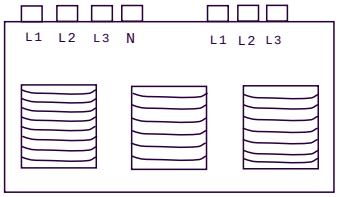
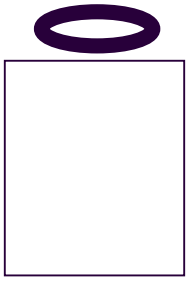
MEIRUIKE INSTRUMENT

Manual

=

2023 7 .....





[redacted]

2

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I

*

*

1
1.1
1.2
1.3
1.3.1
1.3.2
1.3.3 2
1.4.2 2
1.4.1 2
1.4.2 2
1.4.3 2
1.4.4 !3 Ŏ Ŏ Ŏ Ŏ Ŏ Ŏ Ŏ Ŏ

6.4.2 25
6.4.3 25
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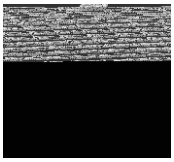
1.1

■

■



1.2

1.2.1

1.2.2

1.2.3

1.3

1.3.1

“ ”

1.3.2

220V/50Hz 110V/60Hz

,

1.3.3

1.4

1.4.1

1.4.2

1.4.3

1.4.4

1.5

1.6

100V-121V 5A ,198V-242V 47Hz-63Hz 3A

1.7

1.8

1.9

-
-
-
-

2.1

“ ”

IEC60335 GB4706.1-2005 IEC60598-1-1999 GB7000.1-2007

GB8898-2011 GB12113 GB4943.1-2011 IEC60065 IEC60590

2.2

1

RK9950C

5 TFT

LOCK

RS232C RS485 USB

USB

HANDLER(PLC)

50-500V

± 2% +1V

AC

50/60Hz

1V

AC

0

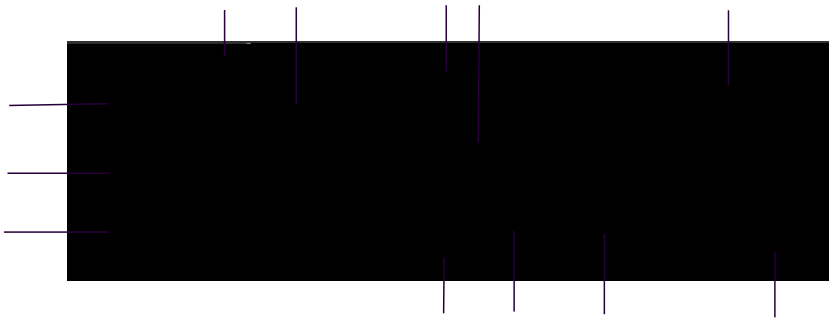
± 1.5% +5 B

MD-A(GB/T12113-2003

MD

8

3.1 RK9950C



1 POWER

2 START

3 STOP

4

5

6

PUT

E ٢ ٧ ٣

13

14 ˙110/220V

110V 220V

15 ˙

˙

3.3

RK9950C 480 × 272 5

3.3.1

3.3.2

3.3.3

3.3.4

3.3.5

3.3.6

3.3.7

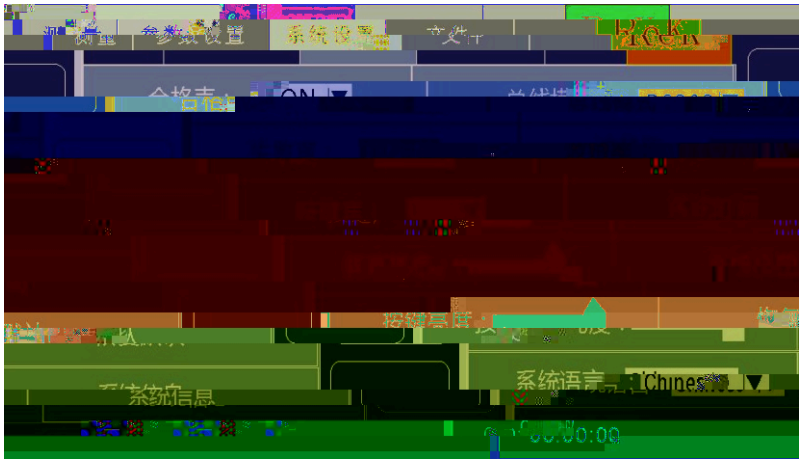
3.4

3.4.1

“ ”

3.4.2

3.4.3

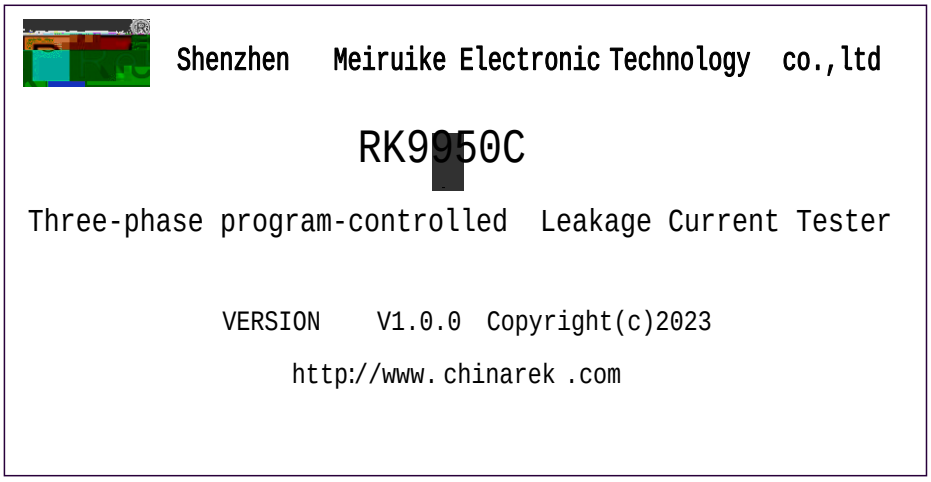


3.4.4

4.1

“ ”

