

Exhibit R: Justification for Emission Designator

FCC ID: CM676A91341-600

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Justification for Emission Designator

Emission Classification

Per 47 CFR 95.1115 (c), the EUT complies with the requirement that “a wireless medical telemetry device may transmit any emission type appropriate for communications in this service, except for video and voice. Waveforms such as electrocardiograms (ECGs) are not considered video.”

The EUT has F1D emission. The EUT uses a digital, frequency shift keying modulation scheme with no sub-carriers.

The emission designator “F1D” was selected based upon the guidelines in 47 CFR 2.201: “F” designates an emission in which the main carrier is frequency modulated. “1” designates a single channel containing digital information without the use of a modulating sub-carrier (the applicant confirmed that no sub-carriers are used). “D” designates data transmission, telemetry. As detailed in the user manual, the device is used to transmit non-voice, non-video, biomedical telemetry.

Necessary Bandwidth

Per 47 CFR 2.202(c), the necessary bandwidth is calculated using Carson’s Rule: $2M + 2D = 2(6140) + 2(3000) = 18.28 \text{ kHz}$. Where “M” is equal to the EUT’s maximum modulation frequency in Hertz, and D is equal to the EUT’s peak frequency deviation (i.e. half the difference between the maximum and minimum values of the instantaneous frequency).

Per 47 CFR 2.202(b), the necessary bandwidth is expressed “by three numerals and one letter. The letter occupies the position of the decimal point and represents the unit bandwidth”. The EUT’s necessary bandwidth is expressed as “18K3”

Hence the EUT’s emission designator is “18K3F1D”.