



FCC EXPERIMENTAL LICENSING:

**Promoting Expanded Opportunities for Radio
Experimentation and Market Trials**

**Ira Keltz
Deputy Chief, OET
FCC**

**WinnComm
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FCC Experimental Licensing

Provides opportunity for researchers, developers, manufacturers to:

- Develop new products
- Test proof of concept designs
- Test new product designs
- Conduct Market trials
- Short term novel spectrum uses

Mr. Alexar Viles, 10000 Ventura Blvd., Suite 600, Encino, CA 91436

United States of America
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
SPECIAL TEMPORARY AUTHORIZATION

EXPERIMENTAL (Nature of Service)	WF9XXV (Call Sign)
XT FX (Class of Station)	0056-EX-ST-2012 (File Number)

NAME: Coldplay Inc.

This Special Temporary Authorization is granted upon the express condition that it may be terminated by the Commission at any time without advance notice or hearing if it is in the public interest beyond the express terms hereof.

This Special Temporary Authorization shall not vest in the grantee any right to operate the station nor any right in the use of the frequencies designated in the authorization beyond the term hereof, nor in any other manner than authorized herein. Neither the authorization nor the right granted hereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934. This authorization is subject to the right of use of control the Government of the United States conferred by Section 706 of the Communications Act of 1934.

Special Temporary Authority is hereby granted to operate the apparatus described below:

Purpose Of Operation:
Please see Exhibit A.

Station Locations
(1) Los Angeles (LOS ANGELES), CA - NL 34-02-35; WL 118-16-02

Frequency Information

Los Angeles (LOS ANGELES), CA - NL 34-02-35; WL 118-16-02

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
869.47-869.53 MHz	FX	60K0G02	0.4 W (ERP)	

Special Conditions:
(1) Testing is for demonstration purposes only and has been prior coordinated with the existing licensee. This authorization does not imply any future approval for this operation.

This authorization effective February 11, 2012 and will expire 3:00 A.M. EST February 13, 2012

FEDERAL COMMUNICATIONS COMMISSION

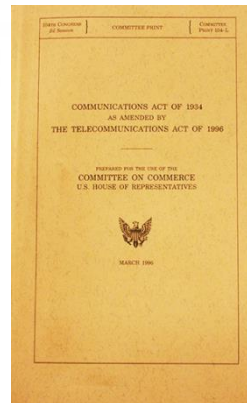
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All experiments are on a non-interference basis



Why Do I Need One?

Communications Act of 1934 requires a license from the FCC to transmit an RF signal



Exceptions (by Commission interpretation)

- Part 15 Unlicensed Devices
- Part 18 Industrial, Scientific, Medical Equipment
- Experiments conducted within an anechoic chamber or faraday cage



What Can I Do With One?

Experimentations in scientific or technical radio research

Experimentations in the broadcast services

Experimentations under contractual agreement with the United States Government, or for export purposes

Communications essential to a research project

Technical demonstrations of equipment or techniques

Field strength surveys

Demonstration of equipment to prospective purchasers

Testing of equipment in connection with production or regulatory approval

Testing of medical devices that use RF wireless technology or communications functions for diagnosis, treatment, or patient monitoring

Development of radio technique, equipment, operational data or engineering data, including field or factory testing or equipment calibration

Product development and market trials

Other experiments will be considered upon demonstration of need



What Kind Of License Can I Get?

*Conventional
experimental
radio license*

Specific project (or series of
closely-related projects)

Product development and
market trials

*Special
temporary
authorization
(STA)*

Experiments expected to last
no more than six months

*Broadcast
experimental
radio license*

Development of new
broadcast technology,
equipment, systems or
services

Limited to stations intended
for reception and use by the
general public.

