1.RS-232 Command:

Baudrate：115200

Data width：8bit

Parity: none

Stop: 1bit

Port switch command package length is 18byte:

[0x50+0x56+0x54+0x02+0x03+**inputport(1~5)**+0x00+0x01+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+

0x00+**checksum**]

All you need to change is just "input port" , "checksum"

Checksum=(0x50+0x56+0x54+0x02+0x03+**inputport(1~5)**+0x00+0x01+0x00+0x00+0x00+0x00+0x00+0x00+0

x00+0x00+0x00)

inputport(1~5): HDMI 1, HDMI 2, HDMI 3,DP 4, VGA 5

For example: Set output form input 2 command:

50 56 54 02 03 02 00 01 00 00 00 00 00 00 00 00 00 02

Port switch query package length is 18byte:

This is a query command which mean you must send query package and then receive an answer.

For example: Query output

Send package:　　　50 56 54 02 01 01 00 00 00 00 00 00 00 00 00 00 00 FE

Receive package:　　50 56 54 02 01 01 00 02 00 00 00 00 00 00 00 00 00 00

The blue 02 mean the input port number, it should be 1~5.

Emb/Ext command package length is 18byte:

[0x50+0x56+0x54+0x24+0x07+Ext/Emb0FF0+0x00+inputport(1~5)+0x00+0x00+0x00+0x00+0

x00+0x00+0x00+0x00+0x00+checksum]

All you need to change is just "**input port**" , "**ExtEmb0FF0**" ,"**checksum**"

Checksum=0x100–(0x50+0x56+0x54+0x02+0x03+ExtEmb0FF0+0x00+inputport(1~5)+0x00+0x

00+0x00+0x00+0x00+0x00+0x00+0x00+0x00)

inputport(1~5): HDMI 1, HDMI 2, HDMI 3,DP 4, VGA 5

ExbEmb0FF0: 0xF0 — Ext, 0x0F – Emb

For example: Set output form input 2's Emb command:

50 56 54 24 07 0F 00 02 00 00 00 00 00 00 00 00 00 36

Emb/Ext query package length is 18byte:

This is a query command which mean you must send query package and then receive an answer.

For example: Query Emb/Ext

Send package:　　　50 56 54 24 08 00 00 01 00 00 00 00 00 00 00 00 00 27

Receive package:　　50 56 54 02 08 0F 00 01 00 00 00 00 00 00 00 00 00 36

The blue 01 mean the input port number(HDMI 1), it should be 1~5. The blue 0F mean Emb.

Static/DHCP configure package length is 18byte:

[0x50+0x56+0x54+0x22+0x0A+IPStatic/DHCP+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+checksum]

All you need to change is just "IPStatic/DHCP", "checksum"

For example: Set IP Static command:

50 56 54 22 0A F0 00 00 00 00 00 00 00 00 00 00 00 16

Static/HDCP   query package length is 18byte:

This is a query command which mean you must send query package and then receive an answer.

For example: Query IP Static/HDCP

Send package: 50 56 54 22 0B 00 00 00 00 00 00 00 00 00 00 00 00 27

Receive package: 50 56 54 22 0B 0F 00 00 00 00 00 00 00 00 00 00 00 36

The blue F0 mean StaticIP, if 0F mean DynamicIP;

IP Address configure package length is 18byte:

[0x50+0x56+0x54+0x22+0x0E+IP1+IP2+IP3+IP4+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+checksum]

All you need to change is just **"IP1","IP2","IP3","IP4", "checksum"**

For example: Set IP Address 192.168.1.100 command:

50 56 54 22 0E C0 A8 01 64 00 00 00 00 00 00 00 00 F7

IP Address query package length is 18byte:

This is a query command which mean you must send query package and then receive an answer.

