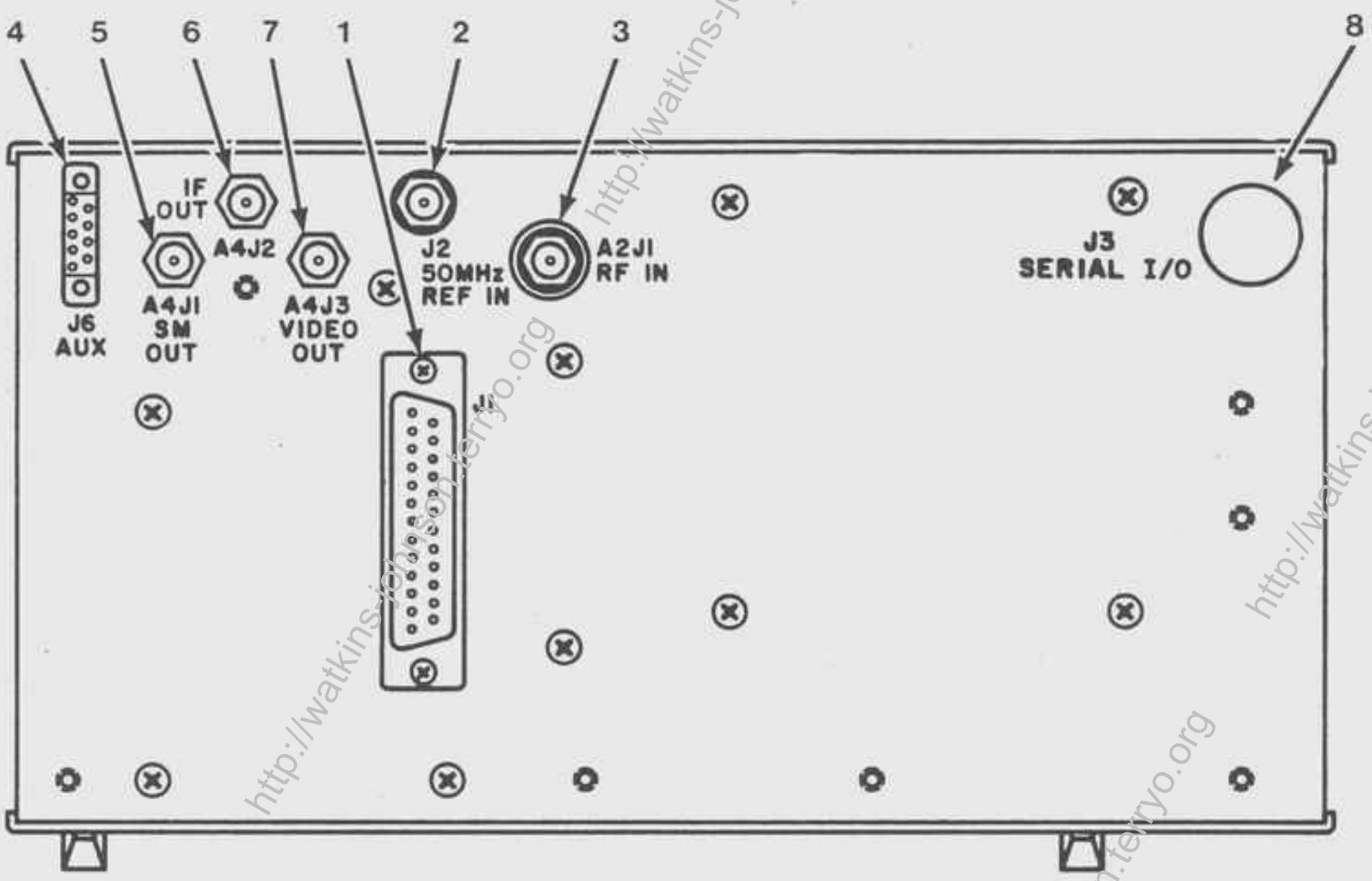


1. Power, Command/Control J1
2. 50 MHz Reference Input J2
3. RF Input A2J1
4. Auxiliary Output J6
5. SM Output A4J1
6. 455 kHz IF Output A4J2
7. Selected Video Output A4J3
8. Serial I/O Connector J3

