FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

APPROVED BY OMB
3060-0065
Expires 12/31/95

APPLICATION FOR NEW OR MODIFIED RADIO STATION AUTHORIZATION UNDER PART 5 OF FCC RULES - EXPERIMENTAL RADIO SERVICE (OTHER THAN BROADCAST)

1. Applicant's Name and Post Office address (Street address, city, state, and ZIP Code. See instruction No. 4)

Ericsson, Inc.
4421 Forbes Blvd.
Lanham, MD 20706

DO NOT WRITE IN THIS BLOCK

File No.

4996-EX-PL-95

2(a). Application for (check only one box)

☒ New station ☐ Modification of existing authorization

2(b). For Modification indicate below:

File No: Call Sign:

3. Application for modification indicate whether change is an addition or replacement of (check all that apply)

☐ FREQUENCY ☐ EMISSION ☐ POWER ☐ LOCATION

☐ OTHER PARTICULARS (describe below or in attached EXHIBIT No. _____)

4. Particulars of Operation (see instruction below)

Frequency (state whether kHz or MHz) (A)	POWER (B)	POWER (C)	POWER (D)	EMISSION (E)	MODULATING SIGNAL (F)	NECESSARY BANDWIDTH (kHz) (G)
Exhibit 1	1.5w	1.5w	Mean	40K0F1D	48.6 Kbs	30K0F1D
				40K0F1E	12 KHz Dev	30K0F1E
				40K0F8W		30K0F8W

(A) List each frequency or frequency band separately. (If more space is required, attach as EXHIBIT No. 1)
(B) Insert maximum R.F. output power at the transmitter terminals. Specify units.
(C) Insert maximum effective radiated power from the antenna (If pulsed emission, specify peak power).
(D) Insert "MEAN" or "PEAK" (See definitions in Part 5).
(E) List each type of emission separately for each frequency. (See Section 2.201 of FCC Rules.)
(F) Insert as appropriate for the type of modulation:
(1) the maximum speed of keying in bauds;
(2) maximum audio modulating frequency;
(3) frequency deviation of carrier;
(4) pulse duration and repetition rate.
For complex emissions, describe in detail in the space provided below.
(G) Describe how the necessary bandwidth was determined in space provided below.

Fc ± 26 dbc

5(a). Proposed location of transmitter and transmitting antenna (check only one box)

☐ FIXED/BASE ☐ MOBILE ☒ BASE AND MOBILE

5(b). If permanently located at a fixed location, give below:

State	County	City or Town
VA	Campbell	Lynchburg

Number and street (or other indication of location)

Fort Avenue

5(d). If mobile, describe the exact area of operation

50 mile radius

5(c). Enter geographical coordiantes exact to the nearest second

North Latitude	West Longitude
37° 22 ' 43 "	79 ° 11 ' 04 "

5(e). Enter geographical coordinates of the approximate center of proposed area of operation (mobile applications)

North Latitude	West Longitude
37 ° 22 ' 43 "	79 11 ' 04 "

6. Is a directional antenna (other than radar) used?

If "YES", give the following information: ☐ YES ☒ NO

(a) Width of beam in degrees at the half-power point _____

(b) Orientation in horizontal plane _____ (c) Orientation in vertical plane _____

7. Is this authorization to be used for fulfilling the requirement of a government contract with an agency of the United States Government? ☐ YES ☒ NO

If "YES", attach as EXHIBIT No. _____, a narrative statement describing the government project, agency and contact number.

8. Is this authorization to be used for the exclusive purpose of developing radio equipment for export to be employed by stations under the jurisdiction of a foreign government?

☐ YES ☒ NO

If "YES", attach as EXHIBIT No. _____, the following information: Provide the contract number and the name of the foreign government concerned.

9. Is this authorization to be used for providing communications essential to a research project? (The radio communication is not the objective of the research project).

☐ YES ☒ NO

If "YES", attach as EXHIBIT No. _____, a narrative statement provding the following information:

(a) A description of the nature of the research project being conducted.

