



## MATERIAL DECLARATION DATA SHEET

Device Name	Package Type	Pkg Wt (g)			
M2GL005	FG484(23x23mm)	2.34			
Material Breakdown of Component	Material Breakdown (%)	Substance Name	CAS No.	Weight (g)	Substance Mass (%)
MOLD COMPOUND	40.51	Silica	60676-86-0	0.8788	92.7
		Resin	Proprietary	0.0474	5
		Metal Hydroxide	Proprietary	0.0190	2
		Carbon Black	1333-86-4	0.0028	0.3
				0.94797	100
SUBSTRATE	35.34	Bismaleimide/Triazine	13676-54-5	0.5429	65.65
		Copper (Cu)	7440-50-8	0.2642	31.95
		Gold (Au)	7440-57-5	0.0032	0.385
		Nickel (Ni)	7440-02-0	0.0167	2.015
				0.8270	100
DIE	0.65	Silicon	7440-21-3	0.0151	100
				0.0151	100
DIE ATTACH EPOXY	0.10	Silver	7440-22-4	0.0017	76
		Epoxy Resin	Proprietary	0.0005	24
				0.0023	100
SOLDER BALL	21.88	Tin	7440-31-5	0.3226	63
		Lead	7439-92-1	0.1895	37
				0.5121	100
GOLD WIRE	1.52	Gold	7440-57-5	0.0355	99.99
		Doping	Proprietary	0.0000	0.01
				0.0355	100
				2.3400	

**Disclaimer:** Microsemi believes this information to be correct, but cannot guarantee its completeness or accuracy. The information is based on data received from sources outside our company.

Revision No.	Date	Description of Change
	2/12/2014	Original release



## MATERIAL DECLARATION DATA SHEET

Device Name	Package Type	Pkg Wt (g)			
M2GL005	TQ144(20x20mm)	1.003			
Material Breakdown of Component	Material Breakdown (%)	Substance Name	CAS No.	Weight (g)	Substance Mass (%)
MOLD COMPOUND	71.59	Silica	60676-86-0	0.10049	14.00
		Resin	Proprietary	0.61730	86.00
		Carbon Black	1333-86-4	0.00000	0.00
				0.71779	100.00
LEADFRAME	24.62	Copper	7440-50-8	0.24074	97.50
		Fe	7440-47-3	0.00580	2.35
		P	7440-31-5	0.00007	0.03
		Zinc	7440-66-6	0.00030	0.12
				0.24691	100.00
DIE	1.77	Silicon	7440-21-3	0.01774	100.00
				0.01774	100.00
DIE ATTACH EPOXY	0.44	Silver	7440-22-4	0.00319	70.00
		Epoxy Resin	Proprietary	0.00091	20.00
		Anhydride		0.00046	10.00
				0.00455	100.00
BOND WIRE	0.29	Gold	7440-57-5	0.00290	99.05
		Pd	Proprietary	0.00003	0.95
		Ag	7440-22-4	0.00000	0.00
				0.00292	100.00
EXTERNAL PLATING	1.29	Tin	7440-31-5	0.01099	85.00
		Lead	7439-92-1	0.00194	15.00
				0.01293	100.00
				1.003	

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Revision No.	Date	Description of Change
1	2014/9/15	Initial release



## MATERIAL DECLARATION DATA SHEET

Device Name	Package Type	Pkg Wt (g)			
M2GL005	VF256(14x14mm)	0.7098			
Material Breakdown of Component	Material Breakdown (%)	Substance Name	CAS No.	Weight (g)	Substance Mass (%)
MOLD COMPOUND	37.83	Silica	60676-86-0	0.2232	83.14
		Resin	Proprietary	0.0319	11.88
		Silica, crystalline-quartz (SiO2)	14808-60-7	0.0118	4.38
		Carbon Black	1333-86-4	0.0013	0.50
		Others	Proprietary	0.0003	0.10
				0.26852	100.00
SUBSTRATE	41.81	Bismaleimide/Triazine	13676-54-5	0.1948	65.65
		Copper (Cu)	7440-50-8	0.0948	31.95
		Gold (Au)	7440-57-5	0.0011	0.39
		Nickel (Ni)	7440-02-0	0.0060	2.02
				0.2968	100.00
DIE	1.68	Silicon	7440-21-3	0.0119	100.00
				0.0119	100.00
DIE ATTACH EPOXY	0.21	Silver	7440-22-4	0.0012	76.00
		Epoxy resin	Proprietary	0.0004	24.00
				0.0015	100.00
SOLDER BALL	17.33	Tin	7440-31-5	0.0775	63.00
		Lead	7439-92-1	0.0455	37.00
				0.1230	100.00
GOLD WIRE	1.13	Gold (Au)	7440-57-5	0.0080	99.00
		Palladium	7440-05-3	0.0001	1.00
				0.0080	100.00
				0.7098	

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Revision No.	Date	Description of Change
1	11/10/2015	Original release



## MATERIAL DECLARATION DATA SHEET

Device Name	Package Type	Pkg Wt (g)			
M2GL005	VF400	0.9744			
Material Breakdown of Component	Material Breakdown (%)	Substance Name	CAS No.	Weight (g)	Substance Mass (%)
MOLD COMPOUND	40.07	Silica	60676-86-0	0.3280	84
		Resin	Proprietary	0.0617	15.8
		Carbon Black	1333-86-4	0.0008	0.2
				0.39044	100
SUBSTRATE	44.69	Bismaleimide/Triazine	13676-54-5	0.2859	65.65
		Copper (Cu)	7440-50-8	0.1391	31.95
		Gold (Au)	7440-57-5	0.0017	0.385
		Nickel (Ni)	7440-02-0	0.0088	2.015
				0.4355	100
DIE	1.55	Silicon	7440-21-3	0.0151	100
				0.0151	100
DIE ATTACH EPOXY	0.18	Silver	7440-22-4	0.0013	76
		Epoxy resin	Proprietary	0.0004	24
				0.0017	100
SOLDER BALL	12.10	Tin	7440-31-5	0.0743	63
		Lead	7439-92-1	0.0436	37
				0.1179	100
GOLD WIRE	1.41	Gold	7440-57-5	0.0137	99.99
		Doping	Proprietary	0.0000	0.01
				0.0137	100
				0.9744	

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Revision No.	Date	Description of Change
1	2014/6/25	Original release
2	2015/11/9	Add M2S060, M2GL060