

# Guangzhou Geoelectron Science & Technology Company Limited

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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