



**Date** : Jan 15, 2004  
**To** :  
**From** :  
**Copy** :  
**Subject** : **Lead Free : production schedule of Nissei series**

Our ref.: Filename

Dear colleagues,

I would like to summarize the updated lead free activity of Nissei products as following.

The activities have been carried out separated in two different phases, one is about wire, and the other is on metal spray and SMD.

### 1. Wire

As you know, the wire of the Nissei products has already shifted to lead free since production date of **Nov. 01, 2003.**

In case you need the identification in your/customer's stock, please refer inspection date on the label, because there are no specific marking on the products or box to show it is lead free.

By this modification, thin foil type had become completely lead free because they do not contain lead inside it originally.

In the other hands, metallized type still contains lead inside the capacitor as metal spray at this moment.

	Type	Old wire	New wire
Thin foil type	AMZ,AMC,AML,AMR ,NSM, APS, AWS, AHS	Solder plated copper clad steel wire	Tinned copper clad steel wire (Sn:100%)
Metallized stacked	MMT		
Metallized wound	MMX, MMC, MMH, MMD, MML, MPC(A), MMB(A)  *MPC(A) has already discontinued.	Solder plated copper wire	Tinned copper wire (Sn:100%)  Or  Tin-Copper alloy plated copper wire
Metallezed stacked for sound quality purpose	MTF	Solder plated OFC wire	Tinned copper wire (Sn:100%)

### 2. Metal spray of metallized wound / Plate on electrode of SMD

Addition to the wire, we are going to change metal spray of metallized wound type and SMD's plate on the terminals as lead free since production date of **March 01, 2004.**

Lead free and lead rich will be mixed in the market in certain period until all of the stocks of lead rich type will be cleared.

In case you need the identification in your/customer's stock, please refer inspection date on the label, because there are no specific marking on the products or box to show it is lead free.

	Type	Current	Modified
Metallized wound	MMX, MMC, MMH, MMD, MML, MMB(A)  *MPE is lead free originally which will replace MPC(A).	Sn-Pb alloy (Metal spray)	Sn alloy (Metal spray)
Metallezed stacked	MMT		
Metallize stacked chip	CHA, CNA	Solder plating (Electrode)	Sn plating (Electrode)

Note1: Old type of SMD "CHE" which is wound metallized type will remain as lead rich on both of electrode and metal spray. Please avoid to be used in new design because it will be discontinued soon.

Note2: MPC(A) has been replaced by MPE and discontinued.

Best Regards,  
Kenzo Imai