



## A2000-RAD Interface User Instructions

### Introduction

The A2000-RAD provides a simple interface for T201X radios. It fits in the option space behind the control PCB, and presents the I/O lines on a DB9 female connector at the rear of the radio.

It provides the following features:

- Unbalanced audio in & out, with level pre-sets & pre/de-emphasised or flat response link selectable.
- Pre or post-squelch audio link selectable.
- Rx Busy & squelch open outputs.
- PTT input
- Ext. PTT does not mute the local microphone.

All lines are bypassed for RF, and audio lines are buffered.

### Installation Instruction:

#### Equipment Required

- T201X radio.
- A2000-RAD interface PCB.
- Hole tapping tool and a 4 x 40UNC tap.
- Three M3 x 8mm Pan Pozi Taptite screws to hold A2000-RAD PCB in.

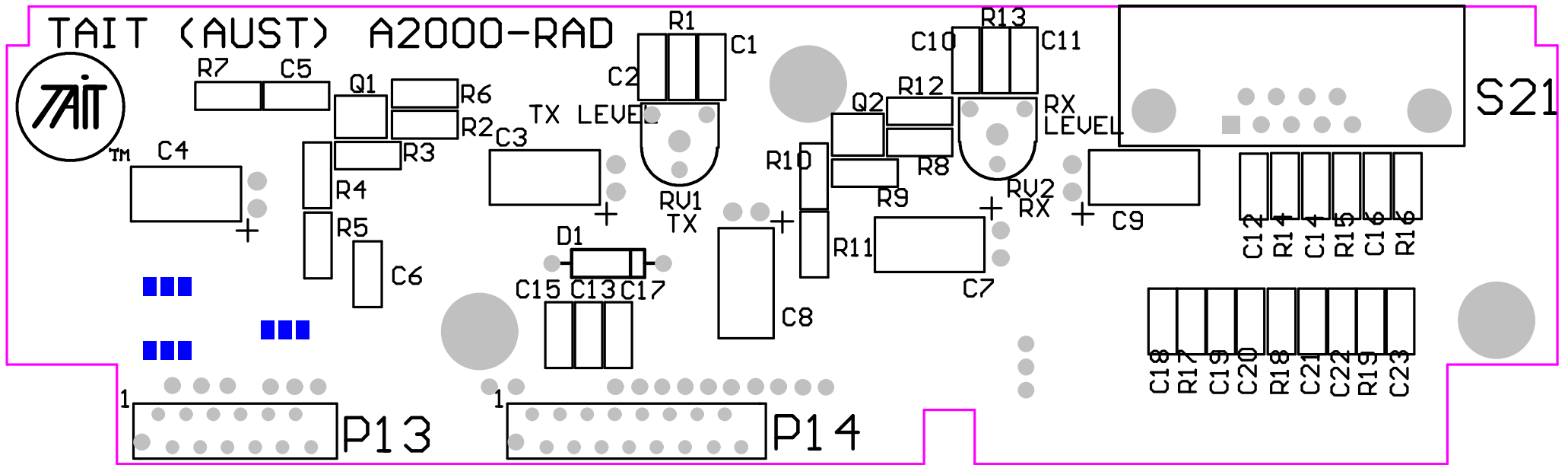
#### Installation:

1. Program and align the radio to the required frequencies, etc.
2. Remove the D-Range blanking plate in the rear of the T201X Chassis. Using a 4x40UNC tap, tap the two (2) holes on either side of the D-Range hole. A 4:40 Taptite screw can also be used for this purpose. This enables a standard D-Range shell to lock-down with its lock-down screws.
3. Fold the control PCB out and connect the A2000-RAD's S13 & S14 to the control PCB.
4. On the T201X control PCB, remove R513 0 Ohm chip resistor, if fitted.
5. Fold back the control PCB and the A2000-RAD, position the D-Range connector at the rear, and screw both boards down.
6. Apply an on channel receive frequency, with a 1KHz tone at 1.5KHz deviation (NB) or 3KHz deviation (WB). Set RV2 RX Level for 0.4 Volts p-p at LINE OUT S21 pin 7, into a 10K ohm load.
7. With no fist mic on the radio, apply a 1KHz tone at 1.2V p-p (0.3V RMS) to LINE IN S21 pin 5. Key the transmitter by grounding PTT S21 pin 9. On the A2000-RAD, set RV1 TX level for 1.5KHz deviation (NB) or 3KHz deviation (WB).

