



## RF Exposure Evaluation Report

Applicant	Orpak Systems Ltd
Applicant Address	31 Lechi St., Bnei Brak 5111401, Israel
Product	Data Unit
FCC ID	W8F800907300
Standard(s)	47CFR15 Section 15.247
Test Report No.	Ra263000.01

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Date:	21 January 2024	
Doc. no.	RF263000.03	



## 1 EUT Information

Model No.	DataPass
Power supply	Car Battery
Antenna type	Integral
Antenna gain	3.3 dBi (max.)
Assigned frequency range	2400 – 2485MHz
Operating frequency range	2400 – 2485MHz
Transmit power (conducted)	0.5 dBm
Modulation bandwidth	2 MHz
Bit rate	250 kbit/s
Distance from human body (min.)	20 cm

## 2 Evaluation Method and Limits

### 2.1 FCC: MPE (Maximum Permissible Exposure) assessment

- 47 CFR Section 1.1310(e)(1)

The limits for Maximum Permissible Exposure (MPE) to radiofrequency electromagnetic fields are as described in table 1 to § 1.1310(e)(1). See below.

Table 1 to § 1.1310(e)(1) - Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
(i) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*(100)	≤6
3.0-30	1842/f	4.89/f	*(900/f <sup>2</sup> )	<6
30-300	61.4	0.163	1.0	<6
300-1,500			f/300	<6
1,500-100,000			5	<6
(ii) 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 <sup>2</sup> )	<30
30-300	27.5	0.073	0.2	<30
300-1,500			f/1500	<30
1,500-100,000			1.0	<30



- KDB447498 D01 V06

*"RF Exposure Procedures and Equipment Authorization Policies for Mobile and Portable Devices" v06, Section 4.3.1: "Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Test Exclusion Threshold condition(s), listed below, is (are) satisfied. These test exclusion conditions are based on source-based time-averaged maximum conducted output power of the RF channel requiring evaluation, adjusted for tune-up tolerance, and the minimum test separation distance required for the exposure conditions. The minimum test separation distance defined in 4.1 f) is determined by the smallest distance from the antenna and radiating structures or outer surface of the device, according to the host form factor, exposure conditions and platform requirements, to any part of the body or extremity of a user or bystander".*

## 2.2 Calculated MPE

1. Max. power (conducted): 0.5 dBm = 1.12 mW
2. Antenna gain: 6 dBi = 3.98 (numeric)
3. Minimum distance from human body: 20 cm
4. The power density was calculated using the following formula:

$$f = \frac{P_t G_t}{4\pi R^2} = \frac{1.12 * 2.14}{4 * 3.14 * 20^2} = \frac{2.4}{5024} = 0.000047$$

where:

f: Power density

P<sub>t</sub>: Conducted Transmitted Power (FCC: mW ; ISED: W)

G<sub>t</sub>: Antenna Gain (numeric)

R: Distance from Transmitter (FCC: cm; ISED: m)

## 3 Test Results

### 3.1 FCC

Frequency (MHz)	Calculated ERP (mW/cm <sup>2</sup> )	MPE limit (mW/cm <sup>2</sup> )	Verdict
2,400	0.000047	<1.0	Pass



## 4 Conclusion

The measurement results comply with the limits per the abovementioned FCC requirements.

**End of Report**