

# **Technical Construction File**

**For**

## **Equipment general information:**

**Product description:** 9ch radio control system

## **Function:**

The product is used for short distance remote control.

## **MODEL NO.:**

**FS-TH9X**

**Trade Name: FLYSKY**

**Intended use/Category:**

**SRD**

**DONGGUAN CITY FLYSKY REMOTE MODEL CO., LTD.**

No.41 Road West, BanHu Village, HuangJiang Town, DongGuan City,  
GuangDong Porvince, China

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5. Applicant's Project letter/Work request
6. Product quality Assurance document

(1a)

**Technical Construction File in accordance with R&TTE Directive  
Annex IV**

Under the provisions of Annex IV of the **Directive 1999/5/EC** of the European Parliament and of the Council of 9 March 1999 on Radio equipment and Telecommunications Terminal Equipment (R&TTE Directive) and the mutual recognition of their conformity,

We, the undersigned,

<b>Company Name</b>	DongGuan City FLYSKY Remote Model Co., Ltd.
<b>Address</b>	No 41 Road West, BanHu Village, HuangJiang Town, DongGuan City, GuangDong Province, china.
<b>Phone No.</b>	+86-0769-84561486
<b>Fax No.</b>	+86-0769-83365124

have established a Technical Construction File as specified below to be presented to the Notified Body for his opinion and to be kept available to the relevant national authorities of any Member State for inspection purposes:

<b>ITEM #</b>	<b>TECHNICAL DOCUMENT DESCRIPTION</b>
01	Technical File in accordance with R&TTE directive Annex II point 4

For the following product:

<b>Product Description</b>	9ch radio control system
<b>Model No.</b>	FS-TH9X
<b>Brand Name</b>	FLYSKY

The Technical Construction File as specified above will be kept for a period ending at least 10 years after the last product has been manufactured at the disposal of the relevant national authorities of any Member State for inspection purposes.



TCF Reference #	TFN07108045
Drawn Up In	No.4 Road West, BanHu Village, HuangJiang Town, DongGuan City, GuangDong Province, China
Date	2007-10-24
Signature	
Name & Position	Jack / Manager

(1b)

## Technical File in accordance with R&TTE Annex II point 4

Under the provisions of Annex II point 4 of the **Directive 1999/5/EC** of the European Parliament and of the Council of 9 March 1999 on Radio Equipment and Telecommunications Terminal Equipment (R&TTE directive) and the mutual recognition of their conformity,

We, the undersigned,

**Company Name**

DongGuan City FLYSKY Remote Model Co., Ltd.

**Address**

No 41 Road West, BanHu Village, HuangJiang Town,

DongGuan City, GuangDong Province, China.

**Phone No.**

+86-0769-84561486

**Fax No.**

+86-0769-83365124

Have established a Technical File as specified below to enable assessment of the product conformity with the essential requirements of the R&TTE directive:

**ITEM NO.    TECHNICAL DOCUMENT DESCRIPTION**

- 2a. User Manual
- 2b. Information to user (art 6.3)
- 2c. Exterior Photographs
- 2d. Interior Photographs
- 2e. Label Information
- 3a. Technical Description
- 3b. Block Diagram
- 3c. Circuit Description
- 3d. PCB Layout
- 3e. Parts List
- 4a. LVD Test report (and EMF exposure) (art 3.1b)
- 4b. EMC Test report (art 3.1a)
- 4c. RTTE RF Test report
- 4d. R&TTED standard list
- 4e. Design calculations (if any, not using harmonized standards)
- 5. Applicant's Project letter/Work request
- 6. Product quality Assurance document

For the following product

**Product Description**

9ch radio control system

**Model No.**

FS-TH9X

**Brand Name**

FLYSKY

The Technical File as specified about will be kept for a period ending at least 10 years after the last product has been manufactured at the disposal of the relevant national authorities of any Member State for inspection purposes.



