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Certification Department

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ELITE ELECTRONIC ENGINEERING

October 31, 2002

Subject: FCC Certification Documentation for ABZ89FC3773-D

I have enclosed all signed off paperwork for Elite Engineering's TCB services for evaluation / approval of the base station transmitter, ABZ89FC3773-D.

Included in this package are the following completed forms and agreements:

Y ..... Request for Confidentiality  
Y ..... CSF-20-03: Application for Certification Authorization  
Y ..... CSF-20-04: Exhibits checklist and Explanation of Exhibits  
Y ..... CSF-20-10: Section 5301 (Anti-Drug Abuse) Certification and Applicant/Agent Certification.  
Y ..... Exhibit 1: Statement of Certification

I would prefer to pay the Certification Fee via my credit card number. Please contact me at the phone number below so I can give you the card number.

I have submitted .pdf files to the E-mail address [engineering@elitetest.com](mailto:engineering@elitetest.com).

Thank you for reviewing and evaluating our application for FCC certification. If there are any questions or concerns please feel free to contact me at the phone / fax / email listed below.

Sincerely,



Ken Weiss  
Motorola  
1301 E. Algonquin  
Room 1726  
Schaumburg, IL 60169

Telephone: 847 576-2789  
Portable Telephone: 847 561-0815  
Fax: 847 538-3905  
E-mail: [cmic19@email.mot.com](mailto:cmic19@email.mot.com) or [Ken.Weiss@Motorola.com](mailto:Ken.Weiss@Motorola.com)

October 31, 2002

Request for Confidentiality

In accordance with 47 C.F.R. Section 0.459, we, Motorola Inc., hereby request confidentiality for the block diagrams, schematics, product descriptions, and circuit descriptions presented in Exhibit B.

In support of the Request for Confidentiality, the following is stated:

Enclosed within this application is technical information, which we deem to be trade secrets and proprietary. If made public, the information might be used to our disadvantage.

To assist in assuring that we receive the full value of our product and protect its competitive posture, we respectfully request this grant of confidentiality.

 10/31/02

Ken Weiss  
Motorola, Inc.



## APPLICATION FOR CERTIFICATION AUTHORIZATION

CSF-20-03

## APPLICANT INFORMATION

## Item 1. Applicant 's complete and legal business name

Applicant Name:	<b>Motorola, Inc.</b>
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## Item 2. Applicant 's complete and legal business address

Line 1:	<b>1301 E. Algonquin Road</b>		
Line 2:	<b>Attention: Ken Weiss, Room 1726</b>		
P.O. Box:			
City:	<b>Schaumburg</b>	E-mail:	<b>Ken.Weiss@.Motorola.com</b>
State:	<b>Illinois</b>	Zip/Postal Code:	<b>60196</b>
Telephone number:	<b>847-576-2789</b>	Fax number:	<b>847-538-3905</b>

## Item 3. Applicant mailing address (if different than Item 2)

Line 1:			
Line 2:			
P.O. Box:			
City:			
State:		Zip/Postal Code:	
Telephone number:		Fax number:	

## Item 4. Person to receive Grant or to contact

First Name:	<b>Ken</b>	Last Name:	<b>Weiss</b>
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## APPLICATION FOR CERTIFICATION AUTHORIZATION

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Title:	<b>Lead Electrical Engineer</b>	Mail stop:	<b>Room 1726</b>
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**Item 5. Technical person to contact (if different from Item 4)**

Firm:		Telephone:	
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First name:		Middle Initial:		Last name:	
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Line 1:	
Line 2:	
P.O. Box:	
City:	

State:		Zip/Postal Code:		E-mail:	
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**Item 6. Non-technical person (if different from Item 4)**

Firm:	<b>Motorola, Inc.</b>	Telephone:	<b>847-632-5075</b>
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First name:	<b>Steven</b>	Middle Initial:		Last name:	<b>Noskowicz</b>
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Line 1:	<b>1301 E. Algonquin Road</b>
Line 2:	<b>Room 1726</b>
P.O. Box:	
City:	<b>Schaumburg</b>

State:	<b>Illinois</b>	Zip/Postal Code:	<b>60196</b>
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**Item 7. FCC ID Information**

FCC ID:	Grantee Code:	<b>ABZ</b>	Equip. Product Code:	<b>89FC3773-D</b>
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**Item 8. Payer TIN (Tax Identification Number)**

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## APPLICATION FOR CERTIFICATION AUTHORIZATION

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Payer TIN:	N/A	Payer other than Applicant TIN:	N/A
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**Item 9. Request for confidentiality and/or deferral of Grant**

Confidentiality (Yes/No):	<b>Yes</b>	Deferral of Grant (Yes/No):	<b>No</b>
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**Item 10. Equipment Code and Description of product as marketed.**

Equipment Code:	<b>TBN</b>	Description:	<b>Non-Broadcast Transmitter</b>
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**Item 11. Application is for:** Check one