*Program
experimental
radio license*

Ongoing program of research
and experimentation under a
single experimental
authorization

Projects do not need to be
related

*Medical testing
experimental
radio license*

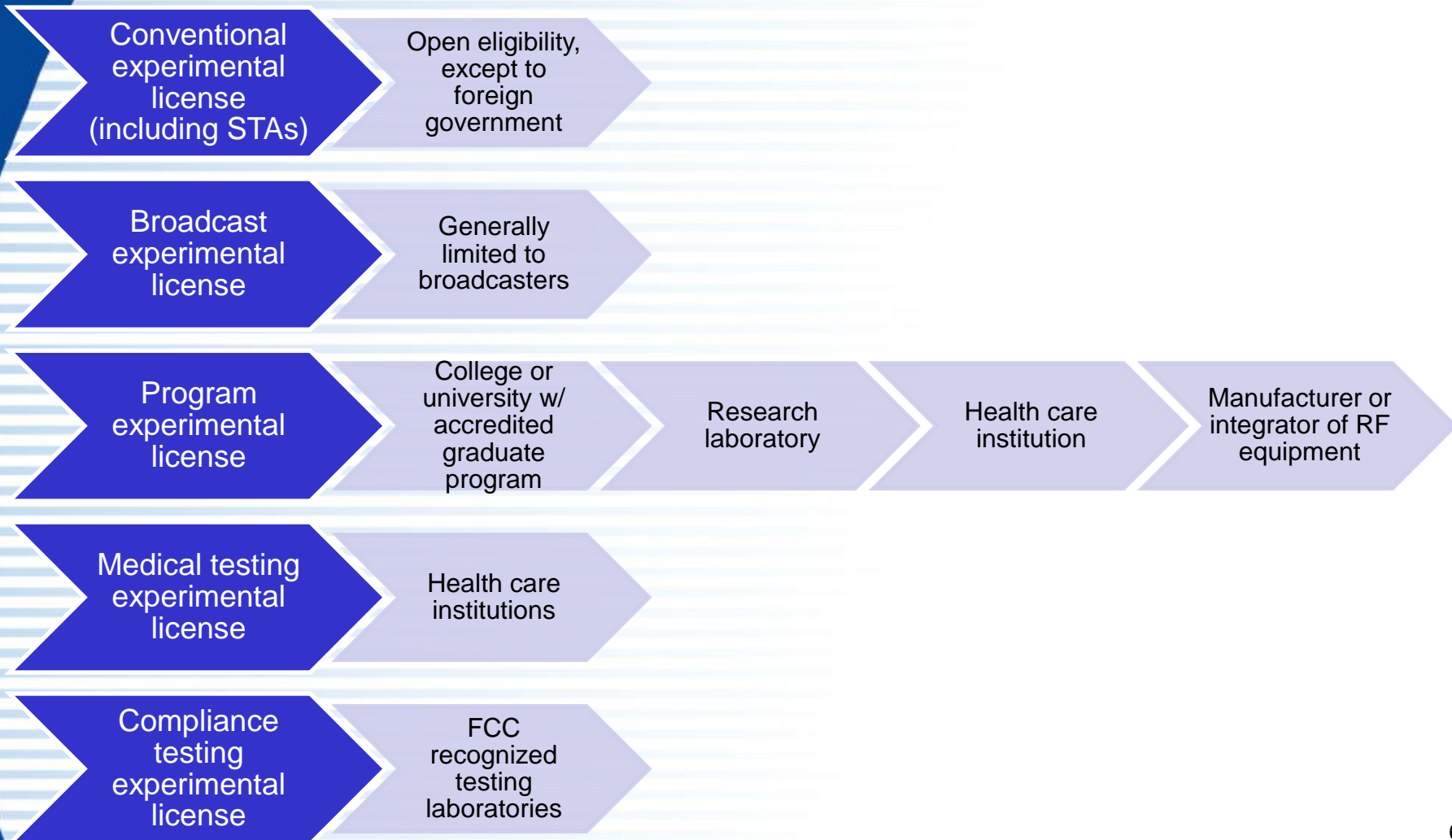
For health care institutions
that use RF technology in
clinical trials for diagnosis,
treatment, or monitoring

*Compliance
testing
experimental
radio license*

For FCC recognized
laboratories to test RF devices



Who Can Get One?

