

PCTC
Product Compliance Test Center
2476 Swedesford Road, Malvern, PA 19355

March 29, 2000

FCC Application Processing Branch

Correspondence Reference Number: 12899
Applicant: Checkpoint Systems, Inc.
731 Confirmation Number: EA96999
Product: Counterpoint IX
FCC ID Number: DO4CP1900

Gentlemen,

Please accept the following responses to the questions posed through E-Mail on the above referenced product.

Question 1: Verify that Rod Antennas were not used for measurements below 30 MHz. Redo measurements with a Loop Antenna if Rod Antennas were used.

Response 1: Our procedures for performing measurements in the frequency range below 30 MHz for products such as the Counterpoint IX requires the primary use of a magnetic field loop antenna. The measurements documented in the test report submitted for the Counterpoint IX product were recorded using a loop antenna manufactured by ARA, Model BBH-500/B, which is capable of calibrated measurements through the frequency range from 300 Hz to 100 MHz.

Question 2: Verify that the swept signal was stopped during measurements.

Response 2: The inherent design of the product does not allow for stopping the sweep during measurements. The product uses a pulsed digital hopping transmitter to detect the presence of an Article Surveillance Tag. In March of 1996 Checkpoint requested a judgement from the FCC on how to treat their products that use the digital hopping transmitter design. They received a fax from Mr. Ed Gibbons (separate submittal), which describes the technique to be used to measure the fundamental and associated spurious emissions. The pertinent text of the fax appears below. The full scanned image of the fax is a separate submittal.

Dear Mr. Gibbons:

Following up on our recent phone conversations, please confirm and if necessary correct our understanding of the points discussed below. Based on the details of our fax dated 7/2/96:

- Our pulsed emissions will be treated as frequency hopping, where the bandwidth will be considered the spectrum contained between the lowest and highest carrier frequency we pulse.*
- A simple ratio of the maximum single restricted band infringed upon divided by the bandwidth of our fundamental emission must be less than 1% to satisfy section 15.205 of the rules.*
- For fundamental and harmonic emissions in the band 1.705 MHz to 10 MHz, 20 dB reduction from the true peak is to be compared to the limits of 100 μ V/meter at 30 meters. The unit is modulated as normally installed. True peak refers to the point at which the analyzer bandwidth is adjusted for minimum pulse desensitization.*
- For emissions outside the 1.705 MHz to 10 MHz band, CISPR quasi-peak measurements will be made with the unit modulating as normally installed. Based on the bandwidth plot, care must be given to measure multiples of the worst case emission points. Limits are as specified in section 15.209.*
- Conducted emissions remain as specified in Part 15 of the rules.*

This was agreed to by Ed Gibbons, signed and returned to Checkpoint on 8/2/96.

Question 3: Verify that the device is an analog swept frequency transmitter and it is not a digital swept frequency transmitter that hops on discrete frequencies.

Response 3: As identified above, the device is a digital swept frequency (pulsed digital hopping) transmitter. The following text describes the transmit frequencies that can be used by the Counterpoint IX and the frequencies that are inhibited through internal coding of the microprocessor.

Description of the frequencies transmitted by the Counterpoint IX

The Counterpoint IX is a digital swept frequency transmitter. The Counterpoint IX hops on discrete frequencies. The frequencies that are transmitted by the Counterpoint IX are as follows:

7.6453E+06, 7.7747E+06, 7.9041E+06, 8.0334E+06, 8.1628E+06, 8.2813E+06, 8.4338E+06, 8.5632E+06

7.6776E+06, 7.8070E+06, 7.9364E+06, 8.0658E+06, 8.1952E+06, 8.3282E+06, 8.4662E+06, 8.5956E+06

7.7100E+06, 7.8394E+06, 7.9688E+06, 8.0981E+06, 8.2275E+06, 8.3510E+06, 8.4985E+06, 8.6279E+06

7.7423E+06, 7.8717E+06, 8.0011E+06, 8.1305E+06, 8.2599E+06, 8.4015E+06, 8.5309E+06, 8.6603E+06

The restricted frequency bands (per Sec. 15.205) in our frequency band are as follows:

8.291 - 8.294MHz

8.362 – 8.366 MHz

8.37625 – 8.38675 MHz

8.41425 – 8.41475 MHz

I hope these responses satisfy your questions. If more information is required, please contact Eric Eckstein (eeckstein@checkpoint.com) and Nemish Shah (nshah@checkpoint.com) at Checkpoint Systems, Inc. and myself (daniel.mis@unisys.com).

Regards,

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