(b) A showing that the communications facilities requested are necessary for the research project involved.

(c) A showing that existing communications facilities are inadequate.

10. If all the answers to Items 7, 8, and 9, are "NO", attach as EXHIBIT No. 2, a narrative statement describing in detail the following:

(a) The complete program of research and experimentation proposed including description of equipment and theory of operation.

(b) The specific objectives sought to be accomplished.

(c) How the program of experimentation has a reasonable promise of contribution to the development, extension, expansion, or utilization of the radio art, or is along line not already investigated.

11(a). Give an estimate of the length of time that will be required to complete the program of experimentation proposed in this application.

(b) If less than 2 years, give the length of time in months that the authorization requested in this application will be required. Two Years

12. Would a Commission grant of this application come within Section 1.1307 of the FCC Rules, such that it may have a significant environmental impact? ☐ YES ☒ NO

If you answer "YES", submit an Environmental Assessment required by Section 1.1311.

13. List below transmitting equipment to be installed (if experimental, so state):

MANUFACTURER	TYPE	NO. OF UNITS
Ericsson, Inc.	Experimental	4 Fixed Base 400 Portables

14. Is the equipment listed in Item 13 capable of station identification pursuant to Section 5.152? [X] YES [ ] NO

15. Will the antenna extend more than 6 meters above the ground, or if mounted on an existing building, will it extend more than 6 meters above the building, or will the proposed antenna be mounted on an existing structure other than a building? [ ] YES [X] NO

If "YES", give the following (see instruction 9):

(a) Overall height above ground to tip of antenna is _____ meters.

(b) Elevation of ground at antenna site above mean sea level is _____ meters.

(c) Distance to nearest aircraft landing area is _____ kilometers.

(d) List any natural formations of existing man-made structures (hills, trees, water tanks, towers, etc.) which, in the opinion of the applicant, would tend to shield the antenna from aircraft and thereby minimize the aeronautical hazard of the antenna.

(e) Submit as EXHIBIT No. _____, a vertical profile sketch of total structure including supporting building, if any, giving heights in meters above ground for all significant features. Clearly indicate existing portion, noting particulars of aviation obstruction lighting already available.

Applicant is: *(Check only one box)*

[ ] INDIVIDUAL [ ] ASSOCIATION [ ] PARTNERSHIP [X] CORPORATION

[ ] OTHER (describe below)

17. Is applicant a foreign government or a representative of a foreign government? [ ] YES [XX] NO

18. Has applicant or any party to this application had any FCC station license or permit revoked or had any application for permit, license or renewal denied by this Commission? [ ] YES [X] NO

If "YES", attach as EXHIBIT No. _____, a statement giving call sign of license or permit revoked and relate circumstances.

Will applicant be owner and operator of the station? [X] YES [ ] NO

20. Give name, title, and telephone number (include area code) of person who can best handle inquiries pertaining to this application.

John P. Rothgeb, Specialist Regulatory Programs 804/528-7476

21. APPLICANT ANTI-DRUG ABUSE CERTIFICATION:

By checking "YES", the applicant certifies that, in the case of an individual applicant, he or she is not subject to denial of federal benefits, that includes FCC benefits, pursuant to Section 5301 of the Anti- Drug Abuse Act of 1988, 21 U.S.C. 862, or, in the case of a non- individual applicant (e.g., corporation, partnership, or other unincorporated association), no party to the applicant is subject to a denial of federal benefits, that includes FCC benefits, pursuant to that section. For the definition of "party" for these purposes, see 47 CFR 1.2002(b). [X] YES [ ] NO

22. List below all exhibits in numerical sequence and the item number of form requiring the exhibit identified.

EXHIBIT NUMBER	ITEM NO. OF FORM	EXHIBIT NUMBER	ITEM NO. OF FORM	EXHIBIT NUMBER	ITEM NO. OF FORM
1	4A				
2	10A,B,C				

23. **CERTIFICATION:**

Attention: Read this certification carefully before signing this application.

