

ENGINEERING STATEMENT

For Special Temporary Authority of

Alcohol Monitoring Systems, LLC.

RF Transmitter and Receiver
Model No. RFM #2000 and RFM #RX2010

I am an Electromagnetic Compatibility Test Engineer with TUV Product Service, Boulder, Colorado. My education and experience are a matter of record with the Federal Communications Commission.

TUV Product Service Corporation has been authorized by Alcohol Monitoring Systems, LLC., 165 SO. Union Blvd., Suite #420 Lakewood, Colorado 80228 to apply for an STA on the RF transmitter and receiver.

A detailed letter requesting an STA and letter of authorization from Alcohol Monitoring Systems, LLC. is included.

It is submitted that the above equipment meets FCC requirements and an STA is hereby requested.

Sincerely,

Shawn Singh

Shawn Singh
EMC Engineer
TUV Product Service
5541 Central Avenue
Boulder, CO 80301
303-402-5262
Dated: 11 August 1999

13 August, 1999

Federal Communications Commission
Equipment Approval Services
P.O. Box 358315
Pittsburgh, PA 15251-5315

To Certification Officer,

Please accept the attached documents for STA submittal. We attempted to submit via the internet site, however, we encountered errors in doing so. Please let us know if we still need any additional information, or if we need to make another attempt at the internet submittal.

Thank you,



Felix J. Chavez



166 So. Union Blvd., #420 • Lakewood, CO 80226 • 303-969-8900 • Fax 303-969-2413

August 12, 1999

Mr. Carl Huie
Federal Communications Commission
Experimental Radio Service
P.O. Box 358320
Pittsburgh, PA 15251-5320

Dear Mr. Huie

This letter is to inform you of our need to apply for an STA.

We have developed an alcohol monitoring device which is attached to a person. This device uses a RF transmitter and receiver to establish a communications link with a smart modem device. We have reached a stage in our development of this product where we would like to take several of these units out to specific locations and use them to perform functional testing as a pilot program for the device. Since we are using a RF link for communications, we would like an STA for this link so that we can demonstrate the product before finalizing the design and applying for the final FCC approval on the device.

We will be seeking approval under FCC part 15.249 when we seek the final approval for the device.

The pilot program would consist of attaching the unit to a person and allowing them to perform their everyday tasks while the unit is monitoring the subject for alcohol consumption. Several transmissions of data between the alcohol monitoring device and the smart modem would be performed during these tests. The test may last as long as several days or be as short as 1 day.

We plan on using up to 4 units and 4 modems for this testing. These units are for testing purposes only and are not intended to be sold or leased. We plan on hand transporting the units to and from the testing locations and being on hand to observe the testing as it is performed.



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August 11, 1999

Mr. Carl Huie
Federal Communications Commission
Experimental Radio Service
P.O. Box 358320
Pittsburgh, PA 15251-5320

Re: Request for Confidentiality

Dear Mr. Huie,

This letter is to inform you of our need to keep information in our STA application Confidential.

We would like to keep the sites of our pilot testing confidential as they could be of use of our competitors.

We would also like to keep the information in the description of our RF link confidential. This would include any information on the parts used and the power and frequency that the units are operating at.

Sincerely,

A handwritten signature in black ink, which appears to read "Jeff Hawthorne". The signature is written in a cursive style and is positioned to the left of a vertical line.

Jeff Hawthorne
Vice President Research and Development



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Date 8-10-99

AUTHORIZATION AGREEMENT
FCC Part 15 Submission

I, Jeff Hawthorne, appoint TUV Product Service, Inc., to act as the authorized representative in the preparation of applications for Special Temporary Authority under Part 5 section 5.56 of Rules and Regulations of the Federal Communications Commission. I certify that the information provided to TUV Product Service, Inc., properly describes the device or system for which STA is requested.

APPLICANT ANTI-DRUG ABUSE CERTIFICATION

The applicant certifies that, in the case of an individual applicant, he or she is not subject to a denial of federal benefits, that includes FCC benefits, pursuant to section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. 853 (a), or, in the case of a non-individual applicant (e.g. corporation, partnership, or other unincorporated association) no party to the application is subject to a denial of federal benefits, that includes FCC benefits, pursuant to that section. For the definition of a "party" for these purposes see 47 CFR 1.2002(b).

This Authorization, dated this 23 day of July, 1999, expires on the 31 day of December, 2000.

By

Signature

Jeff Hawthorne

Printed

Title

Vice President of Research and Development

Applicant

Alcohol Monitoring Systems LLC.

(Must agree with section I on FCC Form 731 - Applicant's Full Business Name)

165 So. Union Blvd., Suite #420
Address

Lakewood, CO 80228
City, State, Zip



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The testing will be conducted at several sites during the time period of September 1999 through February 2000.

The testing would be conducted at the following locations:

- 1) 165 S. Union Blvd. Denver, Colorado - 80228 Commercial office
- 2) 1777 6th street Boulder, Colorado 80306 County Office
- 3) 111 Windsor Drive Oak Brook, Illinois 60523 Commercial office
- 4) University of Oklahoma USC, Oklahoma City, Oklahoma 73190 - University
- 5) 594 Howard Street - San Francisco, California - 94105 Commercial office
- 6) 185 Shuttle Street Suite 105 Durango, Colorado 81301 Commercial office
- 7) 1209 W. 1230th. Gardena, California - Commercial office. 90248 Commercial office
- 8) 2601 Blair Stone Road Tallahassee, Florida 32399 State Office
- 9) 9110 Meadowview Road Minneapolis, Minnesota 55425 - Commercial Office
- 10) Due to the fact that this is a new product there will be requests for demonstrations that are unforeseen. At this time and date it is unknown where these request for demonstrations will come from or where the demonstration will take place, but they will be located in the US.

The equipment used is designed by Alcohol Monitoring Systems, and contains a RF link made up from a RF transmitter manufactured by RFM part #HX2000. This is a 916.5 MHz transmitter, and a RF receiver manufactured by RFM part #RX2010. This is a 916.5 MHz ASH Receiver. Each test would require one bracelet unit attached to a subject and one modem unit for transmitting and receiving reading data.

The bracelet and the modem make up a low power RF system typically transmitting less than 1mW of power. They are designed to operate over a distance of 3 feet to 15 feet.

The type of emission for our link can best be described using the following code taken from:

Subpart C—Emissions

§ 2.201 Emission, modulation, and transmission characteristics.



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The following system of designating emission, modulation, and transmission characteristics shall be employed.

- (a) Emissions are designated according to their classification and their necessary bandwidth.
- (b) A minimum of three symbols are used to describe the basic characteristics of radio waves. Emissions are classified and symbolized according to the following characteristics:
 - (1) First symbol—type of modulation of the main character;
 - (2) Second symbol—nature of signal(s) modulating the main carrier;
 - (3) Third symbol—type of information to be transmitted.

Our type of emission can be described as: F1D

Where:

F = Frequency modulation

1 = A single channel containing quantized or digital information without the use of a modulating sub-carrier, excluding time-division multiplex.

D = Data transmission, telemetry, telecommand.

The overall antenna height is different for the two devices:

Bracelet has an antenna approximately 2.5 inches long.

Modem has an antenna approximately 6 inches long.

Sincerely,

A handwritten signature in black ink, reading "Jeff Hawthorne". The signature is written in a cursive style and is positioned to the left of a vertical line.

Jeff Hawthorne
Vice President Research and Development