

SRWF-1100A module manual



SRWF-1100A module is used to supply enable design for customers, the module does not take with MCU by itself , it only offer customers user interface for operation.

TEL:+86-21-50275255/50275250/50273877/38953738

FAX:+86-21-50270187

Address: No 201, Keyuan Road Zhangjiang Shanghai Pudong New Zone, China

Post Code: 201203

Website: <http://www.51sunray.com>

EMAIL: Sales@tangray.com

China. Shanghai Tel: 86-21-50275255/50255250/50273877 fax: 86-21-50270187

<http://www.51sunray.com>

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I . Pin caption

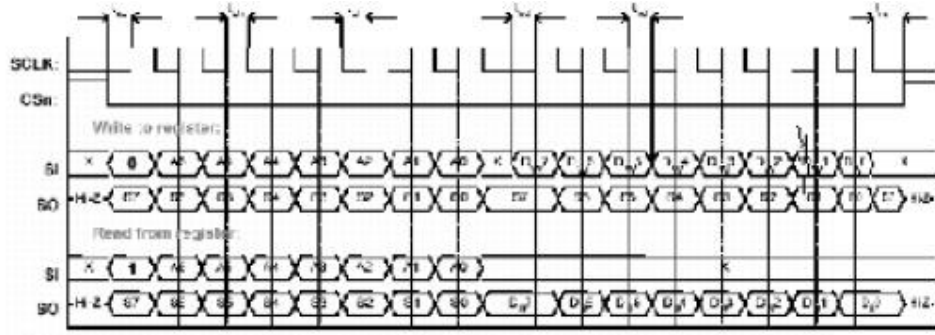
Number	Name	Definition
1	GND	Ground(Digital)
2	VCC	Power Supply
3	SI	Serial configuration interface(Data input)(the detailed functions reference CC1100 Datasheet)
4	SCLK	Serial configuration interface(Clock input)(the detailed functions reference CC1100 Datasheet)
5	SO	Serial configuration interface(Date output)Optional general output pin when CSn is high
6	GD02	Digital output pin (the detailed functions reference CC1100 Datasheet)
7	GD00	Digital output pin (the detailed functions reference CC1100 Datasheet)
8	CSn	Serial configuration interface, chip select
9	RE	Receive enable
10	TE	Transmit enable

Memo: Download the latest edition for CC1100 Datasheet

1. Power Supply

Work voltage of module is 1.8V-3.6V, recommending to use 2.8V. If the working voltage of MCU is higher than module's, between each working port and MCU I/O port must be linked with resistance in series to separate them, and the range of supplying voltage between them is not too far. (recommending the same power supply to offer electricity)

2. The schedule of read and writ of Register as follow:



Installing register and

The register starts to work when the situation of CSn is low, it can change situation of register and read&write register before taking down order of read&write and address of register. The way of read&write register consists of single byte read&write, successive read&read or blend to use, we can further ly decide by register .

3. RE/TE Control instruction:

RE/TE is used to control power of data receiving in expansion and transmission

Num	RE	TE	Situation
1	L	L	TX(plus expansion,output 1100 2 dBm
2	L	H	Sleep(1100)sleep needs control of software)
3	H	L	
4	H	H	RX/TX(There is no need for transmit power)

II . Technology Parameter

Modules technology parameter under common temperature as follow :

Transmit power: >16dbm:

Receiver sensitivity: <-109dbm(1200bps)

Phasic noise: <-90dbc/Hz

Transmit current: <65mA

Receive current: < 25mA

Sleep current: < 3uA

Center frequency: 433MHz

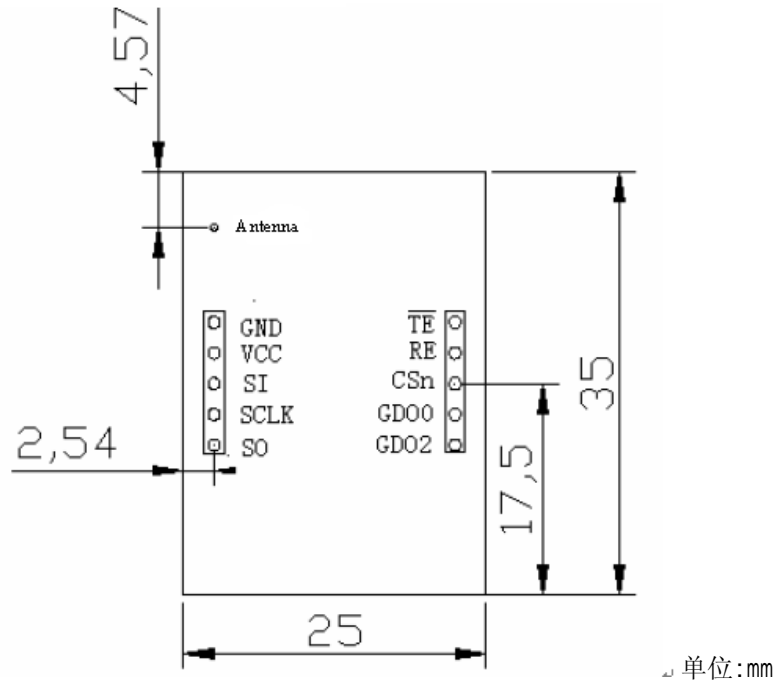
Outer transmit distance: 800m—1000m

Modules functions will be influenced by the change of temperature, so module parameter is changed by the change of temperature, we gained following experiment data through experiment under -20°C-75°C over again and again. (choose one of modules datum to reference, the other modules datum are basically as same as the follows)



N u m	Tep °C	Transmission Parameter				Receive Patameter			
		Transmiss ion Power	Center Frequen cy	Transmiss ion Current	Seco nd Baud	Rec eiv er sen sit ivi ty	Centr e Frequ ency	Receive Current	
1	-20	15.06	432.992 0	54	-46	-111	432.9990	25	
2	-10	15.80	432.993 6	55	-44	-111	433.0010	25	
3	0	16.09	432.995 2	57	-41	-111	433.0020	24. 5	
4	10	16.16	432.994 8	58	-40	-111	433.0010	24. 5	
5	25	16.19	432.994 2	61	-39	-111	433.0000	24. 5	
6	50	15.70	432.992 8	67	-39	-108	432.9970	24	
7	75	14.80	432.995 2	78	-38	-107	432.9980	24. 5	

III.Exterior dimension



IV. Technology support and after service:

We offer sufficient technology support for customers use the module second embed design for free: repairing broken modules one year for free, always offer after service

Shanghai Tangray Info-tech Co.,Ltd

Address : No 201 Keyuan Road Zhangjiang Pudong New area
Shanghai China

Tel: 86-21-50275250/50275255/50273877

Extension: 807/810

Fax : 86-21-50270187

Website: www.51sunray.com

E-mail address: sales@tangray.com