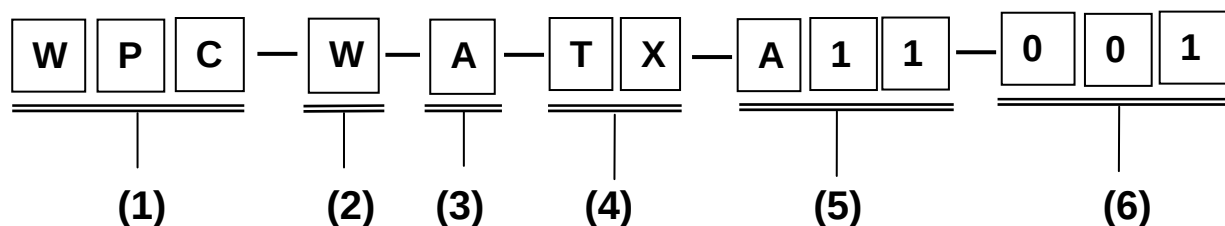


WPC-W-A-TX-A11-001 Specification

1. Features and application:

- (1) Integrated 5V WPC 1.1-compliant Transmitter for A11-type coils
- (2) Demodulates and Decodes Communication Packets from WPC-compliant Receivers
- (3) USB Interface Supports High Current Charging with D+ / D- detection
- (4) Master/Slave I2C Interface
- (5) Support 5W Receiver
- (6) Input support DC adapter 12V/19V
- (7) OCP,OVP,OTP,FOD Protection

2. Explanation of Part Number:



3. Connector pin assignment :

Input : CN1

Model No. : MCBF-5S-H-R0TL4

PIN	SYMBOL	DESCRIPTION
1	VIN	DC input 5Vdc
2	D-	USB data negative input
3	D+	USB data positive input
4	NC	NC
5	GND	Ground

Input : CN2

Model No. : DC045B

PIN	SYMBOL	DESCRIPTION
4	VIN	DC input 12~19Vdc
2,3	GND	Ground

4. Weight :

Approximately TBD g.

UNLESS OTHER SPECIFIED TOLERANCES ON :

$X = \pm$ $X.X = \pm$ $X.XX =$

ANGLES = $\pm$ HOLE DIA = $\pm$



INPAQ TECHNOLOGY CO., LTD.

SCALE : N/A

UNIT : mm

DRAWN BY : 張淑芬

CHECKED BY: 吳金依

DESIGNED BY: 張世杰

APPROVED BY: 徐雍俊

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5. Electrical Characteristics:

5.1 Test Condition : The Charge Distance of TX to RX (WPC-W-A-RX-CF-001) Coil = 3mm,Center to Center

	Symbol	min	Typ	Max	Unit	Remark
Input Voltage(TX)	Vin	4.75	5	5.25	V	Input Connector: CN1
Input Current(TX)	Iin	1320	1420	1520	mA	Load : PRODIGIT 3315F
Output Voltage(RX)	Vout	4.75	5	5.25	V	
Output Current(RX)	Iout	-----	1000	-----	mA	CC mode
Efficiency(TX+RX)	Eff	66	-----	-----	%	
Full load Operating Freq(TX)	F_Full	120	135	150	KHz	AC side of TX Coil
No load Operating Freq(TX)	F_No	120	135	150	KHz	

5.2 Test Condition : The Charge Distance of TX to RX (WPC-W-A-RX-CF-001) Coil = 3mm,Center to Center

	Symbol	min	Typ	Max	Unit	Remark
Input Voltage(TX)	Vin	11.4	12	12.6	V	Input Connector: CN2
Input Current(TX)	Iin	575	640	705	mA	Load : PRODIGIT 3315F
Output Voltage(RX)	Vout	4.75	5	5.25	V	
Output Current(RX)	Iout	-----	1000	-----	mA	CC mode
Efficiency(TX+RX)	Eff	64	-----	-----	%	
Full load Operating Freq(TX)	F_Full	130	145	160	KHz	AC side of TX Coil
No load Operating Freq(TX)	F_No	120	135	150	KHz	

5.3 Test Condition : The Charge Distance of TX to RX (WPC-W-A-RX-CF-001) Coil = 3mm,Center to Center

	Symbol	min	Typ	Max	Unit	Remark
Input Voltage(TX)	Vin	18	19	20	V	Input Connector: CN2
Input Current(TX)	Iin	385	430	475	mA	Load : PRODIGIT 3315F
Output Voltage(RX)	Vout	4.75	5	5.25	V	
Output Current(RX)	Iout	-----	1000	-----	mA	CC mode
Efficiency(TX+RX)	Eff	62	-----	-----	%	
Full load Operating Freq(TX)	F_Full	130	145	160	KHz	AC side of TX Coil
No load Operating Freq(TX)	F_No	120	135	150	KHz	

Note:

*FW TESTv2.44ipFixEOP_main

UNLESS OTHER SPECIFIED TOLERANCES ON :

X = $\pm$ X.X = $\pm$ X.XX =

ANGLES = $\pm$ HOLE DIA = $\pm$



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5.4 Standby Power

	Symbol	min	Typ	Max	Unit	Remark
TX Only	TX-Pd	-----	-----	100	mW(RMS)	Test by fluke 45