THE APPLICANT CERTIFIES THAT:

(a) Copies of FCC Rule Parts 2 and 5 are on hand; and
(b) Adequate financial appropriations have been made to carry on the program of experimentation which will be conducted by qualified personnel; and
(c) All operations will be on an experimental basis in accordance with Part 5 and other applicable rules, and will be conducted in such a manner and at such a time as to preclude harmful interference to any authorized station; and
(d) Grant of the authorization requested herein will not be construed as a finding on the part of the Commission:
  (1) that the frequencies and other technical parameters specified in the authorization are the best suited for the proposed program of experimentation, and
  (2) that the applicant will be authorized to operate on any basis other than experimental, and
  (3) that the Commission is obligated by the results of the experimental program to make provision in its rules including its table of frequency allocations for applicant's type of operation on a regularly licensed basis.

APPLICANT CERTIFIES FURTHER THAT:

(e) All the statements in the application and attached exhibits are true, complete and correct to the best of the applicant's knowledge; and
(f) The applicant is willing to finance and conduct the experimental program with full knowledge and understanding of the above limitations; and
(g) The applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the USA.

Signed and dated this 5th day of October , 19 95

Name of Applicant Ericsson Inc.
(must correspond with name given on page 1)

By Robert M. Johnson
(print)
(signature)

Title Duly Authorized Signature

Check appropriate classification:

☐ Individual applicant ☐ Member of applicant partnership

☐ Authorized employee ☐ Office of applicant corporation or association

WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. Code, Title 18 Section 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. Code, Title 47, Section 312(a)(1), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).

NOTIFICATION TO INDIVIDUALS UNDER PRIVACY ACT OF 1974
AND THE PAPERWORK REDUCTION ACT OF 1980

Information requested through this form is authorized by the Communications Act of 1934, as amended, and specifically by Section 308 therein. The information will be used by Federal Communications Commission staff to determine eligibility for issuing authorizations in the use of the frequency spectrum and to effect the provisions of regulatory responsibilities rendered the Commission by the Act. Information requested by this form will be available to the public unless otherwise requested pursuant to 47 CFR 0.459 of the FCC Rules and Regulations. Your response is required to obtain this authorization.

THE FOREGOING NOTICE IS REQUIRED BY THE PRIVACY ACT OF 1974, P.L. 93-579, DECEMBER 31, 1974, 5 U.S.C. 552a(e)(3), AND THE PAPERWORK REDUCTION ACT OF 1980, P.L. 96-511, DECEMBER 11, 1980, 44 U.S.C. 3507.

Exhibit "A"

854.7875 MHz	809.7875 MHz
854.8375	809.8375
855.0125	810.0125
855.0875	810.0875
855.2625	810.2625
855.2875	810.2875
855.3375	810.3375
855.5375	810.5375
855.5625	810.5625
855.5875	810.5875
855.7875	810.7875
856.8625	811.8625
857.7875	812.7875
857.8375	812.8375
857.9125	812.9125
858.8375	813.8375
858.8625	813.8625
858.9125	813.9125
859.8375	814.8375
860.8125	815.8125
860.8875	815.8875

An 800 MHz Availability Search was performed by the Industrial Telecommunications Association, Inc. (ITA) on August 17, 1995 for the Business Radio Service which indicated the above channels were clear for at least 70 miles in accordance with 90.617 - Table 3A - Business Category 806-821/851-866 MHz Band Channels.

Exhibit "B"

Abstract: The test bed is to verify concept and test simulated commercial conditions of TDMA based equipment.

General Equipment Desciption:

The test bed will consist of user terminal products, base stations and other fixed network equipment in a four (4) site network. All equipment will be based on TDMA coding algorithms.

