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## **IF-2000 Rev C. IF interface board**

Version 2.2



The IF-2000 Revision-C IF interface board adds an IF output at 10.55 MHz to the Yaesu model FT-2000 and FT-950 transceivers. This board allows the interfacing of the transceiver to an RFSPACE SDR or panoramic adapter. The addition of an SDR to the Yaesu radios greatly enhances its capabilities.

Here are some of the key enhancements of the RFSPACE SDR-IQ / IF-2000 board:

1. Adds the most powerful panoramic adapter available for the Yaesu radios. Experience unprecedented speed, bandwidth and resolution.
2. Adds a 190 KHz wide waterfall / spectrum display.
3. Adds two additional AM/FM/CW/SSB demodulators.
4. Allows the recording of 190 KHz of band to the computer hard drive centered at the radio VFO frequency.
5. Allows the monitoring of HF and 6 meter frequencies.
6. Adds the ability to monitor the transmitter spectrum.

### **IF-2000 Specifications:**

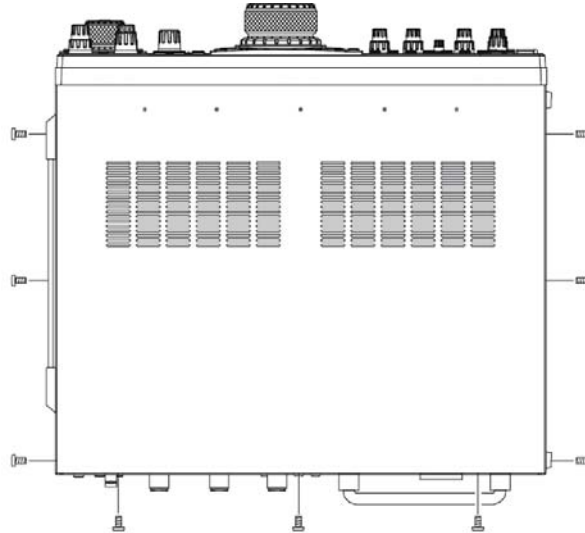
Current Draw:	110mA @ 9 volts
LO Frequency:	80.000 MHz
LO Stability:	+/- 50ppm, 0 -> +85 C
IF Input:	69.45 MHz
IF Output:	10.55 MHz*
Response:	+/- 0.5dB @ +/- 500 KHz
Input Return Loss:	-20dB

\* The FT-2000 and FT-950 radios change IF frequencies depending on mode selected and programmed carrier offset frequencies.

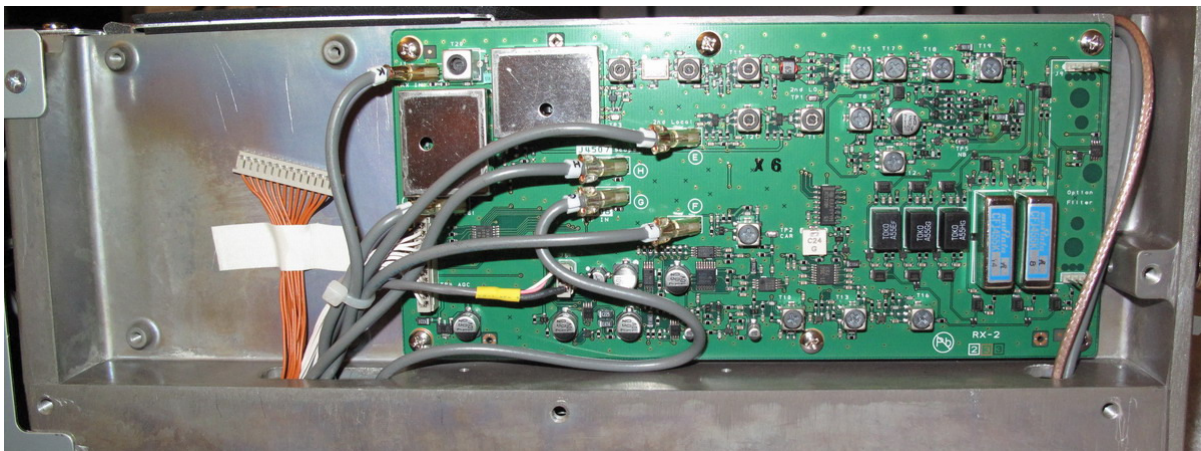
## IF-2000 Installation Instructions:

\* FT-950 Installation, Please follow DMU-2000 board installation Page 124 of FT-950 Manual. Coax routs to vent close to GND lug.