5.5 LED Define

LED#/Color	Operational Status				
	Standby	Transfer	Charge Complete	Fault Condition	FOD Warning
LED01-Blue	OFF	BLINK SLOW	ON	OFF	OFF
LED02-Red	OFF	OFF	OFF	ON	BLINK FAST

6. Coil Specification:

6.1 Dimension:

Unit : mm	
Dim.A	50.0 ± 0.5
Dim.B	1.0 ± 0.2
Dim.C	2.0 REF
Dim.D	17.0 REF
Dim.E	25.0 REF
Dim.F	2.1 ± 0.5
Dim.G	5.0 REF
Dim.H	3.8 Max

6.2 Coil Specification:

- a.) COIL MATERIAL: 0.08*105P(USTC)*2P
b.) TWO LAYERS COIL 10 TURNS(5 BIFILAR TURNS EACH LAYERS)
c.) COIL DIMENSIONS : OD=44.0 ± 1.5mm ID=20.5 ± 0.5mm H=2.1 ± 0.5mm

6.3 Electrical Specification:

Test Item	Test Condition	Specification
Inductance	100Khz, 1V	6.3uH+/-10%
Q value	100Khz, 1V	80 TYP
DCR	@25°C	25.0mΩ Max

UNLESS OTHER SPECIFIED TOLERANCES ON :

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ANGLES = ± HOLE DIA = ±



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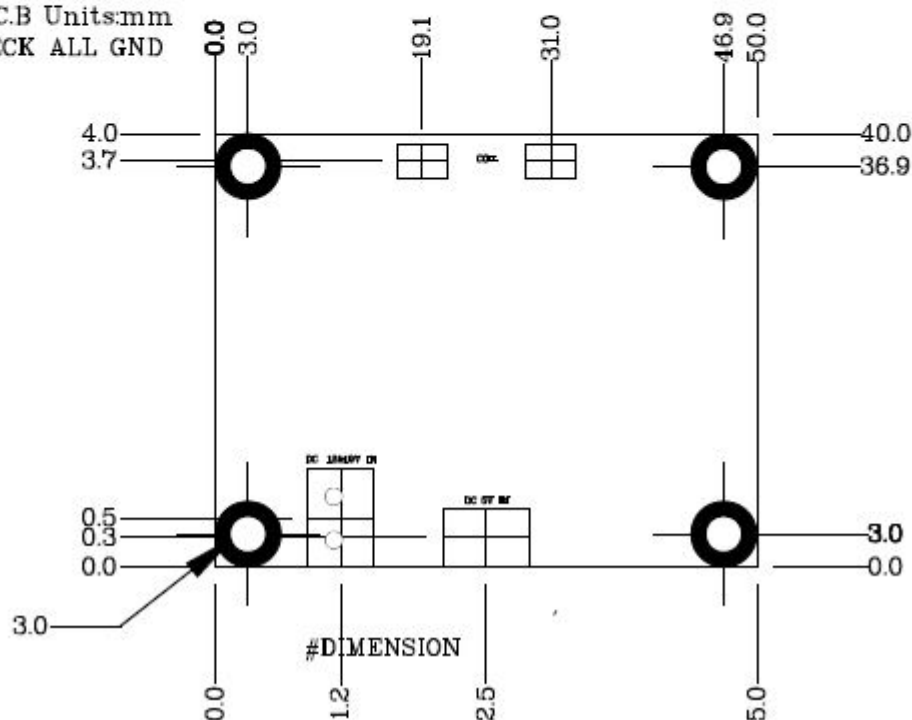
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7. PCB Dimension:

NOTES: 1.P.C.B GENERAL TOLERANCE:
0-10mm +/- 0.1mm
10-50mm +/- 0.15mm
50-100mm +/- 0.2mm
100mm----- +/- 0.25mm
2.UNLESS SPECIFIED ALL CORNERS ARE 1.0
3.P.C.B FLATNESS 0.5mm MAX
4.MATERIAL:FR-4 , 4LAYERS
5.Fixed HOLE TOLERANCE:+/-0.1mm
Conductive HOLE TOLERANCE:+/-0.05mm
6.P.C.B Thickness:0.8mm
7.P.C.B Thickness Tolerance:
0.8mm +/- 0.1mm
1.0mm +/- 0.1mm
1.2mm +/- 10%
1.6mm +/- 10%
8.P.C.B Units:mm
CHECK ALL GND



8. Environmental condition

STORAGE TEMPERATURE RANGE: -20°C ~ +70°C

OPERATING ENVIRONMENTAL TEMPERATURE RANGE: -5°C ~ +50°C

STORAGE ENVIRONMENTAL HUMIDITY : 75% MAX.(WITHOUT ICE OR DEW.MAX.WET-BULB TEMPERATURE IS 35°C)

OPERATING ENVIRONMENTAL HUMIDITY:70% MAX.(WITHOUT ICE OR DEW,MAX.WET-BULB TEMPERATURE IS 35°C)

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ANGLES = ± HOLE DIA = ±



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