“ ”



■ TEST SETUP SYSTEM FILE

■ → ← ↑ ↓

■ ENTER

4.2

4.2.1

“ ”

4.2.2

100V-121V/60Hz 198V-242V/50Hz

L N E

“ ” “OUT PUT”

4.2.3 “ ”

“ ” “ ”

4.2.4

“PASS”

“ ”

“ ”

4.2.5

“ ”

4.2.6 **START STOP**

START **STOP**

STOP **DANGER** **LOCK** **STOP** **DANGER** **LOCK**

PLC

5.1 PLC

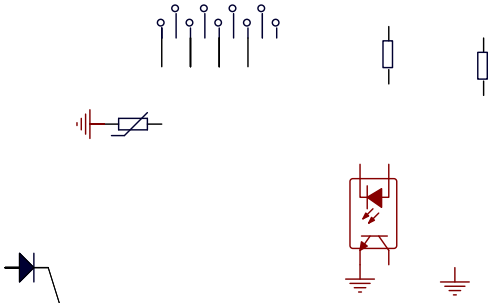
9PIND PROCESSING( ) PASS

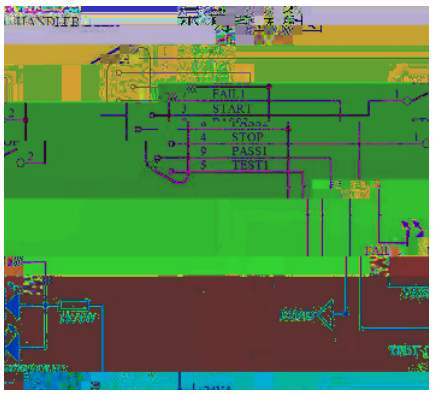
FALL TEST STOP

5.2

“ ” AC 250V 1.0A/DC

250V 0.5A





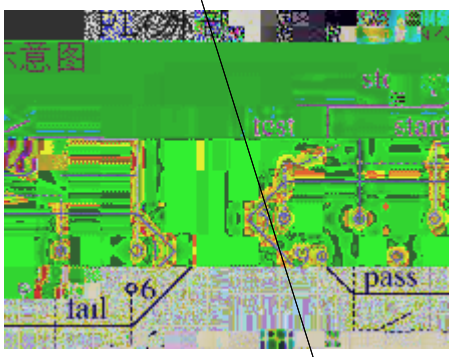
1 PROCESSING PIN5 PIN2

2 PASS PIN8 PIN9

3 FALL PIN6 PIN7

4 START OUT PIN3 PIN1

5 RESET OUT PIN4 PIN1) ~ я Ш ¾)



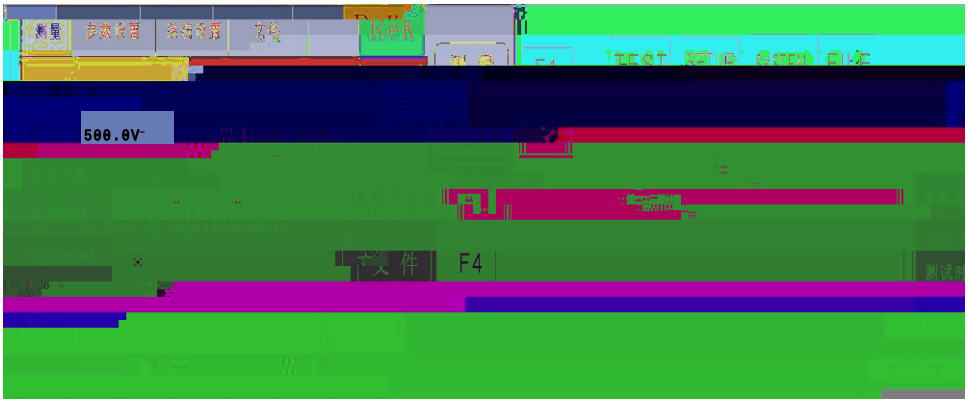
6.1

6.1.1

1	0K
20K	0K
3	0K
4	

6.2

“SETUP ” “F2”



6.2.1

“0” ↑ ↓

0-500V

6.2.2

“0” ↑ ↓

0-500V

6.2.3 “0”

↑ ↓

0-999.9S

6.2.4

“0” ↑ ↓

0-20.000mA

6.2.5

“0”　　↑　　↓

0-20.000mA

6.2.6

MAX(　　)　END

6.2.7　　HOT　　COLD

6.2.8 MD

MAX© Aî

MD-A GB/T12113-2003(IEC60990:1999) GB4793.1-2007(IEC61010-1:2001)

MD-B GB/T12113-2003(IEC60990:1999) GB4793.1-2007(IEC61010-1:2001)

MD-B1 GB4706.1-2005(IEC60335-1:2004) GB4943.1-2011(IEC60065:2005)
GB8898-2011(IEC60598-1:2014) GB7000.1-2015(IEC60598-1:2014)

MD-C GB/T12113-2003(IEC60990:1999) GB7000.1-2015(IEC60598-1:2014)

MD-D GB4943.1-2011(IEC60950-1:2005) GB4793.1-2007(IEC61010-1:2001)

MD-E GB4793.1-2007(IEC61010-1:2001)

MD-F GB7000.1-2015(IEC60598-1:2014)

MD-G GB4943.1-2011(IEC60065:2005) GB4793.1-2007(IEC61010-1:2001)

