BlueUp S.r.l.
Loc. Belvedere, Ingresso 2, 99, 53034 Colle di Val d'Elsa (SI)
Ph. +39 344 2030929 / +39 0577 043101
E-mail: info@blueupbeacons.com, Web: www.blueupbeacons.com
P.IVA/CF/VAT N. IT01373980521

Annex A

Technical information for use of BlueUp Brick in professional healthcare environments

Introduction

This Annex is an integral part of the user manual of BlueUp Brick (henceforth identified with the terms "product", "device" or "beacon") for installation and use in professional healthcare facility environment.

Precautions

WARNING: Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.

WARNING: Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of BlueUp Brick, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.

Electromagnetic emissions

Table 1: Manufacturer's declaration – Electromagnetic emissions

BlueUp Brick is intended for use in the electromagnetic environment specified below. The customer and/or the user of Blueup Brick should assure that it is used in an electromagnetic environment as described below.		
Emissions test	**Compliance**	**Electromagnetic environment guidelines**
RF emission CISPR 11	Group I Class B	BlueUp Brick must emit electromagnetic energy to perform its intended function. Nearby electronic devices may be affected

Electromagnetic immunity

Table 2: Manufacturer's declaration - Electromagnetic immunity - Enclosure port

Phenomenon	**Basic EMC standard or test method**	**Immunity test levels required for professional healthcare facility environment**	**Compliance test levels**
Electrostatic discharge	IEC 61000-4-2	± 8 kV contact ±2 kV, ±4 kV, ±8 kV, ±15 kV air	± 8 kV contact ± 2 kV, ± 4 kV, ± 8 kV, ±15 kV air
Radiated RF electromagnetic fields	IEC 61000-4-3	3 V/m 80 MHz – 2,7 GHz 80 % AM at 1 kHz	3 V/m 80 MHz – 2,7 GHz 80 % AM at 1 kHz
Proximity fields from RF wireless communications equipment	IEC 61000-4-3	See Table 3	See Table 3
Rated power frequency magnetic fields	IEC 61000-4-8	30 A/m 50 Hz or 60 Hz	30 A/m 50 Hz or 60 Hz

Table 3: Test specifications for enclosure port immunity to RF wireless communications equipment

Test frequency (MHz)	Band (MHz)	Service	Modulation	Immunity test level (V/m)
385	380 to 390	TETRA 400	Pulse modulation 18 Hz	27
450	430 to 470	GMRS 460, FRS 460	FM ± 5 kHz deviation 1 kHz sine	28
710	704 to 787	LTE Band 13, 17	Pulse modulation 217 Hz	9
745				
780				
810	800 to 960	GSM 800/900, TETRA 800, iDEN 820, CDMA 850, LTE Band 5	Pulse modulation 18 Hz	28
870				
930				
1720	1700 to 1990	GSM 1800; CDMA 1900; GSM 1900; DECT; LTE Band 1, 3, 4, 25; UMTS	Pulse modulation 217 Hz	28
1845				
1970				
2450	2400 to 2570	Bluetooth, WLAN, 802.11 b/g/n, RFID 2450, LTE Band 7	Pulse modulation 217 Hz	28
5240	5100 to 5800	WLAN 802.11 a/n	Pulse modulation 217 Hz	9
5500				
5785				

RF transceiver specifications

Frequency band	2400 – 2483 MHz
Receiver bandwidth	1 MHz
Modulation	GFSK
Effective radiated power	4dBm (2.5mW)

Contacts

BlueUp S.r.l.
Loc. Belvedere, Ingresso 2
IT-53034 Colle di Val d'Elsa (SI) - ITALY
E-mail: info@blueupbeacons.com
Web: www.blueupbeacons.com