

**RADIOCOMMUNICATIONS EQUIPMENT
COMPLIANCE ASSESSMENT
FOR
FCC 47 CFR 1.1310
RADIOFREQUENCY RADIATION EXPOSURE LIMITS
MAXIMUM PERMISSIBLE EXPOSURE (MPE)**

Client:	Minelab Electronics Pty Ltd
Address:	2 Second Avenue, Mawson lakes, Adelaide, SA 5095, Australia
Report Number:	1001COD_GPX6000_FCC(MPE)a
Date of Assessment	8th July 2021
File Number:	COD210128

Equipment Name:	GPX600 Metal Detector
Equipment Model No:	GPX6000
FCC ID:	Z4C-0039A
Equipment Description:	Metal Detector (with Revised Bluetooth)

Result: **COMPLIES**

Assessed by: **Steven Garnham**



Approved by: **Colin Gan**



Date of Issue: 5th October 2021

Results appearing herein relate only to the sample(s) assessed through the submitted test report(s).
This report is issued errors and omissions exempt and is subject to withdrawal at Austest Laboratories discretion.

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EQUIPMENT DETAILS	
EUT Name:	GPX6000
EUT Description:	Metal Detector
EUT Model:	GPX6000
EUT Serial Number:	BT PCB-Conducted RF: 40886600120 BT PCB-Radiated RF: 40886600097 Main Assy MTR6-06 S/N: 35636857956 Search Coil MTR6-06: # 75078960953 Battery Pack: #H7190160091
FCC ID:	Z4C-0039A
Power Supply & Rating:	Battery Pack, Nominal – Labelled 7.2V / 5833mAh, Li-ion
Highest Frequency:	2480 MHz
Lowest Frequency:	4 kHz
Frequency Range:	2402 MHz to 2480 MHz
Transmit Power:	+3.4dBm (2.19 mW) Peak Conducted at antenna port (measured) Maximum +4 dBm (2.51 mW) before antenna (per Operational Description)
Modulation Technique:	BT: GFSK, DPSK
Number of Channels:	79 Channels
Antenna Specifications:	Maximum gain: 3.3 dBi Internal Antenna trace size 25.7 x 7.5 mm (based on TI Inverted F PCB antenna)

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MAXIMUM PERMISSIBLE EXPOSURE (MPE)

FCC Section 15.247(i)

The device was considered portable equipment as the transceiver could be used within 20 cm. The following SAR exclusion calculation was applied (per 447498 D01 General RF Exposure Guidance v06, sub-section 4.3.1, a)):

$$\left[\frac{(\text{Max. power, mW})}{(\text{min. separation, mm})} \right] \times [\sqrt{f_{\text{GHz}}}]$$
$$\leq 3.0 \text{ (for 1g SAR) and } \leq 7.5 \text{ (for 10g extremity SAR)}$$

Maximum declared power was 2.51 mW (i.e. 3 mW rounded to nearest mW), and therefore:

$$\left[\frac{(3 \text{ mW})}{(5 \text{ mm})} \right] \times [\sqrt{(2.48)}] = 0.94$$

The GPX6000 Bluetooth transceiver complied with the maximum permissible exposure requirements at any separation distance without need for further measurement.

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