6.3

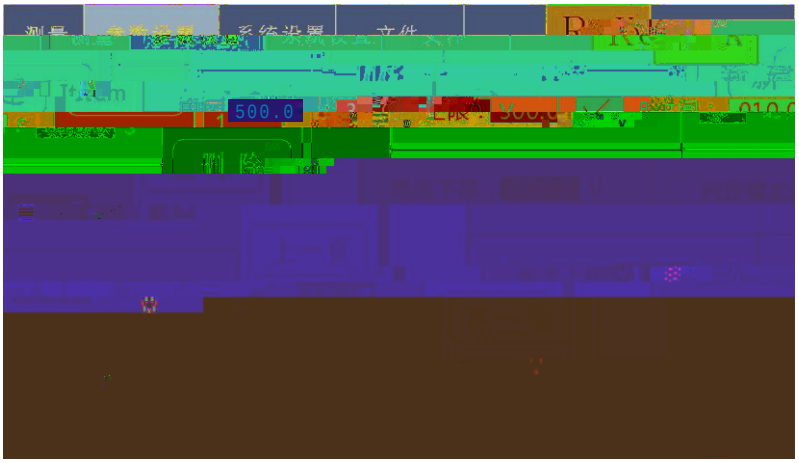
F2 SETUP

6.3.1

“ ↓ ” “ ENTER ”

0-500.0 V 200V

“2 0 0 0 ” “ ENTER ”

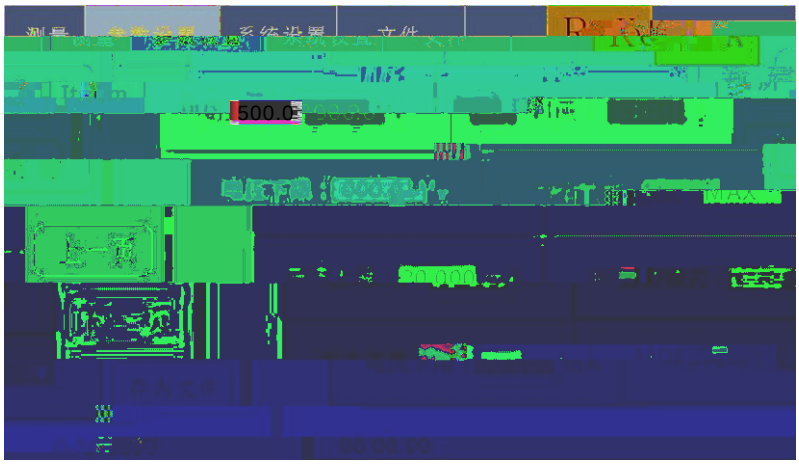


6.3.2

“ ↓ ” “ ENTER ”

0-500.0 V 200V

“2 0 0 0” “ ENTER ”

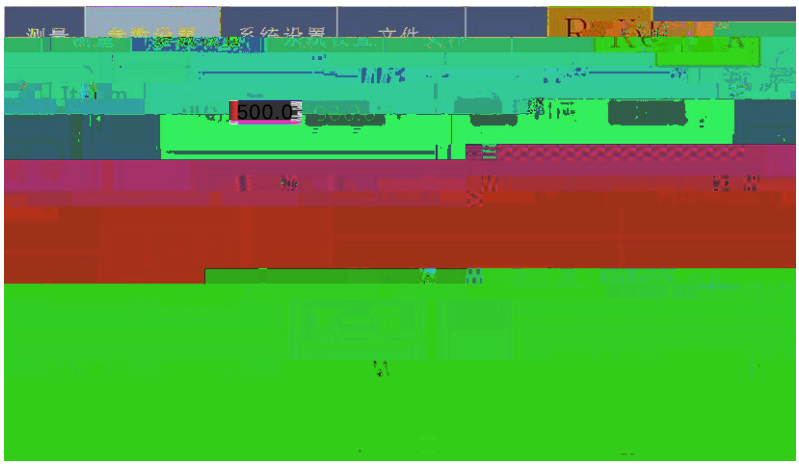


6.3.3

“ ↓ ” “ ENTER ”

0-20.000 mA

10mA “ 0 1 0 0 ” “ ENTER ”



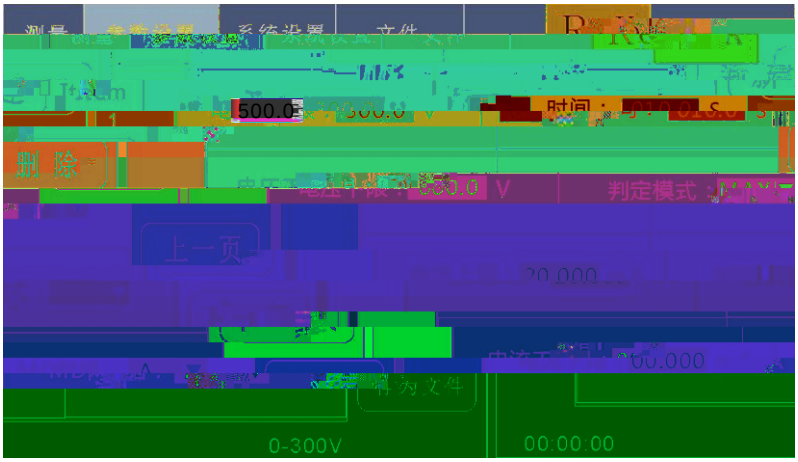
6.3.4

“ ↓ ” “ ENTER ”

0-20.000 mA

10mA “ 0 1 0 0 ” “ ENTER ”

