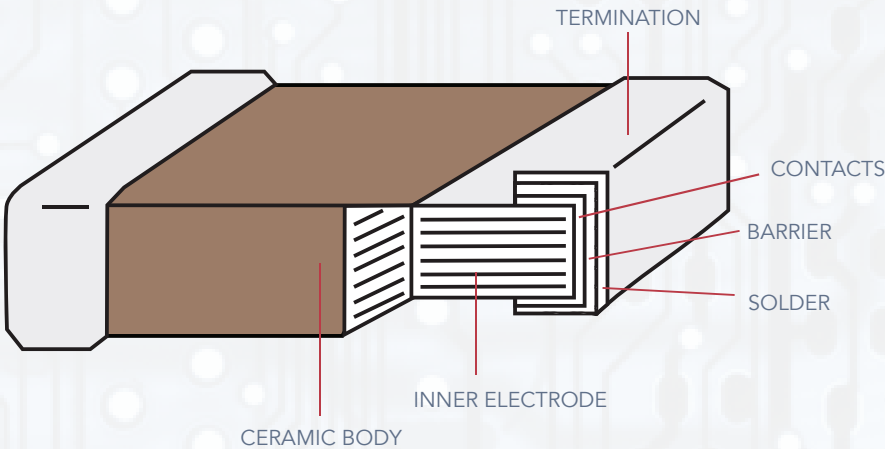


PRODUCTION IDENTIFICATION

- PRODUCT NAME: Capacitor (MLCC)
- TYPE: GMC32
- SIZE: C0G
- SERIES: 1210
- WEIGHT: 43.80 (max)
- MANUFACTURE NAME: Cal-Chip Electronics Inc.
- ADDRESS: 59 Steamwhistle Drive Ivyland, PA 18974
- RESPONSIBLE PERSON NAME: Frank Salamone
- TELEPHONE: 215.942.8900

GENERAL COMPOSITION



PART	MATERIAL		WEIGHT (mg)	% OF PART	% OF COMPONENT	CAS NO.
Body	Inner electrode	Ni	3.60	8.41	8.22	7440-02-0
	Dielectric	Calcium Magnesium Titanate	39.19	91.59	89.47	12032-30-3 7439-95-4 12049-50-2
SUBTOTAL			42.79	100	97.69	
Termination	Contact with Ceramic	Cu	0.810	79.897	1.849	7440-50-8
	Barrier Layer	Ni	0.048	4.759	0.110	7440-02-0
	Solder Plating	Sn	0.156	15.344	0.355	7440-31-5
SUBTOTAL			1.01	100	2.31	
ALL PARTS TOTAL			43.8		100.00	

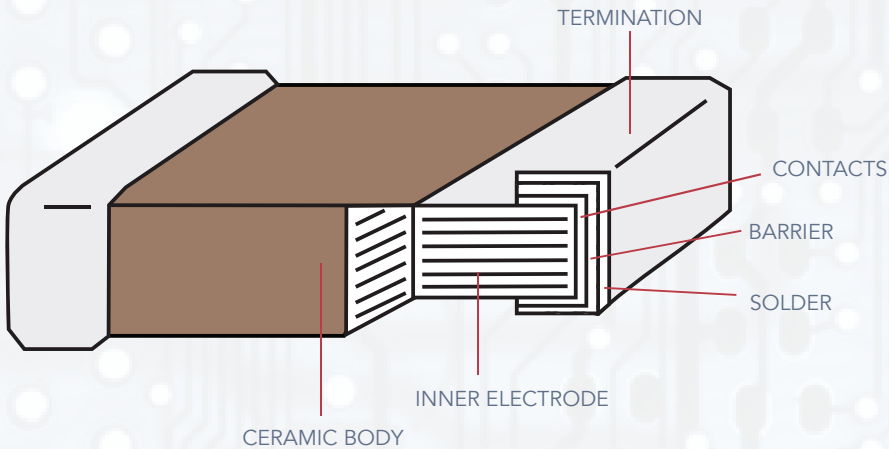
MATERIAL DECLARATION

GMC32-X7R

PRODUCTION IDENTIFICATION

- PRODUCT NAME	Capacitor (MLCC)
- TYPE	GMC32
- SIZE	X7R
- SERIES	1210
- WEIGHT	118.5 (max)
- MANUFACTURE NAME	Cal-Chip Electronics Inc.
- ADDRESS	59 Steamwhistle Drive Ivyland, PA 18974
- RESPONSIBLE PERSON NAME	Frank Salamone
- TELEPHONE	215.942.8900

