

ABELL INDUSTRIES CO., LTD.
701-702, 7/F, D Bldg, Qianwan Hard Technology Industrial Park, Xixiang Rd., Bao
An Dist., ShenZhen 518054, China

Date: August 20, 2025

FCC ID: TEY-R50

Model Number: R50, R50(10), R50(20)

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

Subject: Narrowband Requirement for **FCC ID: TEY-R50**

Dear Sir or Madam;

This **DMR Digital Repeater** was designed to operate in the frequency bands 400-470MHz;

We, **ABELL INDUSTRIES CO., LTD.** will disable 25KHz mode by radio at firmware at factory and end-user cannot use 25KHz mode in order to compliance with FCC mandate for Part 90 frequencies;

We, **ABELL INDUSTRIES CO., LTD.** declares that the **DMR Digital Repeater** meets 47CFR Section 90.203(j)(4) and 90.203(j)(5) spectrum efficiency requirement; This Digital Two-Way Radio is support both 12.5 KHz for FM (analog modulation; Emission Designator:11K0F3E for voice) and 4FSK (digital modulation; Emission Designator: 7K60FXD for data/7K60FXW for both data and voice) modes, also this **DMR Digital Repeater** 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, 4FSK will refer 2 time slots in one 12.5 KHz bandwidth accordance to ETSI ETS 102 361-1, which equal with $9600/2=4800$ bits per second in one 6.25 KHz channel bandwidth;

We, **ABELL INDUSTRIES CO., LTD.** declares that the **DMR Digital Repeater** capable of operating on the nationwide public safety interoperability calling channel (453.2125 MHz), meets 47CFR Section 90.203(j)(1) requirement;

Should you have any questions or comments regarding this matter, please have my best attention.

ABELL INDUSTRIES CO., LTD.

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An Dist., ShenZhen 518054, China

Sincerely,

(Signed)

A handwritten signature in black ink, appearing to read "Wang Bo".

Name / Title: Bo Wang / R&D Director
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