

TEST REPORT

Applicant Name: Grandstream Networks, Inc.
Address: 126 Brookline Ave., 3rd Floor Boston, MA 02215, USA
Report Number: 2601T59274E-RF-00C
FCC ID: YZZGRP2624PRO

Test Standard (s)

47 CFR, Part 1, Subpart I, Section 1.1310; 47 CFR, Part 2, Subpart J, Section 2.1091

Sample Description

Product Type: Carrier-Grade HD IP Phone
Model No.: GRP2624 Pro
Multiple Model(s) No.: SPE-GRP2624 Pro
Trade Mark: GRANDSTREAM
Date Received: 2026-05-20
Issue Date: 2026-09-23

Test Result:	Pass▲
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▲ In the configuration tested, the EUT complied with the standards above.

Prepared and Checked By:

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Cheeb Huang
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Approved By:

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RF Supervisor

Note: The information marked * is provided by the applicant, the laboratory is not responsible for its authenticity and this information can affect the validity of the result in the test report. Customer model name, addresses, names, trademarks etc. are included.
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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	2601T59274E-RF-00C	Original Report	2026-09-23

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Product	Carrier-Grade HD IP Phone
Test Model	GRP2624 Pro
Multiple Model(s)	SPE-GRP2624 Pro
Frequency Range	WPT: 111-205kHz, RFID: 125kHz, NFC: 13.56MHz BT: 2402-2480MHz, 2.4G Wi-Fi: 2412~2462MHz 5G Wi-Fi: 5150-5250MHz; 5250-5350MHz; 5470-5725MHz; 5725-5850MHz
Maximum Conducted Output Power	BT/2.4G Wi-Fi(Peak): BT: 8.92dBm, BLE: 6.81dBm, 2.4G Wi-Fi: 23.70dBm 5G Wi-Fi (Average): 5150-5250MHz: 13.94dBm; 5250-5350MHz: 15.71dBm 5470-5725MHz: 13.93dBm; 5725-5850MHz: 14.69dBm
Maximum E-field Strength	NFC: 67.43dBuV/m@3m
Wireless Output Power	WPT: 5Watts
Antenna Specification	Antenna Type: WPT/RFID: Coil, BT/Wi-Fi/NFC: PCB Antenna Gain: BT/2.4G Wi-Fi: 1.96dBi, 5G Wi-Fi: 5.94dBi
Voltage Range	DC 5V from adapter or DC 48V from POE
Sample serial number	3M9F-15 (Assigned by BACL, Shenzhen)
Sample/EUT Status	Good condition
Adapter Information	Adapter 1: Model: GQ12-050200AU Input: 100-240V~50/60Hz, 0.4A Max Output: 5.0V=2.0A Adapter 2: Model: DCT12W050200US-A2 Input: 100-240V~50/60Hz, 0.3A max. Output: 5.0V=2.0A Adapter 3: Model: GLH0502000 Input: 100-240V~50/60Hz, 0.5A Output: 5.0V=2.0A, 10.0W
Note: 1. The Multiple models are electrically identical with the test model except for model name, sales channel, lens screen printing and version. Please refer to the declaration letter[#] for more detail, which was provided by manufacturer. 2. About the version: Model GRP2624 Pro has V1.2 and V1.3 versions; SPE-GRP2624 Pro is only V1.3. All versions share identical electrical characteristics. The only difference lies in the data connection between MB main board and KP sub-board: V1.2 uses pin headers, and V1.3 uses FPC cables. Due to the different connection schemes, there are minor PCB layout differences. Please refer to EUT Photo and declaration letter[#] for more details.	

Objective

This test report is in accordance with Part 2, Subpart J Section 2.1091 of the Federal Communications Commission's rules and KDB680106 D01 Wireless Power Transfer v04.

Test Methodology

All tests and measurements indicated in this document were performed in accordance KDB 680106 D01 Wireless Power Transfer v04

Each test item follows test standards and with no deviation.

Measurement Uncertainty

Parameter	Uncertainty
H-Field	1.00dB(k=2, 95% level of confidence)
E-Field	6.36dB(k=2, 95% level of confidence)
Temperature	$\pm 0.4^{\circ}\text{C}$
Humidity	$\pm 2\%$
Supply voltages	DC $\pm 0.4\%$; AC $\pm 1\%$

Note: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located on the 5F(B-West) , 6F, 7F, the 3rd Phase of Wan Li Industrial Building D, Shihua Rd, FuTian Free Trade Zone, Shenzhen, China.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0023.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing in a test mode.

