IP Control Guide

Date	Version No.	Updates
9th Sep, 2024	V1.0	Improved layout for clarity.
6th Apr, 2025	V1.1	• Corrected BM/GM series command format to **ASCII**. • Added command format summary table. • Clarified command examples for BM/GM series. • Improved layout for clarity.

Introduction

This guide provides instructions for setting up and using IP control for Hisense digital signage displays. IP control allows you to manage these displays over a local area network (LAN) using TCP/IP network protocols. Commands to control the display are sent in different formats depending on the product series.

Product Series	Command Format	Default Port
E series	HEX	5000
BM/GM series	ASCII	8088
DM/GM50D series	HEX	8000

Prerequisites

- Stable local area network (LAN) with all devices connected.
- A computer or control device with IP control software installed.
- Basic networking knowledge.
- Ensure all displays and control devices are on the same LAN.

Network Setup

- Connect all displays and control devices to the same LAN.
- Assign static IP addresses to displays for stable control access.
- Check IP addresses via display settings or router interface.

Understanding IP Control Protocols

- **TCP/IP Protocol:** All Hisense displays use TCP/IP for communication.
- **Command Format:** Depends on the series:
  - E series and DM/GM50D: HEX string commands.
  - BM/GM: ASCII text commands.

E series

Product Series	Android	Product Model	Firmware Version
E	8.0	43B4E31T	FBV02.03
		55B4E31T	FBV01.08
		65B4E31T	FBV02.04
		75B4E30T (A000)	FBV02.06
		86B4E30T	FBV01.08

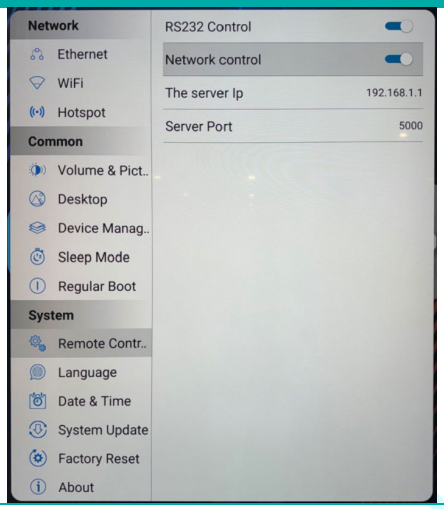
Series-Specific Instructions

- **Default port:** 5000
- **Sample Command:** Power off the display
  - A60100000004011801BB
- Use TCP client software (e.g., Docklight Scripting).
- Enter HEX string commands and send.

Starting the IP Control Server

1. Lauch the IP Control on the display (Setting->Remote Control->Network control->Enable) (A1).
2. Setting the Port Number: The default port number for IP control is **5000**. If this port is occupied, choose a port between **5000-12000**.

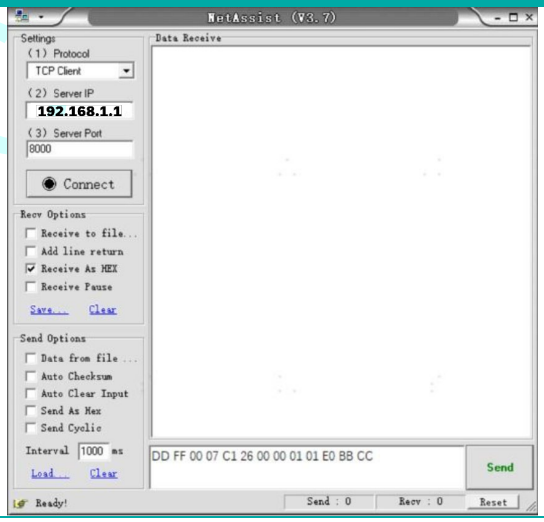
A1



Connecting a Client to the IP Control Server

1. Use a client application such as Net Assist (B1).
2. Select “TCP Client” mode.
3. Enter the server IP address and port number.
4. Click “Connect” to establish a connection.

B1



Command Table

Name	Set	Get	Code	Example (PC -> HISENSE DISPLAY)	Example (HISENSE DISPLAY -> PC)
Set Screen Aspect Ratio	√		0x3A	0xA6 0x01 0x00 0x00 0x00 0x04 0x01 0x3A data[1] checksum data[1]: FuLL-0x00 Real-0x01 4:3-0x02 14:9-0x03 eg: Aspect Ratio is FuLL A601000000004013A0098	210100000401000025
Get Screen Aspect Ratio		√	0x3B	A601000000003013B9E data[1]: FuLL-0x00 Real-0x01 4:3-0x02 14:9-0x03	Current Aspect Ratio is FuLL 2101000004013B001E
Set Video Params	√		0x32	0xA6 0x01 0x00 0x00 0x00 0x0A 0x01 0x32 data[1] data[2] data[3] data[4] data[5] data[6] data[7] checksum data[1]: PICMODE In OSD data[2]: Brightness in OSD (0-100), data[3]: Contrast (0-100) data[4]: Colour Temperature (0-normal /1-cool/2-warm) data[5]: Overscan(0-close/1-open) data[6]: PCMode(0-Auto/1-PC/2-video) data[7]: Sharpness in OSD(0-100) PICMODE: HI_MW_PICMODE_USER = 3, HI_MW_PICMODE_AIRPORT = 7, HI_MW_PICMODE_HOTEL = 8, HI_MW_PICMODE_DINING = 9, HI_MW_PICMODE_SECURITY = 10, HI_MW_PICMODE_OFFICE = 11, HI_MW_PICMODE_OUTDOOR = 12 ex: PICMODE is user, brightness 32, contrast 32, cool, overscan on, PC, Sharpness 50 -- IP Control Only A6010000000A013203202001010132AE	210100000401000025
Get Video Params		√	0x33	A601000000003013396	PICMODE is user, brightness 32, contrast 32, cool, overscan on, PC, Sharpness 50 210100000A013303202001010 13226
Set Remote Control Lock Mode	√		0x1C	0xA6 0x01 0x00 0x00 0x00 0x04 0x01 0x1C data[1] checksum data[1] : unlock -0x01 lock - 0x02 ex: A601000000004011C01BF - unlock A601000000004011C02BC - lock	210100000401000025
Get Remote Control Lock Mode		√	0x1D	A601000000003011DB8	Current state is lock 2101000004011D02A
Set Schedule for power on/off	√		0x5A	0xA6 0x01 0x00 0x00 0x00 0x0C 0x01 0x5A data[1] data[2] data[3] data[4] data[5] data[6] data[7] data[8] data[1]: bit 7- bit 4: 1 to 7	210100000040100025