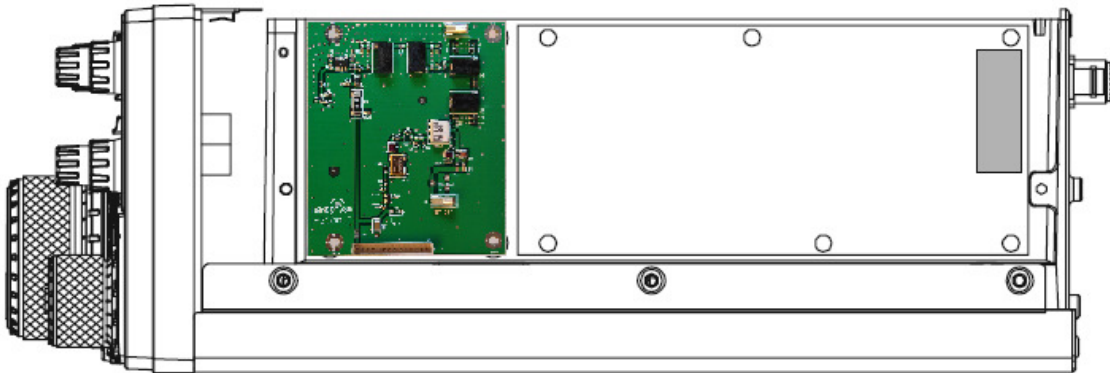
1. Turn radio off and remove power.
2. Remove top cover by removing 9 screws.



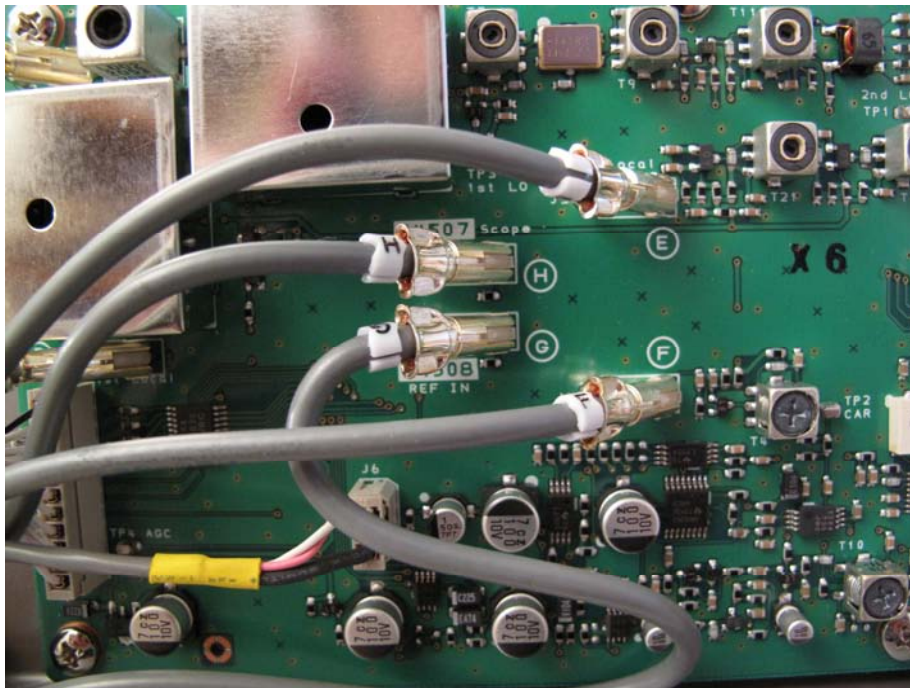
3. Untape the orange ribbon cable from the DMU-2000 position and position it so that the IF-2000 board can be screwed into place. The orange cable supplies 9 volts to the IF-2000 board.