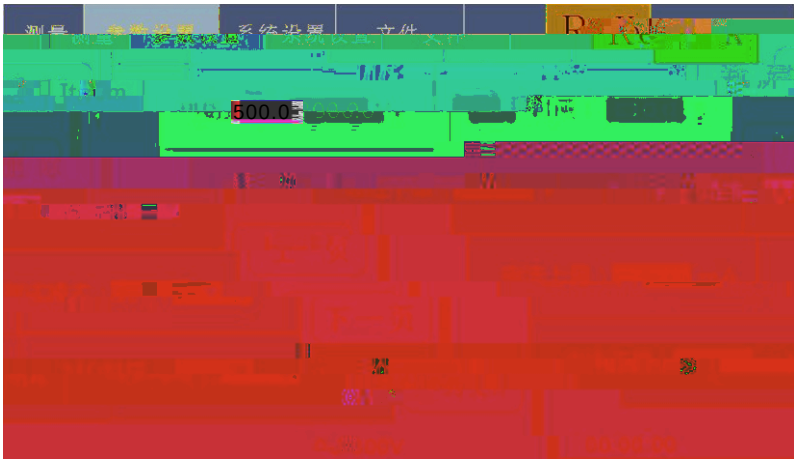
6.3.5 “ ↓ ”



“ENTER ” 0.1-999.9 S

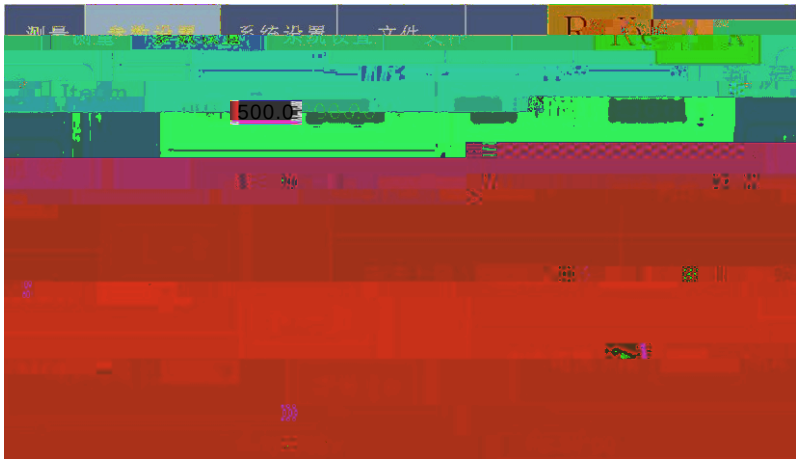
101.2 “1” “0” “1” “2” “ENTER ”

6.3.6 “ ↓ ”



“ENTER ” MAX END

6.3.7 “ ↓ ”



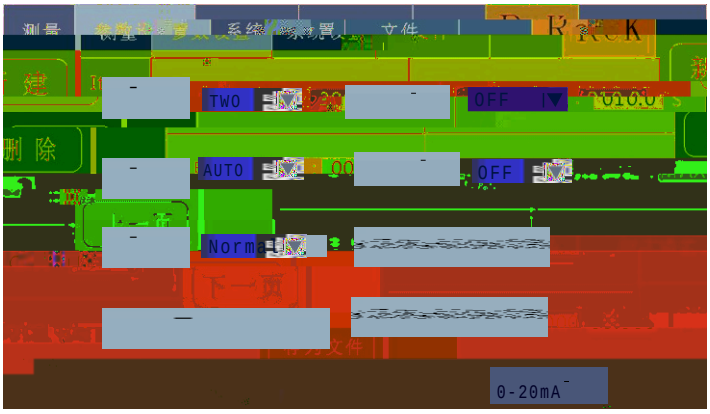
D

“ ENTER ”

HOT COLD

ENTER 9

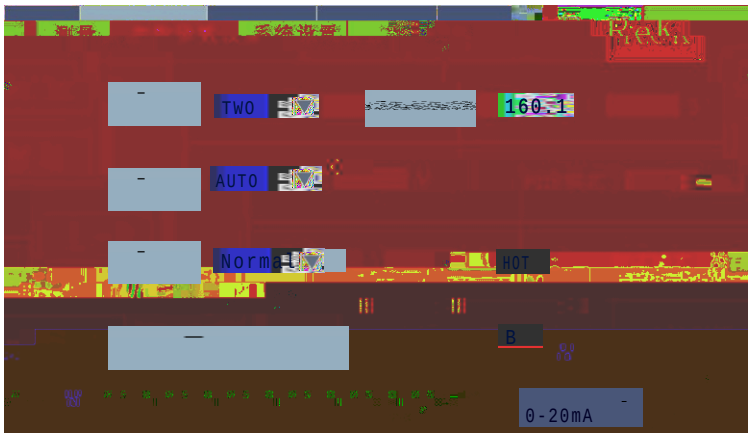
6.3.10 OFF/ON “ ↓ ”



