

Guangzhou Geoelectron Science & Technology Company Limited

**Office of Engineering and Technology
Laboratory Division
Equipment Authorization Branch
Federal Communications Commission Laboratory
7435 Oakland Mills Road
Columbia, MD 21046**

Subject: Extend Frequencies Justification Original Application FCC ID: 2ABNA-TRM501

Company: Guangzhou Geoelectron Science & Technology Company Limited
Address: No.704/702, No.7, Cai Pin Road, Science City, Guangzhou High-Tech Industrial Development Zone, Huangpu District, Guangzhou, Guangdong Province, China.

Dear Sir or Madam;

We, **Guangzhou Geoelectron Science & Technology Company Limited** 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 both 12.5 KHz and 25 KHz for GMSK (digital modulation; Emission Designator: G7D for data modes, also this Digital radio designed in accordance with ETSI TS 102 361-1 requirement, will at least support 9600 bits per second in a 12.5 KHz channel bandwidth in a 12.5 KHz channel bandwidth and 19200 bits per second in a 25 KHz channel bandwidth, GMSK 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 Limited** 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: James Yao **Date:** 2021-09-13
Name: James Yao
Title: Project Manager
Company: Guangzhou Geoelectron Science & Technology Company Limited