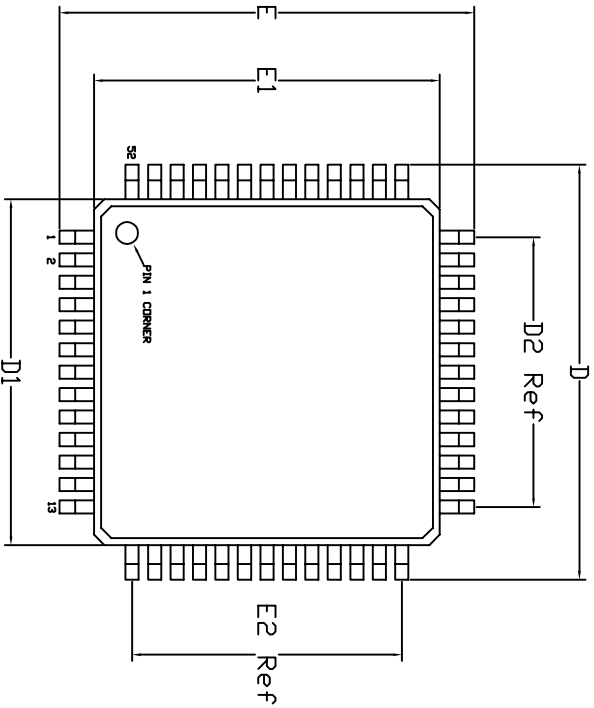
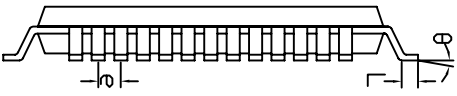
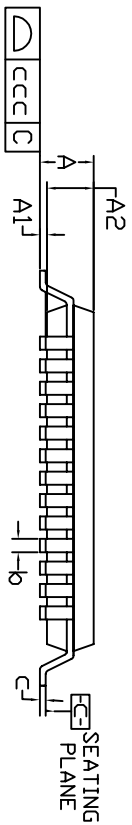


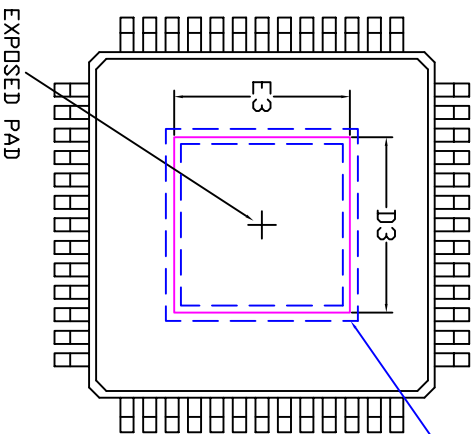
TOP VIEW



SIDE VIEW



BOTTOM VIEW



Design feature within the blue lines may vary.

| JEDDEC VARIATION SYMBOL | MIN  | NOM        | MAX  |
|-------------------------|------|------------|------|
| N                       | -    | 52         | 1.7  |
| A                       | 0.05 | 0.10       | 0.20 |
| A1                      | 1.30 | 1.40       | 1.50 |
| A2                      | 0.22 | 0.28       | 0.40 |
| b                       | .09  | 0.10       | 0.20 |
| c                       |      |            |      |
| D                       |      | 12 BASIC   |      |
| D1                      |      | 10 BASIC   |      |
| D2                      | 4.58 | 7.80 Ref   | 4.78 |
| D3                      |      | 4.68       | 4.78 |
| E                       |      | 12 BASIC   |      |
| E1                      |      | 10 BASIC   |      |
| E2                      |      | 7.80 Ref   |      |
| E3                      | 4.58 | 4.68       | 4.78 |
| e                       |      | 0.65 BASIC |      |
| L                       | 0.45 | 0.55       | 0.75 |
| q                       | 0'   | 3'         | 7'   |
| ccc                     | -    | -          | 0.10 |

REVISIONS

| REV | DESCRIPTION                      | DATE    | APPROVED |
|-----|----------------------------------|---------|----------|
| 00  | INITIAL RELEASE                  | 1/22/13 | RC       |
| 01  | ADD EPAD D3, E3 & Land Pattern   | 3/26/13 | RC       |
| 02  | ADD EPAD SHAPE OPTION IN SHEET 3 | 6/11/15 | KLB      |

**TOLERANCES**  
 UNLESS SPECIFIED  
 DECIMAL  $\pm .1$   
 ANGULAR  $\pm 1^\circ$   
 XX± .05  
 XXX± .030  
 APPROVALS \_\_\_\_\_ DATE 1/22/13  
 DRAWN *RAIG*  
 CHECKED \_\_\_\_\_

