



## T800 Direct Coupled DC FM Input

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### General

This application note details the configuration required for the set up of a direct DC coupled FM input into T800 Series II Exciters and Transmitters. The example circuit diagram and PCB overlay provided here are for a T856 transmitter. Although component locations may vary slightly amongst different models of T800's the component references are always the same. Reference to the relevant T800 service manual may need to be made to ensure successful completion of the steps detailed here.

The input used here is the CTCSS input which is available externally on pin 8 of the modules 1<sup>st</sup> D Range. The input impedance is approximately 150K. The modules internal input circuitry is biased to 4.1 Volts.

As the CTCSS input used here is post TX Limiter circuitry, it is necessary for any input signal to be limited in its maximum level. This is to conform to transmitter bandwidth emission's limits. Failure to limit the input signal may result in non-compliance of TX emission spectrum. This input should not be left floating as doing so may allow it to pickup stray signals.

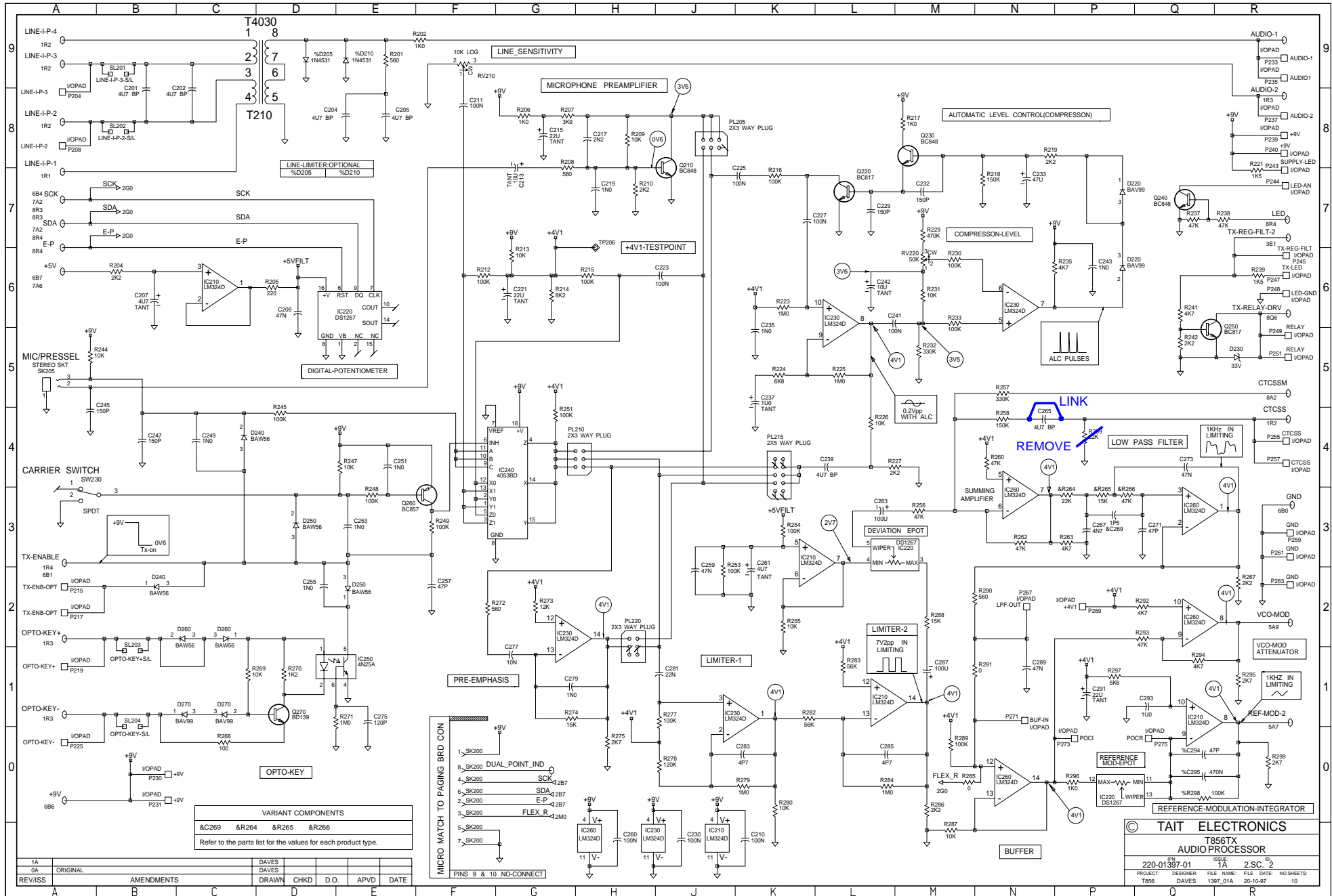
**Note:** This application note assumes the technician has a sound working knowledge of the Tait T800 Series II radio equipment. For more information on these products, refer to the relevant service manuals.

