

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

EXPERIMENTAL

(Nature of Service)

WI9XZE

(Call Sign)

XT FX MO

(Class of Station)

0053-EX-TC-2015

(File Number)

NAME Google 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.

Station Locations

- (1) MOBILE: Spaceport America, NM: Airborne, Max Altitude 25,000 ft., within 25 km, centered around NL 32-59-25; WL 106-58-11
- (2) Spaceport America (SIERRA), NM - NL 32-59-39; WL 106-58-29
- (3) Spaceport America (SIERRA), NM - NL 32-56-27; WL 106-55-15
- (4) Spaceport America (SIERRA), NM - NL 32-59-39; WL 106-58-29
- (5) Madras (JEFFERSON), OR - NL 44-51-32; WL 121-10-49
- (6) Spaceport America (SIERRA), NM - NL 32-59-39; WL 106-58-29
- (7) Madras (JEFFERSON), OR - NL 44-51-32; WL 121-10-49
- (8) MOBILE: Spaceport America, NM: Airborne, Max Altitude 25,000 ft., within 70 km, centered around NL 32-59-25; WL 106-58-11
- (9) MOBILE: Madras, OR: Airborne, Max Altitude 25,000 ft., within 100 km, centered around NL 44-45-37; WL 121-16-06
- (10) MOBILE: Pescadero, CA: Airborne, Max Altitude 25,000 ft., within 10 km, centered around NL 37-15-18; WL 122-22-53
- (11) Spaceport America (SIERRA), NM - NL 32-59-39; WL 106-58-29
- (12) Spaceport America (SIERRA), NM - NL 32-56-27; WL 106-55-15
- (13) Madras (JEFFERSON), OR - NL 44-51-32; WL 121-10-49
- (14) Warm Springs (JEFFERSON), OR - NL 44-46-15; WL 121-15-49
- (15) Warm Springs Reservation (JEFFERSON), OR - NL 44-50-23; WL 121-14-01
- (16) Pescadero (SAN MATEO), CA - NL 37-15-18; WL 122-22-53

This authorization effective June 23, 2016 and
will expire 3:00 A.M. EST August 30, 2016

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

MOBILE: Spaceport America, NM: Airborne, Max Altitude 25,000 ft., within 25 km, centered around NL 32-59-25; WL 106-58-11

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2568-2590 MHz	MO	20M0A2D	4 W (Output Power)	
2620-2640 MHz	MO	20M0A2D	4 W (Output Power)	

Spaceport America (SIERRA), NM - NL 32-59-39; WL 106-58-29

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2550-2570 MHz	FX	20M0A2D	0.25 W (Output Power)	
2568-2590 MHz	FX	20M0A2D	0.25 W (Output Power)	

Spaceport America (SIERRA), NM - NL 32-56-27; WL 106-55-15

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2550-2570 MHz	FX	20M0A2D	0.25 W (Output Power)	
2568-2590 MHz	FX	20M0A2D	0.25 W (Output Power)	

Frequency Information

Spaceport America (SIERRA), NM - NL 32-59-39; WL 106-58-29

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5775-5825 MHz	FX	10H0N0N	0.1 W (Output Power)	

Madras (JEFFERSON), OR - NL 44-51-32; WL 121-10-49

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5775-5825 MHz	FX	10H0N0N	0.1 W (Output Power)	

Spaceport America (SIERRA), NM - NL 32-59-39; WL 106-58-29

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24199.88-24200.12 MHz	FX	10H0N0N	0.1 W (Output Power)	

Madras (JEFFERSON), OR - NL 44-51-32; WL 121-10-49

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24199.88-24200.12 MHz	FX	10H0N0N	0.1 W (Output Power)	

Frequency Information

MOBILE: Spaceport America, NM: Airborne, Max Altitude 25,000 ft., within 70 km, centered around NL 32-59-25; WL 106-58-11

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
72000-74000 MHz	MO	2G00G2D	0.5 W (Output Power)	

MOBILE: Madras, OR: Airborne, Max Altitude 25,000 ft., within 100 km, centered around NL 44-45-37; WL 121-16-06

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
72000-74000 MHz	MO	2G00G2D	0.5 W (Output Power)	

MOBILE: Pescadero, CA: Airborne, Max Altitude 25,000 ft., within 10 km, centered around NL 37-15-18; WL 122-22-53

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
72000-74000 MHz	MO	2G00G2D	0.5 W (Output Power)	

Spaceport America (SIERRA), NM - NL 32-59-39; WL 106-58-29

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
82000-84000 MHz	FX	2G00G2D	0.5 W (Output Power)	

Frequency Information

Spaceport America (SIERRA), NM - NL 32-56-27; WL 106-55-15

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
82000-84000 MHz	FX	2G00G2D	0.5 W (Output Power)	

Madras (JEFFERSON), OR - NL 44-51-32; WL 121-10-49

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
82000-84000 MHz	FX	2G00G2D	0.5 W (Output Power)	

Warm Springs (JEFFERSON), OR - NL 44-46-15; WL 121-15-49

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
82000-84000 MHz	FX	2G00G2D	0.5 W (Output Power)	

Warm Springs Reservation (JEFFERSON), OR - NL 44-50-23; WL 121-14-01

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
82000-84000 MHz	FX	2G00G2D	0.5 W (Output Power)	

Frequency Information

Pescadero (SAN MATEO), CA - NL 37-15-18; WL 122-22-53

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
82000-84000 MHz	FX	2G00G2D	0.5 W (Output Power)	

Special Conditions:

- (1) Operation requires consent of affected Educational Broadband Service/Broadband Radio Service (EBS/BRS) licensees.
- (2) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (3) Google must coordinate with the existing 71-76 GHz and 81-86 GHz users prior to operation in 72000-74000 MHz and 82000-84000 MHz bands.
- (4) Google in association with Spaceport America, must schedule their operations as a White Sands Missile Range (WSMR) Range Mission, through the WSMR/Spaceport America liaison, Conrad Rodriguez, 575-678-2076 (O) or 575-993-0996 (C) to mitigate interference risk to DoD operations at (WSMR) and to maintain situational awareness.
- (5) Prior to conducting the test, Google must coordinate with the Federal Aviation Administration (FAA), Mr. Rodney Murphy, 202-267-9501, Rodney.murphy@faa.gov.