<table>
<tr><th>Name</th><th>Set</th><th>Get</th><th>Code</th><th>Example (PC -> HISENSE DISPLAY)</th><th>Example (HISENSE DISPLAY -> PC)</th></tr>
<tr><td></td><td></td><td></td><td></td><td>of the scheduling pages， bit 3
- bit 0: Page disable-0 Page enable-1
data[2]：Start time hour(0-23) data[3]：Start time minute(0-59)
data[4]：End time hour(0-23) data[5]：End time minute(0-59)
data[6]：HDMI2-0x06 USB-0x0C HDMI1-0x0D
CMS-0x12 Media Player-0x16 Custom-0x18 data[7]：
Saturday-Bit0 Friday-Bit1 Thursday-Bit2
Wednesday-Bit3 Tuesday-Bit4 Monday-Bit5 Sunday-
Bit6 every week-Bit7
data[8]：For Media Player
none-0x00 Tag 1-0x01 Tag 2-0x02 Tag 3-0x03
Tag 4-0x04 Tag 5-0x05 Tag 6-0x06
Tag 7-0x07 data[9]：Volume (0-100)
ex：page 5, enable (00110001 = 0x51)，power on at 13:00，
power off at: 13:05，source HDMI2，every Monday, volume 50
A6010000000C015A510D000D0506A0003230</td><td></td></tr>
<tr><td>Get Schedule</td><td></td><td>√</td><td>0x5B</td><td>0xA6 0x01 0x00 0x00 0x00 0x04 0x01 0x5B data[1] checksum
Data[1]：1 to 7 of the scheduling pages

ex：get schedule of page 1 A601000000004015B01F8</td><td>enable power on at 13:00，
power off at: 13:05，source
HDMI2，every Monday,
volume 50
210100000C015B010D000D05
06A00032E6</td></tr>
<tr><td>Set Screen on/off &
power off</td><td>√</td><td></td><td>0x18</td><td>0xA6 0x01 0x00 0x00 0x00 0x04 0x01 0x18 data[1] checksum
data[1]：power off-0x01 screen on -0x03 screen off - 0x04
ex：
A601000000004011801BB power off A6010000000 4011803B9
screen on
A601000000004011804BE screen off</td><td>210100000401000025</td></tr>
<tr><td>Set Key
(simulate Remote
Controller Key)</td><td>√</td><td></td><td>0xB0</td><td>0xA6 0x01 0x00 0x00 0x00 0x05 0x01 0xB0 data[1] data[2]
checksum
data[1]：IR Key(High) data[2]：IR Key(low)</td><td>210100000401000025</td></tr>
<tr><td>Set Key
(simulate Remote
Controller Key)</td><td>√</td><td></td><td>0xB0</td><td>0xA6 0x01 0x00 0x00 0x00 0x05 0x01 0xB0 data[1] data[2]
checksum
data[1]：IR Key(High) data[2]：IR Key(low)
<table>
<tr><th>Key</th><th>Key Value</th><th>Key</th><th>Key Value</th></tr>
<tr><td>KEY_1</td><td>0x02</td><td>KEY_DOWN</td><td>0x6C</td></tr>
<tr><td>KEY_2</td><td>0x03</td><td>KEY_MUTE</td><td>0x71</td></tr>
<tr><td>KEY_3</td><td>0x04</td><td>KEY_VOLUMEDO WN</td><td>0x72</td></tr>
<tr><td>KEY_4</td><td>0x05</td><td>KEY_VOLUMEUP</td><td>0x73</td></tr>
<tr><td>KEY_5</td><td>0x06</td><td>KEY_POWER</td><td>0x74</td></tr>
<tr><td>KEY_6</td><td>0x07</td><td>KEY_BACK</td><td>0x9E</td></tr>
<tr><td>KEY_7</td><td>0x08</td><td>KEY_PIAY/PAUS E</td><td>0xA4</td></tr>
<tr><td>KEY_8</td><td>0x09</td><td>KEY_STOP</td><td>0xA6</td></tr>
<tr><td>KEY_9</td><td>0x0A</td><td>KEY_REWIND</td><td>0xA8</td></tr>
</table></td><td>210100000401000025</td></tr>
</table>

Name	Set	Get	Code	Example (PC -> HISENSE DISPLAY)				Example (HISENSE DISPLAY -> PC)
				KEY_0	0x0B	KEY_FASTFORW ARD	0xD0	
				KEY_OK	0x1C	KEY_SOURCE	0xFA	
				KEY_ HO ME	0x66	KEY_MENU	0xFD	
				KEY_UP	0x67	KEY_INFO	0x0166	
				KEY_L EF T	0x69	KEY_CMS	0x0305	
				KEY_R IG HT	0x6A	KEY_TIME	0x0309	
				ex: set volume to 0 - mute A60100000000501B0007162				

BM/GM series

Product Series	Android	Product Model	Firmware Version
BM	9.0	32BM66AE	N1027
		43BM66AE	N1027
		43BM66AE (A000)	N1027
		49BM66AE (A000)	N1027
		55BM66AE (A000)	N1027
		65BM66D	N0609
		100BM66D	N0512
GM	9.0	50GM60AE	M0804
		55GM60AE	M0804
		65GM60AE	M0804

Series-Specific Instructions

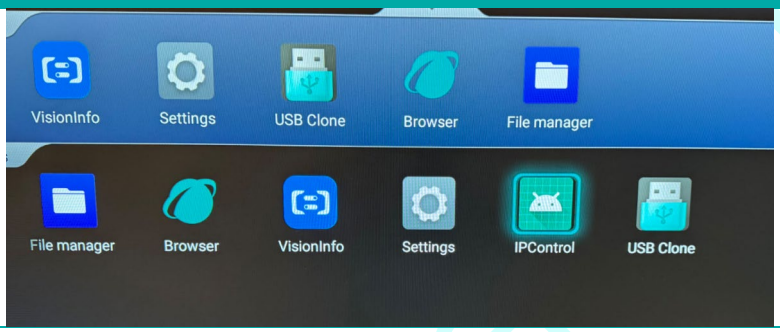
- **Default port:** 8088
- Launch the IP Control app on the display.
- The server starts automatically when the app opens.
- Use TCP client software (e.g., Net Assist).
- Select TCP Client mode, enter IP and port, and click Connect.
- **Important:** BM/GM series accepts **ASCII commands**, not HEX.

