

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

EXPERIMENTAL
(Nature of Service)

WL2XGU
(Call Sign)

XC FX
(Class of Station)

0078-EX-CM-2021
(File Number)

NAME Episys Science, 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) Tucson (PIMA), AZ - NL 32-19-58; WL 110-54-23
- (2) Poway (SAN DIEGO), CA - NL 32-56-24; WL 117-02-41
- (3) Vista (SAN DIEGO), CA - NL 33-08-39; WL 117-13-28
- (4) Tucson (PIMA), AZ - NL 32-14-33; WL 110-55-46
- (5) Clifton (GREENLEE), AZ - NL 32-57-58; WL 109-18-24
- (6) Dragoon (COCHISE), AZ - NL 32-03-10; WL 110-02-38
- (7) San Diego (SAN DIEGO), CA - NL 32-59-53; WL 116-56-22
- (8) Dudleyville (PINAL), AZ - NL 32-52-15; WL 110-53-01

Frequency Information

Tucson (PIMA), AZ - NL 32-19-58; WL 110-54-23

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
3.6-3.8 MHz	FX	24K0J2D 24K0J3D 24K0J2E 24K0J3E	400 W (ERP)	
5.3305 MHz	FX	2K80J2D 2K80J3D	100 W (ERP)	0.001 %

This authorization effective July 14, 2021 and
will expire 3:00 A.M. EST November 01, 2022

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

Tucson (PIMA), AZ - NL 32-19-58; WL 110-54-23

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5.3305 MHz	FX	2K80J2E 2K80J3E	100 W (ERP)	0.001 %
5.3465 MHz	FX	2K80J2D 2K80J3D 2K80J2E 2K80J3E	100 W (ERP)	0.001 %
5.357 MHz	FX	2K80J2D 2K80J3D 2K80J2E 2K80J3E	100 W (ERP)	0.001 %
7-7.2 MHz	FX	24K0J2D 24K0J3D 24K0J2E 24K0J3E	400 W (ERP)	
14-14.25 MHz	FX	24K0J2D 24K0J3D 24K0J2E 24K0J3E	400 W (ERP)	
17.41-17.48 MHz	FX	24K0J2D 24K0J3D 24K0J2E 24K0J3D	400 W (ERP)	

Frequency Information

Tucson (PIMA), AZ - NL 32-19-58; WL 110-54-23

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
21-21.45 MHz	FX	24K0J2D 24K0J3D 24K0J2E 24K0J3E	400 W (ERP)	

Poway (SAN DIEGO), CA - NL 32-56-24; WL 117-02-41

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
3.6-3.8 MHz	FX	24K0J2D 24K0J3D 24K0J2E 24K0J3E	400 W (ERP)	
5.3305 MHz	FX	2K80J2D 2K80J3D 2K80J2E 2K80J3E	100 W (ERP)	0.001 %
5.3465 MHz	FX	2K80J2D 2K80J3D 2K80J2E 2K80J3E	100 W (ERP)	0.001 %
5.357 MHz	FX	2K80J2D 2K80J3D 2K80J2E	100 W (ERP)	0.001 %

Frequency Information

Poway (SAN DIEGO), CA - NL 32-56-24; WL 117-02-41

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5.357 MHz	FX	2K80J3E	100 W (ERP)	0.001 %
7-7.2 MHz	FX	24K0J2D 24K0J3D 24K0J2E 24K0J3E	400 W (ERP)	
14-14.25 MHz	FX	24K0J2D 24K0J3D 24K0J3D 24K0J3E	400 W (ERP)	
17.41-17.48 MHz	FX	24K0J2D 24K0J2E 24K0J3D 24K0J3E	400 W (ERP)	
21-21.45 MHz	FX	24K0J2D 24K0J3D 24K0J2E 24K0J3E	400 W (ERP)	

Vista (SAN DIEGO), CA - NL 33-08-39; WL 117-13-28

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
3.6-3.8 MHz	FX	24K0J2D	400 W (ERP)	

