

From: David Chernomordik ITS/ES-Mpk  
Sent: Wednesday, February 14, 2001 9:47 PM  
To: Roland Gubisch ITS/ES-Box  
Subject: RE: Western Multiplex FCC ID: HZB-U5358-480  
Roland

The Field Strength of radiated emissions, which were found, are less than 47 dB(uV/m) measured in 1 MHz resolution bandwidth. It corresponds to the EIRP of -48.3 dBm. This is more than 20 dB below the required limit (-27 dBm/MHz).

In addition, FCC has Field Strength requirement in restricted bands (54 dBuV/m at 3 m) which is tighter and corresponds to -41.3 dBm EIRP. The device passed this requirement.

Thanks

David

-----Original Message-----

From: Roland Gubisch ITS/ES-Box  
Sent: Wednesday, February 14, 2001 5:53 PM  
To: David Chernomordik ITS/ES-Mpk  
Subject: Western Multiplex FCC ID: HZB-U5358-480

David:

Please comment on Greg Czumak's TCB guideline for U-NII (excerpt below):

15.407(b)(1)-(3):

\_\_\_ Were acceptable test procedures and instrument settings used to measure the EIRP of emissions outside of the frequency bands of operation, both within and outside of the passband of all proposed antennas?

\_\_\_ Do the measured unwanted emission EIRP levels comply with the appropriate limits, as determined by the frequency band of operation and the frequency of the spurious emission, up to 40 GHz, for all proposed antennas?

These limits are on the Effective Isotropic Radiated Transmit Power. The same measurement settings used to measure the transmit power of the fundamental emission may be used here.

Within the passband of the antenna an RF conducted measurement may be made. This level, added to the stated antenna gain for each proposed antenna, must comply with the limit.

Outside of the passband of the antenna a radiated measurement must be made, as the gain of the antenna outside of its passband is uncertain, or, the emission may radiate from the case of the EUT. This measured field strength must then be converted to an equivalent EIRP for comparison to the limit.

It is likely that compliance with the unwanted emission EIRP limit, particularly at the bandedges, will determine the maximum transmit power allowable at bandedge channels for each antenna. The installation manual must make this clear.

Your test report lists 15.407(b) results as conducted only. Can you make any observations or statements of anticipated EIRP "outside of the antenna passband"? You show radiated emissions in section 4.6 of the test report, perhaps these can be converted to EIRP for the purpose.

Thanks,  
Roland