

Material Declaration Data Sheet (MDDS)



Customer	NORDIC
Device Name	nRF24LU1P-F32Q32
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Material Type	Material Name	Supplier Name	Material Weight(g)	Material Weight(mg)	Material % in Product	Substance Name	CAS#	Substance % in Material	Substance Weight(g)	Substance Weight(mg)	PPM in Product	
Die	Silicon Die	Customer Consigned	0.004300	4.30	6.389%	Silicon (Si)	7440-21-3	100.00%	0.00430000	4.30000	63893.02	
Leadframe	C194	HDS	0.028300	28.30	42.051%	Iron (Fe)	7439-89-6	2.35%	0.00066505	0.66505	9881.87	
						Phosphorus (P)	7723-14-0	0.03%	0.00008849	0.00849	126.15	
						Zinc (Zn)	7440-66-6	0.12%	0.00003396	0.03396	504.61	
						Copper (Cu)	7440-50-8	97.50%	0.02759250	27.59250	409992.57	
Leadframe Plating	Silver Plating	HDS	0.000300	0.30	0.446%	Silver (Ag)	7440-22-4	100.00%	0.00030000	0.30000	4457.65	
Die Attach	AMK-06	Henkel	0.000300	0.30	0.446%	Silver	7440-22-4	79.50%	0.00023850	0.23850	3543.83	
						Carbocyclic acrylate	Proprietary	10.00%	0.00003000	0.03000	445.77	
						Bismaleimide resin	Proprietary	5.00%	0.00001500	0.01500	222.88	
						Acrylate	Proprietary	5.00%	0.00001500	0.01500	222.88	
						2-(3,4-Epoxy cyclohexyl)ethyltrimethoxysilane	3388-04-3	0.50%	0.00000150	0.00150	22.29	
Bonding Wire	Cu Wire(4N)	Heraeus	0.000100	0.10	0.149%	Copper (Cu)	7440-50-8	99.99%	0.00009999	0.09999	1485.74	
						Others	Proprietary	0.01%	0.00000001	0.00001	0.15	
Molding Compound	G700	Sumitomo	0.032400	32.40	48.143%	Epoxy Resin	Proprietary	5.00%	0.00162000	1.62000	24071.32	
						Phenol Resin	Proprietary	5.00%	0.00162000	1.62000	24071.32	
						Silica Amorphous A	60676-86-0	70.00%	0.02268000	22.68000	336998.51	
						Silica Amorphous B	7631-86-9	19.00%	0.00615600	6.15600	91471.03	
						Carbon Black	1333-86-4	1.00%	0.00032400	0.32400	4814.26	
External Plating	Matte Sn Plating	Sytron	0.001600	1.60	2.377%	Tin (Sn)	7440-31-5	100.00%	0.00160000	1.60000	23774.15	
			0.067300	67.30	100.000%				700.00%	0.06730000	67.30000	1000000.00

Calculated

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Disclaimer

The calculators identified in this report are used solely for determining package and weight composition and not for any other purpose, including but not limited to RoHS compliance. These calculators are used at the request of Customer in accordance with Amkor's current Terms and Conditions. Customer acknowledges that certain data used to generate the package and weight composition are provided by third parties and may not be validated and as such, the associated calculations performed herein are unproven and may produce inconclusive results.

All information generated by the use of these calculators is provided "As Is." Amkor makes no warranty or representation, whatsoever, as to the sufficiency or accuracy of any such information it has disclosed hereunder or as to the results to be obtained therefrom and assumes no responsibility arising from any use or misuse thereof.

Note: Data is published based on the "Calculated Weight"