



Technical Note TN-668

Tait Orca Component Obsolescence Issues

15th June 2001

Applicability

This Technical Note applies to all Tait Orca portable radio models.

1. Information.

Background

Early last year, a project team was formed to research new, critical devices to be used in the Tait Orca range of portables. The project was called **TOPCOP (Tait Orca Portable Component Obsolescence Project)**. The decision to form this project group was made because there was a need to combat some upcoming component obsolescence issues that would jeopardise the continued production of the Tait Orca portable range of product.

All of the radio bands currently supported in the Tait Orca range use components that will be affected by the component obsolescence.

Technical Note Content:

- Components that are affected by obsolescence
- Current IPN and new IPN for the PCB's in each frequency band.
- Component changes for each band.
- Planned implementation dates.

2. Components Affected.

Details

The following are the components that are coming up for obsolescence:

- **Motorola MMBR941LT1 (Low noise transistor)**
- **Motorola MMBR951LT1 (Small signal transistor)**
- **Motorola MMBR571LT1 (Low noise transistor)**
- **Motorola MC12202DT (PLL IC)**
- **Motorola MRF1508T1 (PA Device)**

Please refer to the table attached to the rear of this document to find out which components are being replaced on which RF bands.

3. RF Bands Affected.

Details

The following are the **RF BANDS** that are affected by the upcoming component obsolescence:

- **TOP-A (66-88Mhz)**. Current PCB IPN is 220-01616-08.
The new PCB IPN will be **220-01616-09(?)**
- **TOP-B (136-174Mhz)**. Current PCB IPN is 220-01588-04.
The new PCB IPN will be **220-01654-04**.
- **TOP-C (174-225Mhz)**. Current PCB IPN is 220-01654-03.
The new PCB IPN will be **220-01654-04**.
- **TOP-G (336-400Mhz)** Current PCB IPN is 220-01503-08.
The new PCB IPN will be **220-01503-011**
- **TOP-H (400-470Mhz)** Current PCB IPN is 220-01603-05.
The new PCB IPN will be **220-01603-09**
- **TOP-I (450-530Mhz)** Current PCB IPN is 220-01624-02.
The new PCB IPN will be **220-01624-06**.
- **TOP-J (800Mhz)** Current PCB IPN is 220-01610-04. The new PCB IPN will be **220-01610-07 (?)**
- **TOP-K (900Mhz)** Current PCB IPN is 220-01610-04. The new PCB IPN will be **220-01610-07 (?)**

Please note that the IPN's with the (?) indicate that the IPN of the replacement board has not been decided on yet. However, a change is still going to take place in the near future. CSO's will be notified of any change.

4. Quick Reference Chart

Components in **BLUE** are those in the existing TOP radios

Components in **RED** are the replacement parts.

N/C = No Change

FREQ BAND (MHz)	BAND NAME	LNA (Q301)	VCO OSC	VCO BUFFER	SYNTH	EXCITER	DRIVER	PA
66-88	A	MMBR941 PBR941 OR BFR182	BFS17A N/C	BFS17W BFS17S	MC12202DT PMB2347	MMBR951 PBR951	MRF9382 2SK3074	MRF1511 N/C
136-174	B	MMBR941 PBR941 OR BFR182	MMBR571 BFS17A	BFS17S N/C	MC12202DT PMB2347	MMBR951 PBR951	MRF9382 2SK3074	MRF1508 MRF1511
174-225	C	MMBR941 PBR941 OR BFR182	BFR93A N/C	BFS17S N/C	PMB2347 N/C	MMBR951 PBR951	2SK3074 N/C	MRF1518 N/C
336-400	G	MMBR941 PBR941 OR BFR182	MMBR941 X3 PBR941 OR BFR182	MRFIC0916 N/C	MC12202DT PMB2347	MMBR951 PBR951	MRF9745 MRF9382	MRF1508 MRF1518
400-470	H	MMBR941 PBR941 OR BFR182	MMBR941 X2 PBR941 OR BFR182	MRFIC0916 N/C	MC12202DT PMB2347	MMBR951 PBR951	MRF9382 N/C	MRF1508 MRF1518
450-530	I	MMBR941 PBR941 OR BFR182	MMBR941 X2 PBR941 OR BFR182	MRFIC0916 N/C	MC12202DT PMB2347	MMBR951 PBR951	MRF9382 N/C	MRF1508 MRF1518
800	J	MRFIC0916 N/C	MMBR941 PBR941 OR BFR182	MRFIC0916 N/C	MC12202DT PMB2347	MMBR951 PBR951	MRF9382 N/C	MRF9382 N/C
900	K	MRFIC0916 N/C	MMBR941 PBR941 OR BFR182	MRFIC0916 N/C	MC12202DT PMB2347	MMBR951 PBR951	MRF9382 N/C	MRF9382 N/C

5. Planned Implementation Dates:

Details

Please note that these dates are best estimate based on current sales orders. They may change depending on whether sales orders increase or decrease. The amount of stock (of affected parts) available to continue production will determine the final date for change over.

RF Band	Planned Implementation Date
TOP-A (66-88Mhz)	May 2002
TOP-B (136-174Mhz)	Aug 2001
TOP-C (174-225Mhz)	Sept 2001
TOP-G (336-400Mhz)	Sept 2001
TOP-H (400-470Mhz)	Dec 2001
TOP-I (450-530Mhz)	Dec 2001
TOP-J (800Mhz)	May 2002
TOP-K (900Mhz)	May 2002

Please Note: All CSO's will be notified when the PCB's are going to change in production. Technical Support will endeavor to notify CSO's of the first serial number and the actual date of the change over.

NOTE

CSO's: Inform only Tait Sales and Technical staff of this change in functionality.

6. Issuing authority

Name and position
Of issuing officer

Barry Crates
Senior Customer Support Engineer