Starting the IP Control Server

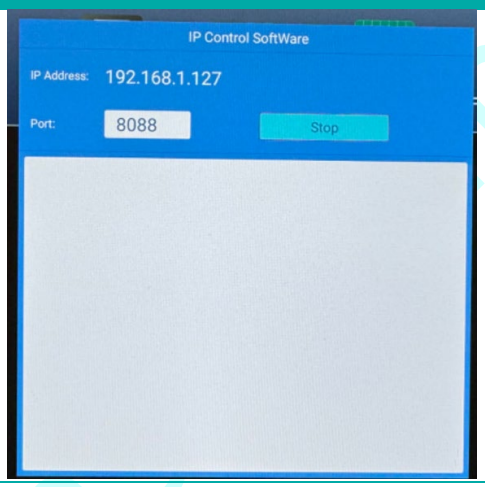
1. Launch the IP Control app on the display (A1).

2. Setting the Port Number: The default port number for IP control is **8088**. If this port is occupied, choose a port between **5000-12000**.
3. The IP control server is activated by default when the app is opened. The button will toggle to “Stop” when the server is active. (A2)
4. Click the “Stop” button to inactivate the server when not needed. The button will toggle to “Start” when the server is inactive. (A3)

A1



A2



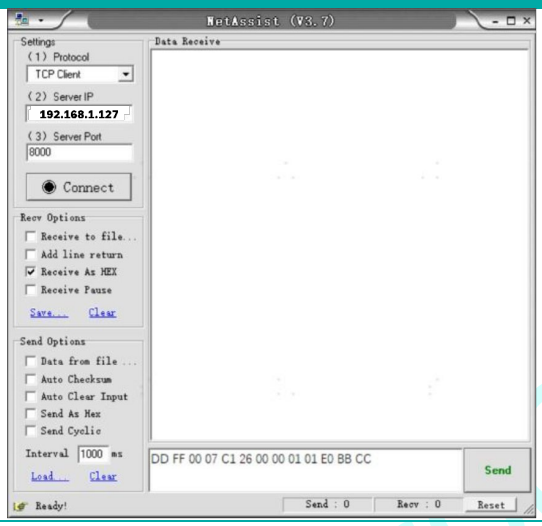
A3

Connecting a Client to the IP Control Server

1. Use a client application such as Net Assist (B1).
2. Select “TCP Client” mode.
3. Enter the server IP address and port number.

4. Click “Connect” to establish a connection.

B1



Command Table

Command	Command Type	Start Code	Length	Command Code	ID	Data	Verify	End Code
Screen on/off	On Send command	DD FF	00 07	C1 31 00 01	01	01	F6	BB CC
	On Receive command	AB AB	00 07	C1 31 00 01	01	01	F6	CD CD
	Off Send command	DD FF	00 07	C1 31 00 01	01	00	F7	BB CC
	Off Receive command	AB AB	00 07	C1 31 00 01	01	00	F7	CD CD
Inquire the Software Version	Send command	DD FF	00 06	C1 1B 00 00	01		DD	BB CC
	Receive command	AB AB	00 09	C1 1B 00 00	01	XX XX XX The first 'XX' stands for Year; The second 'XX' stands for Month; The third 'XX' stands for Day.	XX	CD CD
Set lime (Day/ Month/Year)	Send command	DD FF	00 09	C1 1C 00 00	01	XX XX XX The first 'XX' stands for Year; The second 'XX' stands for Month; The third 'XX' stands for Day.	XX	BB CC

Command	Command Type	Start Code	Length	Command Code	ID	Data	Verify	End Code
	Receive command	AB AB	00 09	C1 1C 00 00	01	XX XX XX The first 'XX' stands for Year; The second 'XX' stands for Month; The third 'XX' stands for Day.	XX	CD CD
Set lime (Hour/Minute/ Second)	Send command	DD FF	00 09	C1 1D 00 00	01	XX XX XX The first 'XX' stands for Hour; The second 'XX' stands for Minute; The third 'XX' stands for Second.	XX	BB CC
	Receive command	AB AB	00 09	C1 1D 00 00	01	XX XX XX The first 'XX' stands for Hour; The second 'XX' stands for Minute; The third 'XX' stands for Second.	XX	CD CD
Reboot the HISENSE DISPLAY	Send command	DD FF	00 06	C1 1E 00 00	01		D8	BB CC
	Receive command	AB AB	00 06	C1 1E 00 00	01		D8	CD CD
Power On/Off	Power on Send command	DD FF	00 08	C1 15 00 00	01	BB BB	DD	BB CC
	Power on Receive command	AB AB	00 08	C1 15 00 00	01	BB BB	DD	CD CD
	Power off Send command	DD FF	00 08	C1 15 00 00	01	AA AA	DD	BB CC
	Power off Receive command	AB AB	00 08	C1 15 00 00	01	AA AA	DD	CD CD
Set Volume	Send command	DD FF	00 07	C1 27 00 00	01	XX Volume Value	XX	BB CC
	Receive command	AB AB	00 07	C1 27 00 00	01	XX Volume Value	XX	CD CD
Mute Control	Mute off Send command	DD FF	00 07	C1 26 00 00	01	00	E1	BB CC
	Mute off Receive	AB AB	00 07	C1 26 00 00	01	00	E1	CD CD

Command	Command Type	Start Code	Length	Command Code	ID	Data	Verify	End Code
	command							
	Mute on Send command	DD FF	00 07	C1 26 00 00	01	01	E0	BB CC
	Mute on Receive command	AB AB	00 07	C1 26 00 00	01	01	E0	CD CD
VGA Automatic Adjustment	Send command	DD FF	00 06	C1 01 00 00	01		C7	BB CC
	Receive command	AB AB	00 06	C1 01 00 00	01		C7	CD CD
Restore Factory Settings	Send command	DD FF	00 06	C1 10 00 00	01		D6	BB CC
	Receive command	AB AB	00 06	C1 10 00 00	01		D6	CD CD
Set Screen Rotation (811 not support)	Send command	DD FF	00 07	C1 35 00 00	01	00 stands for rotating 0 degree; 01 stands for rotating 90 degrees; Take effect after reboot.	XX	BB CC
	Receive command	AB AB	00 07	C1 35 00 00	01	00 stands for rotating 0 degree; 01 stands for rotating 90 degrees; Take effect after reboot.	XX	CD CD
Set Brightness	Send command	DD FF	00 07	C1 36 00 00	01	XX stands for brightness.	XX	BB CC
	Receive command	AB AB	00 07	C1 36 00 00	01	X stands for brightness.	XX	CD CD
Set Contrast	Send command	DD FF	00 07	C1 37 00 00	01	XX stands for contrast.	XX	BB CC
	Receive command	AB AB	00 07	C1 37 00 00	01	XX stands for contrast.	XX	CD CD
Set Color Temperature	Send command	DD FF	00 07	C1 39 00 00	01	XX 01 stands for Cold; 02 stands for Slight Cold; 03 stands for Slight Warm; 04 stands for Warm; 00 stands for Standard.	XX	B CC
	Receive command	AB AB	00 07	C1 39 00 00	01	XX 01 stands for Cold; 02 stands for Slight Cold; 03 stands for Slight Warm; 04 stands for Wann; 00 stands for Standard.	XX	CD CD

