

Guangzhou Geoelectron Science & Technology Company Ltd.

Subject: Extend Frequencies Justification Original Application FCC ID: **2ABNA-TRM230**

Company: Guangzhou Geoelectron Science & Technology Company Ltd.

Address: Room 1201 and 1301, No. 203 Kezhu Road, Science City, Huangpu District, Guangzhou, China.

Dear Sir or Madam;

We, **Guangzhou Geoelectron Science & Technology Company Ltd.** declares that the Digital radio meets 47CFR Section 90.203(j)(4) and 90.203(j)(5) spectrum efficiency requirement;

This Digital radio is support 6.25KHz, 12.5 KHz and 25 KHz for GMSK and 4FSK digital modulation; Emission Designator: F1D for data modes, also this Digital radio designed in accordance with ETSI TS 102 361-1 requirement, will at least 4800 bits per second in a 6.25 KHz channel bandwidth, 9600 bits per second in a 12.5 KHz channel spacing and 19200 bits per second in a 25 KHz channel spacing, GMSK will refer 2 time slots in one 12.5 KHz spacing and refer 4 time slots in one 25 KHz spacing, accordance to ETSI ETS 102 361-1. 4FSK will refer 2 time slots in one 12.5 KHz bandwidth and refer 4 time slots in one 25 KHz bandwidth accordance to ETSI ETS 102 361-1, which equal with $9600/2 = 4800$ and $19200/4 = 4800$ bits per second in one 6.25 KHz channel bandwidth

We, **Guangzhou Geoelectron Science & Technology Company Ltd.** declares that the Digital radio capable of operating on the nationwide public safety interoperability calling channel (453.2125 MHz), meets 47CFR Section 90.203(j)(1) requirement;

Signature: Echo Guan **Date:** 2025-08-11

Name: Echo Guan

Title: project management

Company: Guangzhou Geoelectron Science & Technology Company Ltd.