Specific Objectives:

1. Verify proof of concept.
2. Simulate real world loading, busy hour and traffic patterns.
3. Assure compliance with FCC regulatory masks and emission standards.
4. Utilize low cost mass produced products to reduce end user total costs.
5. Extend existing technology into alternative frequency splits.

Action Plans:

1. Develop internal quality plan detailing specific testing and milestone dates.
2. Utilize internal Alpha and Beta test teams to assure compliance with internal quality plan.
3. Utilize internal users to simulate real world loading, 200-1000 units during peak development period.

Ericsson, Inc. is proposing to license a four-site 800 MHz Experimental trunked system encompassing four sites: Mountain View Rd., Lynchburg, VA; Johnson Mountain, VA; Candler's Mountain, Lynchburg, VA and Fort Ave., Lynchburg, VA

Four separate FCC form 442 are being filed with the FCC simultaneously in order to license the proposed trunked system.

Ericsson, Inc. is requesting to operate the system utilizing one Experimental call sign for ID purposes.

FEDERAL COMMUNICATIONS COMMISSION

Experimental Licensing Branch

2000 M Street, N.W., Suite 230
Washington, D.C. 20554

In reply refer to:
NH, Rm 264-A

Ericsson, Inc.
4421 Forbes Blvd.
Lanham, MD 20706
Attn: Robert M. Johnson

RE: **Experimental Radio Services**
(Part 5 of the FCC Rules)

Dear Mr. Johnson:

The Experimental Licensing Branch hereby acknowledges receipt of your application for experimental authority filed on FCC Form 442 received 10/17/95

The file number assigned to your application is 4996-EX-PL-95. Please allow approximately 90 days for processing of your filing.

Thank you,

Nancy Hey

Nancy Hey,
Communications Clerk
Experimental Licensing Branch
New Technology Development Division
Office of Engineering and Technology

Approved by OMB
3060-0065
Expires 12/31/95

FEDERAL COMMUNICATIONS COMMISSION

FCC FORM 442

FOR FCC USE ONLY

APPLICATION FOR NEW OR MODIFIED RADIO STATION AUTHORIZATION UNDER PART 5 OF FCC RULES - EXPERIMENTAL RADIO SERVICE (OTHER THAN BROADCAST)

SECTION I

APPLICANT NAME (Last, first, middle initial)

Ericsson Inc.

MAILING ADDRESS (Line 1) (Maximum 35 characters - refer to Instruction (2) on reverse of form)

4421 Forbes Ave.

MAILING ADDRESS (Line 2) (if required) (Maximum 35 characters)

CITY

Lanham

STATE OR COUNTRY (if foreign address)	ZIP CODE	CALL SIGN OR OTHER FCC IDENTIFIER (If applicable)
MD	20706	

Enter in Column (A) the correct Fee Type Code for the service you are applying for. Fee Type Codes may be found in FCC Fee Filing Guides. Enter in Column (B) the Fee Multiple, if applicable. Enter in Column (C) the result obtained from multiplying the value of the Fee Type Code in Column (A) by the number entered in Column (B), if any.

	(A) FEE TYPE CODE	(B) FEE MULTIPLE (if required)	(C) FEE DUE FOR FEE TYPE CODE IN COLUMN (A)	FOR FCC USE ONLY
(1)	E A E		$ 45	

SECTION II — To be used only when you are requesting concurrent actions which result in a requirement to list more than one Fee Type Code.

	(A) FEE TYPE CODE	(B) FEE MULTIPLE (if required)	(C) FEE DUE FOR FEE TYPE CODE IN COLUMN (A)	FOR FCC USE ONLY
(2)			$	
(3)			$	
(4)			$	
(5)			$	

ADD ALL AMOUNTS SHOWN IN COLUMN C, LINES (1) THROUGH (5), AND ENTER THE TOTAL HERE. THIS AMOUNT SHOULD EQUAL YOUR ENCLOSED REMITTANCE. →

TOTAL AMOUNT REMITTED WITH THIS APPLICATION OR FILING

$

FOR FCC USE ONLY