Command	Command Type	Start Code	Length	Command Code	ID	Data	Verify	End Code
Set Zoom (811 not support)	Send command	DD FF	00 07	C1 3B 00 00	01	XX 02 stands for Zoom Standard, others stand for Full Screen.	XX	BB CC
	Receive command	AB AB	00 07	C1 3B 00 00	01	XX 02 stands for Zoom Standard, others stand for Full Screen.	XX	CD CD
Set Boot Time Delay (811 not support)	Send command	DD FF	00 07	C1 3C 00 00	01	XX 01 stands for delay of 10s; 02 stands for delay of 20s; 03 stands for delay of 30s; 00 stands for delay of 0s.	XX	BB CC
	Receive command	AB AB	00 07	C1 3C 00 00	01	XX 01 stands for delay of 10s; 02 stands for delay of 20s; 03 stands for delay of 30s; 00 stands for delay of 0s.	XX	CD CD
Set Definition	Send command	DD FF	00 07	C1 38 00 00	01	XX Definition Value	XX	BB CC
	Receive command	AB AB	00 07	C1 38 00 00	01	XX Definition Value	XX	CD CD
Set Image Denoising	Send command	DD FF	00 07	C1 3A 00 00	01	XX 00 stands for Off; 01 stands for Low; 02 stands for Medium; 03 stands for High; 04 stands for Auto;	XX	BB CC
	Receive command	AB AB	00 07	C1 3A 00 00	01	XX 00 stands for Off; 01 stands for Low; 02 stands for Medium; 03 stands for High; 04 stands for Auto;	XX	CD CD
Get Smart Backlight	Send command	DD FF	00 06	C1 3E 00 01	01		F9	BB CC
	Receive command	AB AB	00 07/08	C1 3E 00 01	01	XX 01 stands for Bright Light; 02 stands for Soft Light; 03 stands for Light Sensed Frequency Conversion; 04 stands for Stereo Frequency Conversion; 05 stands for Comfortable Frequency Conversion; 06 stands for Custom, the second 'XX' stands for the	XX	CD CD

Command	Command Type	Start Code	Length	Command Code	ID	Data	Verify	End Code
						value of backlight.		
Set Inquiring Screen On/Off	Send command	DD FF	00 06	C1 32 00 01	01		F5	BB CC
	Receive command	AB AB	00 07	C1 32 00 01	01	XX 00 Screen Off, 01 Screen On.	XX	CD CD
Set Smart Backlight	Send command	DD FF	00 08	C1 32 00 02	01	XX XX 01XX stands for Bight Light; 02 XX stands for Soft Light; 03 XX stands for Light Sensed Frequency Conversion; 04 XX stands for Stereo Frequency Conversion; 05 XX stands for Comfortable Frequency Conversion; XX does not work above. 06 XX stands for Custom, XX stands for value of backlight under this circumstance.	XX	BB CC
	Receive command	AB AB	00 07/08	C1 32 00 02	01	XX XX 01XX stands for Bight Light; 02 XX stands for Soft Light; 03 XX stands for Light Sensed Frequency Conversion; 04 XX stands for Stereo Frequency Conversion; 05 XX stands for Comfortable Frequency Conversion; XX does not work above. 06 XX stands for Custom, XX stands for value of backlight under this circumstance.	XX	CD CD
Set Boot lime (UTC Time, if it's GMT+8, minus 8 when	Send command	DD FF	00 09	C1 3E 00 02	01	XX Day If 0 is set, Boot Time is off. XX Hour XX Minute	XX	BB CC

Command	Command Type	Start Code	Length	Command Code	ID	Data	Verify	End Code
setting)	Receive command	AB AB	00 09	C1 3E 00 02	01	XX Day If 0 is set, Boot Time is off. XX Hour XX Minute	XX	CD CD
Set Power Off lime (UTCTime, if it's GMT+8, minus 8 when setting)	Send command	DD FF	00 09	C1 FF 00 15	01	XX Day If 0 is set, Power Off Time is off. XX Hour XX Minute	XX	BB CC
	Receive command	AB AB	00 09	C1 FF 00 15	01	XX Day If 0 is set, Power Off Time is off. XX Hour XX Minute	XX	CD CD
Protect against screen burn Protect against screen burn (only 551 support, 811 not support)	Send command	DD FF	00 07	C1 33 00 00	01	XX (00 means off, 01 means on)	XX	BB CC
	Receive command	AB AB	00 07	C1 33 00 00	01	XX (00 means off, 01 means on)	XX	CD CD
Remote Enabled/ Disabled	Send command	DD FF	00 07	C1 70 00 00	01	XX When XX is 01, disable Remote Control; When XX is 00, enable Remote Control.	XX	BB CC
	Receive command	AB AB	00 07	C1 70 00 00	01	XX When XX is 01, disable Remote Control; When XX is 00, enable Remote Control.	XX	CD CD
Picture Mode	Standard Mode Send Command	DD FF	00 07	C1 0F 06 00	01	07	C9	BB CC
	Standard Mode Receive Command	AB AB	00 07	C1 0F 06 00	01	07	C9	CD CD
	Soft Send Command	DD FF	00 07	C1 0F 06 00	01	09	C7	BB CC
	Soft Receive Command	AB AB	00 07	C1 0F 06 00	01	09	C7	CD CD
	Movie Mode Send Command	DD FF	00 07	C1 0F 06 00	01	0A	C4	BB CC

Command	Command Type	Start Code	Length	Command Code	ID	Data	Verify	End Code
	Movie Mode Receive Command	AB AB	00 07	C1 0F 06 00	01	0A	C4	CD CD
	Vivid Send Command	DD FF	00 07	C1 0F 06 00	01	08	C6	BB CC
	Vivid Receive Command	AB AB	00 07	C1 0F 06 00	01	08	C6	CD CD
Inquire Function	Send Command	DD FF	00 06	C1 28 00 00	01		EE	BB CC
	Receive Command	AB AB	00 0C	C1 28 00 00	01	XX Volume (Take effect when power on) XX XX Source (05 05 stands for HDMI1,05 04 stands for HDMI2,05 03 stands for DP, 08 01 stands for VGA. Take effect when power on.) XX Power Status (00 stands for power on, FF stands for power off.) XX Mute Status (01 stands for Mute, 00 stands for Non-Mute. Take effect when power on.)	XX	CD CD
Inquire Current Source	Send Command	DD FF	00 06	C1 1A 00 00	01		DC	BB CC
	Receive Command	AB AB	00 09	C1 1A 00 00	01	XX XX XX 05 03 04 stands for MDMI1,05 03 03 stands for HDMI2,05 03 02 stands for DP, 06 04 00 stands for VGA.	XX	CD CD
Switch Source	Send Command	DD FF	00 07	C1 08 00 01	xx	XX 0E(HDMI1) 0F(HDMI2) 16(DP) 17 D9(VGA)	xx	BB CC
	Receive Command	AB AB	00 07	C1 08 00 01	xx	XX 0E(HDMI1) 0F(HDMI2) 16(DP) 17 D9(VGA)	xx	CD CD

