

**United States of America
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
RADIO STATION CONSTRUCTION PERMIT
AND LICENSE**

EXPERIMENTAL

(Nature of Service)

XC MO

(Class of Station)

WC9XNK

(Call Sign)

0466-EX-CR-2017

(File Number)

NAME Shine Micro, Inc.

Subject to the provisions of the Communications Act of 1934, subsequent acts, and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions and requirements set forth in this license, the licensee hereof is hereby authorized to use and operate the radio transmitting facilities hereinafter described for radio communications in accordance with the program of experimentation described by the licensee in its application for license.

Operation: In accordance with Sec. 5.3(c) of the Commission's Rules

Station Locations

- (1) MOBILE: Puget Sound, Washington State, within 370 km, centered around NL 47-39-00; WL 122-18-00
- (2) MOBILE: Columbia River, Portland, Oregon, within 370 km, centered around NL 45-32-00; WL 122-40-00
- (3) MOBILE: San Diego, California, within 370 km, centered around NL 32-44-00; WL 117-10-00
- (4) MOBILE: Boston, Massachusetts, within 370 km, centered around NL 42-22-00; WL 71-02-00
- (5) MOBILE: Penobscot Bay, Maine, within 370 km, centered around NL 44-28-00; WL 68-43-00
- (6) MOBILE: Fishers Island, New York, within 370 km, centered around NL 41-15-21; WL 72-00-22
- (7) MOBILE: Tampa Bay, Florida, within 370 km, centered around NL 27-58-00; WL 82-32-00
- (8) MOBILE: Houston, Texas, within 370 km, centered around NL 29-59-00; WL 95-22-00
- (9) MOBILE: Galveston, TX, within 370 km, centered around NL 29-18-00; WL 94-48-00
- (10) MOBILE: Baton Rouge, Louisiana, within 370 km, centered around NL 30-32-00; WL 91-09-00
- (11) MOBILE: New Orleans, Louisiana, within 370 km, centered around NL 29-59-00; WL 90-15-00
- (12) MOBILE: Mobile, Alabama, within 370 km, centered around NL 30-40-00; WL 88-15-00
- (13) MOBILE: Norfolk, VA, within 370 km, centered around NL 36-54-00; WL 76-12-00
- (14) MOBILE: Honolulu, Hawaii, within 370 km, centered around NL 21-20-00; WL 157-55-00
- (15) MOBILE: Juneau, AK, within 370 km, centered around NL 58-22-00; WL 134-35-00

This authorization effective November 01, 2017 and
will expire 3:00 A.M. EST November 01, 2022

**FEDERAL
COMMUNICATIONS
COMMISSION**



Station Locations

- (16) MOBILE: Chesapeake Beach, Maryland, within 370 km, centered around NL 38-39-46; WL 76-34-53
- (17) MOBILE: Pittsburgh, Pennsylvania, within 370 km, centered around NL 40-27-00; WL 80-00-00
- (18) MOBILE: Baltimore, Maryland, within 370 km, centered around NL 39-20-00; WL 76-25-00
- (19) MOBILE: Lake Erie
- (20) MOBILE: Guam, within 470 km, centered around NL 13-27-39; EL 144-41-30
- (21) MOBILE: Bethpage, New York, within 370 km, centered around NL 40-44-39; WL 73-28-57
- (22) MOBILE: Stennis Space Center, Mississippi, within 370 km, centered around NL 30-22-00; WL 89-36-30

Frequency Information

MOBILE: Puget Sound, Washington State, within 370 km, centered around NL 47-39-00; WL 122-18-00

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
161.975 MHz	MO	16K0F1D	2 W (ERP)	
162.025 MHz	MO	16K0F1D	2 W (ERP)	

MOBILE: Columbia River, Portland, Oregon, within 370 km, centered around NL 45-32-00; WL 122-40-00

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
161.975 MHz	MO	16K0F1D	2 W (ERP)	
162.025 MHz	MO	16K0F1D	2 W (ERP)	

Frequency Information

MOBILE: San Diego, California, within 370 km, centered around NL 32-44-00; WL 117-10-00

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
161.975 MHz	MO	16K0F1D	2 W (ERP)	
162.025 MHz	MO	16K0F1D	2 W (ERP)	

MOBILE: Boston, Massachusetts, within 370 km, centered around NL 42-22-00; WL 71-02-00

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
161.975 MHz	MO	16K0F1D	2 W (ERP)	
162.025 MHz	MO	16K0F1D	2 W (ERP)	

MOBILE: Penobscot Bay, Maine, within 370 km, centered around NL 44-28-00; WL 68-43-00

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
161.975 MHz	MO	16K0F1D	2 W (ERP)	
162.025 MHz	MO	16K0F1D	2 W (ERP)	

Frequency Information

MOBILE: Fishers Island, New York, within 370 km, centered around NL 41-15-21; WL 72-00-22

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
161.975 MHz	MO	16K0F1D	2 W (ERP)	
162.025 MHz	MO	16K0F1D	2 W (ERP)	

MOBILE: Tampa Bay, Florida, within 370 km, centered around NL 27-58-00; WL 82-32-00

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
161.975 MHz	MO	16K0F1D	2 W (ERP)	
162.025 MHz	MO	16K0F1D	2 W (ERP)	