TCF Reference #    TNF07108045

Drawn Up In    No.4 Road West, BanHu Village, HuangJiang Town,

DongGuan City, GuangDong Province, China

Date    2007-10-24

Signature

Name & Position    Jack / Manager

# (1c) COPY OF DECLARATION OF CONFORMITY

## Declaration of Conformity

I hereby declare that the product

Name: 8ch radio control system Model: FS-TH9X  
(Name of product, type or model, batch or serial number)

satisfies all the technical regulations applicable to the product within the scope of Council Directives 73/23/EEC, 89/336/EEC and 99/5/EC:

EN 300440-1 v 1.3.1  
EN 300440-2 v 1.1.2  
EN 301489-1 v 1.6.1  
EN 301489-3 v 1.4.1  
EN 60950-1: 2006

(Title(s) of regulations, standards, etc.)

All essential radio test suites have been carried out.

NOTIFIED BODY: EMOCert Dr. Rasek GmbH

Boetwiese 5  
91320 Ebermannstadt  
Germany  
EU Identification Number: 0678

MANUFACTURER or AUTHORISED REPRESENTATIVE:

- Address:

Manufacture: DongGuan City FLYSKY Remote  
Model Co., Ltd.  
Address: No 41 Road West, BanHu Village,  
HuangJiang Town, DongGuan City,  
GuangDong Province, China.

This declaration is issued under the sole responsibility of the manufacturer and, if applicable, his authorised representative.

- Point of contact:

Name: Jack TEL: +86-0769-84561486 FAX: +86-0769-83365124  
(Name, telephone and fax number)

2007-10-23

(Place, date of issue)



(Name and title in block letters)

**Note:** The exact location from which a copy of the DoC may be obtained is  
Address: No.4 Road West, BanHu Village, HuangJiang Town,  
DongGuan City, GuangDong Province, China

## **(2a) USER MANUAL**

[Please refer to user's manual]

## **(2b) INFORMATION TO USER**

[Please refer to user's manual]