For example: Query IP Address

Send package: 50 56 54 22 0F 00 00 00 00 00 00 00 00 00 00 00 00 2B

Receive package: 50 56 54 22 0F C0 A8 01 64 00 00 00 00 00 00 00 00 F8

The blue value mean IP Address. C0 A8 01 64 →192.168.1.100

Input auto configure package length is 18byte:

[0x50+0x56+0x54+0x24+0x01+**InputAutoON/OFF**+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+**checksum**]

All you need to change is just "**InputAutoON/OFF**",, "checksum"

For example: Set Input Auto OFF command:

50 56 54 24 01 F0 00 00 00 00 00 00 00 00 00 00 00 0F

Input auto query package length is 18byte:

This is a query command which mean you must send query package and then receive an answer.

For example: Query input auto

Send package: 50 56 54 24 02 00 00 00 00 00 00 00 00 00 00 00 00 20

Receive package: 50 56 54 24 02 F0 00 00 00 00 00 00 00 00 00 00 00 10

The blue F0 mean input auto OFF, if 0F mean input auto ON;

Aspect ratio configure package length is 18byte:

[0x50+0x56+0x54+0x24+0x11+**AspectRatioIndex**+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+**checksum**]

All you need to change is just "**AspectRatioIndex**",, "checksum"

For example: Set Aspect Ratio 4:3 command:

50 56 54 24 11 01 00 00 00 00 00 00 00 00 00 00 00 30

Aspect ratio query package length is 18byte:

This is a query command which mean you must send query package and then receive an answer.

For example: Query Aspect ratio

Send package: 50 56 54 24 12 00 00 00 00 00 00 00 00 00 00 00 00 30

Receive package: 50 56 54 24 12 01 00 00 00 00 00 00 00 00 00 00 00 31

The blue 01 mean Aspect ratio 4:3, if 02 mean Aspect ratio 16:9;

Enable Beep configure package length is 18byte:

[0x50+0x56+0x54+0x06+0x01+**EnableBeepON/OFF**+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+**checksum**]

All you need to change is just "**EnableBeepON/OFF**",, "checksum"

For example: Set Enable Beep OFF command:

50 56 54 06 01 F0 00 00 00 00 00 00 00 00 00 00 00 F1

Enable Beep query package length is 18byte:

This is a query command which mean you must send query package and then receive an answer.

For example: Query Enable Beep

Send package: 50 56 54 01 0B 00 00 00 00 00 00 00 00 00 00 00 00 06

Receive package: 50 56 54 01 0B 00 00 FF 00 00 00 00 00 00 00 00 00 05

The blue FF mean Enable Beep OFF, if 00 mean Enable Beep ON;

Power On/Off configure package length is 18byte:

[0x50+0x56+0x54+0x08+0x0B+PowerON/OFF+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+checksum]

All you need to change is just "**PowerON/OFF**",, "checksum"

For example: Set Power OFF command:

50 56 54 08 0B F0 00 00 00 00 00 00 00 00 00 00 00 FD

Power On/Off query package length is 18byte:

This is a query command which mean you must send query package and then receive an answer.

For example: Query Enable Beep

Send package:　　50 56 54 08 0C 00 00 00 00 00 00 00 00 00 00 00 00 0E

Receive package:　50 56 54 08 0C 0F 00 00 00 00 00 00 00 00 00 00 00 1D

The blue 0F mean Power OFF, if F0 mean Power ON;

Resolution configure package length is 18byte:

[0x50+0x56+0x54+0x0A+0x06+**resolution(1~13)**+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+**checksum**]

All you need to change is just "iresolution", checksum"

Checksum=0x100 – (0xa5+0x5b+0x02+0x03+**resolution(1~13)**+0x00+0x00+0x00+0x00+0x00+0x00+0x00)

resolution(1~13)

　　3840x2160@60,

　　3840x2160@30,

　　1920x1080@60,

　　1920x1080@50,

　　1280x720@60,

　　1280x720@50,

　　1920x1200@60,

　　1680x1050@60,

　　1400x1050@60,

　　1360x768@60,

　　1280x800@60,

　　1024x768@60,

　　AUTO

For example: Set output resolution 1920x1080@60 command:

50 56 54 0A 06 03 00 03 00 00 00 00 00 00 00 00 00 10

Resolution query package length is 18byte:

This is a query command which mean you must send query package and then receive an answer.