MOBILE: Houston, Texas, within 370 km, centered around NL 29-59-00; WL 95-22-00

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
161.975 MHz	MO	16K0F1D	2 W (ERP)	
162.025 MHz	MO	16K0F1D	2 W (ERP)	

Frequency Information

MOBILE: Galveston, TX, within 370 km, centered around NL 29-18-00; WL 94-48-00

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
161.975 MHz	MO	16K0F1D	2 W (ERP)	
162.025 MHz	MO	16K0F1D	2 W (ERP)	

MOBILE: Baton Rouge, Louisiana, within 370 km, centered around NL 30-32-00; WL 91-09-00

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
161.975 MHz	MO	16K0F1D	2 W (ERP)	
162.025 MHz	MO	16K0F1D	2 W (ERP)	

MOBILE: New Orleans, Louisiana, within 370 km, centered around NL 29-59-00; WL 90-15-00

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
161.975 MHz	MO	16K0F1D	2 W (ERP)	
162.025 MHz	MO	16K0F1D	2 W (ERP)	

Frequency Information

MOBILE: Mobile, Alabama, within 370 km, centered around NL 30-40-00; WL 88-15-00

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
161.975 MHz	MO	16K0F1D	2 W (ERP)	
162.025 MHz	MO	16K0F1D	2 W (ERP)	

MOBILE: Norfolk, VA, within 370 km, centered around NL 36-54-00; WL 76-12-00

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
161.975 MHz	MO	16K0F1D	2 W (ERP)	
162.025 MHz	MO	16K0F1D	2 W (ERP)	

MOBILE: Honolulu, Hawaii, within 370 km, centered around NL 21-20-00; WL 157-55-00

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
161.975 MHz	MO	16K0F1D	2 W (ERP)	
162.025 MHz	MO	16K0F1D	2 W (ERP)	

Frequency Information

MOBILE: Juneau, AK, within 370 km, centered around NL 58-22-00; WL 134-35-00

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
161.975 MHz	MO	16K0F1D	2 W (ERP)	
162.025 MHz	MO	16K0F1D	2 W (ERP)	

MOBILE: Chesapeake Beach, Maryland, within 370 km, centered around NL 38-39-46; WL 76-34-53

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
161.975 MHz	MO	16K0F1D	2 W (ERP)	
162.025 MHz	MO	16K0F1D	2 W (ERP)	

MOBILE: Pittsburgh, Pennsylvania, within 370 km, centered around NL 40-27-00; WL 80-00-00

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
161.975 MHz	MO	16K0F1D	2 W (ERP)	
162.025 MHz	MO	16K0F1D	2 W (ERP)	

Frequency Information

MOBILE: Baltimore, Maryland, within 370 km, centered around NL 39-20-00; WL 76-25-00

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
161.975 MHz	MO	16K0F1D	2 W (ERP)	
162.025 MHz	MO	16K0F1D	2 W (ERP)	

MOBILE: Lake Erie

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
161.975 MHz	MO	16K0F1D	2 W (ERP)	
162.025 MHz	MO	16K0F1D	2 W (ERP)	

MOBILE: Guam, within 470 km, centered around NL 13-27-39; EL 144-41-30

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
161.975 MHz	MO	16K0F1D	2 W (ERP)	
162.025 MHz	MO	16K0F1D	2 W (ERP)	

Frequency Information

MOBILE: Bethpage, New York, within 370 km, centered around NL 40-44-39; WL 73-28-57

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
161.975 MHz	MO	16K0F1D	2 W (ERP)	
162.025 MHz	MO	16K0F1D	2 W (ERP)	

MOBILE: Stennis Space Center, Mississippi, within 370 km, centered around NL 30-22-00; WL 89-36-30

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
161.975 MHz	MO	16K0F1D	2 W (ERP)	
162.025 MHz	MO	16K0F1D	2 W (ERP)	

Special Conditions:

- (1) Prior to equipment authorization or a determination of compliance, the device must be accompanied by a conspicuous notice worded as follows: "This device has not been authorized as required by the rules of the Federal Communications Commission. This device is not, and may not be, offered for sale or lease, or sold or leased, until authorization is obtained."
- (2) All customers participating in the experiment shall be informed that this operation is for experimental purposes only and can be cancelled at any time.
- (3) Licensee should be aware that other stations may be licensed on these frequencies and if any interference occurs, the licensee of this authorization will be subject to immediate shut down.
- (4) All shipboard transmissions shall be performed ONLY on U.S.-registered vessels.
- (5) Operation is subject to prior coordination with the Society of Broadcast Engineers, Inc. (SBE), ATTN: Executive Director; 9247 North Meridian Street, Suite 305; Indianapolis, IN 46260; telephone, (866) 632-4222; FAX, (317) 846-9120; e-mail, executivedir@sbe.org; information, www.sbe.org, along a 50 km line inside the coast line to protect Broadcast Auxiliary Low Power and Broadcast Auxiliary Remote Pick-up operations.

Special Conditions:

- (6) This authorization is issued for the express purpose of conducting experimental operations described in the related application and required by HSARPA SBIR contract number NBCHC050038. The use of this radio station in any other manner or for any other purpose will constitute a violation of the privileges herein authorized. Except as subsequently authorized by the Commission, this radio station shall not be operated after the expiration date of the contract designated in the related application and enumerated above.
- (7) This license authorizes the use of no more than 25 units.