## **(2c) EXTERIOR PHOTOGRAPHS**

**EUT View 1**

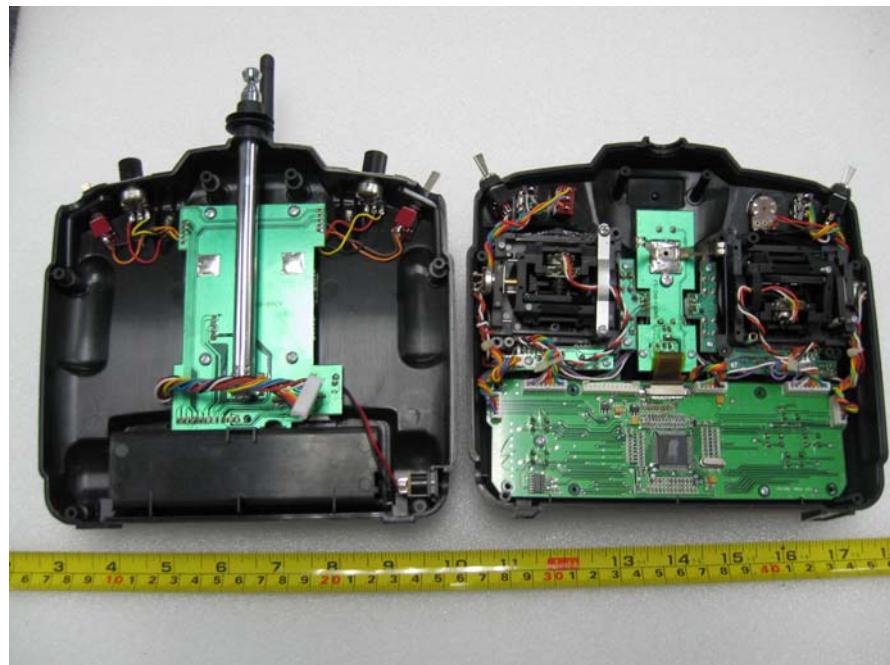


**EUT View 2**

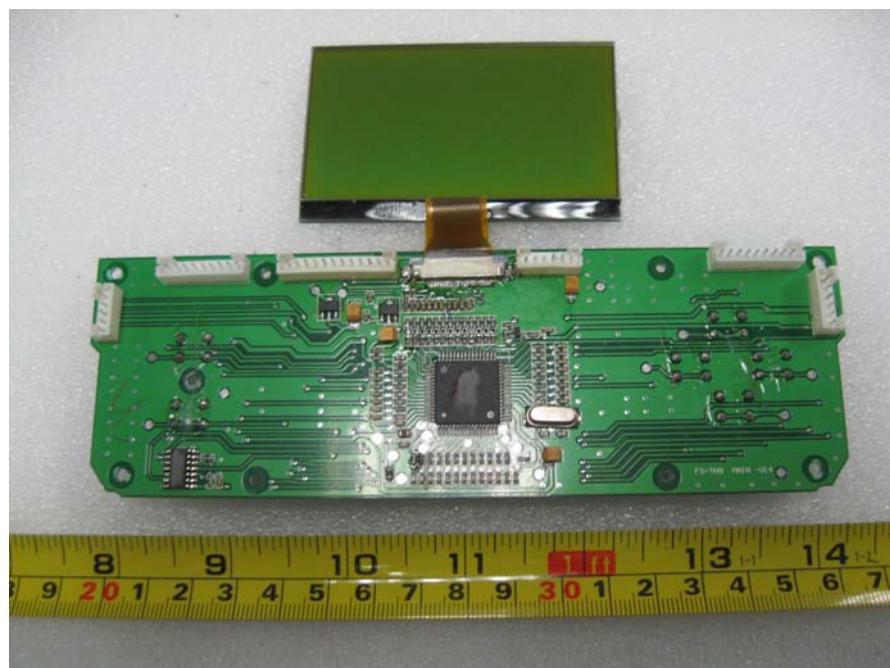


## (2d) INTERIOR PHOTOGRAPHS

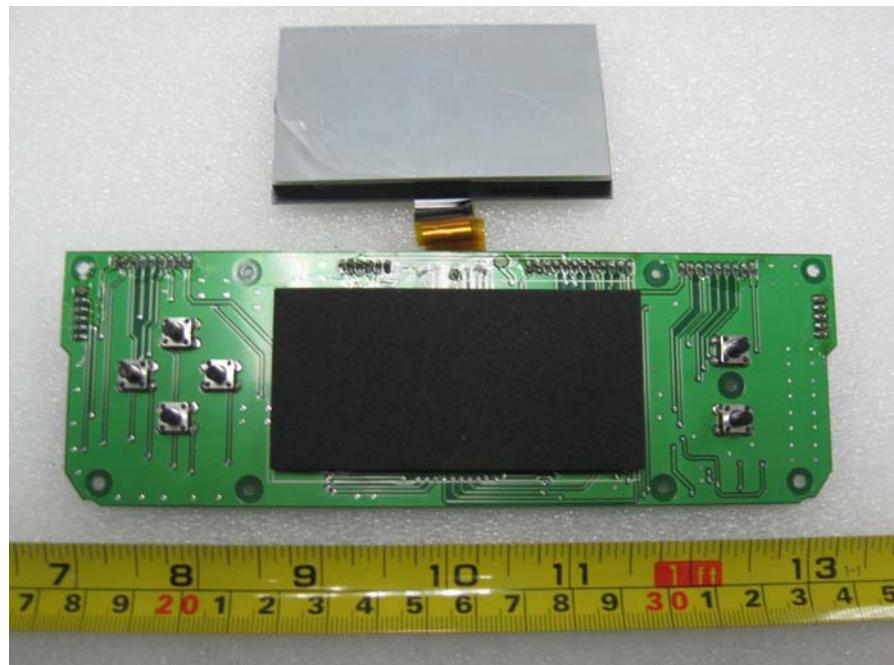
### EUT Housing and Board View



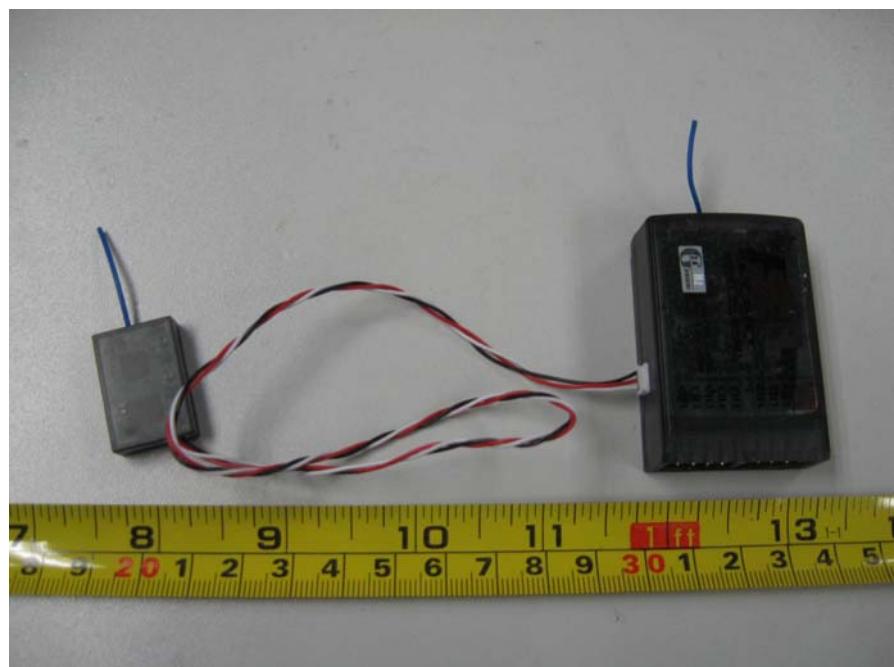