Product Series	Android	Product Model	Firmware Version
DM	11.0	32DM66D	V1.1.0.2-2024021152738
		43DM66D	V1.1.0.2-2024021152738
		50DM66D	V1.1.0.2-2024021152738
		50DM66E	V1.1.0.2-2024021152738
		65DM66D	V1.1.0.2-2024021152738
		75DM66D	V1.1.0.2-2024021152738
		86DM66D	V1.1.0.2-2024021152738
GM50D	11.0	50GM50D	V1.1.0.2-2024021152738
		55GM50D	V1.1.0.2-2024021152738
		65GM50D	V1.1.0.2-2024021152738
		75GM50D	V1.1.0.2-2024021152738
		86GM50D	V1.1.0.2-2024021152738

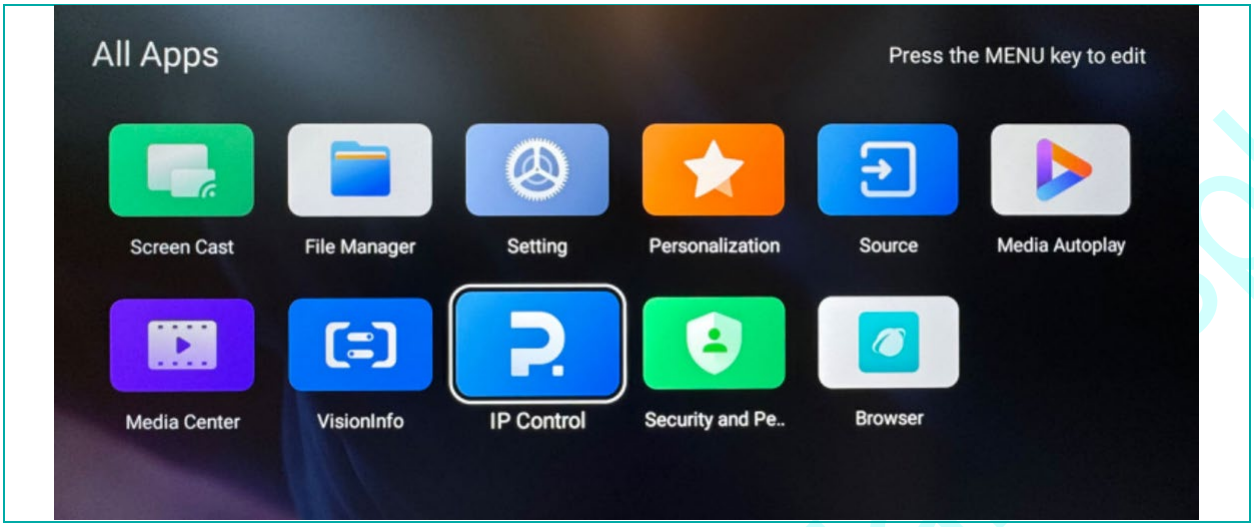
Series-Specific Instructions

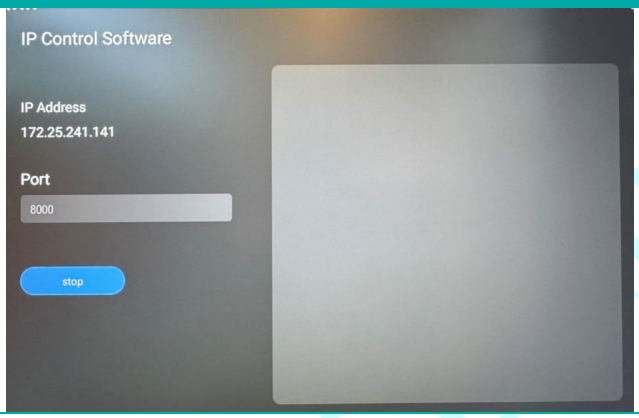
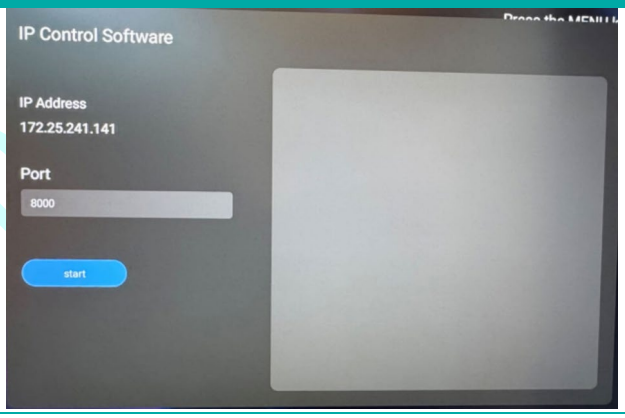
- **Default port:** 8000
- Start IP Control app on the display.
- Use TCP client software and input HEX commands.

Starting the IP Control Server

1. Launch the IP Control app on the display (A1).
2. Setting the Port Number: The default port number for IP control is **8000**. If this port is occupied, choose a port between **5000-12000**.
3. The IP control server is activated by default when the app is opened. The button will toggle to “Stop” when the server is active. (A2)
4. Click the “Stop” button to inactivate the server when not needed. The button will toggle to “Start” when the server is inactive. (A3)

A1

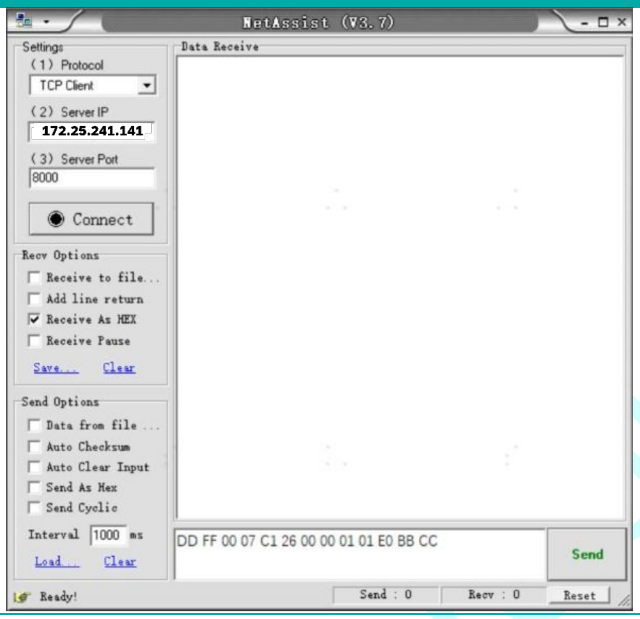


A2	A3
	

Connecting a Client to the IP Control Server

5. Use a client application such as Net Assist (B1).
6. Select “TCP Client” mode.
7. Enter the server IP address and port number.
8. Click “Connect” to establish a connection.

