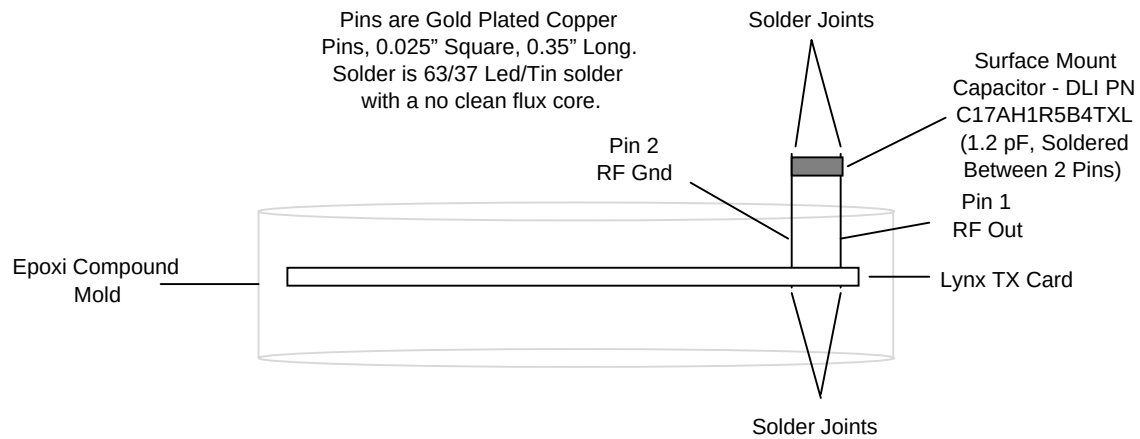
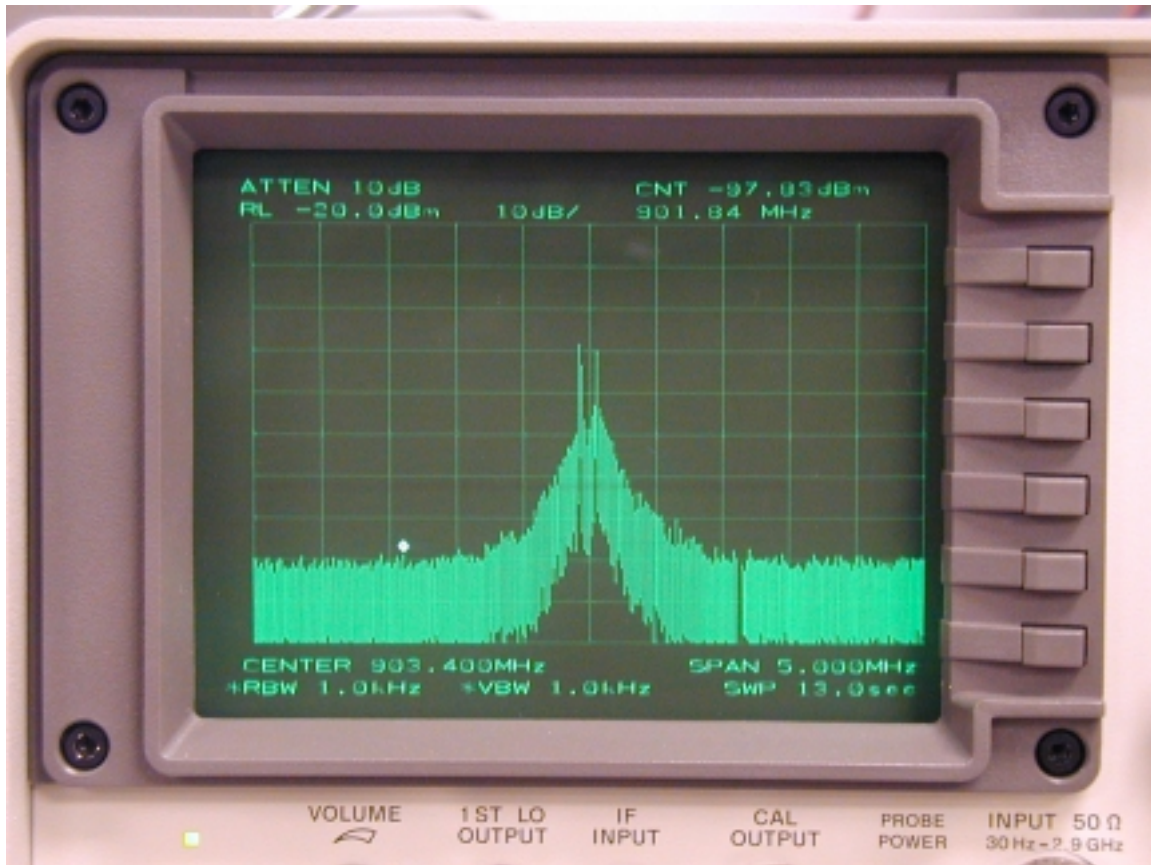


1. The following drawing provides the details of the antenna. It satisfies 15.203 requirements in that it is permanently attached with solder joints.