### Solder Board-Component View 1



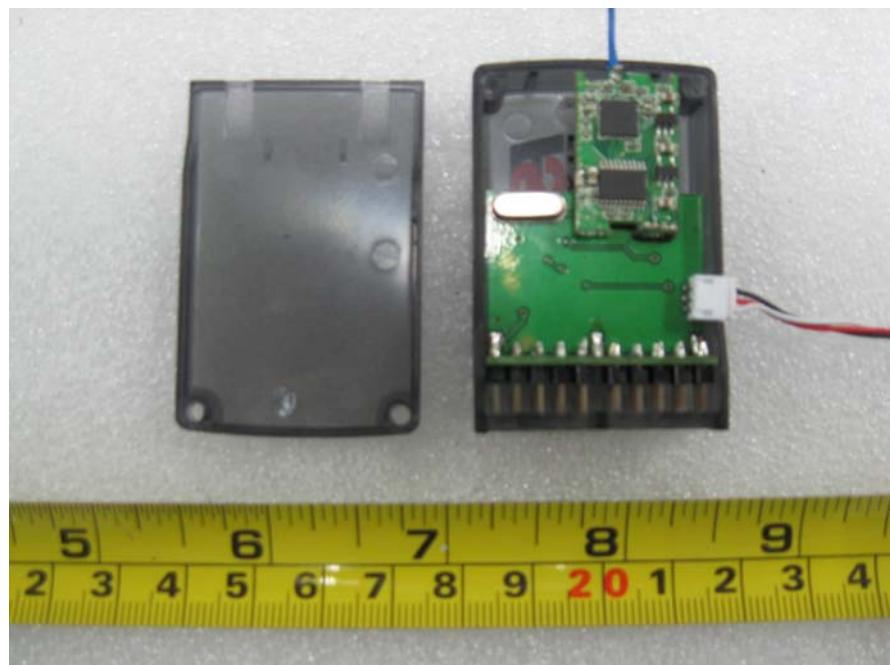
**Solder Board-Component View 2**



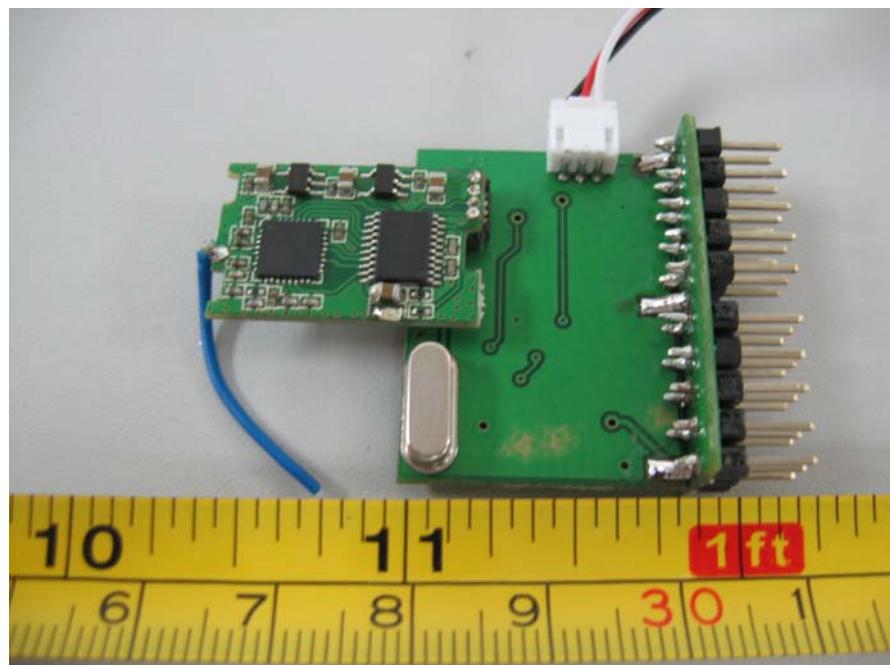
**EUT View 1 (Rx)**



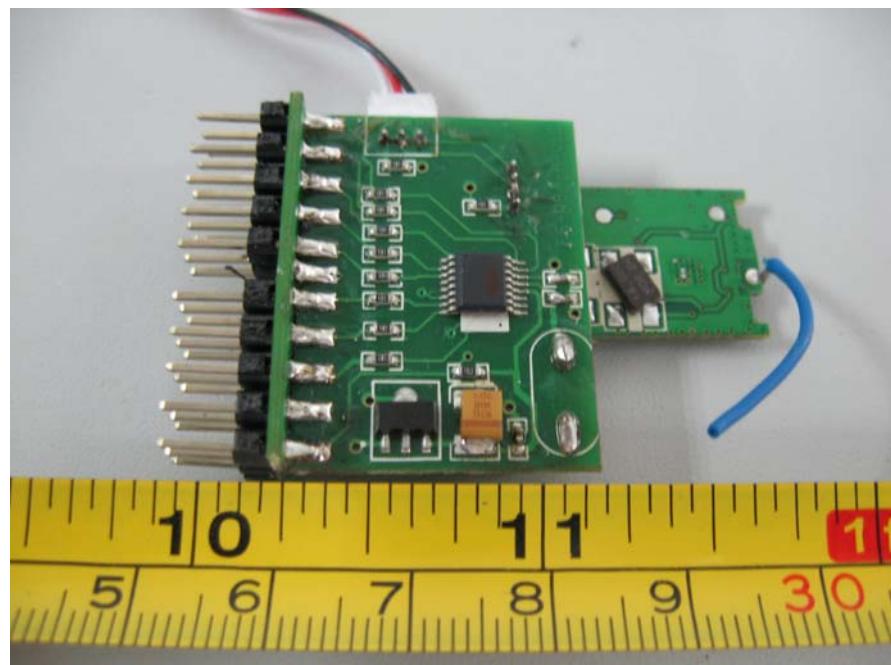
