACKAGE OUTLINE<br>32, 44, 48L QFN THIN, 7x7x0.8 mm                            |                      |      |     |
| APPROVAL                                                                              | DOCUMENT CONTROL NO. | REV. | 2/2 |
|                                                                                       | 21-0144              | B    |     |