



# SPARK TECHNOLOGY LIMITED

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## SPT0002 – Radio Controlled Clock Module (Preliminary 1.0)

### ● DESCRIPTION

SPT0002 is a radio controlled clock module for Europe, with high sensitivity and timing accuracy. This module can be easily interface with MCU by a standard input port. The SPT0002 consists of a ST6005, RCC receiver IC with a high Q antenna bar to provide good reception. All modules are well calibrated to make sure no extra work you should make during the production.



### ● FEATURES

- Convenient to use
- Built-in ferrite antenna
- High Sensitivity
- Fully RoHS compliant

### ● APPLICATIONS

- Weather Station
- Traveling Clock

### ● TECHNICAL SPECIFICATIONS

Parameter	Specification
Operating Voltage	1.5V ~ 5.0V
Sensitivity	60dBuV /m
Setup Time	1.5 sec
Current consumption (Standby)	<2uA
Current consumption (Operating)	<250uA
Operating temperature	0°C ~ +50°C

### ● PIN DESCRIPTION

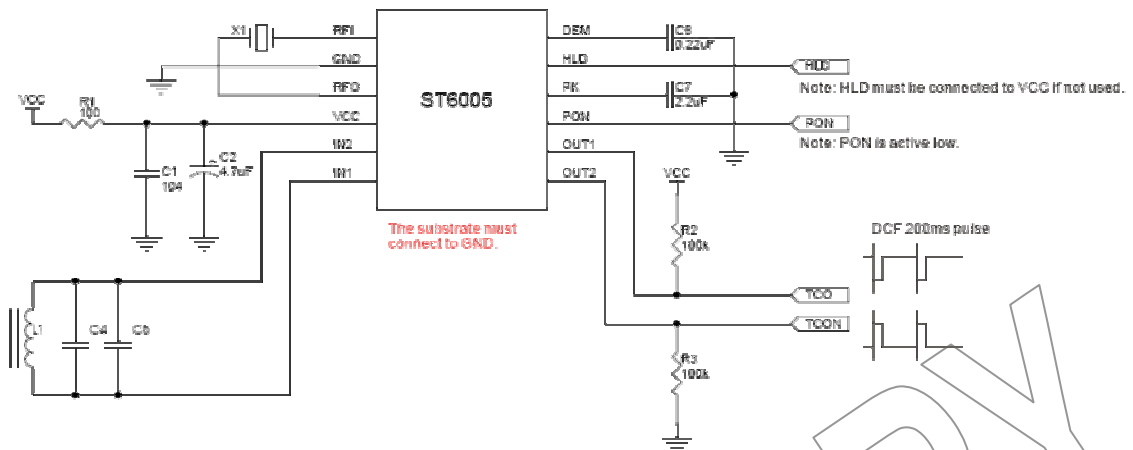
Pin	Name	I/O	Function
1	V	Power	Supply voltage, connect to VDD
2	G	Power	Ground
3	T	O	Data output
4	P	I	Power enable (Active low)



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## ● APPLICATION CIRCUIT



### 1. Crystal X1

Time-Signal system	Location	Antenna Frequency	Recommended Crystal Frequency
DCF77	Germany	77.5 kHz	77.503 kHz
MSF	United Kingdom	60 kHz	60.003 kHz
WWVB	USA	60 kHz	60.003 kHz
JJY	Japan	40 kHz and 60 kHz	40.003 kHz and 60.003 kHz

20ppm,  $R_1=40k\Omega$ ,  $C_1=12.5p$ ,  $C_0<1p$

Frequency	$C_{ant}$	$L_{ant}$	Q
40kHz	4.7nF	3.28mH	>100
60kHz	3.3nF	2.10mH	>100
77.5kHz	2.2nF	1.88mH	>100

## ● CONTACT INFORMATION

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