

From: James Olson

To: John Kennedy

Date: December 11, 2003

Subject:

FCC File #: 0065-EX-PL-2002

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Message:

Question 1:

It is stated in application 0065-EX-PL-2002 that the transmitter for the 30 - 2000 MHz band looks north and the transmitter for the 2 - 18 GHz band looks east. But it is also stated that the antenna under test will be rotated. Does this mean that the antenna under test is set up as a receive antenna and that this receive antenna will be rotated?

Response to Question 1:

On both ranges the antenna under test is receive only in all cases but on the high frequency range we do test most of the time spinning the source antenna (spinning linear) but the antenna is always pointing east.

Question 2:

What are the typical times and duration of the testing?

Response to Question 2:

There is no typical test duration of any tests that we run this is determined by the customer requirement. The time depends on how many test frequencies and angles are required. We have one production program that is as close to typical as anything that I can give you. That test runs for about 45 minutes and we run two tests on the lower frequency range of the high frequency range and two on the upper frequency range.

Question 3:

Does the analyzer make a single sweep through the band for each test or does it sweep continuously for the duration of the test and if so what is the frequency of the sweep?

Response to Question 3:

The analyzer makes a single sweep for each test angle of the test per customer requirement. We test in step mode which to the best of knowledge only transmits on the set test frequencies. The frequency of the sweep varies per customer requirement and in many cases is classified.

Question 4:

Are the values listed in Exhibit 3 the antenna beamwidths?

Response to Question 4:

I [the enginner] don't have Exhibit 3. I don't believe we gave any antenna beamwidths. The antennas on the low frequency range are mostly broad beam LPA style antennas except one that is used from 500 MHz to 2 GHz is a horn style antenna that is very directional. The High frequency also has a horn style antenna.

I [the FCC Licensing Specialist, Chuck Zappala, 206-544-6580] have acces to exhibit 3 and the values listed in exhibit 3 are the antenna beam widths.