EUT Exercise Software

No software used in test.

Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
Grandstream	Cordless Handset	BTH11R	/
Grandstream	RFID Card	Unknown	Unknown

External I/O Cable

Cable Description	Length (m)	From Port	To
Un-Shielding Un-Detachable DC Cable	1.5	EUT	Adapter

SUMMARY OF TEST RESULTS

Rules	Description of Test	Result
FCC§1.1310 & §2.1091	Maximum Permissible Exposure(MPE)	Compliant

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
SPEAG	Probe	MAGPy-8H3D-E3D	3106	2026/04/23	2027/04/22
SPEAG	Data Acquisition System	MAPGPY-DAS	3089	2026/04/23	2027/04/22

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

FCC §2.1091 - MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Applicable Standard

According to subpart §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

Limits for Maximum Permissible Exposure (MPE)

(B) Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Averaging Time (minutes)
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
300–1500	/	/	f/1500	30
1500–100,000	/	/	1.0	30

f = frequency in MHz; * = Plane-wave equivalent power density;

According with 680106 D01 Wireless Power Transfer v04 clause 3.2

The RF exposure limits, as set forth in § 1.1310, do not cover the frequency range below 100 kHz for Specific Absorption Rate (SAR) and below 300 kHz for Maximum Permitted Exposure (MPE). In addition, present limitations of RF exposure evaluation systems prevent an accurate evaluation of SAR below 4MHz. For these reasons, a specific MPE-based RF Exposure compliance procedure for devices operating in the aforementioned low-frequency ranges has been set in place. This procedure is applicable to Equipment Authorization of all RF devices, thus including, but not limited to, Part 18 and WPT devices.

Accordingly, for § 2.1091-*Mobile* devices, the MPE limits between 100 kHz to 300 kHz are to be considered the same as those at 300 kHz in Table 1 of § 1.1310, that is, 614 V/m and 1.63 A/m, for the electric field and magnetic field, respectively. For § 2.1093-*Portable* devices below 4 MHz and down to 100 kHz, the MPE limits in § 1.1310 (with the 300 kHz limit applicable all the way down to 100 kHz) can be used for the purpose of equipment authorization in lieu of SAR evaluations.

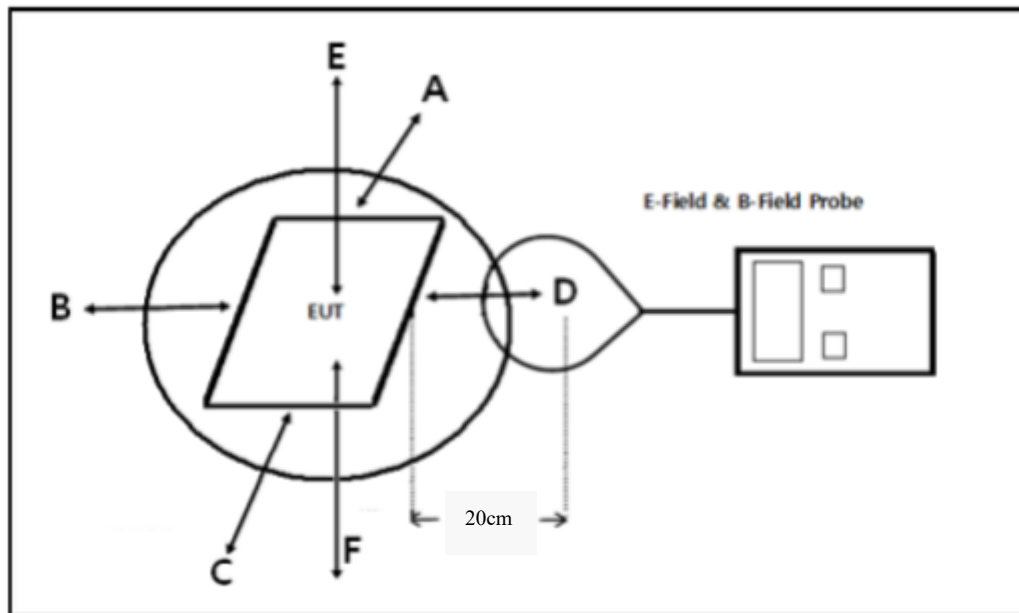
These data may be provided through measurements and/or numerical simulations, and for all the positions in space relevant for any possible body exposure.