OFF N

ON N

6.3.11 Auto/A/B/C



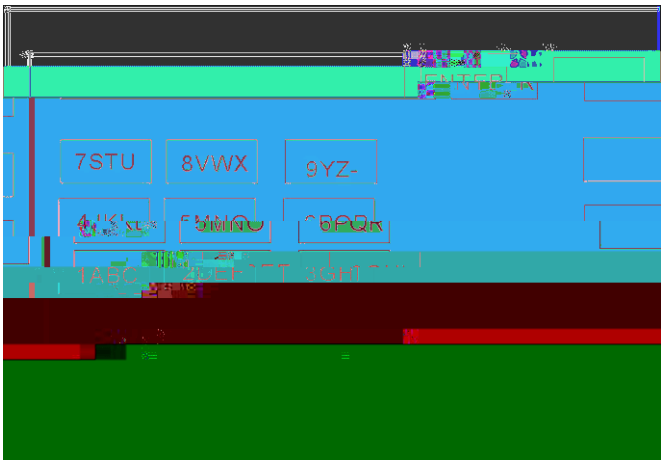
Auto: A B C

A A A

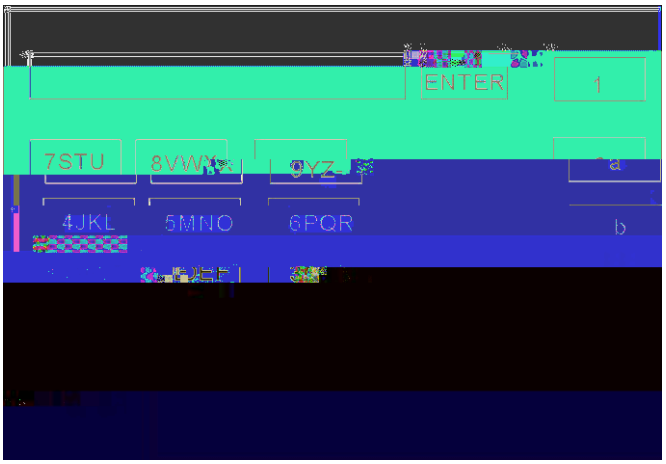
B B B

C C C

“F1” “ F1


7STU
8VWX
9YZ-
4JKL
5MNO
6PQR
1ABC

“ENTER”


ENTER
1
7STU
8VWX
9YZ-
4JKL
5MNO
6PQR

6.4

ON
按键声：
ON
系统时间

6.4.1

2 ON OFF ↑ ↓ ← →

6.4.2

2 ON OFF ↑ ↓ ← →

6.4.3

2 ON OFF ↑ ↓ ← →

6.4.4

↑ ↓ ← →

6.4.5

↑ ↓ ← →

6.4.6

2 Chinese English ↑ ↓ ← →

6.4.7

2 RS232 RS485 ↑ ↓ ← →

7.1 RS232C

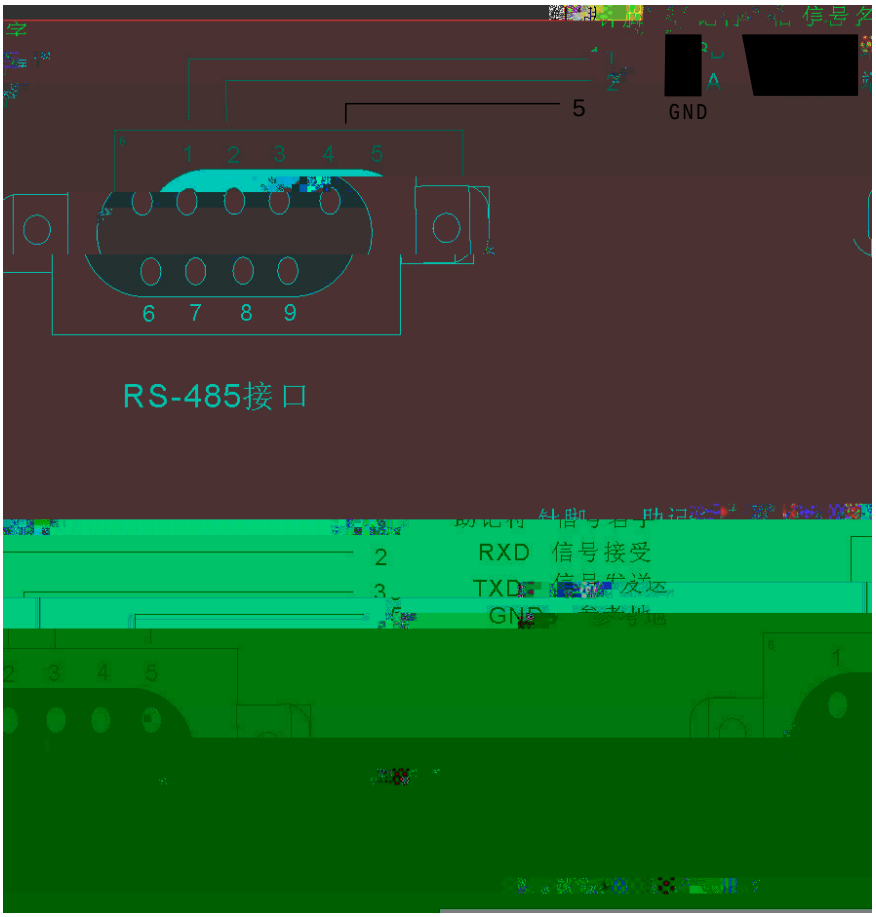
RS-232 RS “Recommended Standard”
232 (IEA) 1969
RS-232

RS232

9 7.1 RS232

7.2 RS485 /232C

RS232C RS485



7.3 USBTMC

USB ( ) USB

1	1001H	Sel Step	U16	2	/		RW	
2	1002H	Tol Step	U16	2			R	
3	1003H	New Step	U16	2			W	
4	1004H	Del Step	U16	2			W	
5	1005H	Mode	U16	2		7	RW	
6	100AH	Time	fllep	4		0.1-999.9 0	RW	LC
7	101CH	VoltUplim		4		0.1-300	RW	LC
8	101DH			4		0-299.9	RW	LC
9	101EH	LCCurrUplim		4	LC	0.001-30	RW	LC
10	101FH			4	LC	0-29.999	RW	LC
12	1020H 1021H	JudgeMode TestMode	U16	2 2		0 1 0 1	RW RW	LC LC
13								
14								
15								
16								
17								

23	1062	fetch one	U8	1			R	
24							R	
25			float	4			R	LC
26			float	4			R	LC
27							RW	LC

2.3 +

.

2.4. (word)

. 0001H

2.5 (Byte)

.