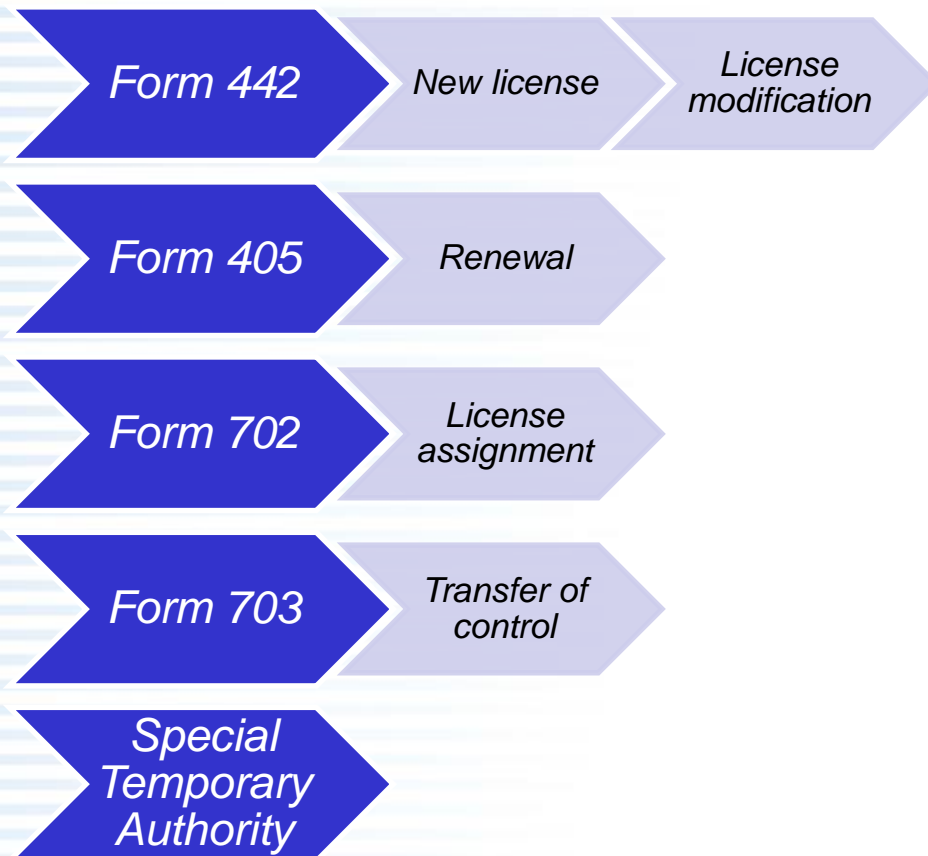




How Do I Get One?

Electronically file
on FCC's website

- <https://apps.fcc.gov/oetcf/els/index.cfm>
- \$65 application fee





How Long Does It Take?

Simple application –
requesting only non-federal
exclusive frequencies

- Generally process in 30-35 days

Request use of exclusive or
shared federal frequencies

- MOU allows up to 10 business days for coordination
- Generally process in 45 days (aeronautical frequencies takes longer)