There might be situations where the WPT RF emissions are limited enough that even operations in a “crowded” environment, where many similar WPT devices are present, do not pose significant EMC and RF exposure concerns. In this scenario, and for devices operating within a one-meter distance from the receiver, as defined above, a manufacturer will not have to submit an “Equipment Compliance Review” KDB, and receive FCC concurrence before proceeding with equipment authorization. This exception to the requirement of submitting the ECR to obtain FCC concurrence only applies when all the following criteria (1) through (6) are met:

- (1) The power transfer frequency is below 1 MHz.
- (2) The output power from each transmitting element (e.g., coil) is less than or equal to 15 watts.
- (3) A client device providing the maximum permitted load is placed in physical contact with the transmitter (i.e., the surfaces of the transmitter and client device enclosures need to be in physical contact)
- (4) Only § 2.1091-Mobile exposure conditions apply (i.e., this provision does not cover § 2.1093-Portable exposure conditions).
- (5) The E-field and H-field strengths, at and beyond 20 cm surrounding the device surface, are demonstrated to be less than 50% of the applicable MPE limit, per KDB 447498, Table 1. These measurements shall be taken along the principal axes of the device, with one axis oriented along the direction of the estimated maximum field strength, and for three points per axis or until a 1/d

- (inverse distance from the emitter structure) field strength decay is observed. Symmetry considerations may be used for test reduction purposes. The device shall be operated in documented worst-case compliance scenarios (i.e., the ones that lead to the maximum field components), and while all the radiating structures (e.g., coils or antennas) that by design can simultaneously transmit are energized at their nominal maximum power.
- (6) For systems with more than one radiating structure, the conditions specified in (5) must be met when the system is fully loaded (i.e., clients absorbing maximum power available), and with all the radiating structures operating at maximum power at the same time, as per design conditions. If the design allows one or more radiating structures to be powered at a higher level while other radiating structures are not powered, then those cases must be tested as well. For instance, a device may use three RF coils powered at 5 W, or one coil powered at 15 W: in this case, both scenarios shall be tested.

Block Diagram of Test Setup



Test Procedures

- 1) Perform H-field and E-field measurements for each all sides of the EUT at 20cm, along all the principal axes defined with respect to the orientation of the transmitting element (e.g., coil or antenna).
- 2) The highest emission level was recorded and compared with limit.
- 3) The EUT was measured according to 680106 D01 Wireless Power Transfer v04.

Test Data

Environmental Conditions

Temperature:	25.7 °C
Relative Humidity:	51 %
ATM Pressure:	100.9 kPa

The testing was performed by Zane Zhou on 2026-08-07.

WPT Test mode: Wireless charging at maximum output power

RFID Test mode: Reading Card

WPT (Measured):**H-Field Strength**

Test Frequency (kHz)	Position A (A/m)	Position B (A/m)	Position C (A/m)	Position D (A/m)	Position E (A/m)	Position F (A/m)	50% Limit (A/m)	Limit (A/m)
111-205	0.09	0.02	0.02	0.08	0.15	0.16	0.815	1.63

E-Field Strength

Test Frequency (kHz)	Position A (V/m)	Position B (V/m)	Position C (V/m)	Position D (V/m)	Position E (V/m)	Position F (V/m)	50% Limit (V/m)	Limit (V/m)
111-205	0.42	0.34	0.21	0.36	0.45	0.27	307	614

Note: Test with 20cm distance from the center of the probe(s) to the edge of the device.

- (1) The power transfer frequency is below 1MHz.

The operation frequency is 111-205 kHz.

- (2) The output power from each transmitting element (e.g., coil) is less than or equal to 15 watts.

The maximum output power is 5 watts.

- (3) A client device providing the maximum permitted load is placed in physical contact with the transmitter (i.e., the surfaces of the transmitter and client device enclosures need to be in physical contact)

The load is physical contact with the EUT.

- (4) Only § 2.1091-Mobile exposure conditions apply (i.e., this provision does not cover § 2.1093-Portable exposure conditions).

The EUT is used in the mobile exposure condition.

