	主题 Subject : W0300XA 无线充规格书	
	版本 Version: V1.0	日期 Date: 2024.10.19

Product Specification

产品规格书

Customer 客户	/
PRODUCTS.产品名称	W0300XA 无线充
PRODUCTS NUMBER.规格型号	W0300XA
REVERSION.版本	V1.0

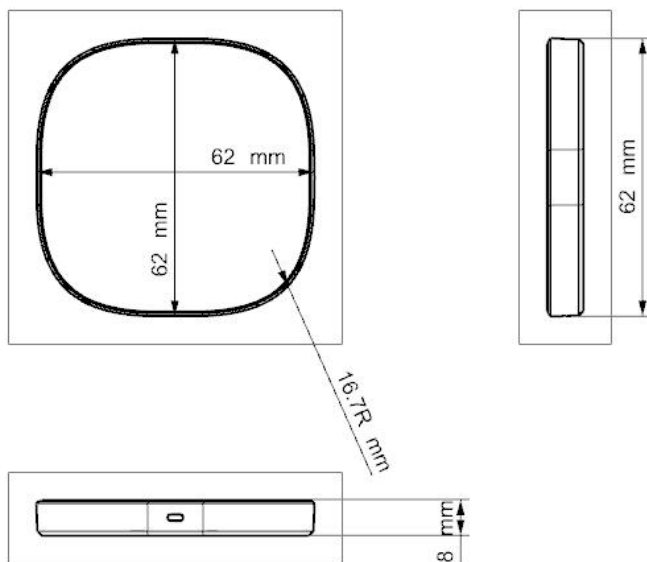
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一、Product introduction

W0300XA is a TX (MAX: 30W) wireless charger. Use MT5812 wireless charging controller. MT5812 is a highly integrated, high-performance system-on-chip (SoC) for magnetic induction-based wireless power transmitter solutions. It fully complies with the WPC Qi v1.2.4 specification and supports the baseline power profile (BPP) and extended power profile (EPP). The integrated large-size eFLASH enables flexible customer function support. MT5812 integrates high-voltage BUCK, 2 LDOs, 3 pairs of N-MOSFET drivers, 4-channel ASK demodulation analog front end (AFE), and 16-channel ASK demodulation DSP. Embedded precise low-side current sensing, general-purpose 10-bit ADC and DAC achieve high-performance FOD and Qfactor detection. Supports overvoltage, overcurrent, undervoltage protection and overtemperature protection (OVP, OCP, UVP, OTP) for safe operation. MT5812 supports multi-protocol power adapter interface detection and control, supports Qc2.0/3.0, USB PD, SCP, FCP, etc.

二、Product size



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三、Electrical performance

4.1 Input and output parameters			
No.	Item	Parameter	Remark
1	Input interface	TYPE-C	
2	Input voltage	DC:5V~20V	
3	Input current	0.03A~2.5A	
4	Output power	0.16W~22W	
4.2 Other parameters			
No.	Item	Parameter	Remark
1	Working distance	$\leq 4\text{mm}$	
2	Quiescent current	$< 30\text{mA}$	
3	Overvoltage protection	15V	
4	Undervoltage protection	4.5V	
5	Foreign object detection FOD	Yes	
6	Temperature protection	$\geq 80^{\circ}\text{C}$	
7	Short circuit protection	Yes	
8	Conversion efficiency	$> 80\%$	

四、Environmental requirements

4.1 Working environment temperature and humidity

Temperature: $0^{\circ}\text{C} \sim 40^{\circ}\text{C}$

Humidity: 45%~75%

4.2 Storage environment temperature and humidity

Temperature: $-21^{\circ}\text{C} \sim +28^{\circ}\text{C}$

Humidity: 45%~75%

4.3 Atmospheric pressure

Atmospheric pressure: 85~106Kpa

五、Precautions


5.1 This product must be used or stored at the specified temperature and humidity.

5.2 Avoid using or storing in places with high humidity or microwaves.

5.3 Use the charging equipment and charging procedures approved by the manufacturer. Improper charging may cause damage.

5.4 Avoid using electrical appliances or loads that exceed the output current of this product.

5.5 Avoid strong physical effects, including knocking, throwing, trampling, squeezing, etc.

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六 、 Transportation requirements

1. The product should be packaged for transportation. During transportation, it should be protected from severe vibration, impact or squeezing, and from exposure to sunlight and rain;
2. Applicable to ordinary transportation tools such as cars, trains, ships, and airplanes.