

**6 Leads - UTDFN
Package Material Declaration**

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|------------------------|-------------------------------------|----------------|--------------------|
| Date | 22-Oct-19 | Product name | Integrated Circuit |
| Package Code | LD | RoHS Compliant | Y |
| Package Name | Ultra Thin Leadframe Package Double | Halogen Free | Y |
| Product Total Mass (g) | 0.00377 | Plating | NiPdAu |

| | |
|-----------------------|----------|
| Product Number | MLX92213 |
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Material Declaration

| Part Name | Material Name | Component Weight (g) | Material Component (Element) | CAS # | Element ratio (%) | Material Weight (g) | Ratio total Wt (ppm) |
|---------------------|--|----------------------|---|-------------|-------------------|---------------------|----------------------|
| Leadframe | NiPdAu pre-plated Copper Alloy C7025 | 0.00165 | Cu (remaining) | 7440-50-8 | 94.655 | 0.00156 | 414130 |
| | | | Si (0.25~1.2%) | 7440-21-3 | 0.52 | 0.00001 | 2275 |
| | | | Ni (2.2~4.2%) | 7440-02-0 | 3.43 | 0.00006 | 15007 |
| | | | Mg (0.05~0.3%) | 7439-95-4 | 0.13 | 0.000002 | 569 |
| | | | Ni plating (0.8~1.5%) | 7440-02-0 | 1.15 | 0.00002 | 5031 |
| | | | Pd (0.05~0.15%) | 7440-05-3 | 0.1 | 0.000002 | 438 |
| | | | Au (0.01~0.02%) | 7440-57-5 | 0.015 | 0.000002 | 66 |
| Die | Silicon | 0.00025 | Silicon (Si) | 7440-21-3 | 99.99 | 0.00024 | 64908 |
| | | | others | - | 0.01 | 0.00000002 | 6 |
| Die attach material | Conductive epoxy QMI519 | 0.00010 | Silver (Ag) | 7440-22-4 | 80 | 0.00008 | 21685 |
| | | | Acrylic resin (Compound of a polymeric network) | none | 19.98 | 0.00002 | 5416 |
| | | | others | - | 0.02 | 0.00000002 | 5 |
| Wire | Gold | 0.00002 | Gold (Au) | 7440-57-5 | 99.99 | 0.00002 | 5829 |
| | | | others | - | 0.01 | 0.000000002 | 1 |
| Encapsulation | Epoxy Resin EMEG770HCD | 0.00175 | Silica fused (85~95%) | 60676-86-0 | 93.7 | 0.00164 | 435363 |
| | | | Epoxy Resin (1~5%) | Proprietary | 3 | 0.00005 | 13939 |
| | | | Phenol Resin (1~5%) | Proprietary | 3 | 0.00005 | 13939 |
| | | | Carbon black (0.1~0.5%) | 1333-86-4 | 0.3 | 0.00001 | 1394 |

Total package weight (g) 0.00377

Comments

- Composition derived from MSDS and material CoC from vendors
- Component weight based on assembly of generic parts
- Reliability qualification reports are available upon request through the appropriate sales or marketing contact
- Third party testing for RoHS substances are available upon request to environment@melexis.com

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