Frequency Information

Vista (SAN DIEGO), CA - NL 33-08-39; WL 117-13-28

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
3.6-3.8 MHz	FX	24K0J3D 24K0J2E 24K0J3E	400 W (ERP)	
5.3305 MHz	FX	2K80J2D 2K80J3D 2K80J2E 2K80J3E	100 W (ERP)	0.001 %
5.3465 MHz	FX	2K80J2D 2K80J3D 2K80J2E 2K80J3E	100 W (ERP)	0.001 %
5.357 MHz	FX	2K80J2D 2K80J3D 2K80J2E 2K80J3E	100 W (ERP)	0.001 %
7-7.2 MHz	FX	24K0J2D 24K0J2E 24K0J3D 24K0J3E	400 W (ERP)	
14-14.25 MHz	FX	24K0J2D 24K0J2E 24K0J3D	400 W (ERP)	

Frequency Information

Vista (SAN DIEGO), CA - NL 33-08-39; WL 117-13-28

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
14-14.25 MHz	FX	24K0J3E	400 W (ERP)	
17.41-17.48 MHz	FX	24K0J2D 24K0J2E 24K0J3D 24K0J3E	400 W (ERP)	
21-21.45 MHz	FX	24K0J2D 24K0J2E 24K0J3D 24K0J3E	400 W (ERP)	

Tucson (PIMA), AZ - NL 32-14-33; WL 110-55-46

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
3.6-3.8 MHz	FX	24K0J2D 24K0J3D 24K0J2E 24K0J3E	400 W (ERP)	
5.3305 MHz	FX	2K80J2D 2K80J3D 2K80J2E 2K80J3E	100 W (ERP)	0.001 %
5.3465 MHz	FX	2K80J2D	100 W (ERP)	0.001 %

Frequency Information

Tucson (PIMA), AZ - NL 32-14-33; WL 110-55-46

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5.3465 MHz	FX	2K80J3D 2K80J2E 2K80J3E	100 W (ERP)	0.001 %
5.357 MHz	FX	2K80J2D 2K80J3D 2K80J2E 2K80J3E	100 W (ERP)	0.001 %
7-7.2 MHz	FX	24K0J2D 24K0J3D 24K0J2E 24K0J3E	400 W (ERP)	
14-14.25 MHz	FX	24K0J2D 24K0J3D 24K0J2E 24K0J3E	400 W (ERP)	
17.41-17.48 MHz	FX	24K0J2D 24K0J3D 24K0J2E 24K0J3E	400 W (ERP)	
21-21.45 MHz	FX	24K0J2D 24K0J3D 24K0J2E	400 W (ERP)	

Frequency Information

Tucson (PIMA), AZ - NL 32-14-33; WL 110-55-46

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
21-21.45 MHz	FX	24K0J3E	400 W (ERP)	

Clifton (GREENLEE), AZ - NL 32-57-58; WL 109-18-24

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
3.6-3.8 MHz	FX	24K0J2D 24K0J3D 24K0J2E 24K0J3E	400 W (ERP)	
5.3305 MHz	FX	2K80J2D 2K80J3D 2K80J2E 2K80J3E	100 W (ERP)	0.001 %
5.3465 MHz	FX	2K80J2D 2K80J3D 2K80J2E 2K80J3E	100 W (ERP)	0.001 %
5.357 MHz	FX	2K80J2D 2K80J3D 2K80J2E 2K80J3E	100 W (ERP)	0.001 %
7-7.2 MHz	FX	24K0J2D	400 W (ERP)	

Frequency Information

Clifton (GREENLEE), AZ - NL 32-57-58; WL 109-18-24

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
7-7.2 MHz	FX	24K0J3D 24K0J2E 24K0J3E	400 W (ERP)	
14-14.25 MHz	FX	24K0J2D 24K0J3D 24K0J2E 24K0J3E	400 W (ERP)	
17.41-17.48 MHz	FX	24K0J2D 24K0J3D 24K0J2E 24K0J3E	400 W (ERP)	
21-21.45 MHz	FX	24K0J2D 24K0J3D 24K0J2E 24K0J3E	400 W (ERP)	

Dragoon (COCHISE), AZ - NL 32-03-10; WL 110-02-38

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
3.6-3.8 MHz	FX	24K0J2D 24K0J3D 24K0J2E 24K0J3E	400 W (ERP)	