2.6 1-n.

1	1001H	Sel Step	U16	2	/		RW	
2	1002H	Tol Step	U16	2			R	
3	1003H	New Step	U16	2			W	
4	1004H	Del Step	U16	2			W	
5	1005H	Mode	U16	2		7	RW	
6	100AH	Time	float	4		0.1-999.9 0	RW	LC
7	101CH	VoltUplim	float	4		0.1-300	RW	LC
8	101DH	VoltUplim	float	4		0-299.9	RW	LC
9	101EH	LCCurrUplim	float	4	LC	0.001-30	RW	LC
10	101FH	LCCurrUplim	float	4	LC	0-29.999	RW	LC
11	1020H	JudgeMode	U16	2		0 1	RW	LC
12	1021H	TestMode	U16	2		0 1	RW	LC
13	1022H	MDNet	U16	2	MS-(9999	0-7	RW	LC
14	1023H	VSet	float	4		0-500V	RW	LC
15	1024H	Freq	float	4		40-65	RW	LC
16	1025H	PMODE	U16	2		0:3 1:2	RW	
17	1026H	PLGC	U16	2		0 Normal 1:A 2 B 3 C	RW	
18	1027H	FC	U16	2		0 Normal 1:A 2 B 3 C	RW	
23	1012	Fetch on	-) Ă	1	“ ĉ			
24							R	
				4			R	
				4			R	
							RW	

2.716 CRC

1 2 256

```
const BYTE chCRCHTalbe[]
=                                                                    // CRC

{
0x00, 0xC1, 0x81, 0x40, 0x01, 0xC0, 0x80, 0x41, 0x01, 0xC0, 0x80, 0x41,
0x00, 0xC1, 0x81, 0x40, 0x01, 0xC0, 0x80, 0x41, 0x00, 0xC1, 0x81, 0x40,
0x00, 0xC1, 0x81, 0x40, 0x01, 0xC0, 0x80, 0x41, 0x01, 0xC0, 0x80, 0x41,
0x00, 0xC1, 0x81, 0x40, 0x00, 0xC1, 0x81, 0x40, 0x01, 0xC0, 0x80, 0x41,
0x00, 0xC1, 0x81, 0x40, 0x01, 0xC0, 0x80, 0x41, 0x01, 0xC0, 0x80, 0x41,
0x00, 0xC1, 0x81, 0x40, 0x01, 0xC0, 0x80, 0x41, 0x00, 0xC1, 0x81, 0x40,
0x00, 0xC1, 0x81, 0x40, 0x01, 0xC0, 0x80, 0x41, 0x00, 0xC1, 0x81, 0x40,
0x01, 0xC0, 0x80, 0x41, 0x01, 0xC0, 0x80, 0x41, 0x00, 0xC1, 0x81, 0x40,
0x00, 0xC1, 0x81, 0x40, 0x01, 0xC0, 0x80, 0x41, 0x01, 0xC0, 0x80, 0x41,
0x00, 0xC1, 0x81, 0x40, 0x01, 0xC0, 0x80, 0x41, 0x00, 0xC1, 0x81, 0x40,
0x00, 0xC1, 0x81, 0x40, 0x01, 0xC0, 0x80, 0x41, 0x01, 0xC0, 0x80, 0x41,
0x00, 0xC1, 0x81, 0x40, 0x00, 0xC1, 0x81, 0x40, 0x01, 0xC0, 0x80, 0x41,
0x00, 0xC1, 0x81, 0x40, 0x01, 0xC0, 0x80, 0x41, 0x01, 0xC0, 0x80, 0x41,
0x00, 0xC1, 0x81, 0x40, 0x00, 0xC1, 0x81, 0x40, 0x01, 0xC0, 0x80, 0x41,
0x01, 0xC0, 0x80, 0x41, 0x00, 0xC1, 0x81, 0x40, 0x01, 0xC0, 0x80, 0x41,
0x00, 0xC1, 0x81, 0x40, 0x00, 0xC1, 0x81, 0x40, 0x01, 0xC0, 0x80, 0x41,
0x00, 0xC1, 0x81, 0x40, 0x01, 0xC0, 0x80, 0x41, 0x01, 0xC0, 0x80, 0x41,
0x00, 0xC1, 0x81, 0x40, 0x01, 0xC0, 0x80, 0x41, 0x00, 0xC1, 0x81, 0x40,
0x00, 0xC1, 0x81, 0x40, 0x01, 0xC0, 0x80, 0x41, 0x01, 0xC0, 0x80, 0x41,
0x00, 0xC1, 0x81, 0x40, 0x00, 0xC1, 0x81, 0x40, 0x01, 0xC0, 0x80, 0x41,
0x00, 0xC1, 0x81, 0x40, 0x01, 0xC0, 0x80, 0x41, 0x01, 0xC0, 0x80, 0x41,
0x00, 0xC1, 0x81, 0x40
};

//CRC

const BYTE chCRCLTalbe[]
=
{
0x00, 0xC0, 0xC1, 0x01, 0xC3, 0x03, 0x02, 0xC2, 0xC6, 0x06, 0x07, 0xC7,
0x05, 0xC5, 0xC4, 0x04, 0xCC, 0x0C, 0x0D, 0xCD, 0x0F, 0xCF, 0xCE, 0x0E,
0x0A, 0xCA, 0xCB, 0x0B, 0xC9, 0x09, 0x08, 0xC8, 0xD8, 0x18, 0x19, 0xD9,
0x1B, 0xDB, 0xDA, 0x1A, 0x1E, 0xDE, 0xDF, 0x1F, 0xDD, 0x1D, 0x1C, 0xDC,
0x14, 0xD4, 0xD5, 0x15, 0xD7, 0x17, 0x16, 0xD6, 0xD2, 0x12, 0x13, 0xD3,
0x11, 0xD1, 0xD0, 0x10, 0xF0, 0x30, 0x31, 0xF1, 0x33, 0xF3, 0xF2, 0x32,
0x36, 0xF6, 0xF7, 0x37, 0xF5, 0x35, 0x34, 0xF4, 0x3C, 0xFC, 0xFD, 0x3D,
0xFF, 0x3F, 0x3E, 0xFE, 0xFA, 0x3A, 0x3B, 0xFB, 0x39, 0xF9, 0xF8, 0x38,
0x28, 0xE8, 0xE9, 0x29, 0xEB, 0x2B, 0x2A, 0xEA, 0xEE, 0x2E, 0x2F, 0xEF,
0x2D, 0xED, 0xEC, 0x2C, 0xE4, 0x24, 0x25, 0xE5, 0x27, 0xE7, 0xE6, 0x26,
0x22, 0xE2, 0xE3, 0x23, 0xE1, 0x21, 0x20, 0xE0, 0xA0, 0x60, 0x61, 0xA1,
0x63, 0xA3, 0xA2, 0x62, 0x66, 0xA6, 0xA7, 0x67, 0xA5, 0x65, 0x64, 0xA4,
0x6C, 0xAC, 0xAD, 0x6D, 0xAF, 0x6F, 0x6E, 0xAE, 0xAA, 0x6A, 0x6B, 0xAB,
0x69, 0xA9, 0xA8, 0x68, 0x78, 0xB8, 0xB9, 0x79, 0xBB, 0x7B, 0x7A, 0xBA,
0xBE, 0x7E, 0x7F, 0xBF, 0x7D, 0xBD, 0xBC, 0x7C, 0xB4, 0x74, 0x75, 0xB5,
```

```
    0x77, 0xB7, 0xB6, 0x76, 0x72, 0xB2, 0xB3, 0x73, 0xB1, 0x71, 0x70, 0xB0,
    0x50, 0x90, 0x91, 0x51, 0x93, 0x53, 0x52, 0x92, 0x96, 0x56, 0x57, 0x97,
    0x55, 0x95, 0x94, 0x54, 0x9C, 0x5C, 0x5D, 0x9D, 0x5F, 0x9F, 0x9E, 0x5E,
    0x5A, 0x9A, 0x9B, 0x5B, 0x99, 0x59, 0x58, 0x98, 0x88, 0x48, 0x49, 0x89,
    0x4B, 0x8B, 0x8A, 0x4A, 0x4E, 0x8E, 0x8F, 0x4F, 0x8D, 0x4D, 0x4C, 0x8C,
    0x44, 0x84, 0x85, 0x45, 0x87, 0x47, 0x46, 0x86, 0x82, 0x42, 0x43, 0x83,
    0x41, 0x81, 0x80, 0x40

    };
```

