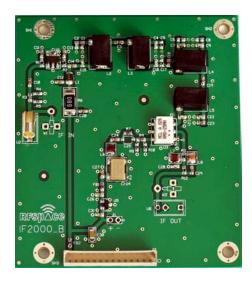


IF-2000 IF interface board

Version 1.0 Preliminary



The IF-2000 IF interface board adds an IF output to the Yaesu FT-2000 and FT-950 radios. This board allows the interfacing of the transceiver to an RFSPACE Software Defined Receiver 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, $0 \rightarrow +85$ C

IF Input: 69.45 MHz
IF Output: 10.55 MHz*

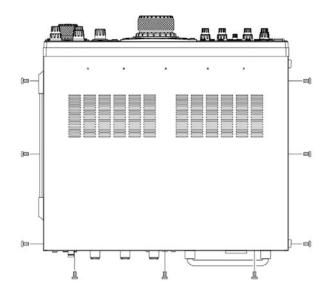
Response: +/- 0.5dB @ +/- 500 KHz

Input Return Loss: -20dB

IF-2000 Installation Instructions:

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

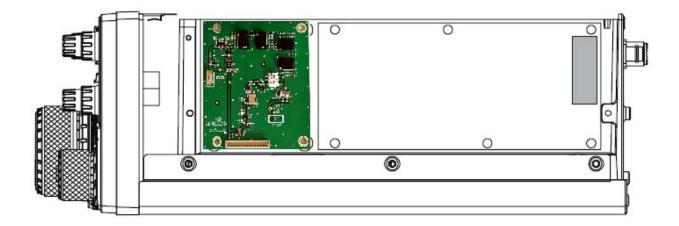
- 1. Turn radio off and remove power.
- 2. Remove top cover by removing 9 screws.



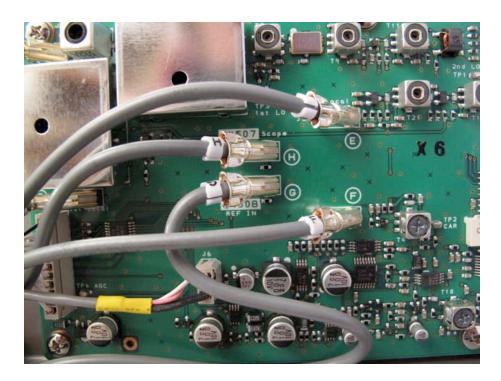
3. Untape the orange ribbon cable from the DMU-2000 position and position so that the IF-2000 board can be screwed into place. The orange cable supplies 9 volts to the IF-2000 board.



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.



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

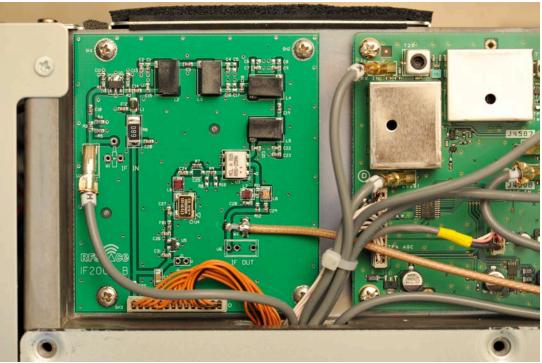


7. Insert unconnectorized cable end though back of FT-2000 as shown.



8. Route coax cable as shown and solder loose end at position W2 "IF OUT".

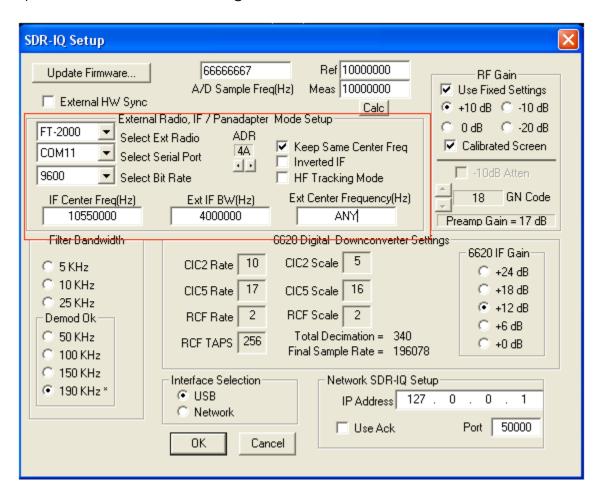




- 9. Reassemble radio by replacing top cover. Slide cover forward so front clips engage.
- 10. If controlling the FT-2000 from the SpectraVue software, adjust the FT-2000 menu settings as follows:

027 GENE CAT BPS = **9600** 029 GENE CAT RTS = **OFF**

SpectraVue should be configured to control the FT-2000:



Under "Select Serial Port" select the proper Com port.

The IF frequency will be 10547000 +/- when operating USB and 10550000 +/- when operating LSB. RFSPACE is currently working on a beta version of SpectraVue that will automatically update the IF frequency based on operating mode.