11a. Original Equipment:	<b>Yes</b>	
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11 b. Change in ID Number:		
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If 11b. Is checked then:	Original FCC ID:	
	Grant Date:	
Class II permissive change	Original FCC ID:	
	Grant Date:	

**Item 12. Equipment specifications**

Freq. Range in MHz:	Rated RF Power in watts	Frequency tolerance	Emission Designator	Microprocessor Model Number
<b>132 to 174 MHz</b>	<b>125 Watts Variable to 25 Watts</b>	<b>2.5 PPM</b>	<b>8K10F1E</b>	

**Item 13. Rule section and Composite device**

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## APPLICATION FOR CERTIFICATION AUTHORIZATION

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Rule Section	<b>Part 90</b>	Composite Device	Yes:	No: <b>NO</b>
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**FOR USE BY ELITE PERSONAL ONLY DO NOT MARK BELOW LINE****731 Form Confirmation**

Confirmation Number		Date 731 filed with FCC	
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**Exhibit Submittals**

Exhibit A. ID Label /Location		Date submitted	
Exhibit B. Operational Description Block Diagram Schematic		Date submitted Date submitted Date submitted	
Exhibit C. Internal Photo Front Internal Photo Back External Photo Front External Photo Back CE test setup Photo RE test setup Photo		Date submitted Date submitted Date submitted Date submitted Date submitted Date submitted	
Exhibit D. User's Manual		Date submitted	
Exhibit E. Test measurement report		Date submitted	
Misc. Exhibits Confidentiality Letter Cover letter		Date submitted Date submitted	



## EXHIBITS CHECKLIST FOR CERTIFICATION AND EXPLANATION OF EXHIBITS

CSF-20-04

### SECTION 1 EXHIBITS CHECKLIST

*Provide the following information in electronic format where possible.*

#### EXHIBIT A EQUIPMENT LABEL

**X**

A1. FCC ID Number	Does the FCC ID Label include the FCC ID number?	yes
A2. Drawing or Photograph of FCC ID Label on device.	Did you include a drawing or photograph of the FCC ID label. Is the drawing or photo clear?	Yes Ex 12A-2

#### EXHIBIT B TECHNICAL/PRODUCT DESCRIPTION

**X**

B1. Product Description	Does the description include operational frequencies? Does the description include how the device receives input power? Does the description include any companion devices? Does the description include antenna information (if applicable)?	Yes Yes No N/A
B2. Schematic	Did you include a Schematic? Does the Schematic have the correct model number(s)? Is the Schematic clear?	Yes Ex 7A-F
B3. Block Diagram	If a block diagram is required (See Section II). Did you include a block diagram? Does the block diagram include internal oscillators and clock frequencies?	Yes, Included in Ex 7
B4. RF Module Circuit Description	Is the RF Module Circuit description is required. (See Section II). Did you include the RF Module Circuit description?	Yes Ex 10



## EXHIBITS CHECKLIST FOR CERTIFICATION AND EXPLANATION OF EXHIBITS

CSF-20-04

### EXHIBIT C PHOTOGRAPHS OF THE DEVICE

**X**

C1. External Front	Did you include the external front view? Is the photo clear?	Ex 12B
C2. External Back	Did you include the external back view? Is the photo clear?	Ex 12A1
C3. Internal Front	Did you include the internal front view showing the circuit boards? Is the photo clear?	Ex 12C- Ex 12H
C4. Internal Back	Did you include the internal back view showing the circuit boards? Is the photo clear?	Ex 12C- Ex 12H

### EXHIBIT D USER/OPERATIONAL MANUAL

**X**

D1. User/Operational Manual  Provide all information on disk and a hard copy.	Did you include the operational Manual? Does the manual include the proper Model Number(s)? Does the manual include user instructions? Does the manual include required information to users if applicable?	Yes (Pertinent Sections) Yes Yes Yes
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## EXHIBITS CHECKLIST FOR CERTIFICATION AND EXPLANATION OF EXHIBITS

CSF-20-04

### EXHIBIT E REPORT ON TEST MEASUREMENTS

**X**

E1. Measurements Report  Provide report on disk and a hard copy.	Did you include the Measurements Report? Does the report have compliance information regarding technical standards? Does the report have graphs showing compliance? Does the report explain the testing method(s)? Does the report give a list of test equipment? Does the test equipment list give calibration dates?	Ex 11 Yes Yes Yes Ex 13 Yes
E2. Photographs of the Conducted Emissions Test Setup	Did you include the CE test setup? Does the photo show device under test and support equipment? Are the photos clear?	Not available
E3. Photographs of the Radiated Emissions Test Setup	Did you include the RE test setup? Does the photo show device under test and support equipment? Are the photos clear?	Not available



## EXHIBITS CHECKLIST FOR CERTIFICATION AND EXPLANATION OF EXHIBITS

CSF-20-04

### SECTION 2 EXHIBIT EXPLANATIONS

A1. The FCC identifier is made up of the *Grantee code* which is supplied by the FCC and up to 14 characters assigned by the grantee (applicant).

