Compliance with 47 CFR 15.247(b)(4)

"Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the Commission's guidelines. See Sec. 1.1307(b)(1) of this chapter." (Excerpt taken from 47 CFR 15.247(b)(4)

Per 47 CFR 15.247 (b)(4), the EUT meets the requirement that it be operated in a manner that ensures the public is not exposed to radio frequency energy levels in excess of the Commission's guidelines (ref . 47 CFR 1.1307, 1.1310, 2.1091, and 2.1093. Also OET Bulletin 65, Supplement C).

The EUT will be used only in the applicant's patient monitors and can therefore be considered a mobile transmitter per 47 CFR 2.1091. The EUT supports the connection of only one antenna at a time.

The MPE estimates are as follows:

Table 1 in 47 CFR 1.1310 defines the maximum permissible exposure (MPE) for the general population as 1mW/cm^2. The exposure level at a 20 cm distance from the EUT's transmitting antenna is calculated using the general equation:

$$S = (PG)/4\pi R^2$$
Where: S = power density (mW/cm^2)
P = power input to the antenna (mW)
G = linear power gain relative to an isotropic radiator
R = distance to the center of the radiation of the antenna (20 cm = limit for MPE estimates)

Solving for S, the maximum power densities 20 cm from the transmitting antennas are as follows:

Antenna Manufacturer	Antenna Type	Antenna Part No.	Transmit Frequency (MHz)	Max Peak Conducted Output Power (mW)	Antenna Gain (dBi)	Power Density @ 20 cm (mW/cm^2)	Maximum Permitted Power Density (mW/cm^2)
M/A COM	omni	3380-8030-0024	2400	100	2	0.032	1
Centurion	omni	CAF95651	2400	100	2.5	0.035	1
Cushcraft	omni	S2403BE	2400	100	3	0.040	1
Huber+Suhner	planar	1324.19.0002	2400	100	8.5	0.141	1
Andrew	radiax(1/2")	RXL4-1RN	2400	100	-4.8	0.007	1
Andrew	radiax (7/8")	RXL5-1RN	2400	100	-2.8	0.010	1
Andrew	radiax (1-1/4")	RXL6-1RN	2400	100	-2.1	0.012	1