



MURATA MANUFACTURING CO., LTD.

No. : HEMCG0-1382

Date : April 30, 2012

MLCC: Monolithic Ceramic Capacitor
Notification - Discontinuance of Product

Dear Valued Customer,
 Thank you very much for your patronage on our ceramic capacitor.
 We would like to submit this letter to inform you about the discontinuance of some of our products.

<p>1. Object Part MLCC (Chip Monolithic Ceramic Capacitor) : GRx03 - GRx55 series (0.6×0.3mm - 5.7×5.0mm) GCx03 - GCx55 series (0.6×0.3mm - 5.7×5.0mm) Only High Dielectric Constant Type GNx series</p>						
<p>2. Applied Part Numbers and Murata Product Types (1)Customer Part Number: Please find enclosed Appendix(1). (2)Murata Product Types:</p> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>GRxxxx xx xx xxx x Dxx x</u></td> <td style="text-align: center;"><u>GRxxxx xx xx xxx x Zxx x</u></td> </tr> <tr> <td style="text-align: center;"><u>GCxxxx xx xx xxx x Dxx x</u></td> <td style="text-align: center;"><u>GCxxxx xx xx xxx x Zxx x</u></td> </tr> <tr> <td style="text-align: center;"><u>GNxxxx xx xx xxx x Dxx x</u></td> <td style="text-align: center;"><u>GNxxxx xx xx xxx x Zxx x</u></td> </tr> </table>	<u>GRxxxx xx xx xxx x Dxx x</u>	<u>GRxxxx xx xx xxx x Zxx x</u>	<u>GCxxxx xx xx xxx x Dxx x</u>	<u>GCxxxx xx xx xxx x Zxx x</u>	<u>GNxxxx xx xx xxx x Dxx x</u>	<u>GNxxxx xx xx xxx x Zxx x</u>
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<p>3. Reason</p> <p>Precious metal's market price continues to increase and stays high. Palladium price has posed a great impact on Murata's MLCC product. In addition to this is the Chinese government's export control from 2010, Rare Earth's procurement and purchase cost has influenced our production efficiency.</p> <p>Murata has been expanding the products that uses base metal for inner electrode material as standard products. The change of inner electrode to base metal enables us to manage the risk from the influence of precious metal market in supply and cost. We would appreciate if you could accept this change.</p>						
<p>4. Discontinuance Schedule</p> <p>Dead line of one shot last order : September 30, 2013 Date of discontinue production : March 31, 2014 Please return this form with your signature by September 28, 2012.</p> <p>We would like to take action after your acceptance. Please feel free to contact us, if you have any question or request on our proposal.</p>						

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5. Proposal of alternate product
 We would like to propose the alternate product.
 Please find enclosed Appendix(1).
 Please confirm.

(1)Structure

<p>· Fig.1 (Nickel Barrired termination)</p>	<p>· Fig.2 (Silver palladium termination)</p>
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Table A : GRM/GCM TC PEM⇒GRM/GCM TC NEM

No.	NAME	Material	
		Current (Fig.1)	New (Fig.1)
①	Termination		
1A	Plated layer	Tin	Tin
1B	Plated layer	Nickel	Nickel
1C	Electrode	Silver/Palladium or Silver	Copper
②	Dielectric layer	TiO ₂	CaZrO ₃
③	Inner electrode	Palladium or Silver/Palladium	Nickel

Table B : GRM/GCM Hik PEM⇒GRM/GCM Hik NEM

No.	NAME	Material	
		Current (Fig.1)	New (Fig.1)
①	Termination		
1A	Plated layer	Tin	Tin
1B	Plated layer	Nickel	Nickel
1C	Electrode	Silver/Palladium or Silver	Copper
②	Dielectric layer	BaTiO ₃	BaTiO ₃
③	Inner electrode	Palladium or Silver/Palladium	Nickel

Table C : GRG/GRS/GCG/GCS Hik PEM⇒GRM/GCM Hik NEM

No.	NAME	Material	
		Current (Fig.2)	New (Fig.1)
①	Termination	Silver/Palladium or Silver	
1A	Plated layer	-	Tin
1B	Plated layer	-	Nickel
1C	Electrode	-	Copper
②	Dielectric layer	BaTiO ₃	BaTiO ₃
③	Inner electrode	Palladium or Silver/Palladium	Nickel

(2)Please see attached Typical Reliability Test Data for your reference.

6. Others

This change will be applied to all Murata production factory of Chip MLCC, as follows.
 Fukui Murata Mfg.Co.,Ltd. , Izumo Murata Mfg.Co.,Ltd. , Okayama Murata Mfg.Co.,Ltd.
 Murata Electronics Singapore(Pte.)Ltd. , Wuxi Murata Electronics Co.,Ltd.

Yours very truly,

The notification for the acceptance

Date :
 Company :
 Signature :
 Comment :



Business Development Support Sec. I
 Planning & Market Promotion Department
 Monolithic Ceramic Capacitor Group
 Fukui Murata Mfg. Co., Ltd.

* Please return this form with your signature to our sales representative by **September 28, 2012**.