Technical Description

Product	Folio Keyboard			
Brand Name	XPPen			
Model	K09-A			

The equipment under test (EUT) is a Bluetooth keyboard. The EUT will operate from a Li-Polymer battery and charging by USB C port. For more detail information pls. refer to the user manual.

40 channels are provided for BT-LE (GFSK):

CHANNEL	FREQ. (MHZ)	CHANNEL	FREQ. (MHZ)	CHANNEL	FREQ. (MHZ)	CHANNEL	FREQ. (MHZ)
0	2402	10	2422	20	2442	30	2462
1	2404	11	2424	21	2444	31	2464
2	2406	12	2426	22	2446	32	2466
3	2408	13	2428	23	2448	33	2468
4	2410	14	2430	24	2450	34	2470
5	2412	15	2432	25	2452	35	2472
6	2414	16	2434	26	2454	36	2474
7	2416	17	2436	27	2456	37	2476
8	2418	18	2438	28	2458	38	2478
9	2420	19	2440	29	2460	39	2480

Modulation Type: BT-LE(GFSK)

Antenna Type: PCB on board antenna

Antenna Gain: -0.67 dBi Gain

Hardware version: V1.2

Software version: V3

The function of main IC is mentioned as below.

- 1) U1 as Bluetooth IC
- 2) U3 as charge IC.
- 3) U2 as DC-DC

In Bluetooth IC:

- 1) U1 as Bluetooth IC Pixart 2832.
- 2) XTL1 is a 32MHz oscillator for Bluetooth IC.

Antenna technical specifications

7.1 Meandered Inverted-F Antenna (MIFA)

The MIFA is a popular antenna widely used in human interface devices (HIDs) because it occupies a small PCB area. Cypress has designed a robust MIFA that offers an excellent performance with a small form factor. The antenna size is 7.2 mm × 11.1 mm (284 mils × 437 mils), making it suitable for HID applications such as a wireless mouse, keyboard, or presenter. Figure 10 shows the layout details of the recommended MIFA, both top layer and bottom layer in a two-layer PCB. The antenna trace-width is 20 mils throughout. The main parameter that would change, depending on the PCB stack spacing, is the value of "W," the RF trace (transmission line) width.

Figure 10. MIFA Layout

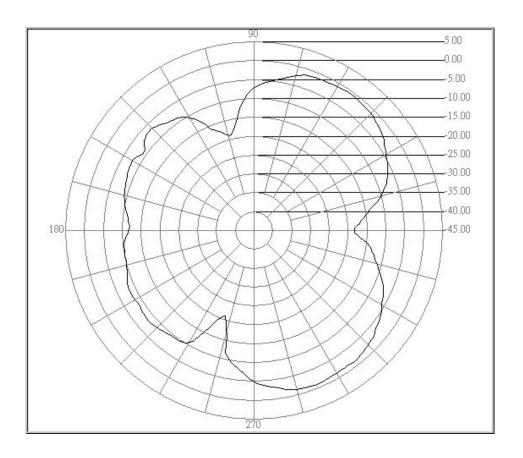


CCS WUGU Antenna Pattern

 $\label{eq:conditional} \mbox{Job No.:980318-DONGLE-2440-E} \qquad \mbox{A n t e n n a} \ \ \mbox{S i z e : 7 . 2 m m X 1 1 . 1 m m}$

Date:2009-03-17 Time:14:42 Temp.(°C)/Hum.(%):25°C/80%

Tested by: Mark.Y manufacturer:Jing Mold Electronics Technology (Shenzhen) Co., Ltd.



Center 1

Max gain(dBi):-0.67 Min gain(dBi):-21.16 Avg gain(dBi):-5.60

980318-DONGLE-244No. 4 Yangxia

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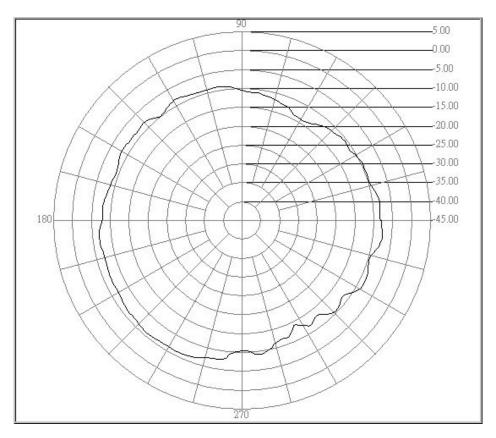


CCS WUGU Antenna Pattern

Job No.:980318-DONGLE-2440-H

Date:2009-03-17 Time:14:40 Temp.(°C)/Hum.(%):25°C/80% Tested by: Mark.Y

address: No. 4 Yangxia 3rd Road, Xinqiao Community, Xinqiao Street, Bao'an District, Shenzhen



Center freq.(MHz): 2440

Polarization: H Plane

Max gain(dBi):-5.88

Min gain(dBi):-14.09

Avg gain(dBi):-8.86

980318-DONGLE-2440-E