B1



Command Table

Description	Command (HEX Bytes)	Example (PC -> HISENSE DISPLAY)	HISENSE DISPLAY -> PC
Power Off	DD FF 00 08 C1 15 00 00 xx AA AA yy BB CC	DD FF 00 08 C1 15 00 00 01 AA AA DD BB CC	AB AB 00 08 C1 15 00 00 xx AA AA yy CD CD
Screen Off	DD FF 00 07 C1 31 00 00 xx 00 yy BB CC	DD FF 00 07 C1 31 00 00 01 00 F6 BB CC	AB AB 00 07 C1 31 00 00 xx 00 yy CD CD
Screen On	DD FF 00 07 C1 31 00 00 xx 01 yy BB CC	DD FF 00 07 C1 31 00 00 01 01 F7 BB CC	AB AB 00 07 C1 31 00 00 xx 01 yy CD CD
Reboot	DD FF 00 06 C1 1E 00 00 xx yy BB CC	DD FF 00 06 C1 1E 00 00 01 D8 BB CC	AB AB 00 06 C1 1E 00 00 xx yy CD CD
Set AC Power On Mode	DD FF 00 07 C1 FF 00 09 xx zz yy BB CC	DDFF0007C1FF0009010031BBCC zz: power on mode. 00 – direct, 01 – last, 02 – standby direct: DD FF 00 07 C1 FF 00 09 01 00 31 BB CC last: DD FF 00 07 C1 FF 00 09 01 01 30 BB CC standby: DD FF 00 07 C1 FF 00 09 01 02 33 BB CC	AB AB 00 07 C1 FF 00 09 xx zz yy CD CD
DP Input	DD FF 00 07 C1 08 00 00 xx 16 yy BB CC	DDFF0007C10800000116D9BBCC	AB AB 00 07 C1 08 00 00 xx 16 yy CD CD
VGA Input	DD FF 00 07 C1 08 00 00 xx 17 yy BB CC	DDFF0007C10800000117D8BBCC	AB AB 00 07 C1 08 00 00 xx 17 yy CD CD
HDMI1 Input	DD FF 00 07 C1 08 00 00 xx 0E yy BB CC	DDFF0007C1080000010EC1BBCC	AB AB 00 07 C1 08 00 00 xx 0E yy CD CD
HDMI2 Input	DD FF 00 07 C1 08 00 00 xx 0F yy BB CC	DDFF0007C1080000010FC0BBCC	AB AB 00 07 C1 08 00 00 xx 0F yy CD CD

Description	Command (HEX Bytes)	Example (PC -> HISENSE DISPLAY)	HISENSE DISPLAY -> PC
PC Input	DD FF 00 07 C1 08 00 00 xx 0C yy BB CC	DDFF0007C10800000010CC3BBCC	AB AB 00 07 C1 08 00 00 xx 0C yy CD CD
DVI Input	DD FF 00 07 C1 08 00 00 xx 09 yy BB CC	DDFF0007C10800000109C6BBCC	AB AB 00 07 C1 08 00 00 xx 09 yy CD CD
Set Screen Rotation	DD FF 00 07 C1 35 00 00 xx zz yy BB CC	set screep rotation: Landscape: DD FF 00 07 C1 35 00 00 00 00 F3 BB CC Portrait: DD FF 00 07 C1 35 00 00 00 01 F2 BB CC	AB AB 00 07 C1 35 00 00 xx zz yy CD CD
Set Mute	DD FF 00 07 C1 26 00 00 xx 01 yy BB CC	DDFF0007C12600000101E0BBCC	AB AB 00 07 C1 26 00 00 xx 01 yy CD CD
Set Unmute	DD FF 00 07 C1 26 00 00 xx 00 yy BB CC	DDFF0007C12600000100E1BBCC	AB AB 00 07 C1 26 00 00 xx 00 yy CD CD
Set Volume	DD FF 00 07 C1 27 00 00 xx zz yy BB CC	DDFF0007C12700000101E1BBCC zz: volume range 0-100	AB AB 00 07 C1 27 00 00 xx zz yy CD CD
Set Backlight Brightness	DD FF 00 08 C1 32 00 00 xx 06 zz yy BB CC	ex: set brightness to 32 - zz = 0x20 DDFF0008C1320000010620DCBBCC	AB AB 00 08 C1 32 00 00 xx 06 zz CD CD
Set Backlight Brightness Auto Adjust	DD FF 00 07 C1 34 00 00 xx zz yy BB CC	ex: set brightness auto adust off DDFF0007C13400000100F3BBCC zz = 00 - off, 01 - on	AB AB 00 07 C1 34 00 00 xx zz yy CD CD
Set Date	DD FF 00 09 C1 1C 00 00 xx zz zz zz yy BB CC	ex: set date to 23.Jan.2 DDFF0009C11C000001170102C1BBCC zz zz zz = Year Month Day	AB AB 00 09 C1 1C 00 00 xx zz zz zz yy CD CD zz zz zz = FF FF FF when error
Set Time	DD FF 00 09 C1 1D 00 00 xx zz zz zz yy BB CC	ex: set time to 12:25:2 DDFF0009C11D0000010C1902C3BBCC zz zz zz = Hour Minute Second	AB AB 00 09 C1 1D 00 00 xx zz zz zz yy CD CD zz zz zz = FF FF FF when error
Set Schedule for Power On	DD FF 00 09 C1 3E 00 00 xx tt zz zz yy BB CC	ex: power on at 9:10 every day DDFF0009C13E00000101090AF5BBCC tt = 00 - turn off schedule, 01 - everyday zz zz = Hour Minute Tips: If the device has been set to power on and off at a scheduled time, sending this command will clear the original settings, and leaving only the one sent.	AB AB 00 09 C1 3E 00 00 xx zz zz zz yy CD CD
Set Schedule for Power Off	DD FF 00 09 C1 3F 00 00 xx tt zz zz yy BB CC	ex: power off at 18:10 every day DDFF0009C13F00000101120AEFBBCC tt = 0 - turn off schedule, 1 - everyday zz zz = Hour Minute Tips: If the device has been set with a timed power on/off command, all previously set power on/off will be turned off	AB AB 00 09 C1 3F 00 00 xx zz zz zz yy CD CD
Set Brightness	DD FF 00 07 C1 36 00 00 xx zz yy BB CC current source must be: DP, VGA, HDMI, PC, DVI	ex: set brightness to 32 - zz = 0x20 DDFF0007C13600000120D1BBCC	AB AB 00 07 C1 36 00 00 xx zz yy CD CD