- (5) The E-field and H-field strengths, at and beyond 20 cm surrounding the device surface, are demonstrated to be less than 50% of the applicable MPE limit, per KDB 447498, Table 1. These measurements shall be taken along the principal axes of the device, with one axis oriented along the direction of the estimated maximum field strength, and for three points per axis or until a 1/d (inverse distance from the emitter structure) field strength decay is observed. Symmetry considerations may be used for test reduction purposes. The device shall be operated in documented worst-case compliance scenarios (i.e., the ones that lead to the maximum field components), and while all the radiating structures (e.g., coils or antennas) that by design can simultaneously transmit are energized at their nominal maximum power.

The E-field and H-field strengths are less than 50% of the limit.

- (6) For systems with more than one radiating structure, the conditions specified in (5) must be met when the system is fully loaded (i.e., clients absorbing maximum power available), and with all the radiating structures operating at maximum power at the same time, as per design conditions. If the design allows one or more radiating structures to be powered at a higher level while other radiating structures are not powered, then those cases must be tested as well. For instance, a device may use three RF coils powered at 5 W, or one coil powered at 15 W: in this case, both scenarios shall be tested.

The EUT has only one coil.

RFID(125 kHz) (Measured):**H-Field Strength**

Test Frequency (kHz)	Position A (A/m)	Position B (A/m)	Position C (A/m)	Position D (A/m)	Position E (A/m)	Position F (A/m)	Limit (A/m)
125	0.00296	0.00472	0.00804	0.00563	0.02	0.02	1.63

E-Field Strength

Test Frequency (kHz)	Position A (V/m)	Position B (V/m)	Position C (V/m)	Position D (V/m)	Position E (V/m)	Position F (V/m)	Limit (V/m)
125	0.49	0.30	0.09	0.32	0.67	0.63	614

Note: Test with 20cm distance from the center of the probe(s) to the edge of the device.

BT/Wi-Fi/NFC (Calculated):**Calculation formula:**

Prediction of power density at the distance of the applicable MPE limit

$S = PG/4\pi R^2$ = power density (in appropriate units, e.g. mW/cm²);

P = power input to the antenna (in appropriate units, e.g., mW);

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

For simultaneously transmit system, the calculated power density should comply with:

$$\sum_i \frac{S_i}{S_{Limit,i}} \leq 1$$

Calculated Data:

For worst case:

Mode	Frequency (MHz)	Antenna Gain [#]		Max Tune-up Power [#]		Evaluation Distance (cm)	Power Density (mW/cm ²)	MPE Limit (mW/cm ²)
		(dBi)	(numeric)	(dBm)	(mW)			
BT	2402-2480	1.96	1.57	9.0	7.94	20	0.0025	1
BLE	2402-2480	1.96	1.57	7.0	5.01	20	0.0016	1
2.4G Wi-Fi	2412-2462	1.96	1.57	24.0	251.19	20	0.0785	1
5G Wi-Fi	5180-5240	5.94	3.93	14.0	25.12	20	0.0196	1
	5260-5320	5.94	3.93	16.0	39.81	20	0.0311	1
	5500-5720	5.94	3.93	14.0	25.12	20	0.0196	1
	5745-5825	5.94	3.93	15.0	31.62	20	0.0247	1

Mode	Frequency (MHz)	Maximum E-Field (dBuV/m@3m)	Maximum EIRP		Evaluation Distance (cm)	Power Density (mW/cm ²)	MPE Limit (mW/cm ²)
			(dBm)	(mW)			
NFC	13.56	67.43	-27.77	0.0017	20	0.0000003	0.979

Note:

1) The tune up conducted power and antenna gain was declared by the applicant.

2) For NFC, EIRP = E-Field – 95.2 @3m

3) The BT and 5G Wi-Fi can transmit at same time, 2.4G and BT/5G Wi-Fi cannot transmit at same time.

Simultaneous transmitting consideration (*worst case*):

The ratio= $MPE_{NFC}/limit + MPE_{2.4G\ Wi-Fi}/limit + H-Field_{WPT}/Limit + H-Field_{RFID}/Limit$

$$= 0.0000003/0.979 + 0.0785/1 + 0.16/1.63 + 0.02/1.63 = 0.189 < 1.0,$$

So simultaneous exposure is compliant.

To maintain compliance with the FCC's RF exposure guidelines, place the equipment at least 20cm from nearby persons.

Result: Compliant

EUT PHOTOGRAPHS

Please refer to the attachment 2601T59274E-RF-EXP External photo and 2601T59274E-RF-INP Internal photo.

TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2601T59274E-RF-TSPD Test Setup photo for WPT and 2601T59274E-RF-TSPG Test Setup photo for RFID.

******* END OF REPORT *******