



September 15th, 2005

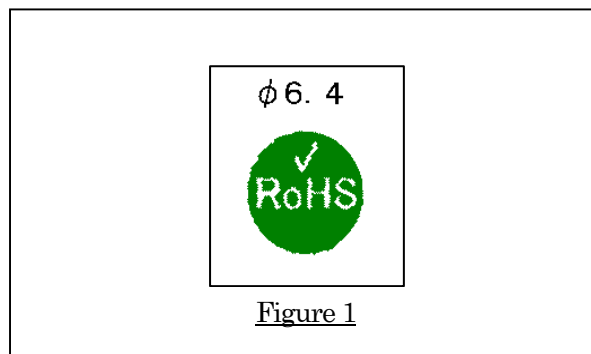
NewJRC's RoHS Compliant Marine Products

New Japan Radio Co.,Ltd.
Microwave Division.
Private Sector Business Department.

New JRC's marine products [tubes and solid-state components] will comply to RoHS regulations from the March 2006 production period.

Non-compliant solder and non-compliant surface treatments on some piece-parts will be switched to compliant ones. All changes to exclude non-compliant substances [Cd, Hg, Pb, Cr6, PBB, PBDE] indicated by RoHS are described on the attached table.

NewJRC started these changes in September 2005, so that non-compliant and compliant piece parts could be mixed in products made before March 2006. For a completely compliant product, a label (Figure 1) will be added to distinguish it during this transition period. The label will appear on both the product and its packaging.



Please note that products for avionics application will be adapted.

New Japan Radio Co.,Ltd.

Microwave Tubes

| Series | Part Number | Non-compliant items | Non-compliant substances | Compliant items | Reliability | | | | |
|--------------------------------|---------------|--|--------------------------|---|-------------|--|-------------------|--|--|
| ESAC Magnetrons | MAF1452B | ①Solder (output terminal, input terminal and lead wires) ②Surface treatment (wave guide and flange, magnet yoke, supporter plate) | ①Pb ②Cr6 | ①Pb-free solder ②Cr6-free surface treatment | Same | | | | |
| | MAF1560N | | | | | | | | |
| | MAF1421B | | | | | | | | |
| | MAF1421BN | | | | | | | | |
| | MSF1421B | | | | | | | | |
| | MSF1421C | | | | | | | | |
| | MRF1421B | | | | | | | | |
| | MRF1421C | | | | | | | | |
| | MAF1561N | | | | | | | | |
| | MAF1422B | | | | | | | | |
| | MSF1422B | | | | | | | | |
| | MAF1562N | | | | | | | | |
| | MAF1425B | | | | | | | | |
| | MAF1565N | | | | | | | | |
| | MSF1425A | | | | | | | | |
| | MSF1425B | | | | | | | | |
| | MAF1474A | | | | | | | | |
| | MAF1501A | | | | | | | | |
| | MVF1422B | | | Not to be adapted | | | | | |
| | MVS1422B | | | | | | | | |
| | MVF1425A | | | | | | | | |
| | MVF1425B | | | | | | | | |
| | MVS1425A | | | | | | | | |
| | MVS1425B | | | | | | | | |
| S-band Marine Magnetrons | M1302/M5020 | ①Solder (input terminal and lead wires) ②Surface treatment (wave guide and flange) | ①Pb ②Cr6 | ①Pb-free solder ②Cr6-free surface treatment | Same | | | | |
| | M1302L | | | | | | | | |
| | M1302A | | | | | | | | |
| | 2J70B | | | | | | | | |
| | 2J70B/M1451 | | | | | | | | |
| | | | | M1430 | | | Not to be adapted | | |
| | | | | M1461 | | | | | |
| | M1380 | | | | | | | | |
| X-Band Marine Magnetrons | M1489 | ①Solder (output terminal, input terminal and lead wires, body) ②Surface treatment (flange, magnet yoke) | ①Pb ②Cr6 | ①Pb-free solder ②Cr6-free surface treatment | Same | | | | |
| | 9M602 | | | | | | | | |
| | 9M61 | | | | | | | | |
| | M1437(A) | | | | | | | | |
| | M1455 | | | | | | | | |
| | M1458 | | | | | | | | |
| | M1458A | | | | | | | | |
| | M1475A | | | | | | | | |
| | M1516 | | | | | | | | |
| | M1537 | | | | | | | | |
| | M1568B | | | | | | | | |
| | M1568B(J) | | | | | | | | |
| | M1569 | | | | | | | | |
| | M1517N/M5187F | | | | | | | | |
| | M1321 | | | | | | | | |
| | 2J55 | | | | | | | | |
| | | | | 2J55(T) | | | Not to be adapted | | |
| | | | | 9M31 | | | | | |
| | | | | 2J55H | | | | | |
| | | | | M1337 | | | | | |
| | | | | 9M80 | | | | | |
| | | | | 9M302 | | | | | |
| | | | | M1316 | | | | | |
| | 9M90 | | | | | | | | |
| | M1311L | | | | | | | | |
| | 9M72 | | | | | | | | |
| | 9M72/M1454 | | | | | | | | |
| | 9M752/M1414 | | | | | | | | |
| | M1325L/M5187 | | | | | | | | |