For example: Query **Resolution**

Send package:　　50 56 54 90 06 00 00 00 00 00 00 00 00 00 00 00 00 90

Receive package:　50 56 54 90 06 03 00 00 00 00 00 00 00 00 00 00 00 93

The blue 03 mean the resolution is 1920x1080@60, it should be 1~13.

PQ regulate package length is 18byte:

[0x50+0x56+0x54+0x08+**TYPE(1~4)**+**DATA**+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+**checksum**]

All you need to change is just "TYPE", "DATA", "checksum"

Checksum=0x100   –

(0x50+0x56+0x54+0x08+**TYPE(1~4)**+**DATA**+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00)

TYPE（1~4）: Contrast，Brightness，Color，Sharpness

Contrast and Brightness **DATA   from 0 to 100;** Color **DATA from 0 to 60;**Sharpness **DATA from 0 to 20**

For example: Set Contrast 72 command:

50 56 54 08 01 48 00 48 00 00 00 00 00 00 00 00 00 93

PQ query package length is 13byte:

This is a query command which mean you must send query package and then receive an answer.

For example: Query Contrast

Send package: 50 56 54 09 01 00 00 00 00 00 00 00 00 00 00 00 00 04

Receive package: 50 56 54 09 01 48 00 00 00 00 00 00 00 00 00 00 00 4C

The red 01 mean **query** the Contrast , it should be 1~4(Contrast，Brightness，Color，Sharpness)

The blue 48 mean the Contrast is 72 , it should be 0~100.

Reset sys configure package length is 18byte:

50 56 54 08 0A 00 00 00 00 00 00 00 00 00 00 00 00 0C

USB Upgrade configure package length is 18byte:

50 56 54 07 07 00 00 00 00 00 00 00 00 00 00 00 00 08

EDID configure package length is 18byte:

[0x50+0x56+0x54+0x03+0x02+**EDIDindex**+0xF0+0x01+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+**checksum**]

All you need to change is just "**EDIDindex**",, "checksum"

For example: Set EDID 2.0 command:

50 56 54 03 02 02 F0 01 00 00 00 00 00 00 00 00 00 F2

EDID query package length is 18byte:

This is a query command which mean you must send query package and then receive an answer.

For example: Query EDID

Send package: 50 56 54 01 0C 01 00 00 00 00 00 00 00 00 00 00 00 08

Receive package: 50 56 54 01 0C 01 00 01 00 00 00 00 00 00 00 00 00 09

The blue 01 mean EDID 1.4

EDID（1~3） EDID 1.4，EDID 2.0，EDID AUTO

Audio Mute configure package length is 18byte:

[0x50+0x56+0x54+0x17+0x08+**MuteON/OFF**+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+**checksum**]

All you need to change is just "**MuteON/OFF**",, "checksum"

For example: Set Mute ON command:

50 56 54 17 08 0F 00 0F 00 00 00 00 00 00 00 00 00 37

Audio Mute query package length is 18byte:

This is a query command which mean you must send query package and then receive an answer.

For example: Query **Audio Mute**

Send package: 50 56 54 17 09 00 00 00 00 00 00 00 00 00 00 00 00 1A

Receive package: 50 56 54 17 09 F0 00 00 00 00 00 00 00 00 00 00 00 0A

The blue F0 mean Audio Mute OFF,if 0F mean Audio Mute ON.

Audio + configure package length is 18byte:

50 56 54 17 07 01 00 00 00 00 00 00 00 00 00 00 00 19

Audio - configure package length is 18byte:

50 56 54 17 07 02 00 00 00 00 00 00 00 00 00 00 00 1A

Audio value configure package length is 18byte:

[0x50+0x56+0x54+0x17+0x17+**AudioValue**+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+**checksum**]

All you need to change is just "**AudioValue**",, "checksum"

For example: Set Audio value 81 command:

50 56 54 17 17 51 00 00 00 00 00 00 00 00 00 00 00 79

Audio value query package length is 18byte:

This is a query command which mean you must send query package and then receive an answer.