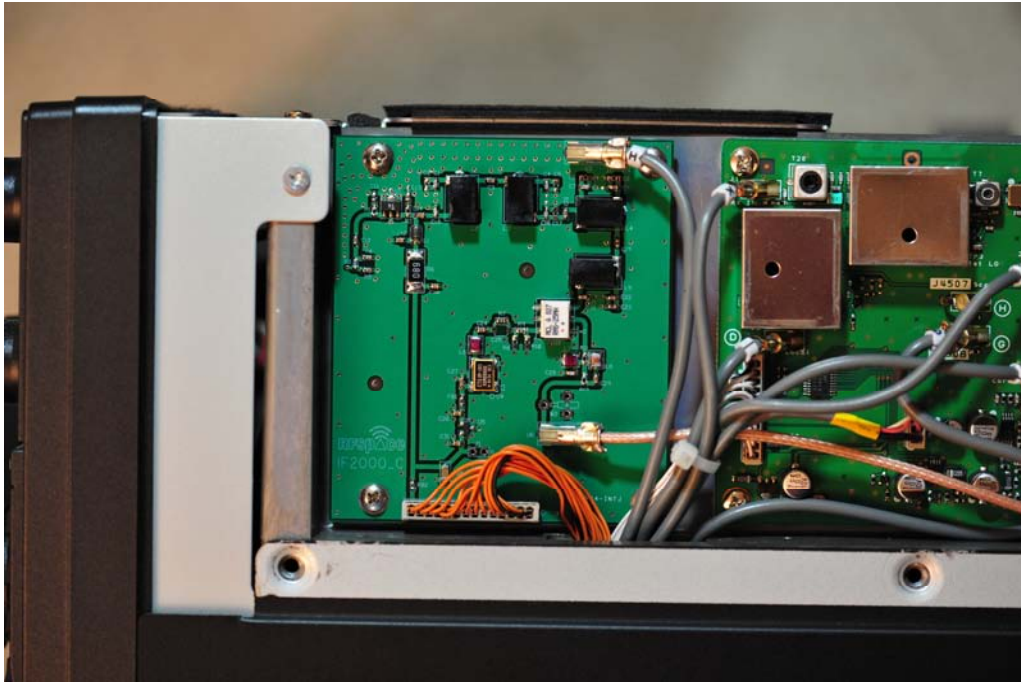
4. Install IF-2000 into DMU-2000 position as shown using the 4 screws supplied.



5. Disconnect cable labeled "H" from location "H Scope J4507" on the RX2 board on the right and plug into position U2 on IF-2000 board labeled "IF IN".



6. Connect orange ribbon cable to position J1 on bottom of IF-2000 board. The cable only plugs in one way with black wire on the right. Do not force it.

