



Expertech MDT301 Interface to Tait TM8100

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General

Following details general instructions for interfacing an Expertech MDT301 to a Tait TM8100 mobile

Note

We have not actually done this interfacing ourselves. This is draft general information only, based on feedback from others who have successfully interfaced the TM8100 and the Expertech MDT301 and is offered as guidance for those wishing to do the interface. Any feedback or suggestions most welcome

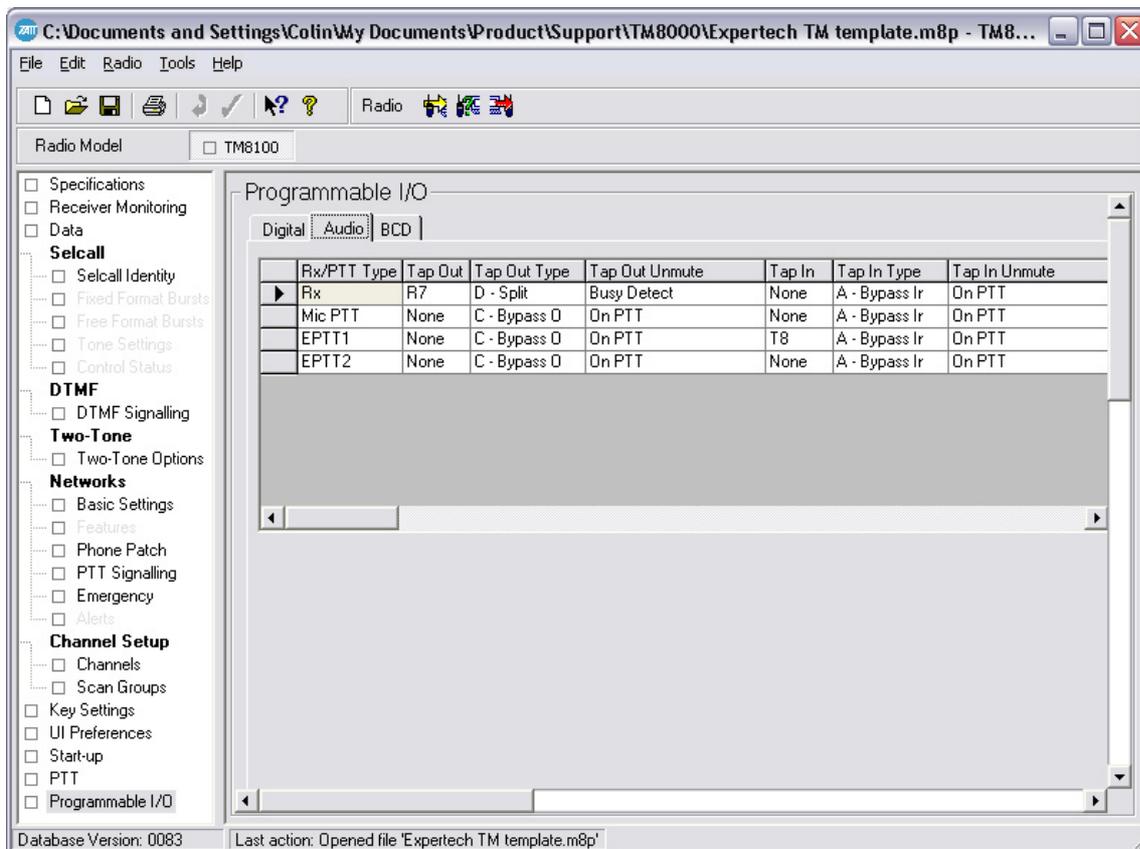
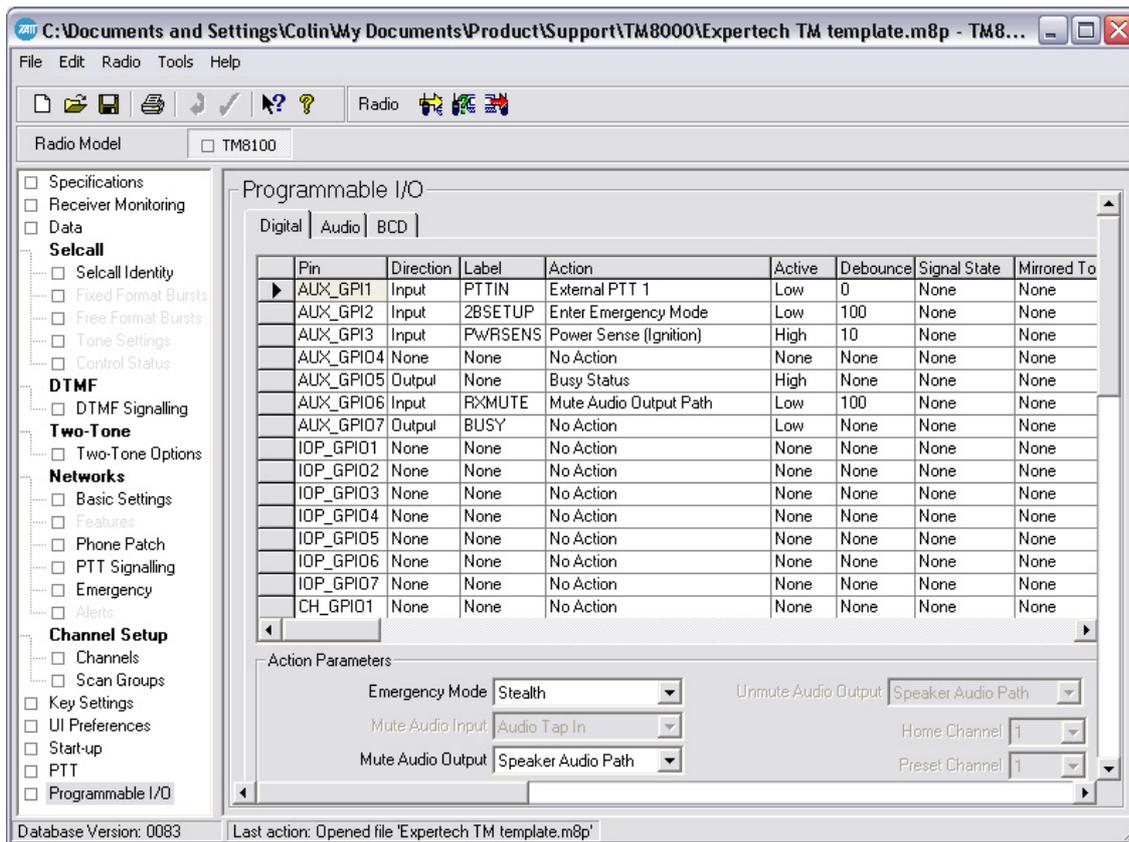
Parts