For example: Query Audio value

Send package: 50 56 54 17 18 00 00 00 00 00 00 00 00 00 00 00 00 29

Receive package: 50 56 54 17 18 51 00 00 00 00 00 00 00 00 00 00 00 7A

The blue 51 mean Audio value = 81;

MIC Mute configure package length is 18byte:

[0x50+0x56+0x54+0x24+0x0A+MuteON/OFF+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+checksum]

All you need to change is just "MuteON/OFF",, "checksum"

For example: Set Mute ON command:

50 56 54 24 0A 0F 00 0F 00 00 00 00 00 00 00 00 00 46

MIC Mute query package length is 18byte:

This is a query command which mean you must send query package and then receive an answer.

For example: Query MIC Mute

Send package: 50 56 54 24 0B 00 00 00 00 00 00 00 00 00 00 00 00 29

Receive package: 50 56 54 24 0B 0F 00 00 00 00 00 00 00 00 00 00 00 00 38

The blue F0 mean MIC Mute OFF, if 0F mean Audio Mute ON.

MIC + configure package length is 18byte:

50 56 54 24 0C 01 00 00 00 00 00 00 00 00 00 00 00 2B

MIC - configure package length is 18byte:

50 56 54 24 0C 02 00 00 00 00 00 00 00 00 00 00 00 2C

MIC Volume configure package length is 18byte:

[0x50+0x56+0x54+0x24+0x0D+AudioValue+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+0x00+checksum]

All you need to change is just "AudioValue",, "checksum"

For example: Set MIV Volume 50 command:

50 56 54 24 0D 32 00 00 00 00 00 00 00 00 00 00 00 5D

MIC Volume query package length is 18byte:

This is a query command which mean you must send query package and then receive an answer.

For example: Query MIC Volume

Send package: 50 56 54 24 0E 00 00 00 00 00 00 00 00 00 00 00 00 2C

Receive package: 50 56 54 24 0E 32 00 00 00 00 00 00 00 00 00 00 00 5E

The blue 32 mean MIC Volume = 50;

MIC Mixer On configure package length is 18byte:

50 56 54 24 09 01 00 00 00 00 00 00 00 00 00 00 00 28

MIC Mixer Auto configure package length is 18byte:

50 56 54 24 09 03 00 00 00 00 00 00 00 00 00 00 00 2A

MIC Mixer Off configure package length is 18byte:

50 56 54 24 09 02 00 00 00 00 00 00 00 00 00 00 00 29

MIC Mixer query package length is 18byte:

This is a query command which mean you must send query package and then receive an answer.

For example: Query MIC Mixer

Send package: 50 56 54 24 15 00 00 00 00 00 00 00 00 00 00 00 33
Receive package: 50 56 54 24 15 02 00 00 00 00 00 00 00 00 00 00 00 35

The blue 02 mean MIC Mixer Off,   if 01 means   MIC Mixer On,   if 03 means   MIC Mixer Auto;

IR command：
NEC code
#define SYSTEM_CODE   0x08

#define IR_KEY_POWER	0x4D
#define IR_KEY_Mute	0x0B

#define IR_KEY_HD_1	0x09
#define IR_KEY_HD_2	0x54
#define IR_KEY_HD_3	0x47
#define IR_KEY_HD_4	0x42
#define IR_KEY_VGA	0x08
#define IR_KEY_AUTO	0x48
#define IR_KEY _LEFT	0x4B
#define IR_KEY _RIGHT	0x43

#define IR_KEY_ADJ	0x0C
#define IR_KEY_RES	0x0F

#define IR_KEY_UP	0x19
#define IR_KEY_DOWN	0x0D
#define IR_KEY_LEFT	0x55
#define IR_KEY_RIGHT	0x4E
#define IR_KEY_OK	0x57
#define IR_KEY_Menu	0x4C
#define IR_KEY_Exit	0x56

#define IR_KEY_VOL-	0x40
#define IR_KEY_ VOL+	0x10
#define IR_KEY_MIC-	0x11
#define IR_KEY_ MIC+	0x52