

To: Stan Lyles (syles@fcc.gov)
FCC Equipment Authorization Branch



From: Louie Sanguinetti, Good Technology, (lsanguinetti@good.com)

cc: Steve Behm, CKC Laboratories, Inc. (submittals@ckc.com)

FCC ID: PX3G100
Applicant: Good Technology, Inc.
Correspondence Reference Number: 23040
731 Confirmation Number: EA703747
Date of original e-mail: 5/31/2002

Subject: Good Technology's replies to FCC inquires of 5/31/2002

1. FCC: How is the data limited to 4800 Baud?

Good Technology: The data is modulated and limited as follows. Digital baseband signals are generated by a GMSK MODEM IC (U10 on the schematic). They are Gaussian filtered ($BT=0.3$) and directly modulate the reference oscillator of the 900MHz RF transmitter. The GMSK MODEM IC using a ± 20 ppm crystal oscillator fixes the symbol rate of the digital baseband signal at 8000 symbols/sec. The Gaussian filter band limits the modulation. The Gaussian filter is formed by a combination of internal circuitry of the GMSK MODEM IC and an RC filter (R16 and C37). The resulting Gaussian filter has a one-sided 3dB bandwidth of 2400Hz (for a total bandwidth of 4800Hz).

2. FCC: We are satisfied with Question number 2 from 5/24/02. Since the FCC limit Per Section 24.132 is 7 watts ERP in the 901.0 MHz to 902.0 MHz band, your calculated ERP value of 5.85 watts is within 1.0 dB of the limit. Therefore, we require the Substitution Method for ERP power. Please refer to test report example on pages 27, 28, 29, 30 and 31. FCC ID: ALH32943220.

Good Technology: Please see separate response from CKC Laboratories regarding emissions measurements.

3. FCC: Need external photos with side views of device in holster please. Manual does not show holster option?

Good Technology: An updated user manual has been uploaded. The holster is shown on page 5 and on page 6 on the updated user manual. Photographs of both left and right side views and a top view of the device in the holster are shown as follows:

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4. FCC: Need photos of EUT holder and setup with device in place as used for SAR test.

Good Technology: Please see separate document from Aprel Laboratories for an answer to this question.

5. FCC: Follow-up for reply to 6) of CRN 22989: SAR report page 8 says time-domain waveform is captured; page 9 says diode compression point (dcp) is used to calculate final SAR. This seems like a contradiction. One well-known linearization method uses dcp and crest factor to calculate SAR from probe response. If dcp is used as stated, what additional crest factor or correction factor was used and how?

Good Technology: Please see separate document from Aprel Laboratories for an answer to this question.

6. FCC: Contour plots:

There are two plots called Graph 5 pp. 23,24.

Graph 4 is mid channel 896

Graph 5 page 23 is low channel 896

Graph 6 page 25 is mid channel 899

Which are correct low, mid, high plots? Please explain difference between the two mid or low plots, and revise Table 2 and plots if needed.

Good Technology: Please see separate document from Aprel Laboratories for an answer to this question.

7. FCC: Follow-up for reply to 7) of CRN 22989:

Please submit users manual instructions as mentioned about hand placement with respect to antenna.

Good Technology: An updated user manual has been uploaded. Please refer to page 118 in the Exposure To Radio Frequency Signals (SAR) section.

8. FCC: Device dimensions are 11.7 cm long by 7.9 cm wide. According to SAR plots, device is 40cm wide. Please submit correct SAR plots, re-test if needed.

Good Technology: The device dimensions are actually 99.6 mm length x 72 mm wide x 16 mm thick. The dimensions given in the user manual that was originally uploaded were incorrect and have been corrected in the new revision user manual.

Please see separate document from Aprel Laboratories an explanation of the dimensions of the SAR plots.

9. FCC: It is expected that normal use position in hand will have antenna protruding some distance away from hand. It may be possible to better simulate that case with device at the edge of a flat phantom. How do SAR results support compliance for that case?

Good Technology: Please see separate document from April Laboratories for an answer to this question.