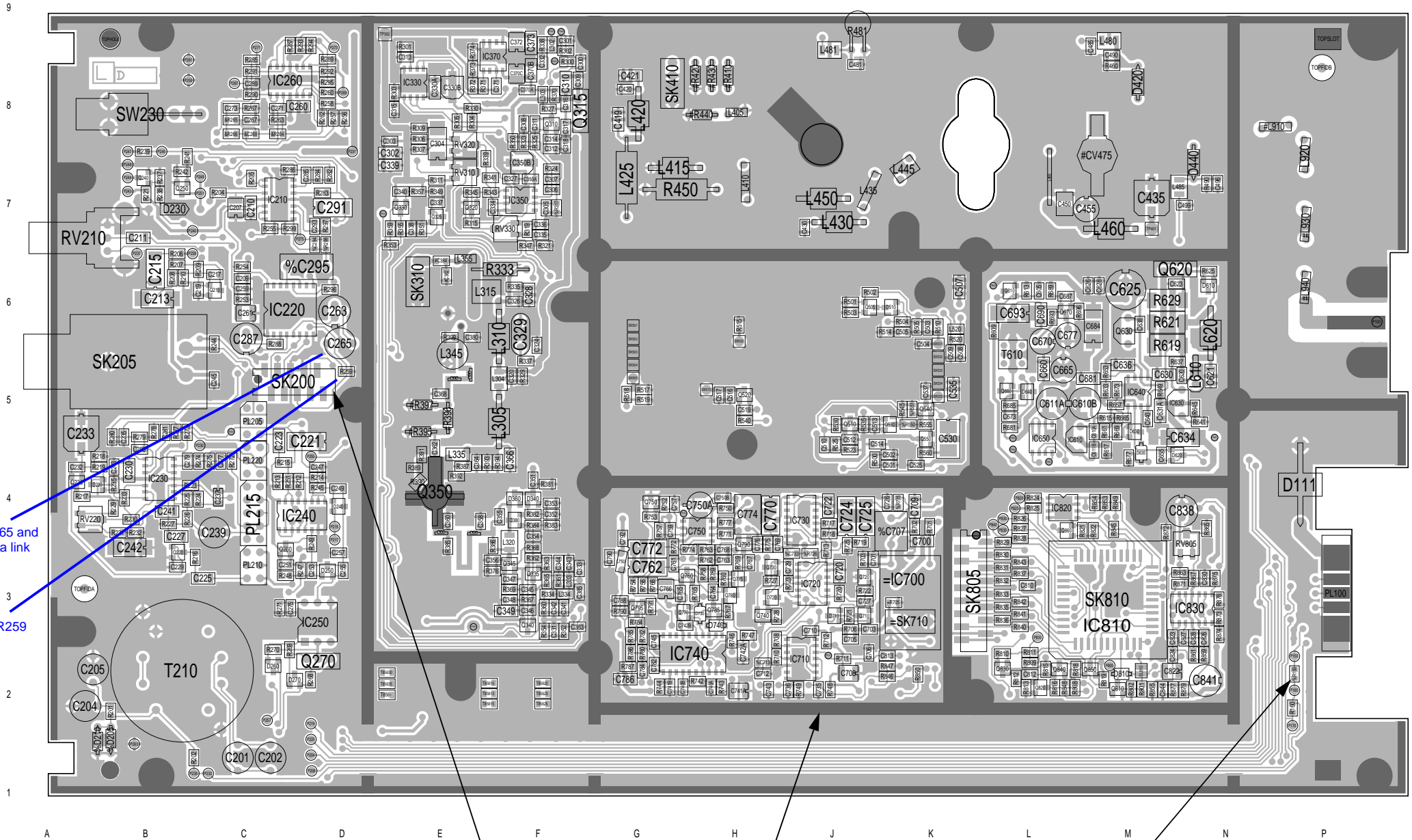
### Parts

No parts are required.

### Procedure

1. Remove radios top and bottom covers.
2. Locate and remove the 4.7uF capacitor C265.
3. Place a wire link between the two vacant pads where C265 was fitted. This will now provide a direct DC coupled input.
4. Locate and remove the 22K resistor R259. This isolates the direct DC coupled input from being pulled down to ground by the 22K resistor.
5. The set up and alignment of the module should be completed as per the relevant T800 service manual. Note that the TX frequency alignment should be completed with any DC coupled equipment connected to the module.





Remove C265 and replace with a link

Remove R259

SK200 is currently not fitted as standard. It will be fitted for future options.

The darker shading shows the outline of the chassis.

%R150 (10Ω) is fitted only when the T856 is used in a Series I rack frame (refer to Part I for full details).

**T856 PCB Layout - Top Side**  
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