2

```
WORD CRC16(BYTE* pchMsg, WORD wDataLen)

{

BYTE chCRCHi = 0xFF; //    CRC

   BYTE chCRCLo = 0xFF; //    CRC

WORD wIndex;                          // CRC

while (wDataLen--)

  {

//      CRC

wIndex = chCRCLo ^ *pchMsg++ ;

chCRCLo = chCRCHi ^ chCRCHTalbe[wIndex];

  chCRCHi = chCRCLTalbe[wIndex] ;

}

  return ((chCRCHi << 8) | chCRCLo) ;
```

SCPI

8.1

8.1.1

8.1.2 ASCII

8.1.3 “ <???> ” ASCII

8.1.4

8.1.5 **NL** \n **10** **0 × 0A**
IEEE-488 ^**END** **EOI**

8.2 SCPI

RK9950C

- DISPlay
- SYSTem
- FUNCtion
- MMEM
- FETC

8.3 DISPLAY

DISPlay

DISPLay:PAGE

DISPlay PAGE <page name>

<page

T ↕ S Ě

Ă

PAGE

DISPlay PAGE?

TEST32

8.4 FUNCtion

8.4.1 FUNCtion

8.4.2 PROG

FUNC:STARt

FUNC:STOP

FUNC:SOUR:ITEM#:CLEAr ITEM

G

ITEM

ÖtA Ö

0-500.0

0.1

V

ITEM 500V

FUNCE SOURce ITEM1:VUPLM 500.0

FUNCE SOURce ITEM1:VUPLM

FUNC:SOURce ITEM#:VDNLM /

--

FUNCE SOURce ITEM#:VDNLM< >

FUNCE SOURce ITEM#:VDNLM

-- < >

0-500.0

0.1

V

ITEM 100V

FUNCE SOURce ITEM#:VDNLM 100.0

FUNCE SOURce ITEM#:VDNLM

FUNC:SOURce ITEM#:IUPLM /

--

FUNCE SOURce ITEM#:IUPLM< >

FUNCE SOURce ITEM#:IUPLM

-- < >

0-20.000

0.001

mA

ITEM 10.000mA

FUNCE SOURce ITEM1:IUPLM 10.000

FUNCE SOURce ITEM1:IUPLM

FUNC:SOURce ITEM#:IDNLM /

--

FUNCE SOURce ITEM#:IDNLM< >

FUNCE SOURce ITEM#:IDNLM

-- < >

0-20.000

0.001

mA

ITEM 10.000mA

FUNCE SOURce ITEM1:IDNLM 10.000

FUNCE SOURce ITEM1:IDNLM

FUNC:SOURce ITEM#:TTIMe /

--

FUNCE SOURce:ITEM#:TTIMe< >

FUNCE SOURce:ITEM#:TTIMe

-- < >

0-999.9

0.1

S

ITIM 1S

FUNCE SOURce:ITEM1:TTIMe 1

FUNCE SOURce:ITEM1:TTIMe

1

FUNC:SOURce ITEM#:JUDGe /

--

FUNCE SOURce:ITEM#:JUDGe< >

FUNCE SOURce:ITEM#:JUDGe

-- < >

0 1(0 END 1 MAX)

