



## **PQFN 5X6**

# **RoHS Compliance Document**

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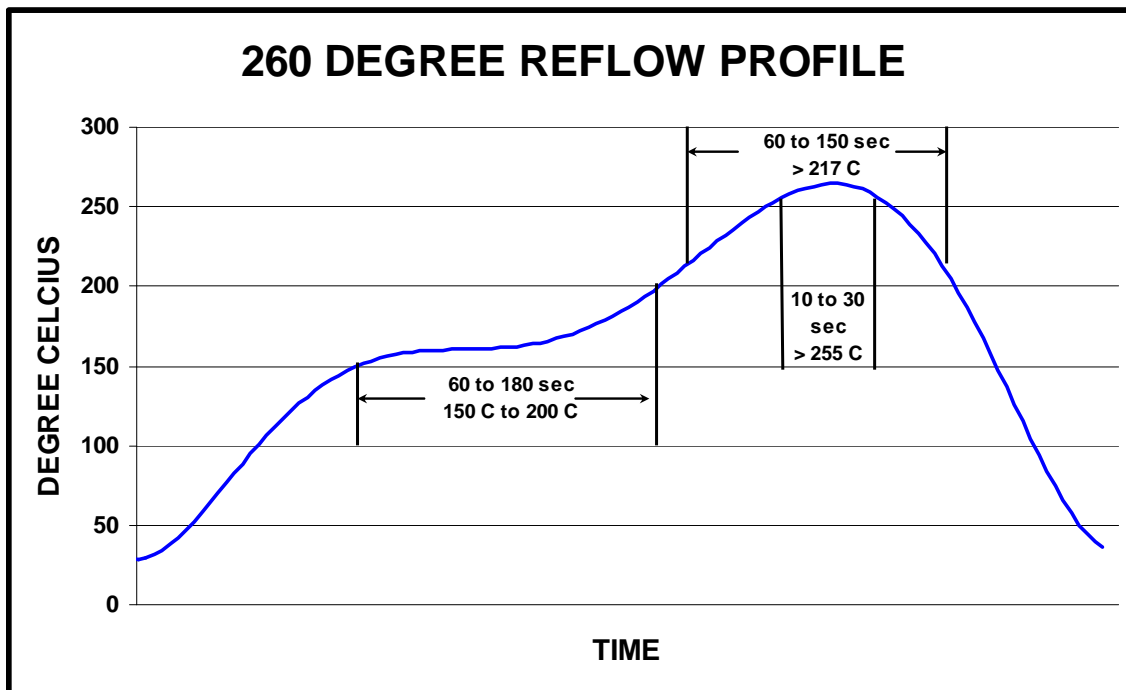
1. Composition
2. Solder Reflow
3. Tin Whisker Report



**PQFN 5X6**

Component	Material Name	Material Mass (g)	Element Name Composition	CAS #	Substance Mass (g)	Material Analysis Weight (%)	% of Total Weight
Chip	Silicon	0.00131	Si	7440-21-3	0.00131	100%	1.6%
Encapsulant	Epoxy Resin	0.03822	SiO2	7631-86-9	0.03409	89%	42.3%
			Epoxy	90598-46-2	0.00343	9%	4.3%
			Other	-	0.00070	2%	0.9%
Lead Frame	Copper	0.03816	Cu	7440-50-8	0.03727	98%	46.2%
			Fe	7439-89-6	0.00089	2%	1.1%
Die Attach	Silver Epoxy	0.00083	Ag	7440-22-4	0.00060	72%	0.7%
			Epoxy	90598-46-2	0.00017	21%	0.2%
			Other	-	0.00006	7%	0.1%
Wire bond	Copper	0.00064	Cu	7440-50-8	0.00064	100%	0.8%
Lead Finish	Matte Tin*	0.00146	Sn	7440-31-5	0.00146	100%	1.8%
<b>MSL1 at 260 C</b>		Total Weight (g)		<b>0.08062</b>			

\* Tin whisker mitigation strategy is 150 C, 1 hour anneal within 24 hours of tin plating.



This part is compliant with EU Directive 2002/95/EC (RoHS) and does not contain lead, mercury, cadmium (0.01%), hexavalent chromium, PBB or PBDE in concentrations greater than 0.1%, except as permitted by Annex (7).

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<b>Test Definition</b>	<b>Test Conditions</b>	<b>Inspection Interval Class 1 and 2 Products</b>	<b>Total Duration Class 1 and 2 Products</b>	<b>Maximum Whisker Length (um)</b>
<b>Room Temperature Humidity Storage</b>	30± 2°C/60± 3%RH	1000 hours	4000 hours	20
<b>Temperature Humidity Unbiased</b>	55± 3°C/85±3% RH	1000 hours	4000 hours	20
<b>Temperature Cycling</b>	-40 to 55°C to 80 to 95°C, air to air, 10 min soak, approx 3 cycles /hours	500 cycles	1500 cycles	45

Tin Whisker testing per JESD201, Environmental Acceptance Requirements for Tin Whisker Susceptibility of Tin and Tin Alloy Surface Finish

Tin Whisker Results (number of failing whiskers)

<b>Test</b>	<b>1000 Hours</b>	<b>2000 Hours</b>	<b>3000 Hours</b>	<b>4000 Hours</b>
<b>Room Temperature Humidity Storage</b>	0/24	0/24	0/24	0/24
<b>Temperature Humidity Unbiased</b>	0/24	0/24	0/24	0/24
<b>Test</b>	<b>500 Cycles</b>	<b>1000 Cycles</b>	<b>1500 Cycles</b>	
<b>Temperature Cycling</b>	0/24	0/24	0/24	