The parts required are as follows:

Part Number	Description	Supplier	Qty.
TM81xx-xxxxx	TM8105, TM8110 or TM8115 as required in required frequency band	Tait	1
	BS170 N-channel EM FET		1
	Wiring loom as required D25M to MDT301 D15M to TM8100 auxiliary connector		1

Procedure

1. The radio must be fitted with Raywood firmware "2417A120.S2"
2. The template file MDT301.m8c this provides the IO programming parameters for the radio to provide the interface. Modify this template for appropriate channel information etc using the TM8100 programming software. The I/O template is shown following:



3. Program the radio with the modified file.

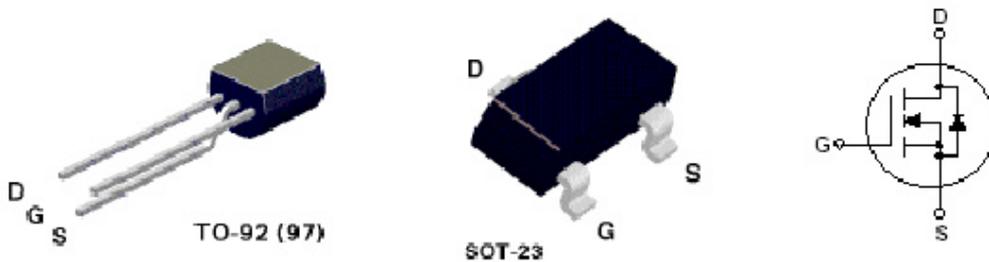
4. Make up a wiring loom of the necessary length as follows:

MDT301 (D25M)	Function	Tait TM81xx (D15M)
1 & 14	+13.8V *	8
2,3 & 4	Ground	15
7	Radio Rx Data	3
15	Rx Speaker Mute	Source of the FET**
	Drain of the FET**	9
	Gate of the FET**	2
17	Tx Key	12
19	Carrier Detect	1
20	Rx Audio	13
21	Tx Audio	7

Notes:

* 13.8V can be either switched or unswitched. It will be switched by default, to change to an unswitched supply Links LK5, LK6, LK7 & LK8 need to be fitted in the radio. (refer to radio 3DK manual Section 8 for further details.)

** the FET is fitted into the shell of the 15W D range connector fitted to the TM81xx. The FET is required to provide a delay on powerup as the TM8000 I/O is edge triggered and if the MDT is presenting a radio speaker mute on powerup then the radio will not see the edge triggering leading to the radio being potentially unmuted.



5. Test radio and MDT on the system to confirm correct operation