GENERAL COMPOSITION



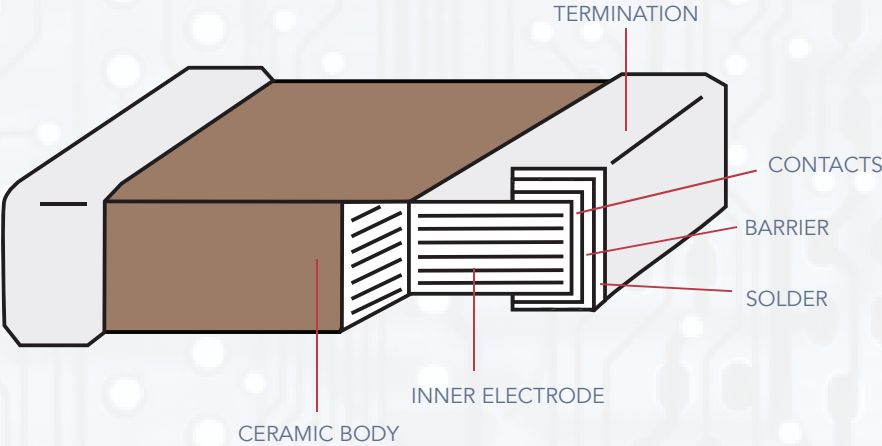
PART	MATERIAL		WEIGHT (mg)	% OF PART	% OF COMPONENT	CAS NO.
Body	Inner Electrode	Ni	5.88	5.00	4.96	7440-02-0
	Dielectric	BaTiO ₃	111.60	95.00	94.18	12047-27-7
SUBTOTAL			117.48	100	99.14	
Termination	Contact with Ceramic	Cu	0.810	79.90	0.68	7440-50-8
	Barrier Layer	Ni	0.048	4.76	0.04	7440-02-0
	Solder Plating	Sn	0.156	15.34	0.13	7440-31-5
SUBTOTAL			1.01	100	0.86	
ALL PARTS TOTAL			118.5		100	



PRODUCTION IDENTIFICATION

- PRODUCT NAME	Capacitor (MLCC)
- TYPE	GMC32
- SIZE	X5R
- SERIES	1210
- WEIGHT	118.5 (max)
- MANUFACTURE NAME	Cal-Chip Electronics Inc.
- ADDRESS	59 Steamwhistle Drive Ivyland, PA 18974
- RESPONSIBLE PERSON NAME	Frank Salamone
- TELEPHONE	215.942.8900

GENERAL COMPOSITION



PART	MATERIAL		WEIGHT (mg)	% OF PART	% OF COMPONENT	CAS NO.
Body	Inner Electrode	Ni	5.88	5.00	4.96	7440-02-0
	Dielectric	BaTiO ₃	111.6	95.00	94.18	12047-27-7
SUBTOTAL			117.48	100	1.01	
Termination	Contact with Ceramic	Cu	0.810	79.90	0.68	7440-50-8
	Barrier Layer	Ni	0.048	4.76	0.04	7440-02-0
	Solder Plating	Sn	0.156	15.34	0.13	7440-31-5
SUBTOTAL			1.01	100	0.86	
ALL PARTS TOTAL			118.5		100	

Several additives are included in ceramic body. Any environmentally prohibited material is not included in additives. It is difficult to reveal the precise chemical composition and content of each additive due to each MLCC maker's know-how.