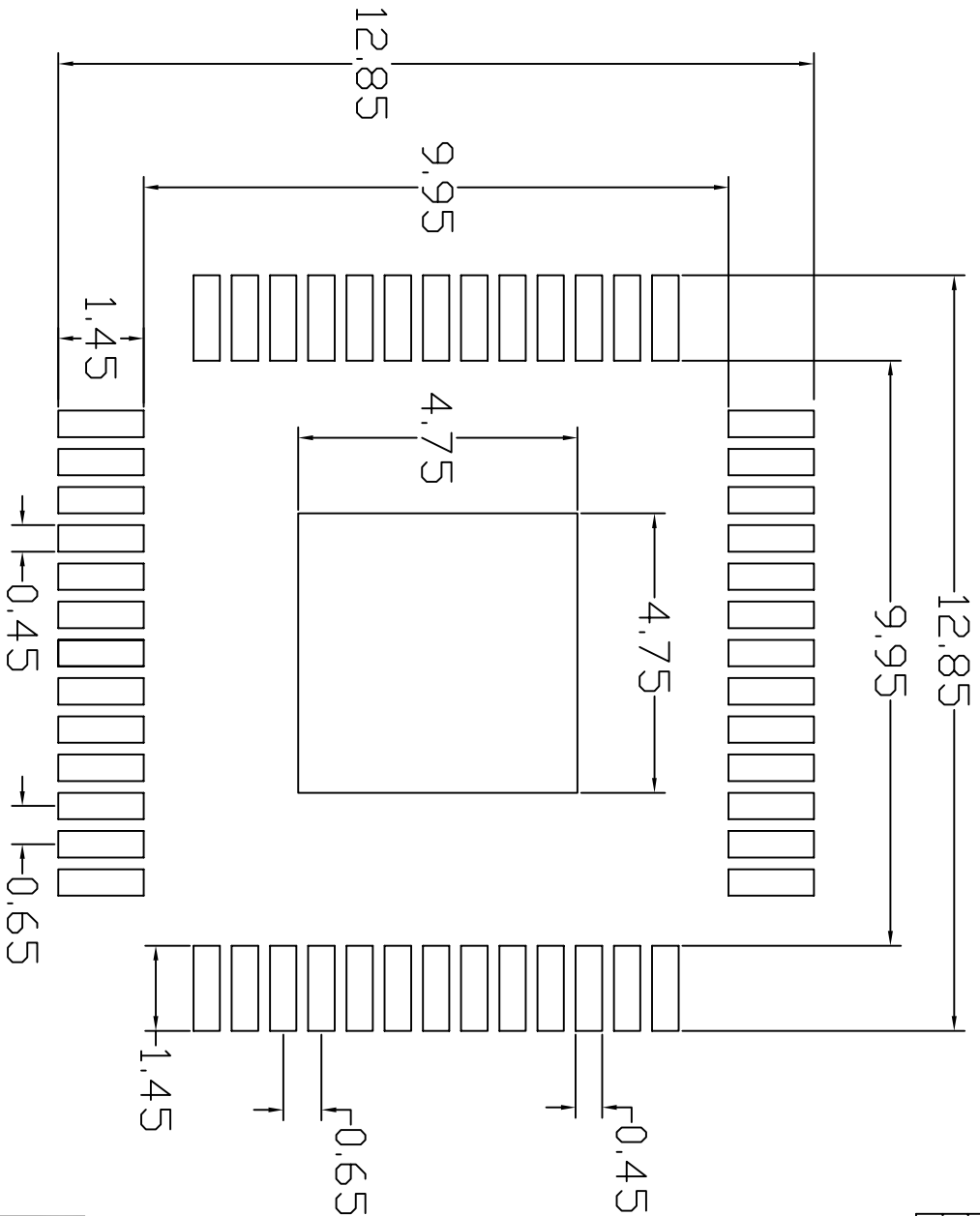
**IDT™**  
 www.IDT.com  
 6024 SILVER CREEK  
 VALLEY ROAD, SAN JOSE,  
 CA 95138  
 PHONE: (408) 284-8200  
 FAX: (408) 284-3572

TITLE EP/EP652 PACKAGE OUTLINE  
 10.0 mm SQ BODY  
 1.4 mm Thick 0.65mm PITCH TQFP

SIZE C  
 DRAWING No. PSC-4173  
 DO NOT SCALE DRAWING

SHEET 1 OF 3

| REVISIONS |                                  |         |          |
|-----------|----------------------------------|---------|----------|
| REV       | DESCRIPTION                      | DATE    | APPROVED |
| 00        | INITIAL RELEASE                  | 3/26/13 | RC       |
| 01        | Add D3, E3 & Land Pattern        | 3/26/13 | RC       |
| 02        | ADD EPAD SHAPE OPTION IN SHEET 3 | 6/11/15 | KLB      |



