



## **PDIP-16**

# **RoHS Compliance Document**

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**PDIP-16**

Component	Material Name	Material Mass (g)	Element Name Composition	CAS #	Substance Mass (g)	Material Analysis Weight (%)	% of Total Weight
Chip	Silicon	0.00250	Si	7440-21-3	0.00250	100%	0.2%
Encapsulant	Epoxy Resin	0.67292	SiO2	7631-86-9	0.46732	69%	47.5%
			Epoxy	90598-46-2	0.19360	29%	18.9%
			Other	-	0.01200	2%	1.2%
Lead Frame	Copper	0.32010	Cu	7440-50-8	0.31131	97%	30.5%
			Fe	7439-89-6	0.00879	3%	0.9%
Die Attach	Silver Epoxy	0.00051	Ag	7440-22-4	0.00040	78%	0.0%
			Epoxy	90598-46-2	0.00008	16%	0.0%
			Other	-	0.00003	6%	0.0%
Wire bond	Gold	0.00040	Au	7440-57-5	0.00040	100%	0.0%
Lead Finish	Matte Tin*	0.02593	Sn	7440-31-5	0.02593	100%	2.5%
			Total Weight (g)		<b>1.02236</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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Test Definition	Test Conditions	Inspection Interval Class 1 and 2 Products	Total Duration Class 1 and 2 Products	Maximum Whisker Length (um)
<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)

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