

RE: SOMA Networks
FCC ID: POZ-CPE-0140A-000

1.) All Licensed equipment Applications must have a Parts List. Please upload to the AmericanTCB website.

Response: Uploaded as requested. FYI: In past submission I have not submitted part list for license devices, so I e-mail Frank and ask if a part-list still needed to be submitted for a license devices and this is what he mention:

“A parts list may be requested by the reviewing engineer on a case-by-case basis.”

2.) Please provide a conducted RF power output measurement for proper evaluation of RF Exposure criteria.

Response: Uploaded to the RF exposure info and label “Power Output”

3.) The Form 731 requests a lower frequency range of 1850.5 MHz and an upper range of 1909.5 MHz. Using your reported emission designator, I would expect this 5MHz wide emission to hang over the band edge by 2 MHz. Please resolve.

Response: Please change the frequency range to 1852.5 to 1907.5 MHz.

4.) Compliance with the band edge provisions of 24.238(a), (b), and (c) do not seem to be presented at as close as possible to 1850 or 1910 MHz. Please note that using the 1% rule for setting your RBW, you can be greater but never less. This means for an emission 5MHz wide the RBW cannot be less than 50KHz.

Response: As you are aware Section 24.238 (c) states “....as the design permits.” The software developed by SOMA only permits from 1852.5 to 1907.5 MHz. This is the way they design it.

Bandedge measurements were made at RBW: 30 kHz. The level measured at the bandedge was corrected to 41 kHz by using the following formula $10 \cdot \log(1\% \text{ RBW}/\text{RBW used for the measurement}) \text{ dB}$. ($10 \cdot \log(41/30) = 1.4 \text{ dB}$ correction). This is what Frank suggested to do, when using a lower RBW then the 1% rule. Uploaded a revised data, which included this formula and correction.

5.) Block Diagrams are not required for any Licensed equipment approval. However, if you desire to submit one it should meet the requirements of 2.1033(b) (5).

Response: Thanks for letting me know about this. Please remove Block Diagram.

6.) Please show how you arrived at the 5M00FXW emission designator.

Response: The 5 MHz is the industry standard Bandwidth for a W-CDMA. But, the measured 99% gave me 4.183 MHz. Please change the emission designator to 4M18FXW. Please let me know if this satisfies your requirement, so we can re-upload a revised report with the new emission designator.

7.) Is this device adjustable in power? It is unusual for CDMA equipment to operate with fixed power. If so a minimum power should be specified on Form 731 per 2.1033(c)(6).

Response: The minimum output power is – 45 dBm.

8.) Please provide tune up information per 2.1033(c)(9). What I am looking for is tune up information for the radio section.

Response: The tune-up procedure has been uploaded to the Parts list exhibit.

9.) Please provide description of digital modulation techniques per 2.1033(c)(13). A statement that W-CDMA is employed is insufficient due to the number of wide CDMA schemes available.

Response: A basic explanation of the W-CDMA modulation has been uploaded to the Operational Description and label “Digital Modulation Operation”. Here is what I will mention:

W-CDMA is a "direct-sequence spread spectrum" technique. It is similar to IS-95, but with a wider (5 MHz) carrier. SOMA's air interface is a variant of W-CDMA (aka 3GPP), and uses the same chip rate of 3.84 Mcps. In addition to the standard QPSK modulation scheme contained in W-CDMA, SOMA's radio system utilizes higher-order modulation: 16- and 64-QAM.

10.) Please be aware that the Internal Photographs may not be of sufficient clarity to meet the FCC's expectations. I will accept them, but urge you to obtain larger and clearer photos.

Response: SOMA has been notified. Please proceed with the photos you have for now. SOMA is in the process of providing us more photos.