## A2000-RAD PARTS LIST

Ref. No.	Description	Part No.
C1	CAP CHIP 0805/1206 1n0 50V	015-24100-08
C2	CAP CHIP 0805/1206 10nF 50V	015-25100-08
C3	CAP ELECTRO 1uF 63V	RB163 @ECQ
C4	CAP ELECTRO 47uF 35V	RB4735 @ECQ
C5	CAP CHIP 0805/1206 100nF 50V	015-06100-08
C6	CAP CHIP 0805/1206 100nF 50V	015-06100-08
C7	CAP ELECTRO 1uF 63V	RB163 @ECQ
C8	CAP ELECTRO 47uF 35V	RB4735 @ECQ
C9	CAP ELECTRO 1uF 63V	RB163 @ECQ
C10	CAP CHIP 0805/1206 10nF 50V	015-25100-08
C11	CAP CHIP 0805/1206 1n0 50V	015-24100-08
C12	CAP CHIP 0805/1206 1n0 50V	015-24100-08
C13	CAP CHIP 0805/1206 10nF 50V	015-25100-08
C14	CAP CHIP 0805/1206 1n0 50V	015-24100-08
C15	CAP CHIP 0805/1206 10nF 50V	015-25100-08
C16	CAP CHIP 0805/1206 1n0 50V	015-24100-08
C17	CAP CHIP 0805/1206 10nF 50V	015-25100-08
C18	CAP CHIP 0805/1206 1n0 50V	015-24100-08
C19	CAP CHIP 0805/1206 10nF 50V	015-25100-08
C20	CAP CHIP 0805/1206 1n0 50V	015-24100-08
C21	CAP CHIP 0805/1206 10nF 50V	015-25100-08
C22	CAP CHIP 0805/1206 1n0 50V	015-24100-08
C23	CAP CHIP 0805/1206 10nF 50V	015-25100-08
D1	DIODE 1N914	1N914 @ ECQ
LINK1	SOLDER BRIDGE LINK1 A TO B	N/A
LINK2	SOLDER BRIDGE LINK1 A TO B	N/A
LINK3	SOLDER BRIDGE LINK1 A TO B	N/A
P13	MICROMTCH PLUG PCB MNT 12WAY	240-00026-26
P14	MICROMTCH PLUG PCB MNT 16WAY	240-00026-24
PCB	A2000-RAD PCB	A2000-RAD @ SUTEK SERVICES

