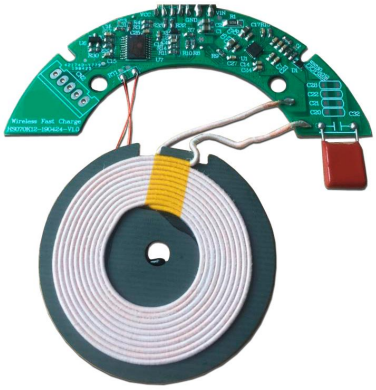
WCM-070K12

Qi Compliant Fast Wireless Power Transmitter

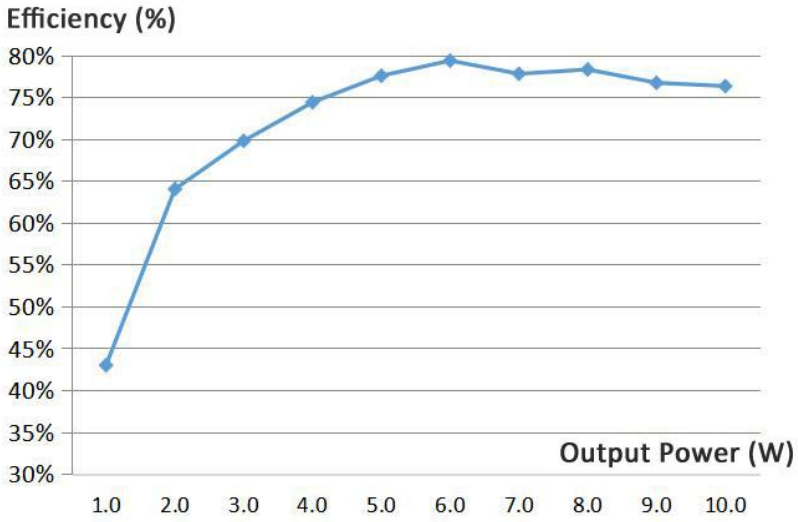


The WCM-TP6735 is a Wireless Power digital controller for Qi Compliant Wireless fast charger. The design of this module is based on the WPC Qi 1.2 standard. The module uses a dedicated wireless charging chip and an efficient & highly integrated driving full-bridge chip. The charging efficiency can reach 81%. The WPC standard V1.2 has input over-voltage, over-current, output over-voltage, over-current, and over-temperature protection functions. LED lights indicate the module's working status.

SPECIFICATION			
Standard	Compliance Qi Standard Qi 1.2 version		
Input Power	DC5V/2A; DC9V/1.6A		
Wireless Power Output	5V/ 9W auto detection (for 9W, 9V/1.6A adapter is required)		
Charging Frequency	87 ~ 295 Khz		
Charging Distance	0 ~ 8 mm (3.5mm as the best distance)		
Environment			
Operating Temperature	-5 to 40 degrees Celsius (10% to 95% RH, 25 degree Celsius)		
Storage Temperature	-10 to 60 degrees Celsius (5% to 80% RH, 25 degree Celsius)		
Safety Protection			
Over Temperature	The charging power will be shut down when temperature over 60°C		
Over Voltage	20VDC		
Low Voltage	< 4.1VDC		
Over Current	2A		
LED Behavior			
Power On	LED of orange and green flash one time	Over Voltage	No LED
Standby	No LED	Low Voltage	LED flash in orange
Charging	LED in orange still ON	Over Current	orange LED flash 2 times and green 1 time
Charging Finish	LED in green ON (Samsung only)	Over Temperature	LED in orange flash 4 times & green 1 time
FOD	Orange flash 2 time & green 1 time	Rx Abnormal	LED flash in green

CONVERTER RATE						
Input (V)	Input (A)	Input (W)	Output (V)	Output (A)	Output(W)	Converter Rate (%)
5.06	0.23	1.164	5	0.1	0.500	0.430
5.04	0.31	1.562	5	0.2	1.000	0.640
5	0.43	2.150	5	0.3	1.500	0.698
4.98	0.54	2.689	5	0.4	2.000	0.744
4.96	0.65	3.224	5	0.5	2.500	0.775
4.91	0.77	3.781	5	0.6	3.000	0.794
5	0.9	4.500	5	0.7	3.500	0.778
4.96	1.03	5.109	5	0.8	4.000	0.783
4.93	1.19	5.867	5	0.9	4.500	0.767
4.89	1.34	6.553	5	1	5.000	0.763

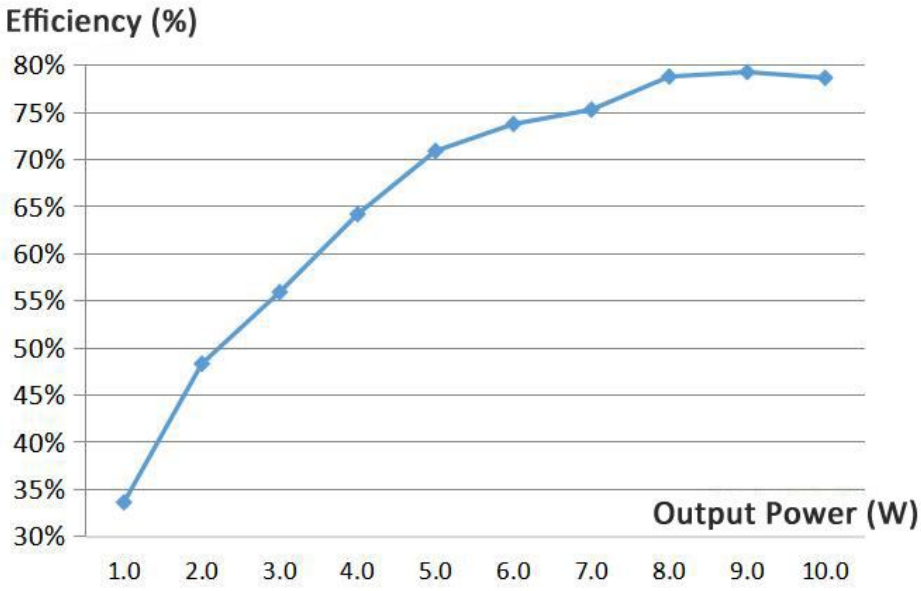
CURVE



CONVERTER RATE

Input (V)	Input (A)	Input (W)	Output (V)	Output (A)	Output(W)
9.06	0.296	2.682	9	0.1	0.900
9.05	0.412	3.729	9	0.2	1.800
9.05	0.534	4.833	9	0.3	2.700
8.98	0.625	5.613	9	0.4	3.600
8.92	0.712	6.351	9	0.5	4.500
8.87	0.826	7.327	9	0.6	5.400
8.89	0.942	8.374	9	0.7	6.300
8.86	1.032	9.144	9	0.8	7.200
8.86	1.154	10.224	9	0.9	8.100
8.82	1.298	11.448	9	1	9.000

CURVE



* Features and specification are subject to change without notice.

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