

* Material Composition - nRF51822

Material	Purpose	Substance Composition	CAS Number	Weight by mg	% weight of substance per Homogenous material	PPM	% weight of substance per package
Polybenzoxazole1	Dielectric	Proprietary	-----	0.083290	100	7092	0.709%
Polybenzoxazole2	Dielectric	Proprietary	-----	0.083290	100	7092	0.709%
RDL Seed Layer	Seed Layer	Ti	7440-32-6	0.000243	0.023	21	0.002%
	Seed Layer	W	7440-33-7	0.002187	0.207	186	0.019%
	Seed Layer	Cu	7440-50-8	0.003750	76.92	319	0.032%
Copper	Interconnect	Cu	7440-50-8	0.074790	100	6368	0.637%
Under Bump Metallization	UBM	Ti	7440-32-6	0.000109	0.001	9	0.001%
	UBM	W	7440-33-7	0.000981	0.006	84	0.008%
	UBM	Cu	7440-50-8	0.001690	0.022	144	0.014%
	UBM	Cu	7440-50-8	0.075880	97.19	6461	0.646%
Solder Ball	Interconnect	Sn	7440-31-5	1.342883	95.5	114343	11.434%
	Interconnect	Ag	7440-22-4	0.057040	4.0	4857	0.486%
	Interconnect	Cu	7440-50-8	0.007130	0.5	607	0.061%
Die	Circuit	Si	7440-21-3	9.375150	100	798266	79.827%
Top Surface Laminate	Mark Surface	Proprietary	-----	0.635977	100	54152	5.415%
Package Weight (mg):				11.74		% Total:	100.00%