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## Technical Note TN-724

# Power Problems with “-2XX” 66-88MHz T2000s

4<sup>th</sup> November 2002

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### Applicability

This Technical Note applies to all T2000 radios that use the “-2XX” (66MHz to 88MHz) Rf board and replaces Technical Note 724 dated 10<sup>th</sup> October 2002.

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## 1. Introduction

### What Has Happened?

It has been found that the T2000 66MHz to 88MHz RF boards that use the Microsemi MRF3866 transistor may have a power sag problem causing the radios, after a period of operation, to reduce power output eventually to zero watts. This only happens on radios operating above 80MHz.

### How Do We Fix It?

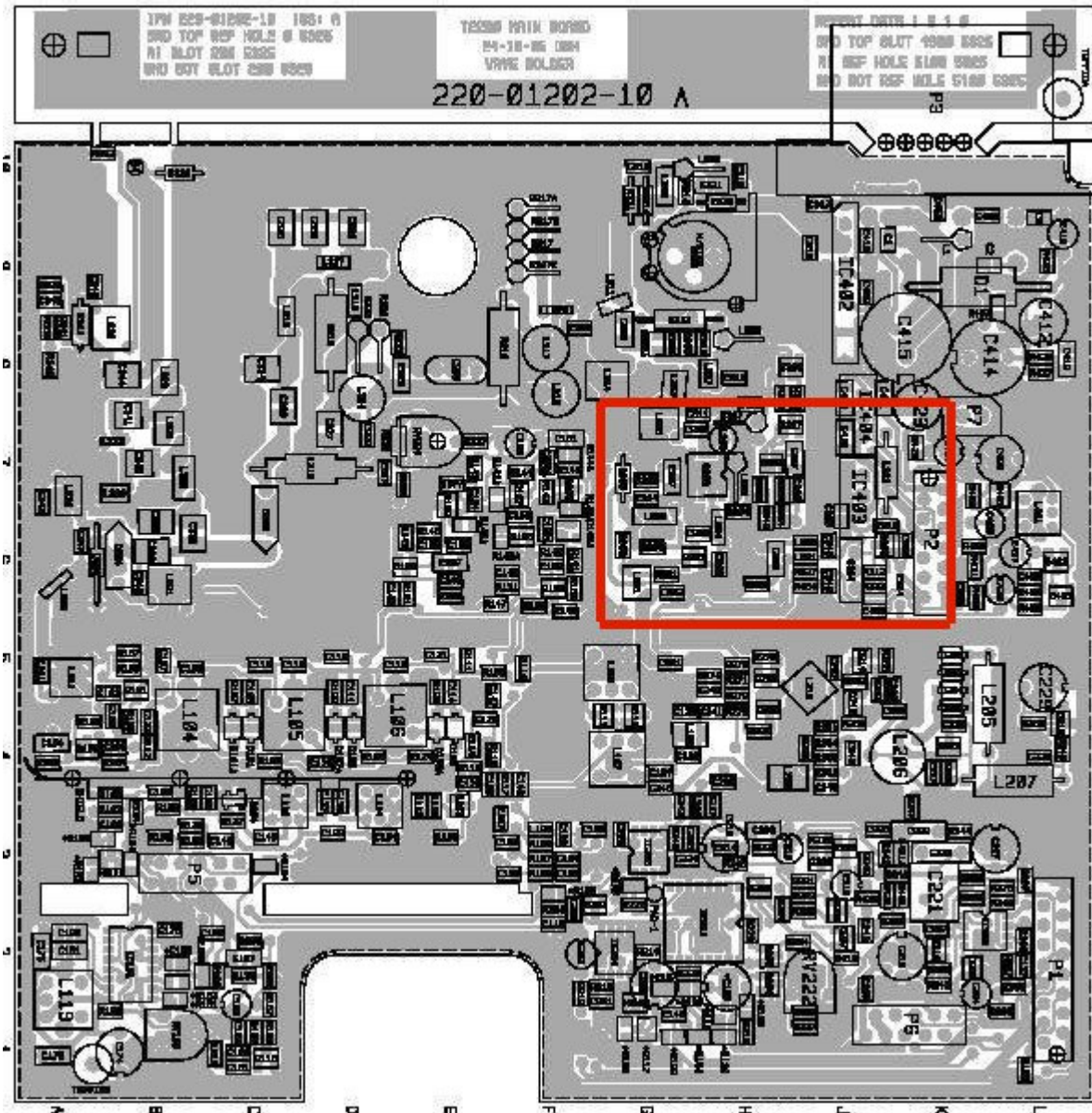
While unintentional by the component manufacturers, Tait have been required to make changes to the circuitry. It will also mean that any replacement of the Microsemi MRF3866 (Q302) in the field will require the replacement of the components listed below.

