

**CDM option connector**  
 Top of Radio ← Connector outline  
 RIM board outline ←

Slot for OEM connector lock →

**\*\*NOTE\*\***  
 If using a Maxtrac/GM300 family radio, the interface can only be inserted one way due to physical design.  
 If using a M1225 or SM series radio, the radio's option connector is inverted from that shown. Thus the crystal, USB connector and CM119 will face "UP".

**Repeater Maker (-RM)**  
 Cut traces on pins 8 & 11 at radio connector  
 Rx audio, COS, and Ground lines from "Remote" (RX) radio connect to marked bare pads on "main" (TX) PCB.

**Mods for 9600 (VARA FM)**  
 Remove D2, D3, R14, & C14  
 Tack solder a 22-100pF capacitor between Pin 5 and ground (pin 7) on the radio connector. (RF bypass)

**Notes for use with a CDM series radio:**  
 Under Radio Configuration > Accessory Pins:  
 Change Pin 3 to "Data PTT (input)" instead of the default setting "External Mic PTT (input)"  
 Change RX audio type to "Flat Audio"

**Audio Configuration Notes:**

**LoopBack Test Plug**

6 & 8 to 3  
 12 to 14  
 2 & 5 to 11

Set the Following:  
 rxboost = 1  
 txmixa = voice ; Only if using USBradio  
 txmixb = tone  
 txboost = 0  
 invertptt = 0

**Option Connector Programming Notes:**

**Option #1** - For DTMF selectable COS / CTCSS selection via AllStar:  
 Program pin 12 as COS - active HIGH and pin 8 as CTCSS - active HIGH;  
 set 'carrierfrom = usb' and 'ctcssfrom = usb'

**Option #2** - For Radio Programming of COS/CTCSS selection:  
 Program pin 8 to COS&PL active HIGH;  
 set 'carrierfrom = no' and 'ctcssfrom = usb'

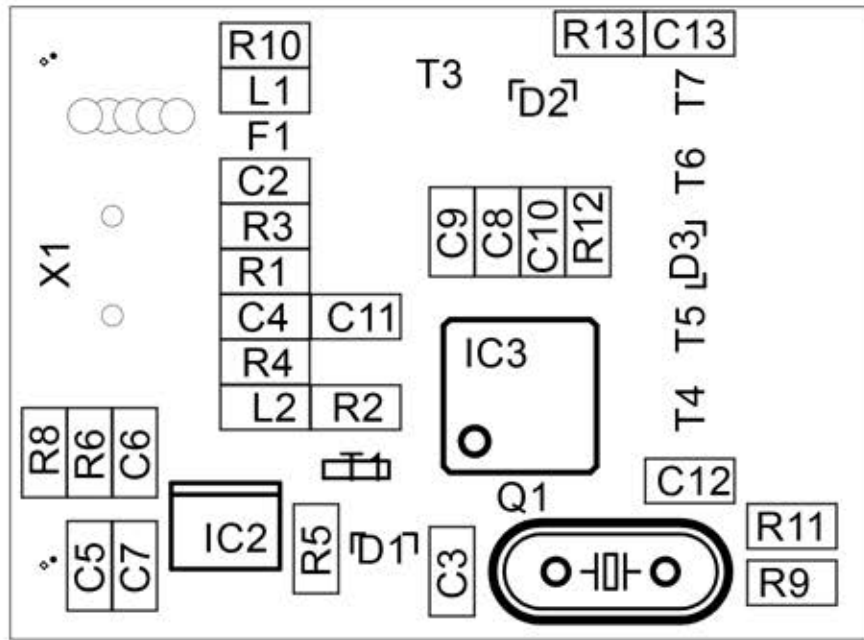
**NOTE:** If using the -RM model with receiver daughter board;  
 use option #2 above on receiver radio.

**Channel Steering:**

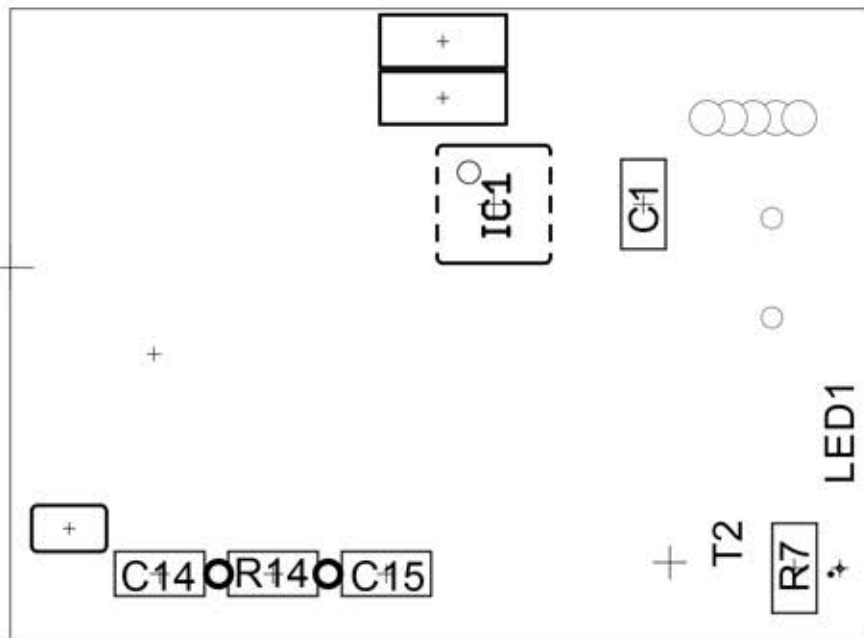
Pin 6 - Channel Select 1  
 Pin 8 - Channel Select 2\*  
 Pin 14 - Channel Select 3  
 Pin 12 - Channel Select 4\*

Pins 8 and 12 are also used for COS / CTCSS.  
 Consider using DSP COS & CTCSS decode, or steer only 8 channels, (Using pins 6, 8, & 14) leaving pin 12 free for COS/CTCSS {program pin 12 COS/CTCSS - active HIGH; set 'carrierfrom = usb' and 'ctcssfrom = no'}

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