

From: John Kopf

To: Jose Trevino

Date: October 27, 2011

Subject: FCC file number 0521-EX-PL-2011

Message:

To: Jose Trevino
Jose.Trevino@fcc.gov

From: John Kopf
kopf@telephonics.com

Copy: Salvatore Poli
poli@telephonics.com

Date: 10/27/11

Applicant: Salvatore Poli
File Number: 0521-EX-PL-2011
Correspondence Reference Number: 15275

Mr. Jose Trevino

My responses to the questions in Correspondence Reference No. 15275 are as follows:

1.) Please verify the frequency of 9.4 MHz along with the emission designators requested in the 9.4 MHz.

Please provide the description of the operation to be conducted and its purpose in more details. For example, having the emission designator of 178MQ3N, how will this work by using the frequency 9.4 MHz.

Answer: The Table in the original description contained a typographical error and was meant to indicate 9.4GHz or 9400 MHz in the "Center Frequency (MHz)" column. At 9400 MHz a bandwidth of 178 MHz (+/-89 MHz) can easily be achieved. This bandwidth is needed to achieve 1 meter High Resolution for Synthetic Aperture Imaging modes.

Mr. Trevino Please Note: I could not submit the updated tables in the "Reply to Correspondence" hyperlink, without them becoming fragmented, so I am Emailing them to your Internet address. The change occurs in the Imaging Waveform Table in the fourth column from the left that should have been titled "Center Frequency (MHz)" and the 9.4 has been corrected to 9400 indicating 9400 MHz.

2.) What are the sidebands on the frequency?

Answer: The radar waveforms have been designed and tested to meet ITU "R" spectrum requirements, which are similar to US NTIA. The waveforms overall band widths are given in the tables with the 40 dB down bandwidth a function of the rise and fall times of the pulses which is typically 20 to 40 nanoseconds. Any sideband spurious beyond the 40 dB bandwidth rolls off at better than 20 dB per octave.

3.) Please provide a designated point-of-contact to terminate transmissions if interference occurs.

Answer: The points of contact are as follows:

Primary: John Kopf

kopf@telephonics.com
Telephone No. 631-755-7111

Secondary: Salvatore Poli
poli@telephonics.com
Telephone No. 631-549-6437

4.) Authorizations longer than a regular two-year license require a justification. Please justify the need for a five-year license, or would you prefer only a two-year license.

Answer: Telephonics is a leading developer of high tech radar systems and as such is continually making upgrades and modifications to our RDR-1700B radar to improve its radar signal processing techniques for the purposes of improving the radar's ability to search, detect and track multiple targets during over water surveillance as well as search and rescue and weather detection/avoidance capabilities. In addition imaging techniques such as SAR and ISAR which provide the ability to identify the size and shape details of objects detected beyond visual ranges or bad weather conditions will also continue to be improved as the result of technology advances and customer requirements. Many of our IR&D programs extend over multiple years and the improvements that we make are required to be field tested for verification of performance and demonstration to potential customers. Therefore, we request experimental authorization for the full five (5) year period. It should be noted that we do not intend to radiate our radars on an 8 hour a day continuous basis. Testing requiring radiation is typically conducted over a 3 ? 5 day period with a couple of weeks of no radiation in between. Please let us know if this justification is sufficient to obtain the experimental authorization for the full five (5) year period and if not, what would be required.