



2022-07-07

Subject: NXT RF Exposure: SAR Exemption Separation Distance Evidence  
Simbex, LLC  
FCC: SUN-R247ISPA  
IC: 5602A- R247ISPA

The purpose of this document is to provide evidence of separation distance for the NXT Player Unit.

In normal use, the Player Unit circuit board assembly with the antenna is enclosed in a plastic housing. The enclosed Player Unit is intended to be placed on the inside of a football helmet shell. A thin foam pad is placed on top of the enclosed Player Unit and the thin foam pad is what rests on the user's head (Figure 1). There are multiple thicknesses of foam padding to accommodate different sizes of helmet shells. The thinnest foam pad is shown here to represent worst case. The thickness of the thinnest foam pad is 22.3mm (Figure 2). To account for any compression of the head against the foam pad, a test separation distance of 20mm is considered reasonable and conservative.

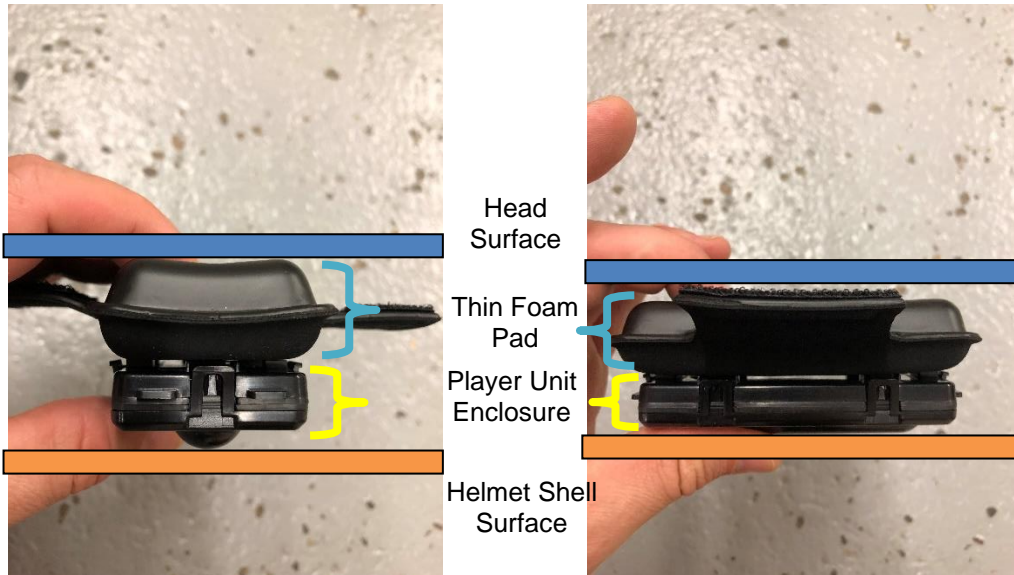


Figure 1 Orientation of Player Unit with Thin Foam Pad

10 Water Street, Suite 410  
Lebanon, NH 03766

T: 603.448.2367  
F: 603.448.0380



*Figure 2 Thickness of thinnest foam pad*

Therefore, in compliance with KDB 447498 v06 section 4.1 f, the test separation distance of 20mm for the device to demonstrate SAR or MPE compliance is sufficiently conservative to support the operational separation distances required by the device and its antennas and radiating structures.