The changes required are:-

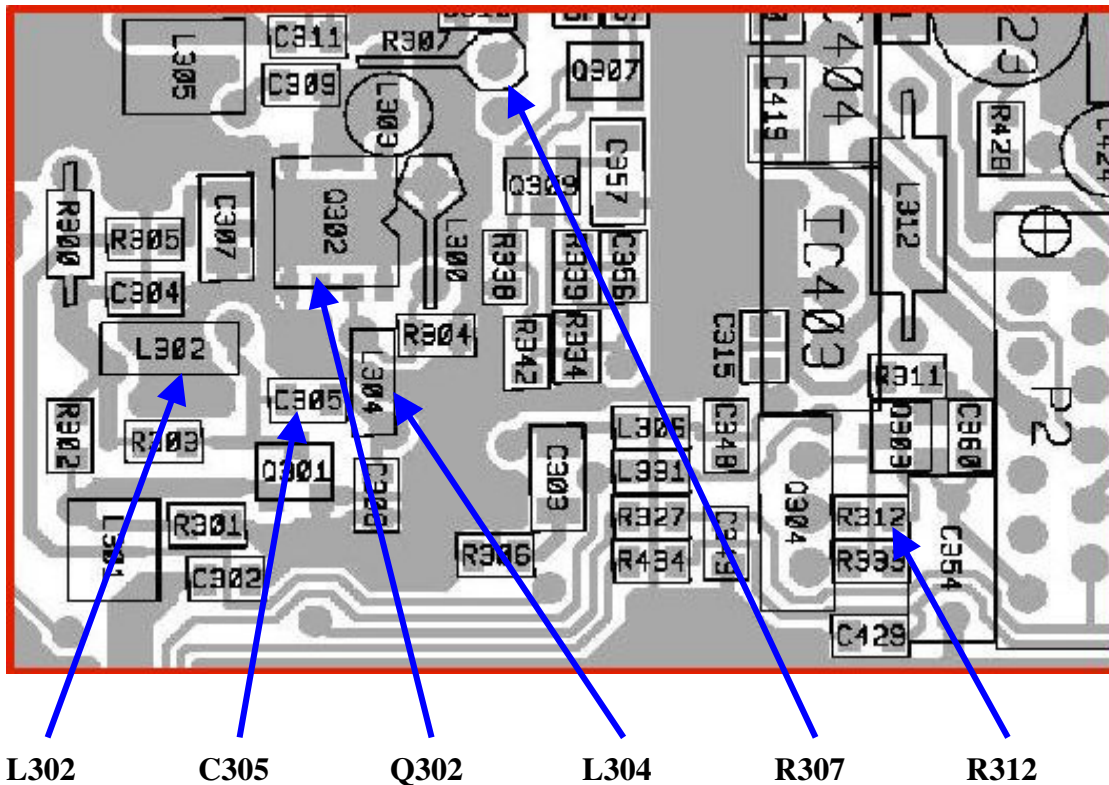
- **Changing Q302 from 000-10386-60 (MRF3866) to 000-10144-27 (MSMRF4427)**
- **Changing R307 from 030-53330-20 (330E) to 030-53120-20 (120E)**
- **Changing R312 from 036-13680-00 (680E) to 036-13390-00 (390E)**
- **Changing C305 from 015-23120-01 (120P) to 015-23180-01 (180P)**
- **Changing L304 from 052-56135-25 (2.5T/3.5MM) to 052-08132-15 (1.5T/3.2MM)**
- **Changing L302 from 052-56145-35 (3.5T/4.5MM) to 052-08145-25 (2.5T/4.5MM)**

Radios affected by this Technical Note are T20XX-2XX-XXXs  
Only radios of this type exhibiting power problems will need the above mentioned components changed. Unfortunately because of the nature of the fault we cannot give more precise information on which particular radios are affected. Faulty transistors are random and are not tied to batch numbers.

The illustrations below and on the next page show the components and their locations.



See the next page for a close up view of the indicated section



**Compliance**

None unless specifically required by network operators.

**CSO Instruction**

CSOs – Please inform all your technical staff and dealers of these changes.

**2. Issuing authority**

**Name and position of issuing officer**

Paul Anderson  
Customer Support Engineer - Mobiles

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**Distribution Level**

Tait Only

**Document History**

Original Release	10 <sup>th</sup> October 2002
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