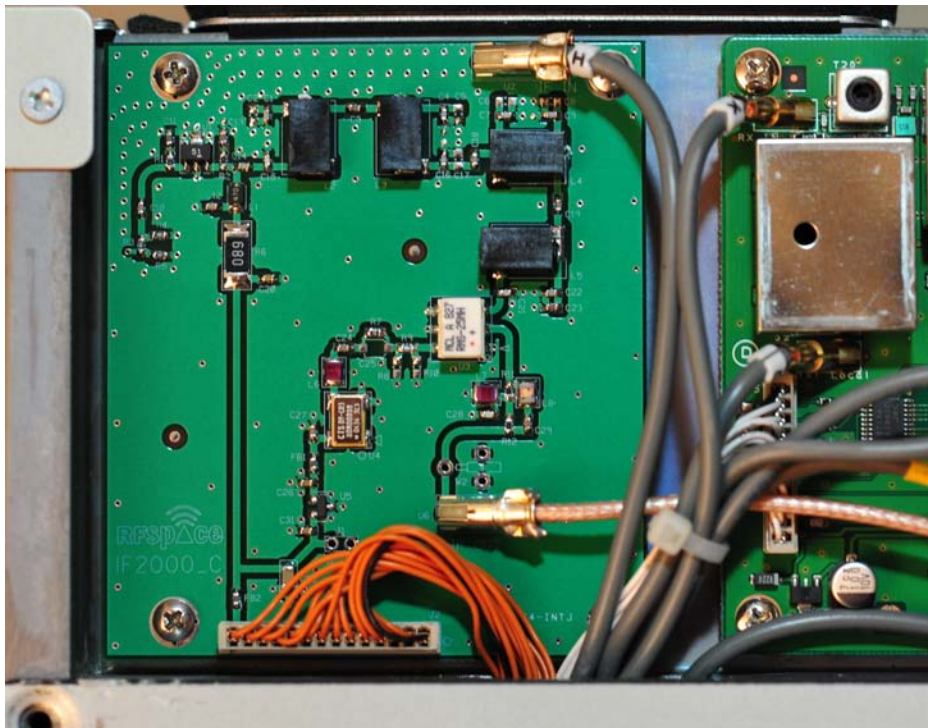


7. Insert small Taiko Denki connector and cable end through back of FT-2000 as shown. If the small coax connector does not fit, it is OK to compress the sides of the connector slightly using a pair of pliers.





8. Route coax cable as shown and connect to IF OUT connector at position U6.



9. Reassemble radio by replacing top cover. Slide cover forward so front clips engage.

10. If controlling the FT-2000 or FT-950 from the SpectraVue software, adjust the FT-2000 or FT-950 menu settings as follows:

FT-2000

027 GEnE CAT BPS = **9600**

029 GEnE CAT RTS = **OFF**

FT-950

026 GEnE CAT BPS = **9600**

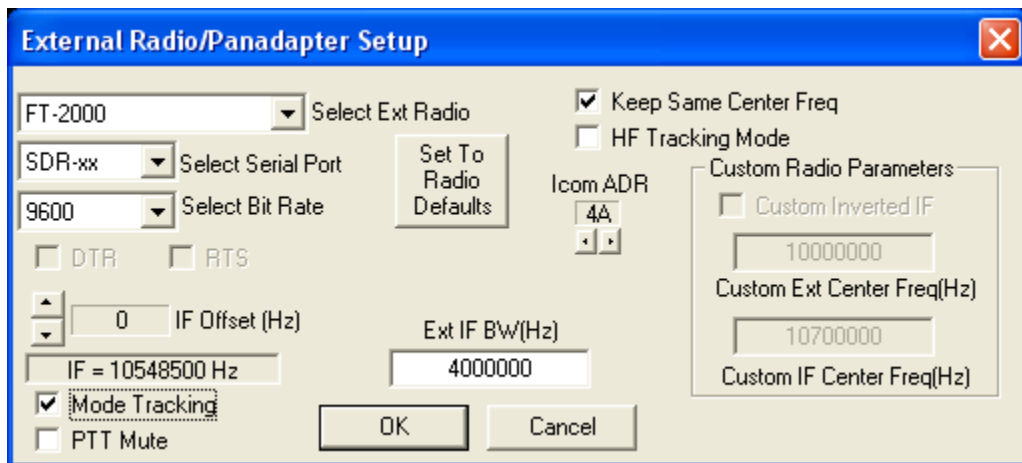
028 GEnE CAT RTS = **OFF**

**The latest version of SpectraVue 3.02 automatically tracks the FT-2000 and FT-950 operating mode and adjusts the IF frequency accordingly. The v3.02 software can be downloaded here:**

<http://www.moetronix.com>

When using the SpectraVue 3.02 software. Configure the FT-2000 or FT-950 as follows:

SDR-xx is the serial port on the back of the SDR-IQ. The Serial port on the computer labeled ComX can also be used.



After adjusting the setting in SpectraVue as shown above, verify that the FT-2000 or FT-950 and SpectraVue are tracking. When the VFO on the radio is changed, the software should update the frequency and vice versa. If this does not happen, there is a communications problem. Check the serial cable and the radio menu settings 027 and 029.

Once serial communications have been established between the radio and the software, return to the External Radio Setup menu.

While keying up in CW mode, adjust the IF Offset up or down until the carrier displayed is exactly at center frequency. The FT-2000 will now be calibrated.



Yaesu FT-950 Installation Images:

