



## MATERIAL DECLARATION DATA SHEET

Device Name	Package Type	Pkg Wt (g)			
M2S090	FG484(23x23mm)	2.34			
Material Breakdown of Component	Material Breakdown (%)	Substance Name	CAS No.	Weight (g)	Substance Mass (%)
MOLD COMPOUND	37.90	Silica	60676-86-0	0.8222	92.7
		Resin	Proprietary	0.0443	5
		Metal Hydroxide	Proprietary	0.0177	2
		Carbon Black	1333-86-4	0.0027	0.3
				0.88693	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	2.91	Silicon	7440-21-3	0.0682	100
				0.0682	100
DIE ATTACH EPOXY	0.44	Silver	7440-22-4	0.0078	76
		Epoxy Resin	Proprietary	0.0025	24
				0.0103	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)
M2S090	FCS325(11x13.5mm)	0.30

Material Breakdown of Component	Material Breakdown (%)	Substance Name	CAS No.	Weight (g)	Substance Mass (%)
MOLD COMPOUND	28.49	Silica	60676-86-0	0.0766	85.5
		Resin	Proprietary	0.0130	14.5
				0.08644	100
SUBSTRATE	31.25	Resin	Proprietary	0.0469	49.473
		Copper (Cu)	7440-50-8	0.0397	41.877
		Gold (Au)	7440-57-5	0.0011	1.16
		Nickel (Ni)	7440-02-0	0.0053	5.591
		Others		0.0018	1.899
				0.0948	100
DIE	22.47	Silicon	7440-21-3	0.0682	100
				0.0682	100
UNDERFILL	4.70	Silica, vitreous	60676-86-0	0.0091	64
		p-(2,3-epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline	5026-74-4	0.0013	9
		Bisphenol F epoxy resin	9003-36-5	0.0013	9
		Bisphenol A epoxy resin	25068-38-6	0.0007	5
		Other aliphatic amine compounds	Proprietary	0.0010	7
		Carbon Black	1333-86-4	0.0001	1
		Proprietary Additives	Proprietary	0.0007	5
				0.0143	100
SOLDER BALL	11.21	Tin (Sn)	7440-31-5	0.0328	63
		Lead (Pb)	7439-92-1	0.0010	37
				0.0340	100
BUMP	1.89	Tin (Sn)	7440-31-5	0.0055	96.5
		Silver (Ag)	7440-22-4	0.0002	3
		Copper (Cu)	7440-50-8	0.0000	0.5
				0.0057	100
				0.3034	

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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)			
M2S090	FG676 (27x27mm)	2.8689			
Material Breakdown of Component	Material Breakdown (%)	Substance Name	CAS No.	Weight (g)	Substance Mass (%)
MOLD COMPOUND	37.42	Silica	60676-86-0	0.9501	88.5
		Resin	Proprietary	0.1235	11.5
		Metal Hydroxide	Proprietary	0.0000	0
		Carbon Black	1333-86-4	0.0000	0
				1.07351	100
SUBSTRATE	38.87	Bismaleimide/Triazine	13676-54-5	0.6236	55.92
		Copper (Cu)	7440-50-8	0.4662	41.81
		Gold (Au)	7440-57-5	0.0041	0.37
		Nickel (Ni)	7440-02-0	0.0211	1.9
				1.1150	100
DIE	2.40	Silicon	7440-21-3	0.0689	100
				0.0689	100
DIE ATTACH EPOXY	0.24	Silver	7440-22-4	0.0055	78
		Epoxy resin	Proprietary	0.0015	22
				0.0070	100
SOLDER BALL	19.73	Tin	7440-31-5	0.3567	63
		Lead	7439-92-1	0.2095	37
				0.5662	100
GOLD WIRE	1.33	Gold	7440-57-5	0.0379	99.0453
		Doping	Proprietary	0.0004	0.9547
				0.0383	100
				2.8689	

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