**EUT Housing and Board View (Rx)**



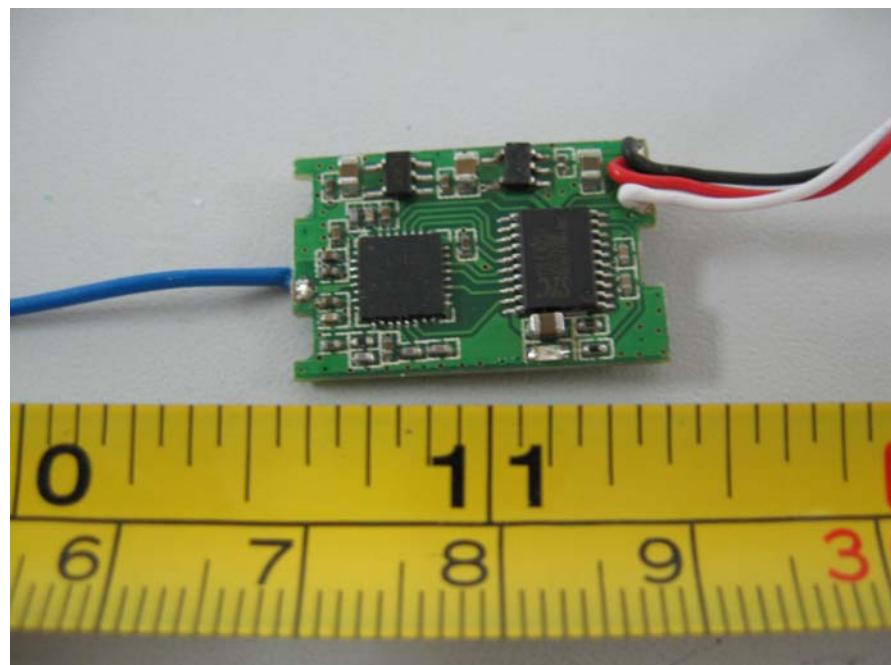
**Solder Board-Component View 1 (Rx)**



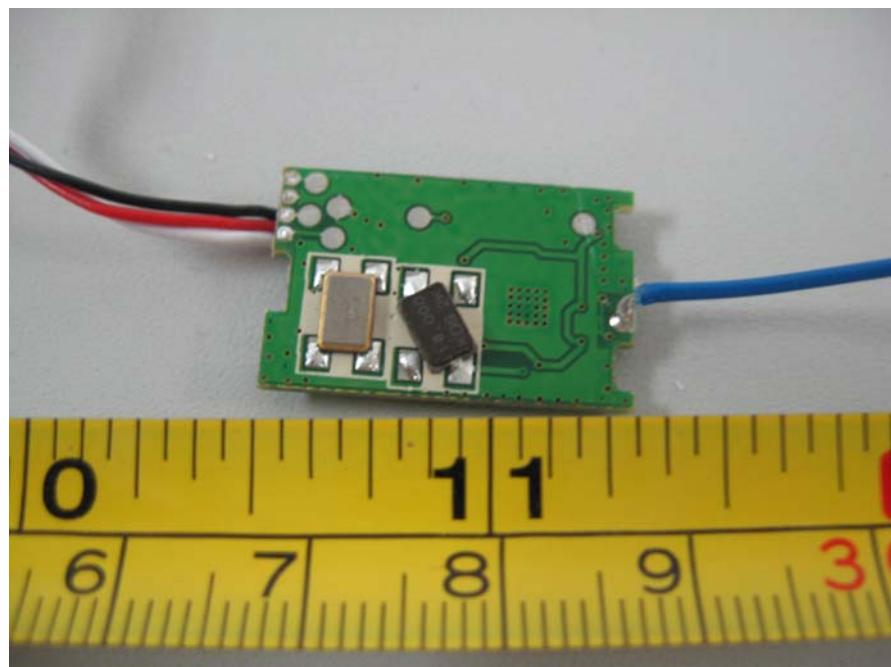
**Solder Board-Component View 2 (Rx)**



**Solder Board-Component View 3 (Rx)**



**Solder Board-Component View 4(Rx)**



## (2e) LABEL INFORMATION

### Proposed CE Label Format

CE 0678

Specifications: Text is Black in color and justified. Labels are printed in indelible ink on permanent adhesive backing or silk-screened onto the EUT or shall be affixed at a conspicuous location on the EUT.