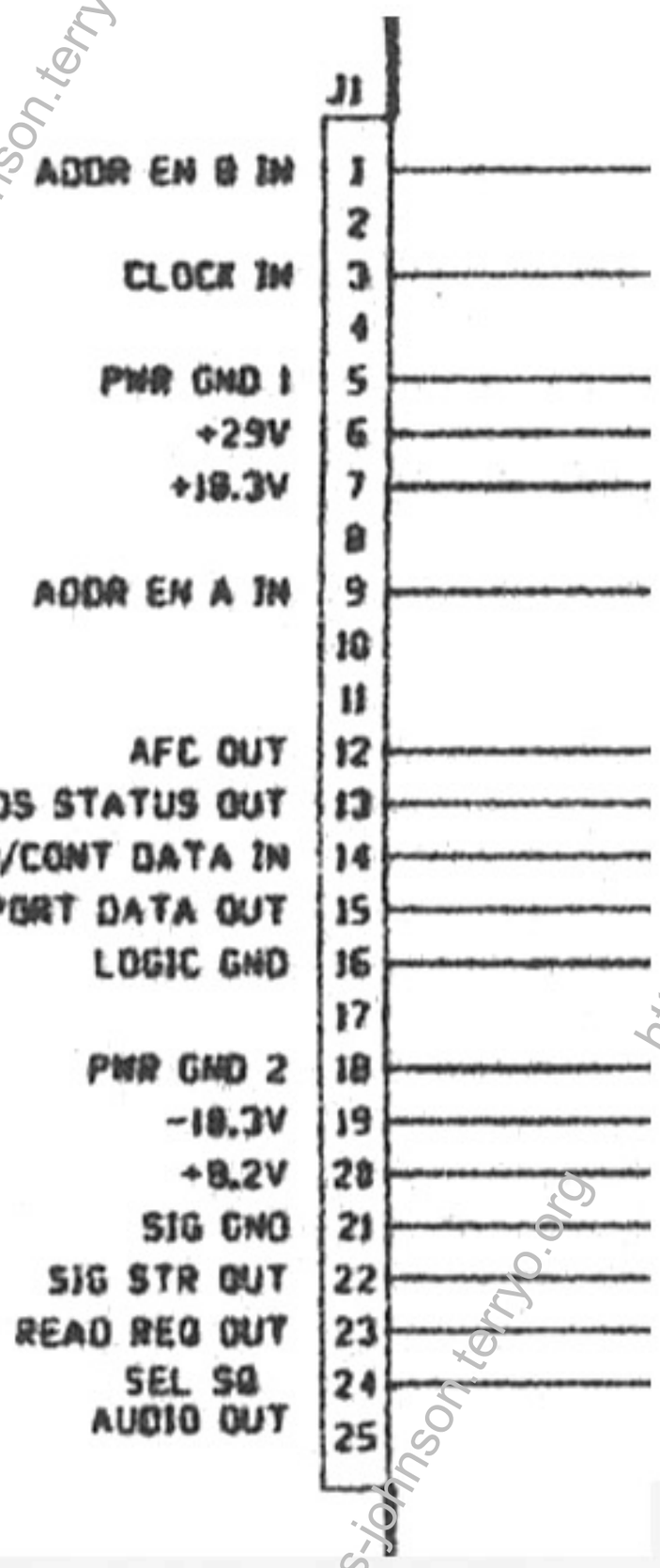
Figure 2-1. Receiver Input/Output Connectors

2.3.1 INPUT/OUTPUT CONNECTORS

The receiver's input/output connectors are shown in **Figure 2-1.** These connectors are physically mounted on the receiver rear panel. The 25-pin D type connector (J1) mates with a counterpart in the EFR100 Equipment Frame to provide DC power and control signals to the receiver and status indication outputs. Five SMA female connectors provide signal input and output connections. BNC connector (J3) provides the optional WJ-9040 Serial I/O output for connection to other frames. A nine-pin SRE female connector (J4) provides auxiliary outputs from the demodulator. These connectors are described individually in the following paragraphs.

2.3.1.1 Power, Command/Control J1

This 25-pin D type connector mates with the stand-alone power supply (option MPS) or any one of connectors J1-J8 on the EFR100 to supply DC voltage and I/O command and control signals to the receiver. Status conditions, including signal strength, squelch status, tuning voltage and synthesizer lock, are polled by the IOM108 via this connector.



2.3.1.2 **50 MHz Reference Input J2**

This SMA connector must be connected to either J1, J2, J3, or J4 on the FRM150 or other highly stable 50 MHz signal (50 ohm, 0 dBm), to provide a reference for the receiver's synthesizers.

2.3.1.3 **Operational WJ-9040 Serial I/O Connector J3**

When equipped with the Master/Handoff Option (option MH), this 50-ohm BNC connector supplies the high speed I/O data stream for the Master Receiver Controller mode. It may be connected to A1A3J1 on any IOM108 for control of all quarter-rack receivers in that frame.

2.3.1.4 **Auxiliary Output J6**

This nine-pin SRE female connector provides outputs from the receiver's Demodulator Section. These outputs are for connection to user-selected interface devices. The pin assignments are as follows:

A	-	Ground
B	-	FM Audio Output (5 k ohm impedance)
C	-	AM Audio Output (5 k ohm impedance)
D	-	Signal Strength Output (analog 0 to +10 Vdc 10 mA)
E	-	Carrier Operated Relay (open collector, 30 mA sink to ground, +24 Vdc max)
F	-	Carrier Operated Squelch (0 or + 5 Vdc CMOS driver)
H	-	CW/SSB Output (5 k ohm impedance)
J	-	Squelched Audio Output (600 ohm impedance)
K	-	FSK Output (option)

2.3.1.5 **RF Input A2J1**

This SMA connector is the RF signal input for the receiver. Nominal input impedance is 50 ohms. The input is protected against RF power levels up to +27 dBm (500 milliwatts) and static buildup.

2.3.1.6 **SM Output A4J1**

This SMA connector provides a broadband 455 kHz IF output signal suitable for driving a signal monitor. The signal occupies a 16 kHz bandwidth at a level of approximately 25 dB above the receiver input level. The SMO Option makes available a signal with a center frequency of 10.7 MHz, and extends the bandwidth to 100 kHz.

2.3.1.7 **455 kHz IF Output A4J2**

This SMA connector supplies a bandwidth limited 455 kHz IF output signal. The level will be 20 mV minimum into 50 ohms in AGC mode, for RF input signals greater than 3 microvolts.

2.3.1.8 **Selected Video Output A4J3**

This SMA connector supplies a bandwidth limited video output signal from the AM, FM, CW or SSB detector as selected. The AC coupled signal has a bandwidth from 20 Hz to one-half the IF bandwidth at a level of 350 mV rms into 75 ohms.