Description	Command (HEX Bytes)	Example (PC -> HISENSE DISPLAY)	HISENSE DISPLAY -> PC
Set Contrast	DD FF 00 07 C1 37 00 00 xx zz yy BB CC current source must be: DP, VGA, HDMI, PC, DVI	ex: set contrast to 32 - zz = 0x20 DDFF0007C13700000120D0BBCC	AB AB 00 07 C1 37 00 00 xx zz yy CD CD
Set Sharpness	DD FF 00 07 C1 38 00 00 xx zz yy BB CC current source must be: DP, VGA, HDMI, PC, DVI	ex: set sharpness to 32 - zz = 0x20 DDFF0007C13800000120DFBBCC	AB AB 00 07 C1 38 00 00 xx zz yy CD CD
Set Color Temperature	DD FF 00 07 C1 39 00 00 xx zz yy BB CC current source must be: DP, VGA, HDMI, PC, DVI	ex: set colour temperature to 32 - zz = 0x20 DDFF0007C13900000120DEBBCC	AB AB 00 07 C1 39 00 00 xx zz yy CD CD
Set Noise Reduction	DD FF 00 07 C1 3A 00 00 xx zz yy BB CC current source must be: DP, VGA, HDMI, PC, DVI	ex: set noise reduction to High - zz = 0x03 DDFF0007C13A00000103FEBBCC zz = 01 - low, 02 - medium, 03 - high, 04 - auto, 00 – off	AB AB 00 07 C1 3A 00 00 xx zz yy CD CD
Set Image Scaling	DD FF 00 07 C1 3B 00 00 xx zz yy BB CC current source must be: DP, VGA, HDMI, PC, DVI	ex: set image scaling to Full - zz = 0x03 DDFF0007C13B00000103FFBBCC zz = 00 - full, 01 - 16:9, 02 - 4:3, 03 - scaling 1, 04 - scaling 2, 05 - point to point	AB AB 00 07 C1 3B 00 00 xx zz yy CD CD
Set Picture Mode	DD FF 00 07 C1 0F 06 00 xx zz yy BB CC	ex: set picture mode to movie mode - zz = 0x03 DDFF0007C10F060001030CBBCC zz = 00 - standard, 01 - bright, 02 - soft, 03 - Movie, 04 - Text, 5 - gaming 12 – natural	AB AB 00 07 C1 0F 06 00 xx zz yy CD CD
Set Sound Mode	DD FF 00 07 C1 FF 00 03 xx zz yy BB CC	ex: set sound mode to standard mode - zz = 0x00 DDFF0007C1FF000301003BBBCC zz = 00 - standard， 01 - music, 02 - news, 08 - movie, 10 - sports， 20 - custom, 30 - voice, 40 - meeting	AB AB 00 07 C1 FF 00 03 xx zz yy CD CD
Set Eye Protection Mode	DD FF 00 07 C1 FF 00 1E xx zz yy BB CC	ex: set eye protection mode on - zz = 0x01 DDFF0007C1FF001E010127BBCC zz = 00 - off, 01 - on	AB AB 00 07 C1 FF 00 1E xx zz yy CD CD
VGA Auto Adjust	DD FF 00 07 C1 01 00 00 xx yy BB CC current source must be VGA	ex: VGA Auto Adjust DDFF0007C101000001C6BBCC zz = 00 - off, 01 – on	AB AB 00 07 C1 01 00 00 xx yy CD CD
Set anti-burn-in (image retention)	DD FF 00 07 C1 33 00 00 xx zz yy BB CC	ex: set anti-burn-in on DDFF0007C13300000101F4BBCC zz = 00 - off, 01 - on	AB AB 00 07 C1 33 00 00 xx zz yy CD CD
Set Power on delay	DD FF 00 07 C1 3C 00 00 xx zz yy BB CC	ex: set power on delay to 10s DDFF0007C13C0000010AF1BBCC zz = 00 - off, others - delay time, range: 2s - 255s	AB AB 00 07 C1 3C 00 00 xx zz yy CD CD

Description	Command (HEX Bytes)	Example (PC -> HISENSE DISPLAY)	HISENSE DISPLAY -> PC
Set Video Wall	DD FF 00 09 C1 0A 00 00 xx zz zz zz yy BB CC	ex: vertical 3 devices, horizontal 4 devices, device position: 6 DDFF0009C10A000001030406C2BBCC zz: how many devices in vertical zz: how many devices in horizontal zz: current device position	AB AB 00 09 C1 0A 00 00 xx zz zz zz yy CD CD
Set Static IP Address of LAN	DD FF 00 16 C1 1B 30 00 xx zz … zz yy BB CC	Ex: set IP 10.16.150.225, subnet mask: 255.255.248.0, gateway: 10.16.144.1, DNS: 10.16.144.2 DDFF0016C11B3000010A1096E1FFFFF8000A1090010A10900249BBCC zz .. zz - 16 bytes, IP address - 4 bytes, Subnet mask - 4 bytes, gateway - 4 bytes, DNS - 4 bytes	AB AB 00 16 C1 1B 30 00 xx zz … zz yy CD CD
Set USB Lock	DD FF 00 07 C1 FF 00 0E xx zz yy BB CC	ex: lock USB DDFF0007C1FF000E010036BBCC zz = 00 - lock USB, 01 - enable USB	AB AB 00 07 C1 FF 00 0E xx zz yy CD CD
Factory Reset	DD FF 00 06 C1 10 00 00 xx yy BB CC	DDFF0006C110000001D6BBCC	AB AB 00 06 C1 10 00 00 xx yy CD CD
Query HISENSE DISPLAY Status	DD FF 00 06 C1 28 00 00 xx yy BB CC	DDFF0006C128000001EEBBCC	AB AB 00 0C C1 28 00 00 xx zz zz zz zz zz zz yy CD CD zz: volume zz zz: 05 01 - PC, 05 02 - DVI, 05 03 - DP, 05 04 - HDMI2, 05 05 - HDMI1, 08 01 - VGA zz: 00 - power on, FF - power off zz: 01 - mute; 00 - unmute zz: 00 - no signal, 01 - has signal
Query Screen Status	DD FF 00 06 C1 32 00 01 xx yy BB CC	DDFF0006C110000001D6BBCC	AB AB 00 07 C1 32 00 01 xx zz yy CD CD zz: 00 - screen off; 01 - screen on
Query Source	DD FF 00 06 C1 1A 00 00 xx yy BB CC	DDFF0006C11A000001DCBBCC	AB AB 00 08 C1 1A 00 00 xx zz zz yy CD CD zz zz - source, refer to user menu for source definition
Query SW Version	DD FF 00 06 C1 1B 00 00 xx yy BB CC	DDFF0006C11B000001DDBBCC	AB AB 00 09 C1 1B 00 00 xx zz zz zz yy CD CD zz zz zz - Year Month Date
Query Backlight Brightness	DD FF 00 06 C1 3E 00 24 xx yy BB CC	DDFF0006C13E000001F8BBCC	AB AB 00 LL C1 3E 00 24 xx zz zz yy CD CD zz:01 - bright, 02 - soft, 03 - auto adjust, 04 - stereo frequency conversion, 05 - Comfort frequency conversion, 06 - custom zz: when first zz is 06 custom, this byte means backlight brightness value: 0-30