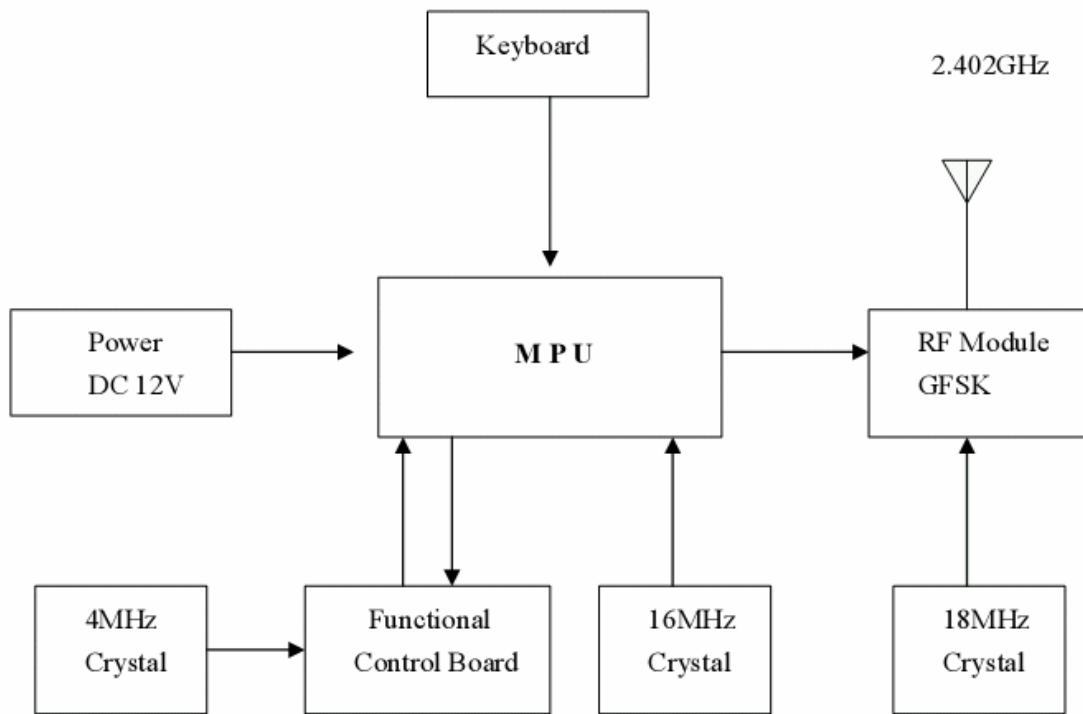
### Proposed Label Location on EUT



## (3a) TECHNICAL DESCRIPTION

[Please refer to user's manual]

## (3b) BLOCK DIAGRAM



## (3c) CIRCUIT DESCRIPTION

The functional signal triggered the MPU which gets a pulse modulation then passing through the MPU working with 12 MHz crystal for producing a signal to the RF Module circuit. Carrying Wave amplified by the amplifier circuit unit, through the antenna then transmit out as 2.402 GHz.

1. Functional Control Board kit deals with the functional controlling.
2. MPU is the main functional control center, working with 12MHz crystal, deal with function control and other state indication.
3. Time frequency is a multiplied frequency to produce a extract HF signal.
4. RF Module is used for producing FM CW.

## (3d) PCB LAYOUT

[Please refer to the attachment of PCBLLayout]

## (3e) PARTS LIST

Specifications	Units	Qua.	Location
FS-RM001A	pcs	1	
COG-10V-15pF±0.25pF-0402	pcs	2	C25, C26,
COG-10V-25pF±0.25pF-0402	pcs	2	C27, C28
X7R-10V-100nF±0.25pF--0402	pcs	9	C29, C30, C31, C32, C33, C34, C35, C36, C47
COG-10V-120pF±0.25pF--0402	pcs	1	C37
COG-10V-20pF±0.25pF--0402	pcs	1	C38
X7R-10V-1nF±0.25pF-0402	pcs	2	C39, C40
X5R-10V-10uF±0.25pF--0805	pcs	4	C41, C43, C44, C45
X5R-10V-1uF --0402	pcs	1	C42
X7R-10V-470pF--0402	pcs	1	C46
1/16W-39K±5%-0402	pcs	1	R14
1/16W-1.6K±5%-0402	pcs	2	R13, R15
rf	pcs	1	U5
0603 - RED	pcs	1	
xc6209-3.3V	pcs	1	U6
xc6209-2.5V	pcs	1	U7
MCU	pcs	1	U8
3.0*5.0*1.5 - 18M	pcs	1	Y3
3.0*5.0*8 - 12M	pcs	1	Y4
RT9166-sot89	pcs	1	JP22
Chip-RES SMD 100 ±5% 0603 1/10W	pcs	10	R15, R16, R17, R18, R19, R20, R21, R22, R23, R24
Chip-RES SMD 10K ±5% 0603 1/11W	pcs	1	R25
MCU-R9A	pcs	1	U9
4M - 49S - DIP	pcs	1	Y5
4M - 49S - SMD	pcs	1	Y5
FS-RM001A	pcs	1	con2
RT9166-sot89	pcs	1	con1

## **(4a) LVD TEST REPORT (+EMF exposure)**

[Please refer to the EN60950 report]

## **(4b) EMC TEST REPORT**

[Please refer to the EN301489 report.]

