

IKEA of Sweden AB
Box 702, SE-343 81, Älmhult, Sweden

Product name: TRÅDFRI N3 E26 1100lm dim ws/globe op WS NA
Product number: 905-456-76

Wireless parameters

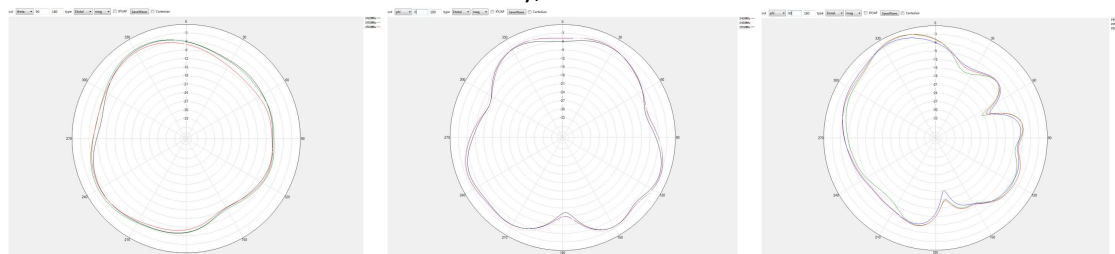
ID#	Parameter	Requirement
a.	Radio Technology	☐ GSM ☐ WLAN ☐ Bluetooth ☒ Zigbee ☐ Qi ☐ Other(s) Multiple Radios: ☐ yes ☒ no If yes, active simultaneously ☐ yes ☒ no
b.	Mode of operation	☒ Transmitter ☒ Receiver
c.	Operating frequencies	2405MHz, 2410MHz, 2415MHz, 2420MHz, 2425MHz, 2430MHz, 2435MHz, 2440MHz, 2445MHz, 2450MHz 、 2455MHz, 2460MHz 2465MHz, 2470MHz, 2475MHz 、 2480MHz
d.	Operating frequency bands	2400~2483.5MHz
e.	Operating channel bandwidths	2MHz
f.	Numbers of channels	16
g.	Antenna type	☒ internal ☐ external
h.	Battery powered	☐ yes ☒ no
i.	Power supply	DC 3.3V
j.	Handheld or portable device	☐ yes ☒ no
k.	Type of modulation	O-QPSK
l.	Bitrates	250kbit/s
m.	Highest Clock freq.	38.4MHz
n.	Receiver Category	☐ 1 ☐ 1.5 ☒ 2

RF and Antenna

Parameters	Rated value	Data			Remark
		2405MHz	2445MHz	2480MHz	
Rated output power	10	10	10	10	The firmware Settings
Nominal RF output power (dBm)	10	10.11	10.01	10.06	Conduction
Antenna Gain(dBi)	NA	-1.34	-1.07	-1.27	
EIRP (dBm)	10	7.25	7.21	6.06	
TRP (dBm)	NA	2.42	2.4	1.47	
RX Receiving Sensitivity(dBm)	NA	-103	-103	-102.5	Conduction
TIS (dbm)	NA	-95.79	-95.39	-93.27	
MAX Antenna Gain(dBi)	NA	-0.77			MAX Antenna Gain
PSD (dBm/3HZ)	8	0.32	0.42	0.88	Limit Vaule from FCC Part15,Subpart C 15.247
Antenna Efficiency (%)	NA	-6.14	-5.74	-6.08	

- E.i.r.P ,the default value of E.i.r.P should be low to 10 dBm .
- TX Power= P(e.i.r.p)-Gain value ,TX value is pre-defined in firmware.

2D Antenna Radiation Patterns and Efficiency,



$\theta = 90^\circ$ (XY Plane)

$\phi = 0^\circ$ (XZ Plane)

$\phi = 90^\circ$ (YZ Plane)

Frequency (MHz)	Gain (dBi)	Efficiency (dB)
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2400	-1.34	-6.14
2410	-1.08	-5.91
2420	-1	-5.71
2430	-0.97	-5.73
2440	-1.07	-5.74
2450	-0.97	-5.72
2460	-0.77	-5.55
2470	-1.07	-5.75
2480	-1.27	-6.08
2490	-1.18	-6.06
2500	-1.38	-6.24
MIN	-1.38	-6.24
MAX	-0.77	-5.55
AVG	-1.10	-5.88