

# EMC declaration tables according to IEC 60601-1-2:2014/AMD1:2020

## Electromagnetic Compatibility Tables

Medical electrical equipment requires special precautions regarding EMC (electromagnetic compatibility) and needs to be used in accordance to the EMC information provided below.

Portable or mobile RF communications equipment (e.g., mobile phones, pagers...) can affect Dialog<sup>®</sup>.

Dialog<sup>®</sup> is intended for use in the electromagnetic environment specified below. The user should ensure that Dialog<sup>®</sup> is used in such an environment.

<b>Wireless technology</b>	
Wireless Functionality	Bluetooth Low Energy technology
Effective Radiofrequency Radiated Power Output	0 dBm
Operating Frequency Range	2.4 – 2.4835 GHz
Modulation	GFSK (Gaussian Frequency Shift Keying)
Bandwidth of Receiving Section	2.4 – 2.4835 GHz Bandwidth of each channel is 2 MHz
Connectivity	Bluetooth Low Energy technology
Dialog <sup>®</sup> complies with the applicable EMC and telecommunications standards	ETSI/EN 300 328 ETSI/EN 301 489-1 ETSI/EN 301 489-17

## Guidance and manufacturer's declaration – electromagnetic emission

<b>Emission test</b>	<b>Compliance</b>	<b>Electromagnetic environment - guidance</b>
RF emission CISPR 11 IEC 60601-1-2	Group 1 Class B	The device is suitable for use in domestic and home healthcare environment. The Bluetooth module must transmit RF energy in order to perform its intended function. Nearby electronic equipment may be affected
RF emission CISPR 32 ETSI/EN 301 489-1 ETSI/EN 301 489-17 IEC 60601-1-2 EN 55032	Class B	The device is suitable for use in domestic and home healthcare environment. The Bluetooth module must transmit RF energy in order to perform its intended function. Nearby electronic equipment may be affected
Electromagnetic compatibility and radio spectrum matters ETSI/EN 300 328	The device complies with Radio Spectrum Requirements applicable to Bluetooth Low Energy	The device is suitable for use in domestic and home healthcare environment. The Bluetooth module must transmit RF energy in order to perform its intended function. Nearby electronic equipment may be affected

## Guidance and manufacturer's declaration – electromagnetic immunity

Immunity test	Test level	Compliance level / performance criterion	Electromagnetic environment - guidance																																								
Electrostatic discharge (ESD) ETSI/EN 301 489-1 ETSI/EN 301 489-17 IEC 60601-1-2 ISO 11608-1 ISO 11608-4	$\pm 2, \pm 4, \text{ and } \pm 8$ kV contact discharge  $\pm 2, \pm 4, \pm 8, \pm 10, \pm 12$ and $\pm 15$ kV air discharge	$\pm 8$ kV contact discharge  $\pm 15$ kV air discharge	The device is suitable for use in domestic and home healthcare environment																																								
Power frequency magnetic field IEC 60601-1-2	30 A/m	30 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location of domestic and home healthcare environment																																								
Radiated RF ETSI/EN 301 489-1 ETSI/EN 301 489-17 EN/IEC 60601-1-2 ISO 11608-4	10 V/m 26 MHz – 6 GHz	10 V/m CT for transmitters, CR for receivers	The device is intended for use in a typical domestic and home healthcare electromagnetic environment																																								
Immunity to proximity fields from RF wireless communication equipment as defined in Table 9 of IEC 60601-1-2 Proximity Fields	<table border="1"> <thead> <tr> <th>Band</th> <th>Frequency</th> <th>Modulation</th> <th>Immunity test level</th> </tr> </thead> <tbody> <tr> <td>380-390 MHz</td> <td>385 MHz</td> <td>PM, 18 Hz, 50%</td> <td>27 V/m</td> </tr> <tr> <td>430-470 MHz</td> <td>450 MHz</td> <td>PM, 18 Hz, 50%</td> <td>28 V/m</td> </tr> <tr> <td rowspan="3">704-787 MHz</td> <td>710 MHz</td> <td rowspan="3">PM, 217 Hz, 50%</td> <td rowspan="3">9 V/m</td> </tr> <tr> <td>745 MHz</td> </tr> <tr> <td>780 MHz</td> </tr> <tr> <td rowspan="3">800-960 MHz</td> <td>810 MHz</td> <td rowspan="3">PM, 18 Hz, 50%</td> <td rowspan="3">28 V/m</td> </tr> <tr> <td>870 MHz</td> </tr> <tr> <td>930 MHz</td> </tr> <tr> <td rowspan="3">1700-1990 MHz</td> <td>1720 MHz</td> <td rowspan="3">PM, 217 Hz, 50%</td> <td rowspan="3">28 V/m</td> </tr> <tr> <td>1845 MHz</td> </tr> <tr> <td>1970 MHz</td> </tr> <tr> <td>2400-2570 MHz</td> <td>2450 MHz</td> <td>PM, 217 Hz, 50%</td> <td>28 V/m</td> </tr> <tr> <td rowspan="3">5100-5800 MHz</td> <td>5240 MHz</td> <td rowspan="3">PM, 217 Hz, 50%</td> <td rowspan="3">9 V/m</td> </tr> <tr> <td>5500 MHz</td> </tr> <tr> <td>5785 MHz</td> </tr> </tbody> </table>	Band	Frequency	Modulation	Immunity test level	380-390 MHz	385 MHz	PM, 18 Hz, 50%	27 V/m	430-470 MHz	450 MHz	PM, 18 Hz, 50%	28 V/m	704-787 MHz	710 MHz	PM, 217 Hz, 50%	9 V/m	745 MHz	780 MHz	800-960 MHz	810 MHz	PM, 18 Hz, 50%	28 V/m	870 MHz	930 MHz	1700-1990 MHz	1720 MHz	PM, 217 Hz, 50%	28 V/m	1845 MHz	1970 MHz	2400-2570 MHz	2450 MHz	PM, 217 Hz, 50%	28 V/m	5100-5800 MHz	5240 MHz	PM, 217 Hz, 50%	9 V/m	5500 MHz	5785 MHz	CT for transmitters, CR for receivers	Portable and mobile RF communications equipment should be used no closer to the device, than the recommended separation distance of 30 cm
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**NOTE:** These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.