STAs can often be
processed quicker

- Generally process in 10-14 days

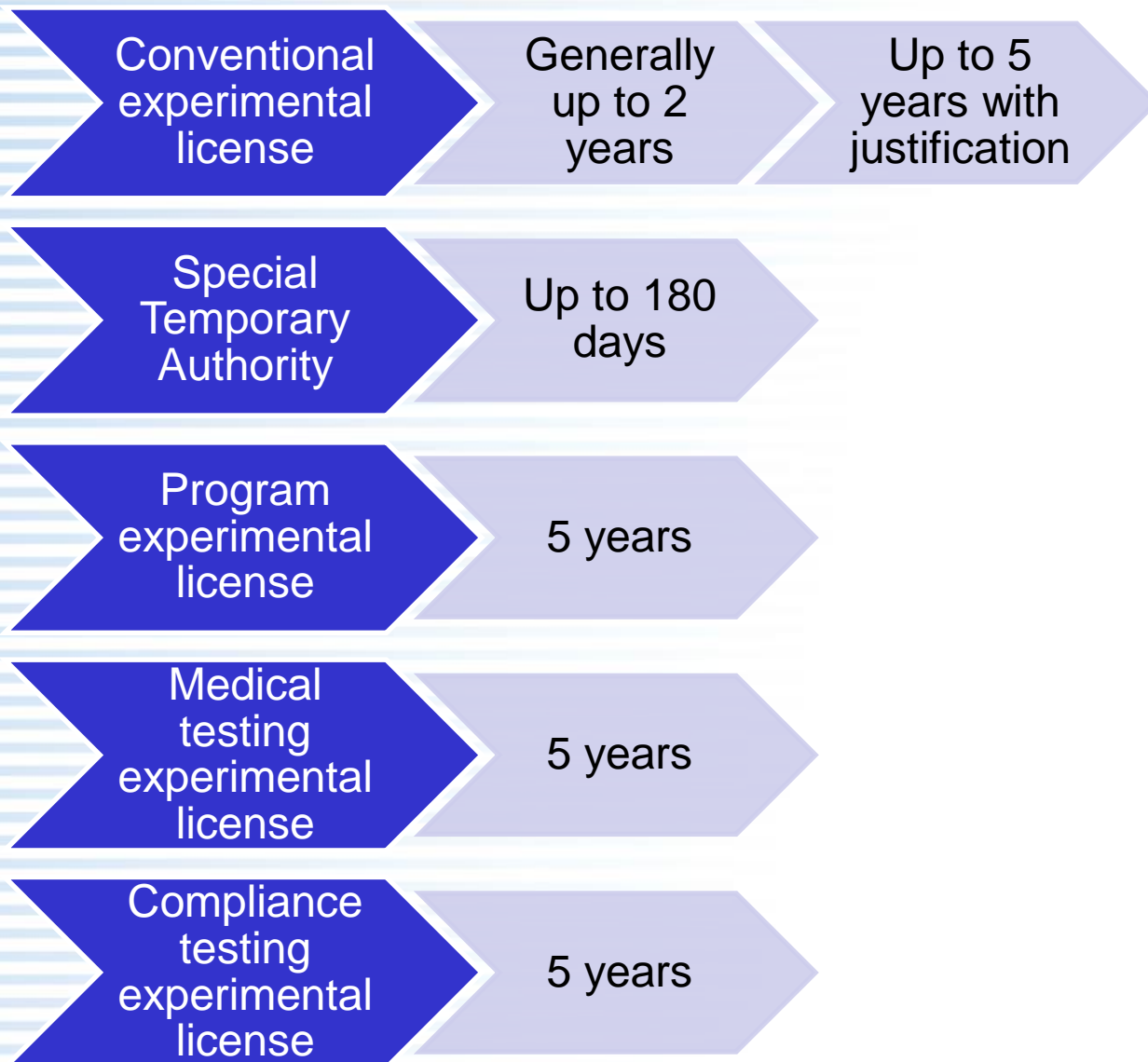
Program licenses

- Process still needs to be worked out

Apply with as much lead time as possible!



How Long Can I Operate?





Program License General Requirements

Experiments must be conducted in areas under the licensee's control

FCC has authority to prohibit or require modification of specific experiments at any time without notice or hearing

Licensee must take all necessary technical and operational steps to avoid harmful interference to authorized services

Licensee must file a narrative statement describing results within 30 days after completion of each experiment

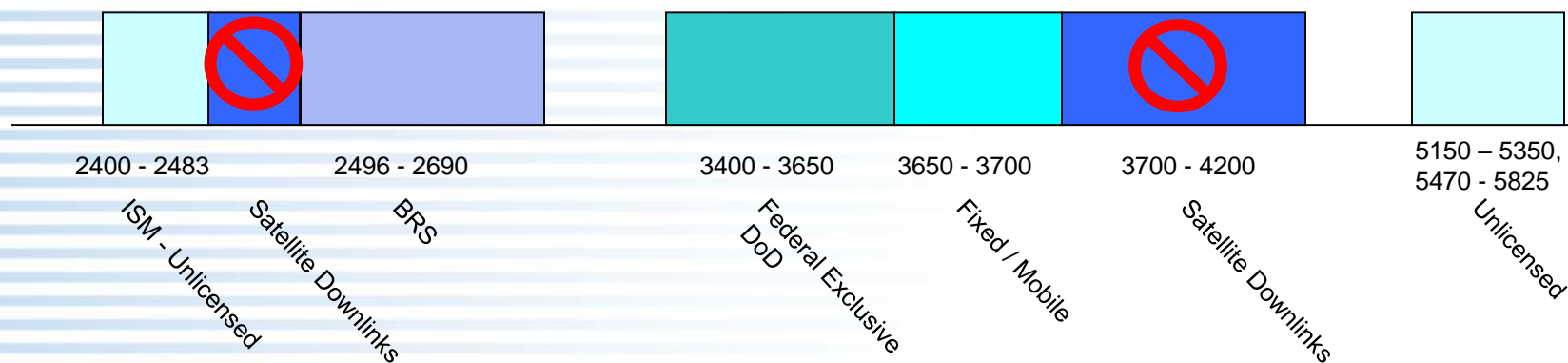
- Including any interference incidents and steps taken to resolve them



What Spectrum Can I Use?

