

May 22, 2001

To Whom It May Concern:

**Subject: PSD Compliance** 

In the test report, at 5.3GHz the output power tested is 19.5dBm and 19.2dBm. The PSD tested under that output power is 3.5dBm/MHz and 2.6dBm/MHz. Since the EIRP limit for output power is +30dBm, it allows use of less then 11dBi antenna under the maximum equipment output power. Under such conditions, the PSD of the equipment is under (3.5+11) dBm/MHz, which is within the PSD EIRP limit of 17dBm/MHz. When higher gain antennas are used, output power of the equipment will have to be reduced by an equivalent amount the antenna gain exceeds 11dBi to maintain the +30dBm EIRP limit. This will ensure the reduction of the PSD in the same scale, which will maintain the compliance of PSD to the +17dBm/MHz limit. Example showing compliance of PSD when using different gain antennas are shown in the following table:

G <sub>ant</sub>	P <sub>out limit</sub> [30-G <sub>ant</sub> ] dBm	PSD [3.5 – (19.5- P <sub>out limit</sub> )]	PSD limit 11-(G <sub>ant</sub> -6) dBm/MHz
		dBm/MHz	
23.5dBi	6.5	-9.5	-6.5
28.5dBi	1.5	-14.5	-11.5
34.2	-4.2	-20.2	-17.2
37.5	-7.5	-23.5	-20.5
39.8	-9.8	-25.8	-22.8

There are instructions in the Installation and Maintenance manual to professional installers on how to adjust equipment output power to ensure EIRP limit is maintained.

Caroline Yu

Homologation Product Manager Western Multiplex Corporation