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RF Exposure Evaluation Report

Client:	**LYNQ Technologies, Inc.**
Address:	**4760 Walnut St Ste 108 Boulder, CO 80301**
EUT:	**LNQ2900**
FCC ID:	**2ARHMLNQ2900**
IC ID:	**24896-LNQ2900**
Test Report No.:	**R230330-70-M1**
Approved By:	**Blake Winter, EMC Test Engineer iNARTE EMC-50662-E**
Date:	**July 5, 2024**
Total Pages:	**6**

Revision Page

Rev. No.	Date	Description
0	5 July 2024	Issued by BWinter Reviewed by FLane Prepared by BWinter

1 Regulatory Requirements:

FCC Part 1.1310, 2.1091, 2.1093
KDB 447498 D01

Summary:
The purpose of this report is to evaluate the EUT's transmitter for exemption from routine SAR testing.

EUT:

Model:	**LNQ2900**
FCC ID:	**2ARHMLNQ2900**
IC ID:	**24896-LNQ2900**

MPE Lab	Nebraska Center for Excellence in Electronics
MPE Labs FCC Cab Designation:	US1060
MPE Labs ISED Cab Designation:	US0177

2 FCC Limits, Part 1.1310

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	$*900/f^2$	6
30-300	61.4	0.163	1.0	6
300-1,500			f/300	6
1,500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*100	30
1.34-30	824/f	2.19/f	$*180/f^2$	30
30-300	27.5	0.073	0.2	30
300-1,500			f/1500	30
1,500-100,000			1.0	30

Calculations:

EUT

Occupational/Controlled	☐
General Population/uncontrolled	☒

FCC Power Density Calculations

Freq.	Conducted Power	Antenna Gain	Peak Power EIRP	Peak Power EIRP +10% for Tolerance	Power Density	Limit at specified distance	% of limit	Result
MHz	mW	numerical	mW	mW	mW/cm^2	mW/cm^2	%	
902.00	891.300	1.23	1096.54	1206.19	0.240	0.60	39.905	PASS
915.00	901.600	1.23	1109.21	1220.13	0.243	0.61	39.793	PASS
930.00	935.400	1.23	1150.79	1265.87	0.252	0.62	40.619	PASS

Distance (d)	20	cm

S = (P x G)/(4 x π x d^2) – used to calculate exposure at "d" cm

EIRP = P x G, measured as field strength

d = √(S/(P x G) x 4 X π) – used to calculate minimum distance to meet limits

S = power density (mW/cm^2)

P = transmitter conducted power (in mW)

G = antenna numeric gain (Numerical)

d = distance to radiation center (cm)

Gain values were provided by customer provided antenna data sheet.
EIRP (mW) = Conducted power (mW) x antenna gain (numeric).

Result:
The EUT was found to be exempt from routine SAR testing and **COMPLIANT** with RF exposure requirements.

Result:
Complies

Note:
The user's manual will stipulate that a 20cm distance from the user is to be maintained.
EIRP values in mW were multiplied by 1.1 to account for a 10% tolerance.

REPORT END