Date: March 15th, 2005

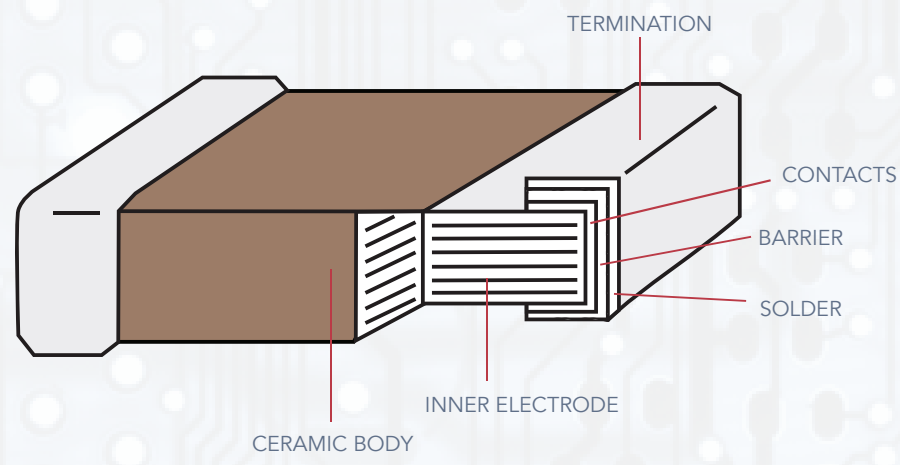
MATERIAL DECLARATION

GMC32-Y5V

PRODUCTION IDENTIFICATION

- PRODUCT NAME	Capacitor (MLCC)
- TYPE	GMC32
- SIZE	Y5V
- SERIES	1210
- WEIGHT	118.4 (max)
- MANUFACTURE NAME	Cal-Chip Electronics Inc.
- ADDRESS	59 Steamwhistle Drive Ivyland, PA 18974
- RESPONSIBLE PERSON NAME	Frank Salamone
- TELEPHONE	215.942.8900

GENERAL COMPOSITION



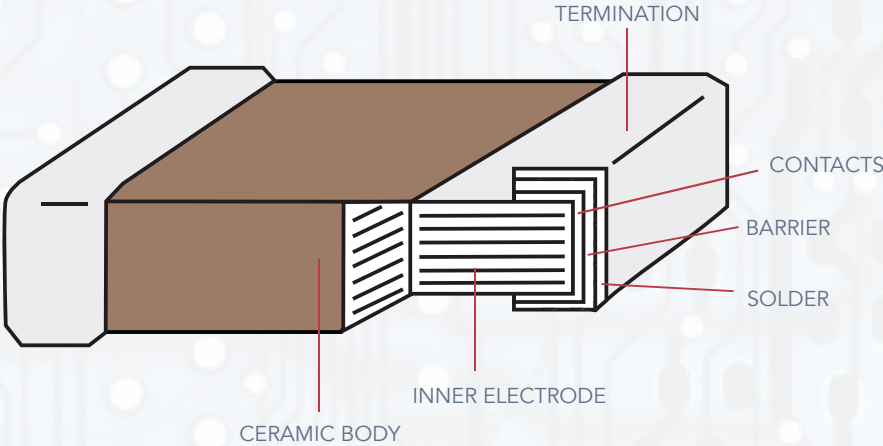
PART	MATERIAL		WEIGHT (mg)	% OF PART	% OF COMPONENT	CAS NO.
Body	Inner Electrode	Ni	27.60	23.66	23.31	7440-02-0
	Dielectric	BaTiO ₃	89.05	76.34	75.21	12047-27-7
SUBTOTAL			116.65	100	98.52	
Termination	Contact with Ceramic	Cu	1.546	88.35	1.31	7440-50-8
	Barrier Layer	Ni	0.048	2.76	0.04	7440-02-0
	Solder Plating	Sn	0.156	8.89	0.13	7440-31-5
SUBTOTAL			1.75	100	1.48	
ALL PARTS TOTAL			118.4		100	



PRODUCTION INENTIFICATION

- PRODUCT NAMECapacitor (MLCC)
- TYPEGMC32
- SIZEZ5U
- SERIES1210
- WEIGHT118.4 (max)
- MANUFACTURE NAMECal-Chip Electronics Inc.
- ADDRESS59 Steamwhistle Drive Ivyland, PA 18974
- RESPONSIBLE PERSON NAMEFrank Salamone
- TELEPHONE215.942.8900

GENERAL COMPOSITION



PART	MATERIAL		WEIGHT (mg)	% OF PART	% OF COMPONENT	CAS NO.
Body	Inner Electrode	Ni	27.60	23.66	23.31	7440-02-0
	Dielectric	BaTiO ₃	89.05	76.34	75.21	12047-27-7
SUBTOTAL			116.65	100	98.52	
Termination	Contact with Ceramic	Cu	1.546	88.35	1.31	7440-50-8
	Barrier Layer	Ni	0.048	2.76	0.04	7440-02-0
	Solder Plating	Sn	0.156	8.89	0.13	7440-31-5
SUBTOTAL			1.75	100	1.48	
ALL PARTS TOTAL			118.4		100	