## **(4c) R&TTE RF TEST REPORT**

[Please refer to the EN300440 report.]

#### **(4d) R&TTE STANDARDS LIST**

## R&TTE List of Standards

With reference to Article 5 of the R&TTE Directive 1999/5/EC, the following equipment:

<b>Product Description</b>	9ch radio control system
<b>Model No.</b>	FS-TH9X
<b>Brand Name</b>	FLYSKY
<b>Company Name</b>	DongGuan City FLYSKY Remote Model Co., Ltd.
<b>Address</b>	No 41 Road West, BanHu Village, HuangJiang Town, DongGuan City, GuangDong Province, china.
<b>Phone No.</b>	+86-0769-84561486
<b>Fax No.</b>	+86-0769-83365124

Has been tested to and conforms with the following *List of R&TTE Harmonized Standards*:

<u>R&amp;TTE Harmonized Standard</u>	<u>Issue Date</u>
EN 300 440-1	V1.3.1
EN 301 440-2	V1.1.2
EN 301 489-1	V1.6.1
EN 301 489-3	V1.4.1
EN 600 950	2006

As such standards referred to in Article 5 of the directive have not been applied or do not exist, the following ***adopted standard with descriptions and explanations*** as listed below, have been applied in full or in part, to meet the essential requirements of the directive:

## Adopted Solution Description and explanation



TCF Reference # TNF07108045  
Drawn Up In No.4 Road West, BanHu Village, HuangJiang Town,  
Date DongGuan City, GuangDong Province, China  
2007-10-24  
Signature   
Name & Position Jack / Manager

**(4e) DESIGN CALCULATIONS**  
[N/A]

**(5) APPLICANT'S PROJECT  
LETTER/WORK REQUEST**

[N/A]

## (6) PRODUCT QUALITY ASSURANCE DOCUMENTS

### Declaration of Product Quality Assurance

In accordance with the Conformity Assessment procedure referred to in Article 10(3) of **Directive 1999/5/EC of the European Parliament and of the Council of 9 March 1999** on Radio equipment and Telecommunication Terminal Equipment and their mutual recognition of their conformity (R&TTE directive) the following manufacturer:

<b>Company Name</b>	DongGuan City FLYSKY Remote Model Co., Ltd.
<b>Address</b>	No 41 Road West, BanHu Village, HuangJiang Town, DongGuan City, GuangDong Province, china.
<b>Phone No.</b>	+86-0769-84561486
<b>Fax No.</b>	+86-0769-83365124

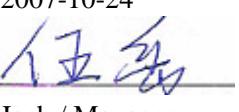
Declares under its sole responsibility that it has taken the following measures in order to achieve that the manufacturing process ensures compliance of the manufactured products with the technical documentation as established by

<b>Company Name</b>	DongGuan City FLYSKY Remote Model Co., Ltd.
<b>Address</b>	No 41 Road West, BanHu Village, HuangJiang Town, DongGuan City, GuangDong Province, china.
<b>Phone No.</b>	+86-0769-84561486
<b>Fax No.</b>	+86-0769-83365124

Under the requirements of the R&TTE directive and with the requirements of the R&TTE directive that apply to them:

<b>NUMBER</b>	<b>Measures taken in order to achieve that the manufacturing process ensures compliance of the manufactured products</b>
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TCF Reference #	TNF07108045
Drawn Up In	No.4 Road West, BanHu Village, HuangJiang Town, DongGuan City, GuangDong Province, China
Date	2007-10-24
Signature	
Name & Position	Jack / Manager