ITIM 1

FUNCE SOURce:ITEM1:JUDGe 1

FUNCE SOURce:ITEM1:JUDGe

1

FUNC:SOURce ITEM#:TMODe /

--

FUNCE SOURce:ITEM#:TMODe< >

FUNCE SOURce:ITEM#:TMODe

-- < >

0 1(0 COLD 1 HOT)

ITIM 1

FUNCE SOURce:ITEM1:TMODe 1

FUNCE SOURce:ITEM1:TMODe

1

FUNC:SOURce ITEM#:MDNEt /

--

FUNCE SOURce:ITEM#:MDNEt< >

FUNCE SOURce:ITEM#:MDNEt

-- < >

1-8(1 MD-A 2 MD-B 3 MD-B1 4 MD-C 5 MD-D 6 MD-E 7 MD-F 8 MD-G)

ITIM 1

FUNCE SOURce:ITEM1:MDNEt 1

FUNCE SOURce:ITEM1:MDNEt

1

FUNCtion:SOURce:ITEM#:PMODE

FUNCtion:SOURce:ITEM#:PMODE < >

FUNCtion:SOURce:ITEM#:PMODE?

-- < >

0/1

0: 1

1

FUNCtion:SOURce:ITEM1:PMODE 0

1

FUNCtion:SOURce:ITEM1:PMODE?

0

FUNCtion:SOURce:ITEM#:PLGC

FUNCtion:SOURce:ITEM#:PLGC < >

FUNCtion:SOURce:ITEM#:PLGC?

-- < >

0/1/2/3/4

0: AUTO 1 2: A 3 B 4 C

1 PLGC AUTO

FUNCtion:SOURce:ITEM#:PLGC 0

1 PLGC

FUNCtion:SOURce:ITEM#:PLGC?

0

FUNCtion:SOURce:ITEM#:FC

FUNCtion:SOURce:ITEM#:FC < >

FUNCtion:SOURce:ITEM#:FC?

-- < >

0/1/2/3

0: 1 A 2: B 3 C

1

FUNCtion:SOURce:ITEM#:FC 0

1

FUNCtion:SOURce:ITEM#:FC?

0

FUNCtion:SOURce:ITEM#:NCF

FUNCtion:SOURce:ITEM#:NCF < >

FUNCtion:SOURce:ITEM#:NCF?

-- < >

0/1

0: OFF N 1 ON N

1

FUNCtion:SOURce:ITEM#:NCF 0

1

FUNCtion:SOURce:ITEM#:NCF?

0

FUNCtion:SOURce:ITEM#:GCF **PE**

FUNCtion:SOURce:ITEM#:GCF < >

FUNCtion:SOURce:ITEM#:GCF?

-- < >

0/1

0: OFF N 1 ON N

1 PE

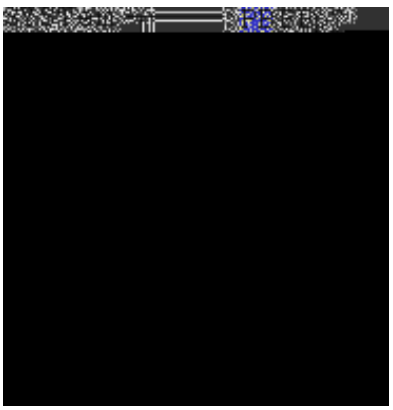
FUNCtion:SOURce:ITEM#:GCF 0

1 PE

FUNCtion:SOURce:ITEM#:GCF?

0

8.4.3 SYSTEM



SYSTem PBEE/FBEE/KBEE

/ / /

--

SYST PBEE<ON/OFF>OR<1/0>

SYST PBEE

-- <ON/OFF>

0 OFF ,1 ON

BEEP 1

SYST:BEEP 1

--

SYST:BEEP? 1

SYSTem REset

--

SYST RES

8.4.4 MMEM

MMEM SAVE

--

MMEM SAVE< >

-- < >

MMEM LOAD

--

MMEM LOAD< >

-- < >

SCPI flash

MMEM:SAVE
""
MMEM:SAVE "AC01"

MMEM:LOAD
""
MMEM:LOAD "AC01"

PC USB

8.4.5 FETCH

FETCH

--

FETCh AUTO

FETCh:AUTO?

-- <ON/OFF>or <1/0>

0 OFF 1 ON

--

ON

FETCh AUTO ON FETCh AUTO 1

--

FETCh

FETCh

A mΩ

1

2

3 + uyly 0X0A

1 ASCII

2 FCUN

STEP1 : I :30A 100mΩ PASS.

STEP1 I :30,100,PASS SPACE

8.4.6

***IDN**

<manufacturer>,<model>,<firmware><NL^END>

<manufacturer>

9.1

9.1.1

9.1.2 30

9.1.3 8 10

9.1.4

9.2

9.3

9.3.1 USB U

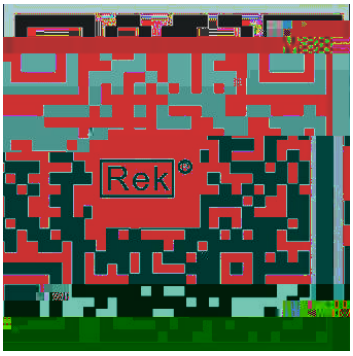
9.3.2 STOP+START

10.1

1

10.2

1	1
2	1
3	1
4	1
5 RS232 USB	1
6 USB	1
7 RS232	1
9	1



技术