Frequency Information

Dragoon (COCHISE), AZ - NL 32-03-10; WL 110-02-38

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5.3305 MHz	FX	2K80J2D 2K80J3D 2K80J2E 2K80J3E	100 W (ERP)	0.001 %
5.3465 MHz	FX	2K80J2D 2K80J3D 2K80J2E 2K80J3E	100 W (ERP)	0.001 %
5.357 MHz	FX	2K80J2D 2K80J3D 2K80J2E 2K80J3E	100 W (ERP)	0.001 %
7-7.2 MHz	FX	24K0J2D 24K0J3D 24K0J2E 24K0J3E	400 W (ERP)	
14-14.25 MHz	FX	24K0J2D 24K0J3D 24K0J2E 24K0J3E	400 W (ERP)	
17.41-17.48 MHz	FX	24K0J2D 24K0J3D 24K0J2E	400 W (ERP)	

Frequency Information

Dragoon (COCHISE), AZ - NL 32-03-10; WL 110-02-38

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
17.41-17.48 MHz	FX	24K0J3E	400 W (ERP)	
21-21.45 MHz	FX	24K0J2D 24K0J3D 24K0J2E 24K0J3E	400 W (ERP)	

San Diego (SAN DIEGO), CA - NL 32-59-53; WL 116-56-22

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
3.6-3.8 MHz	FX	24K0J2D 24K0J3D 24K0J2E 24K0J3E	400 W (ERP)	
5.3305 MHz	FX	2K80J2D 2K80J3D 2K80J2E 2K80J3E	100 W (ERP)	0.001 %
5.3465 MHz	FX	2K80J2D 2K80J3D 2K80J2E 2K80J3E	100 W (ERP)	0.001 %
5.357 MHz	FX	2K80J2D	100 W (ERP)	0.001 %

Frequency Information

San Diego (SAN DIEGO), CA - NL 32-59-53; WL 116-56-22

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5.357 MHz	FX	2K80J3D 2K80J2E 2K80J3E	100 W (ERP)	0.001 %
7-7.2 MHz	FX	24K0J2D 24K0J3D 24K0J2E 24K0J3E	400 W (ERP)	
14-14.25 MHz	FX	24K0J2D 24K0J3D 24K0J2E 24K0J3E	400 W (ERP)	
17.41-17.48 MHz	FX	24K0J2D 24K0J3D 24K0J2E 24K0J3E	400 W (ERP)	
21-21.45 MHz	FX	24K0J2D 24K0J3D 24K0J2E 24K0J3E	400 W (ERP)	

Frequency Information

Dudleyville (PINAL), AZ - NL 32-52-15; WL 110-53-01

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
3.6-3.8 MHz	FX	24K0J2D 24K0J3D 24K0J2E 24K0J3E	400 W (ERP)	
5.3305 MHz	FX	2K80J2D 2K80J3D 2K80J2E 2K80J3E	100 W (ERP)	0.001 %
5.3465 MHz	FX	2K80J2D 2K80J3D 2K80J2E 2K80J3E	100 W (ERP)	0.001 %
5.357 MHz	FX	2K80J2D 2K80J3D 2K80J2E 2K80J3E	100 W (ERP)	0.001 %
7-7.2 MHz	FX	24K0J2D 24K0J3D 24K0J2E 24K0J3E	400 W (ERP)	
14-14.25 MHz	FX	24K0J2D 24K0J3D 24K0J2E	400 W (ERP)	

Frequency Information

Dudleyville (PINAL), AZ - NL 32-52-15; WL 110-53-01

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
14-14.25 MHz	FX	24K0J3E	400 W (ERP)	
17.41-17.48 MHz	FX	24K0J2D 24K0J3D 24K0J2E 24K0J3E	400 W (ERP)	
21-21.45 MHz	FX	24K0J2D 24K0J3D 24K0J2E 24K0J3E	400 W (ERP)	

Special Conditions:

- (1) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (2) 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.
- (3) Stop Buzzers: Tamal Bose at 520-247-5378, tbose@episci.com; Chris Steenhoek at 480-490-7323, Chris.Steenhoek@gd-ms.com
- (4) This authorization is issued for the express purpose of conducting experimental operations described in the related application and required by US Army, Contract Number FY19-22-NCFT02-W-4185. 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.
- (5) Episys Science, Inc. shall notch out the following frequencies: 7.2 MHz, 17.48 MHz, and 21.450 MHz.