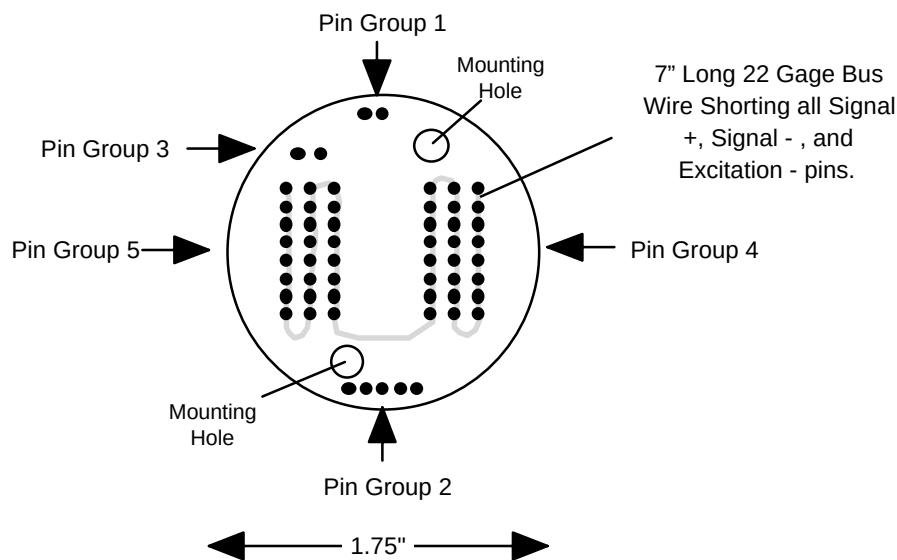
2. The design is limited to digital FSK modulation only. The 3rd paragraph is from standard Lynx documentation giving the capability of their device, however the analog FM capability is **not** supported in this application. As shown in the schematics of the TP-301 card, the data input into the Lynx TX is driven with a digital TTL interface, thus inhibiting the analog FM mode of operation. All test data and spectral provided were based on the digital FSK mode of operation.
3. The following bandwidth spectrum plot (showing all settings) was taken with the transmitter operating at it's lowest supported frequency (903.37 MHz).



4. For digital FSK waveforms, the peak and average levels will vary even when the resolution bandwidth is greater than the signals occupied bandwidth due to content of the transmitted data stream. For constant transitioning data, the higher odd harmonic content of the data rate gets filtered off which shows up as lost energy within the average readings. If no data transitions are present, this energy is not lost. Since the peak power is presumably measured during a time period of no data transitions, it will be higher than the average measurements which reflect the average transition density of 50%.
5. The ST-326 is limited to applications where it is a stand-alone device and, as such, we are not requesting modular approval. A typical application is to mount the device on a moving object (i.e., rotating shaft (propeller blade, drive shaft, ...), centrifuge, mechanical machinery arm, ...) via the mounting bolt holes in the design. External sensors (such as thermocouples, strain gages, accelerometers, pressure transducers, ...) provide a low level analog signal input into the unit. These devices are user supplied and not part of the ST-326. The other user-supplied portion of the system is a +9 VDC battery to supply input power. Again, SRI/PMD is not requesting modular approval.
6. The following response was provided by the test vendor:

The measurements are calculated based on the spectrum analyzer reading. The analyzer contains the antenna factors, cable losses and any other correction factors. The factors are included in the memory cards and applied to the meter reading as shown in Paragraph 6.0 of the report. If external attenuators are used the reference level is offset to account for the attenuator loss.

7. The following diagram depicts the pin outs of the ST-326.



During testing, pin group 1 (power input) was connected to the +9 VDC battery. Pin group 2 is the programming interface that is NOT utilized during online operation of the device. This is strictly utilized offline to program the EEPROM storage space within the device. Since it is not utilized during operation, this pin group was left disconnected during the testing. Pin group 3 is the antenna output pins from the transmitter as previously discussed in response 1. Pin groups 4 and 5 are the 48 pins associated with sensor inputs. During normal operation, these pins would be connected to the user supplied sensors (3 pins per sensor) via shielded cables since they carry very low level analog voltage levels.

For purposes of this testing, a 7" piece of 22 gage bus wire was utilized to short together all 48 pins. The shorting wire was not connected to anything and, as such, there was no signal driving these lines. This setup allowed the pins to act together as an antenna for unintentional radiated emissions from the ST-326. Putting any sensors on these lines would have acted as a load, thus attenuating the signals emanating from these pins. Putting shielded wiring on the pins would reduce the radiated efficiency

of these pins. As previously indicated, testing indicated the depicted configuration was indeed the worst case for radiated emissions.