Engineering Statement of Norwood J. Patterson FCC Certification Application FCC ID: JJA-90010000XX

I, Norwood J. Patterson, am a Radio & TV Engineering (REC) Consultant having studied at Pacific Radio School, San Mateo City College, San Francisco City College and Stanford University. I have appeared on numerous occasions before the State Courts, the Federal U. S. Courts the Federal Communications Commission and the U. S. State Hearing Committees. On all occasions I have been accepted as an Expert Witness in radio television and electronics engineering matters.

I have been accepted by the Federal Communications Commission as an Expert in radio and television matters since 1937 with a LIFE certificate #PG-11-25313.

Background:

COM-DEV Broadband is a primary manufacturer of Cellular and PCS Base Stations. This application documents that the latest PCS Base Station model, M/ERGY "Access Point", complies with all FCC requirements. It is compatible with all FCC Rules and regulations for PCS and Industries Standards for base stations including IS-2000 and IS-856.

The present configuration of exciters and amplifiers are built by COM-DEV Broadband including options. The measurements including options show compliance with all FCC Rules, Regulations and policies. The design uses Proprietary circuitry. RF Filtering for compliance is accomplished by the design and use of combiners, industry standard band pass filters and Saw Filters for the frequency range of 1.930 to 1.990 GHz. Measurements attached and a study of the standards by REC show complete compliance.

Norwood J. Patterson also attaches Equipment photos, schematics, circuit descriptions, and measured data along with this engineering statement filed electronically with the FCC. Also attached and separately field is a request for <u>Confidentiality</u>. The FCC fees have been paid for both this application for Certification and the request for Confidentiality.

The FCC fees have been paid to the FCC at Pittsburgh. Request for <u>Confidentiality</u> has also been request by letter filed this same date with the FCC fees and Anti-Drug Statement. It is urgently requested <u>Confidentiality</u> be granted by the FCC. A copy of the Confidentially request is attached as Attachment #1 as a courtesy for the FCC Laboratory.

Option One (1)

Option one is this system installed in an outdoor cabinet. This cabinet is shown in Exhibit I as the out door cabinet configuration. This is the same equipment as the indoor unit as measured except it has more shielding with the outdoors cabinet. The indoors cabinet was measured as to Cabinet Radiation and found in compliance. It therefore follows that the outdoor cabinet with the more elaborate shielding does also comply.

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Option two (2)

This option uses two carriers. All systems have all hardware for the 2-carrier system. It requires software set-up only to operate with two carriers, which is furnished with all units sold. Data has been prepared which shows complete compliance with FCC Rules, Regulations and policies. This data is within the exhibit #N attached and other applicable exhibits. .

Amplifier

The amplifier used in this product is presently FCC Equipment Authorized. The manufacture is PowerWave Technologies, model #G3S-1900-80, FCC ID#E675JS0045. It is rated for 80 Watts. It can amplify (1) one or (2) two carriers with low distortion. Both single and double carriers have been measured within this brief. Measurement shows compliance with all FCC Rules, Regulations and policies for Certification

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Conclusion:

As determined by design with proprietary information, specifications, measurements and certification, it has been determined that this PCS base station model M/ERGY "Access Point" complies with all FCC Rules, Regulations, policies and certification requirements.

I, Norwood J. Patterson, do hereby certify that I have prepared the enclosed data and, under penalty of perjury, that data of my own knowledge is correct. As to other information and facts asserted herein, I believe that information also to be true.

Norwood J. Patterson

Signed: Thursday, April 04, 2002

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