**Manufacturer:** Eurotech S.p.A. **Name:** Oscar Frau

**Product:** DYGATE-20-30 **Title:** Project handler

**FCC ID:** UKMDG2030 **Signature:** 

## MPE limits (§1.1310)

| Mode | Frequency | Duty Cycle | Power | Antenna Gain[10, 11] | EIRP[1] | EIRP | Distance D | PD[2] | PD Limit[3] | Margin | 2.1091 EIRP Limit | 2.1091 EIRP Margin | PD/PD Limit | Worst PD/PD values to be considered |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | % | dBm | dBi | dBm | mW | cm | mW/cm^2 | mW/cm^2 | dB | mW | dB | | |
| BT[9] | 2402 | 100 | 11,76 | 1,70 | 13,46 | 22 | 20 | 0,004 | 1,000 | 23,55 | N/A | N/A | 0,00441 | **0,02284** |
| WiFi 2.4 GHz[6] | 2462 | 100 | 18,90 | 1,70 | 20,60 | 115 | 20 | 0,023 | 1,000 | 16,41 | N/A | N/A | 0,02284 | |
| WiFi 5 GHz[7] | 5180 | 100 | 19,50 | 2,30 | 21,80 | 151 | 20 | 0,030 | 1,000 | 15,21 | N/A | N/A | 0,03011 | **0,03011** |
| WiFi 5 GHz[7] | 5320 | 100 | 19,20 | 2,30 | 21,50 | 141 | 20 | 0,028 | 1,000 | 15,51 | N/A | N/A | 0,02810 | |
| WiFi 5 GHz[7] | 5500 | 100 | 19,00 | 2,30 | 21,30 | 135 | 20 | 0,027 | 1,000 | 15,71 | N/A | N/A | 0,02684 | |
| WiFi 5 GHz[7] | 5825 | 100 | 18,10 | 2,30 | 20,40 | 110 | 20 | 0,022 | 1,000 | 16,61 | N/A | N/A | 0,02181 | |
| GSM850[8] | 824,2 | 100 | 25,95 | 1,71 | 27,66 | 583 | 20 | 0,116 | 0,549 | 6,75 | 2460 | 6,25 | 0,21125 | **0,21965** |
| WCDMA band IV[8] | 1712,4 | 100 | 27,00 | 3,43 | 30,43 | 1104 | 20 | 0,220 | 1,000 | 6,58 | 4920 | 6,49 | 0,21965 | |
| LTE band 7[8] | 2502,5 | 100 | 28,00 | 1,67 | 29,67 | 927 | 20 | 0,184 | 1,000 | 7,34 | 4920 | 7,25 | 0,18439 | |
| | **FCC Co-Location =** | **0,27260** | **< 1** | | | | | | | | | | | |

[1] EIRP = ( Power dBm + Antenna Gain dBi ) + 10 x Log ( Duty Cycle % / 100 )

[2] PD = EIRP / ($4x\pi xD^2$)

[3] CFR 47 Part 1, §1.1310(e), table 1

[6] WiFi 2.4 GHz: Test Report n. 392986-2TRFWL, p. 25

[7] WiFi 5 GHz: Test Report n. 392986-3TRFWL, p. 6, 91, 92

[8] 4G (2G/3G fallback) EG25-G module: FCC ID: XMR201903EG25G, IC: 10224A-201903EG25G (the worst case for each band is listed in the table, referring to the RF exposure of the EG25-G)

[9] BT Eurotech DG2030 module: FCC ID: UKMDG2030, IC: 21442-DG2030

[10] Antenna 2.4/5 GHz: type 2J6302MP, gain shown on p.2 of the datasheet "2J6302MP.pdf"

[11] Antenna 4G (2G/3G fallback): type GSA.8827.A.101111, gain shown on p.3 of the datasheet "GSA.8827.A.101111.pdf"