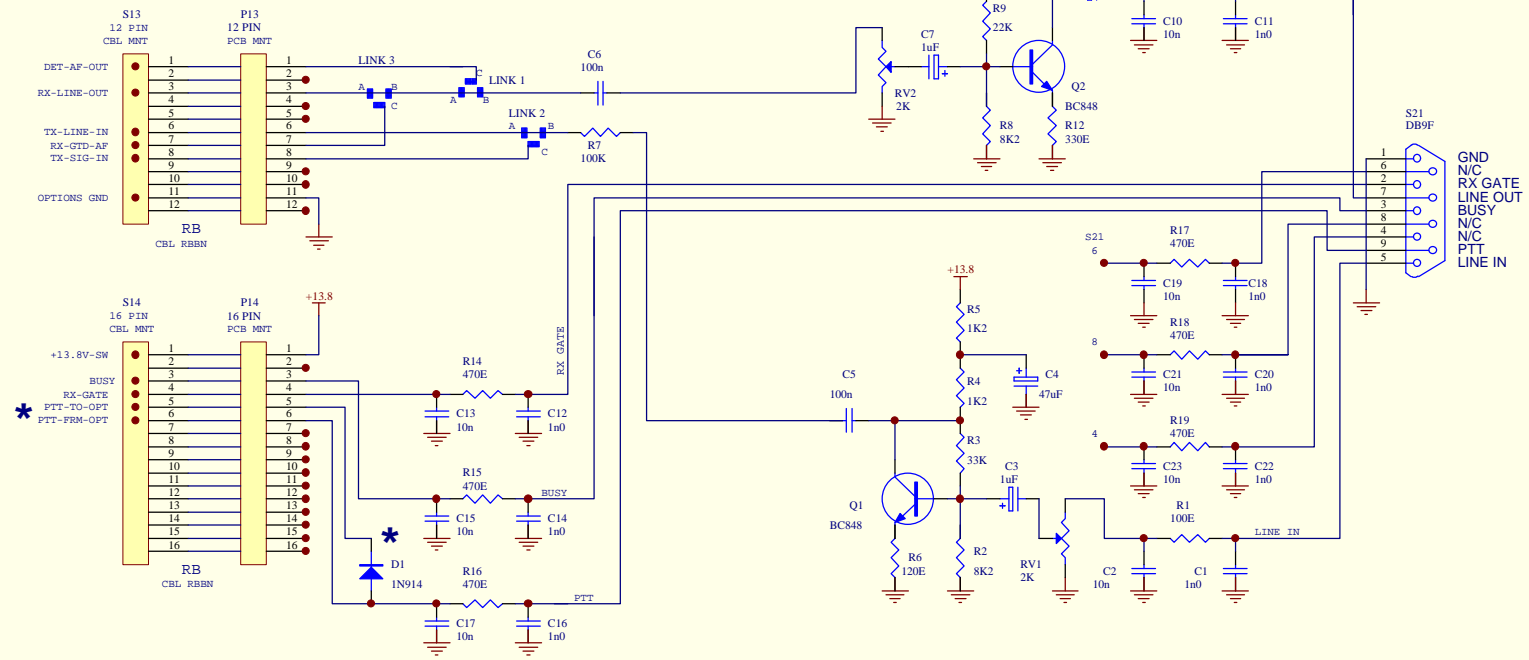
Ref. No.	Description	Part No.
Q1	XSTR SMD BCW60/BC848B215 SOT23	000-10008-48
Q2	XSTR SMD BCW60/BC848B215 SOT23	000-10008-48
R1	RES CHIP 0805/1206 100E 5%	036-13100-00
R2	RES CHIP 0805/1206 8K2 5%	036-14820-00
R3	RES CHIP 0805/1206 33K 5%	036-15330-00
R4	RES CHIP 0805/1206 1K2 5%	036-14120-00
R5	RES CHIP 0805/1206 1K2 5%	036-14120-00
R6	RES CHIP 0805/1206 120E 5%	036-13120-00
R7	RES CHIP 0805/1206 100K 5%	036-16100-00
R8	RES CHIP 0805/1206 8K2 5%	036-14820-00
R9	RES CHIP 0805/1206 22K 5%	036-15220-00
R10	RES CHIP 0805/1206 1K2 5%	036-14120-00
R11	RES CHIP 0805/1206 1K2 5%	036-14120-00
R12	RES CHIP 0805/1206 330E 5%	036-13330-00
R13	RES CHIP 0805/1206 100E 5%	036-13100-00
R14	RES CHIP 0805/1206 470E 5%	036-13470-00
R15	RES CHIP 0805/1206 470E 5%	036-13470-00
R16	RES CHIP 0805/1206 470E 5%	036-13470-00
R17	RES CHIP 0805/1206 470E 5%	036-13470-00
R18	RES CHIP 0805/1206 470E 5%	036-13470-00
R19	RES CHIP 0805/1206 470E 5%	036-13470-00
RV1	TRIMPOT 2K	VRVTP2K @SLE
RV2	TRIMPOT 2K	VRVTP2K @SLE
RB	RIBBON CABLE >=16 WAY 60mm	205-00010-12
S13	MICROMTCH PLUG CBL MNT 12WAY	240-00020-51
S14	MICROMTCH PLUG CBL MNT 16WAY	240-00020-54
S21	DB9 FEMALE RIGHT ANGLE PCB MNT	DE09SR @ ECQ
SCREW	SCREW TAPTITE M3 X 8mm PAN POZI BZ	349-00020-32
SCREW	SCREW TAPTITE M3 X 8mm PAN POZI BZ	349-00020-32
SCREW	SCREW TAPTITE M3 X 8mm PAN POZI BZ	349-00020-32




A2000-RAD Top Overlay

LINK 1: A TO B = RX DE-EMPHASISED  
 C TO B = RX FLAT  
 LINK 2: A TO B = TX PRE-EMPHASISED  
 C TO B = TX FLAT  
 LINK 3: A TO B = RX AUDIO UN-GATED  
 C TO B = RX AUDIO GATED  
 NOTE: LINK 3 IS ONLY EFFECTIVE FOR  
 DE-EMPHASISED RX AUDIO  
 (LINK 1 A TO B).

CONNECTS TO:  
 T2000 CONTROL PCB



**\*NOTE:** Remove R513 (0 OHM CHIP RES)  
 on the control PCB, in the PTT line.

			<b>Tait Electronics (Aust) Pty Ltd</b>	
			Title: <b>T201X Radtel Interface</b>	
Size: <b>A3</b>	Number: <b>A2000-RAD</b>	Revision: <b>1</b>		
Drawn By: M.O.B	Checked By: M.O.B			
Date: 12-04-95	Sheet 1 of 1		File: A2000-RAD.sch	

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