Diode Limiters & Attenuators

| Series | Part Number | Non-compliant items | Non-compliant substances | Compliant items | Reliability |
|----------|-------------|--------------------------|--------------------------|----------------------------|-------------|
| S-band | NJS6318 | Surface treatment (body) | Cr6 | Cr6-free surface treatment | Same |
| | NJS6318A | | | | |
| X-band | NJS6928A | | | | |
| | NJS6930 | | | | |
| | NJS6931 | | | | |
| | NJS6931J | | | | |
| | NJS6931K | | | | |
| | NJS6939 | | | | |
| | NJS6947 | | | | |
| | NJS6926 | | | | |
| NJS6930A | | | | | |
| NJS6943 | | | | | |

Radar Front-End Modules

| Series | Part Number | Non-compliant items | Non-compliant substances | Compliant items | Reliability |
|-----------------------|-------------|--|--------------------------|--|-------------|
| S-band | NJS4310D | ①Solder (PCB) ②Surface treatment (body) | ①Pb ②Cr6 | ①Pb-free solder ②Cr6-free surface treatment | Same |
| X-band | NJT1030 | | | | |
| | NJT1031 | | | | |
| | NJT1946A | | | | |
| | NJT1947B | | | | |
| | NJT1949A | | | | |
| | NJT1959 | | | | |
| | NJT1959A | | | | |
| | NJT1968B | | | | |
| NJT1973 | | | | | |
| X-band 1967 series | NJT1027 | | | | |
| | NJT1028 | | | | |
| | NJT1969 | | | | |
| | NJT1992 | | | | |
| | NJT1967 | | | | |

Circulators

| Series | Part Number | Non-compliant items | Non-compliant substances | Compliant items | Reliability |
|----------------|-------------|--|--------------------------|--|-------------|
| S-band H plane | NJC3310 | Surface treatment (body) | Cr6 | Cr6-free surface treatment | Same |
| | NJC3314 | | | | |
| | NJC3320 | | | | |
| X-band | NJC3007 | | | | |
| | NJC3901B | | | | |
| | NJC3901B(T) | | | | |
| | NJC3901C | | | | |
| | NJC3901D | | | | |
| | NJC3901RB | | | | |
| | NJC3901RJ | | | | |
| NJC3901G | | | | | |
| S-band E plane | NJC3309 | Surface treatment (body) | Cr6 | No surface treatment | Same |
| | NJC3312 | | | | |
| | NJC3311 | ①solder (port terminal) ②Surface treatment (body) | ①Pb ②Cr6 | ①Pb-free solder ②No surface treatment | Same |
| | NJC3311A | | | | |



Spacer and Filters

| Series | Part Number | Non-compliant items | Non-compliant substances | Compliant items | Reliability |
|--------|-------------|--------------------------|--------------------------|----------------------------|-------------|
| | NJC9323 | --- | Not contained | --- | --- |
| | NJC9932 | | | | |
| | NJC9928 | Surface treatment (body) | Cr6 | Cr6-free surface treatment | Same |
| | NJC9930 | | | | |
| | NJC9331 | Surface treatment (body) | Cr6 | No surface treatment | Same |

TR Tube with Limiters

| Series | Part Number | Non-compliant items | Non-compliant substances | Compliant items | Reliability |
|--------|-------------|---|--------------------------|--|-------------|
| | TL368A | ①Solder (solder ball in housing) ②Surface treatment (body) | ①Pb ②Cr6 | ①Pb-free solder ②Cr6-free surface treatment | Same |
| | TL393 | Surface treatment | Cr6 | Cr6-free surface treatment | Same |
| | TL397 | | | | |
| | TL378A | | | | |

New JRC reserves the right to change the adaptation method without notice to our customer.