All frequency bands available for experimentation under a program license

- Except:
 - Restricted Band Frequencies
 - Listed in 47 C.F.R § 15.205
 - Except allow on frequencies above 38.6 GHz that are not set aside as receive only bands
 - Table of Frequency Allocations footnote US246





Notification Requirements Prior To Operating

Licensees must register experiments via FCC website

Experiment
Description
Contact information
Frequency(s)
Maximum power
Emissions
Antenna height
Description of test
area (location)

Must occur at least
10 calendar days
prior to
commencement of
experiment

- Objections must be resolved prior to operating

Documentation
required:

- RF expertise
- Special provisions for CMRS, emergency notifications, or public safety
- Develop and submit to FCC a plan that avoids interference



Reporting Requirement

After completion of an experiment

- Brief narrative statement describing the results of the test
 - Including any interference incidents and steps taken to resolve them.

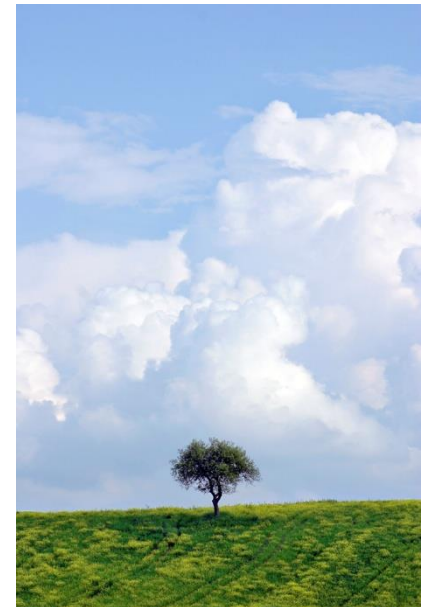
Build a public record of active innovation in the field of radio communications that can be used to encourage and inspire future technological advancements



Innovation Zones

Opportunities for testing and experimentation in specified geographic locations with pre-authorized boundary conditions

- Permit operations over large areas, such as isolated or protected areas
- Designated by FCC on its own motion or in response to a petition
- Not for use by a single entity at its exclusive-use facility
- Open to all qualified program licensees
- Must hold appropriate technical credentials demonstrating technical competence





Product Development Trials

Product development trials

- An experimental program designed to evaluate product performance in the conceptual, developmental, and design stages, and typically requiring testing under expected use conditions
- Conventional experimental license required
- Licensee maintains ownership of all equipment
- Marketing of devices is prohibited (*i.e.*, fees may not be collected)



Market Trials

Market trials

- A program designed to evaluate product performance and customer acceptability prior to the production stage, and typically requires testing a specific product under expected use conditions to evaluate actual performance and effectiveness
- Limited marketing permitted
 - Licensees may sell equipment to other licensees
 - Leasing to trial participants is permitted
 - Operation must be in compliance with existing rules, granted rule waivers, or adopted rules not yet in effect
- All devices must be retrieved at conclusion of market trial



Operation Prior To Equipment Certification

Generally an experimental license is needed, except (47 C.F.R § 2.805)

- Operation in anechoic chamber or faraday cage
- Equipment designed to comply with Parts 15, 18, or 95 so long as:
 - Operation is in compliance with existing rules, granted rule waivers, or adopted rules not yet in effect; and
 - Operation is for demonstration at a trade show or customer evaluation
- All other equipment
 - Devices must be rendered inoperable or retrieved after operation; and
 - Operation is in compliance with existing rules, granted rule waivers, or adopted rules not yet in effect and operation is under authority of a service licensee or under an STA
- or
 - Operation is below the general Part 15 limits (47 C.F.R. § 15.209) and operation is for demonstration at a trade show or customer evaluation



Where Can I Get More Information?

FCC website

- <https://apps.fcc.gov/oetcf/els/index.cfm>

FCC rules (Code of Federal Regulations)

- <http://www.ecfr.gov/>
- Experimental licenses – 47 C.F.R. Part 5

FCC call center

- 1-888-CALL-FCC (255-5322)

E-mail inquiries

- oetinfo@fcc.gov



QUESTIONS?