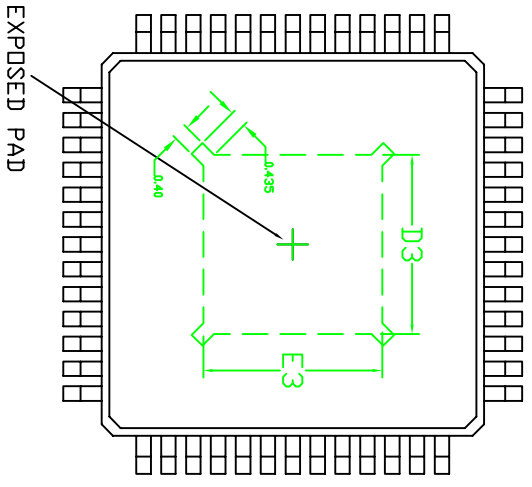
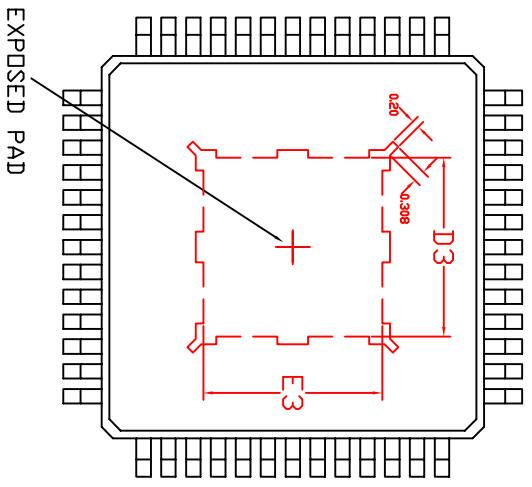
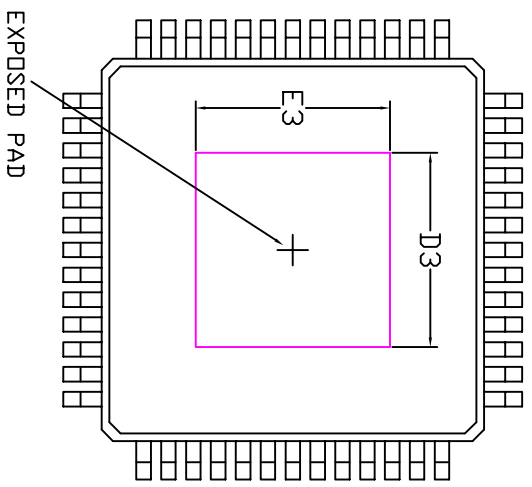
RECOMMENDED LAND PATTERN


|   |         |   |              |
|---|---------|---|--------------|
| <b>TOLERANCES</b><br>UNLESS SPECIFIED<br>DECIMAL    ANGULAR<br>XX.X .1°<br>XXX .05°<br>XXXX .030° |         | <b>IDT™</b><br>www.IDT.com<br>6024 SILVER CREEK<br>VALLEY ROAD, SAN JOSE,<br>CA 95138<br>PHONE: (408) 284-8200<br>FAX: (408) 284-3572 |              |
| APPROVALS   | DATE    | TITLE   | SIZE         |
| DRAWN <i>RAIG</i>   | 3/26/13 | EP/EPG52 PACKAGE OUTLINE  | C            |
| CHECKED   |         | 10.0 mm SQ BODY<br>1.4 mm Thick 0.65mm PITCH TQFP   | REV          |
|   |         | DRAWING No. PSC-4173  | 02           |
| DO NOT SCALE DRAWING  |         |   | SHEET 2 OF 3 |

| REVISIONS |                                  |         |          |
|-----------|----------------------------------|---------|----------|
| REV       | DESCRIPTION                      | DATE    | APPROVED |
| 00        | INITIAL RELEASE                  | 3/26/13 | RC       |
| 01        | Add D3, E3 & Lond Pattern        | 3/26/13 | RC       |
| 02        | ADD EPAD SHAPE OPTION IN SHEET 3 | 6/11/15 | KLB      |

## BOTTOM VIEW

### ACCEPTABLE E-PAD SHAPES



|   |             |   |        |
|---|-------------|---|--------|
|  |             | 6024 SILVER CREEK<br>VALLEY ROAD, SAN JOSE,<br>CA 95138<br>PHONE: (408) 284-8200<br>FAX: (408) 284-5572 |        |
| www.IDT.com   |             | TITLE EP/EPG52 PACKAGE OUTLINE<br>10.0 mm SQ BODY<br>1.4 mm Thick 0.65mm PITCH TOPP                     |        |
| SIZE  | DRAWING No. | REV   | REV    |
| C   | PSC-4173    |   | 02     |
| DO NOT SCALE DRAWING  |             | SHEET   | 3 OF 3 |