A2. Equipment Label - FCC ID Label-Photographs or drawings of the FCC ID Label. Include dimensions and a description or drawing of the location of the label on equipment. Include any statements required by the rules that will be on the product. Include the FCC ID Number.

B1. Technical Description - Description of Product - Trade Name (if applicable) and Model Name (If more than one list all and explain their difference). Explain function, operation, intended use, and frequency range. Include statements concerning the ground system and antenna. Include a Schematic may also include a Block Diagram; however the block diagram is required only when device is subject to FCC rule parts 11, 15, and 18.

B2. Schematic-electrical schematics of device showing RF generation circuits, input signal path circuitry, clock lines.

B3. Block Diagram-shows all internal oscillators and clock frequencies, tuning range(s) and signal path.

B4. RF Module circuit description - (what is it)

C1.- C4. Photographs - Photographs of the test item. *Photographs of the test item* will include both internal and external photographs showing both the front and rear views. Photographs need to be clear and in focus showing all user accessible controls and connectors. Internal views are to be of the circuit board both front and back.

D1. Operational or Users Manual - Manual-should include instruction, installation, operators, or technical manuals with required information to the users. This manual should include a



## EXHIBITS CHECKLIST FOR CERTIFICATION AND EXPLANATION OF EXHIBITS

CSF-20-04

statement that cautions the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. A draft copy may be submitted if a final version does not exist.

### SECTION 2 EXHIBIT EXPLANATIONS

E1. Report of Measurements - This is the engineering test report and data showing compliance with all applicable technical standards, test method description, and a list of test equipment.

E2 - E3. *Photographs of the test setup* will include the test item and any support equipment. The test setup should show proper cable and setup configurations. Test setup photographs are required for both radiated and AC line conducted tests.



SECTION 5301 (ANTI-DRUG ABUSE) CERTIFICATION AND APPLICATION/AGENT  
AGREEMENT

CSF-20-10

**Item 1. SECTION 5301 ( ANTI-DRUG ABUSE ) CERTIFICATION**

The applicant must certify that neither the applicant nor any party to the application is subject to denial of Federal benefits, that include FCC benefits, pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. ' 862 because of a conviction for possession or distribution of a controlled substance. See 47 CFR 1.2002(b) for the definition of a Aparty@ for these purposes.

Does the applicant or authorized agent so certify?	Yes:	Yes	No:	
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**Item 2. APPLICANT/AGENT CERTIFICATION**

I certify that I am authorized to sign this application. All of the attached hereto and the exhibits attached hereto, are true and correct to the best of my knowledge and belief. IN accepting a Grant of Equipment Authorization issued by the FCC as a result of the representations made in this application, the applicant is responsible for (1) labeling the equipment with the exact FCC ID specified in this application, (2) compliance statement labeling pursuant to the applicable rules, and (3) compliance of the equipment with the applicable technical rules. If the applicant is not the actual manufacturer of the equipment, appropriate arrangements have been made with the manufacturer to ensure that production units of this equipment will continue to comply with the FCC's technical requirements.

Authorizing an agent to sign this application, is done solely at the applicant's discretion; however, the applicant remains responsible for all statements in this application.

If an agent has signed this application on behalf of the applicant, a written letter of authorization which includes information to enable the agent to respond to the above section 5301 (Anti-Drug Abuse ) Certification statements has been provided by the applicant. It is understood that the letter of authorization must be submitted to the FCC upon request, and that the FCC reserves the right to contact applicant directly at any time.

Signature of Authorized Person Filing:	Kenneth P. Weiss
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Title of authorized signature:	Lead Electrical Engineer
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<b>Complete items below if an agent signs the application</b>
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Firm name:		Telephone:	
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First name:		Middle initial:		Last name:	
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Address:	
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City:	
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State:		Zip/Postal Code:		E-mail:	
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APPLICANT: MOTOROLA INC.

EQUIPMENT TYPE: ABZ89FC3773-D

**STATEMENT OF CERTIFICATION**

The technical data supplied with this application, having been taken under my supervision is hereby duly certified. The following is a statement of my qualifications:

College Degree: BSEE, Valparaiso University, Valparaiso, Indiana, USA  
MSEE, Illinois Institute of Technology, Chicago, Illinois, USA

20 years of Design and Development experience in the field of two-way radio communication.

NAME: Ken Weiss


SIGNATURE: \_\_\_\_\_

DATE: October 31, 2002

POSITION: Lead Electrical Engineer

I hereby certify that the above application was prepared under my direction and that to the best of my knowledge and belief, the facts set forth in the application and accompanying technical data are true and correct:

NAME: Steve Noskowicz

SIGNATURE: \_\_\_\_\_

DATE: October 31, 2002

POSITION: Engineering Manager