Description	Command (HEX Bytes)	Example (PC -> HISENSE DISPLAY)	HISENSE DISPLAY -> PC
			LL: when first zz is zz, LL = 08, otherwise, LL = 07
Query Brightness	DD FF 00 06 C1 36 00 01 xx yy BB CC	DDFF0006C136000101F0BBCC	AB AB 00 07 C1 36 00 01 xx zz yy CD CD zz is the brightness value
Query Network Status	DD FF 00 06 C1 FF 00 16 xx yy BB CC	DDFF0006C1FF0016012FBBCC	AB AB 00 07 C1 FF 00 16 xx zz yy CD CD zz: 00 - no network connection; 01 - network connected
Query Sound Mode	DD FF 00 06 C1 FF 00 02 xx yy BB CC	DDFF0006C1FF0002013BBBCC	AB AB 00 07 C1 FF 00 02 xx zz yy CD CD zz = 00 - standard, 01 - music, 02 - news, 08 - movie, 10 - sports, 20 - custom, 30 - voice, 40 - meeting
Query AC Power On Status	DD FF 00 06 C1 FF 00 08 xx yy BB CC	DDFF0006C1FF00080131BBCC	AB AB 00 07 C1 FF 00 08 xx zz yy CD CD zz: 00 - power on; 01 - Last mode; 02 - standby
Query IP Address	DD FF 00 06 C1 1B 20 00 xx yy BB CC	DDFF0006C11B200001FDBBCC	AB AB 00 16 C1 1B 20 00 xx zz ... zz yy CD CD zz zz zz zz - IP address zz zz zz zz - Subnet mask zz zz zz zz Gateway zz zz zz zz - DNS
Query Device Temperature	DD FF 00 06 C1 FE 00 00 xx yy BB CC	DDFF0006C1FE00000138BBCC	AB AB 00 07 C1 FE 00 00 xx zz yy CD CD zz: temperature in centigrade
Query Picture Mode	DD FF 00 06 C1 6D 00 00 xx yy BB CC	DD FF 00 06 C1 6D 00 00 64 CE BB CC	AB AB 00 07 C1 6D 00 00 xx zz yy CD CD zz: 00 – standard, 01 – bright, 06 – AI, 07 – user, 02 – soft, 03 – movie, 04 – text, 05 – game, 12- nature
Query USB Status	DD FF 00 06 C1 6E 00 00 xx yy BB CC	DD FF 00 06 C1 6E 00 00 64 CD BB CC	AB AB 00 07 C1 6E 00 00 xx zz yy CD CD zz: 00 - off, 01 - on
Query Eye Protection Mode	DD FF 00 06 C1 FF 00 1D xx yy BB CC	DDFF0006C1FF001D0124BBCC	AB AB 00 07 C1 FF 00 1D xx zz yy CD CD zz: 00 - Off; 01 - On
Query SN	DD FF 00 06 C1 FF 00 0B xx yy BB CC	DDFF0006C1FF000B0132BBCC	AB AB 00 1D C1 FF 00 0B xx zz...zz yy CD CD zz .. zz: 23 bytes serial number
Query Devicd ID	DD FF 00 06 C1 FF 00 0D xx yy BB CC	DDFF0006C1FF000D0134BBCC	AB AB 00 26 C1 FF 00 0D xx zz...zz yy CD CD zz .. zz: 32 bytes device ID

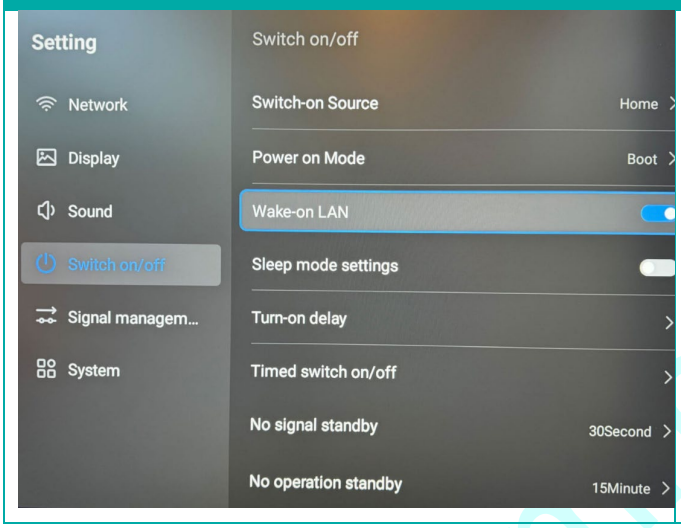
Description	Command (HEX Bytes)	Example (PC -> HISENSE DISPLAY)	HISENSE DISPLAY -> PC
Query MAC Address	DD FF 00 06 C1 6C 00 00 xx yy BB CC	DDFF0006C16C000001AABBCC	AB AB 00 0C C1 6C 00 00 xx zz...zz yy CD CD zz .. zz: 6 bytes
Query volume	DD FF 00 06 C1 7D 00 00 xx yy BB CC	DD FF 00 06 C1 7D 00 00 64 DE BB CC	AB AB 00 07 C1 7D 00 00 xx zz yy CD CD zz: volume
Query Serial Port ID	DD FF 00 06 C1 1B 10 00 xx yy BB CC	DD FF 00 06 C1 1B 10 00 64 A8 BB CC	AB AB 00 06 C1 1B 10 00 xx zz yy CD CD zz: serial port ID. Settings -> signal manager -> serial port ID
Query brand	DD FF 00 06 C1 FE 00 01 xx yy BB CC	DD FF 00 06 C1 FE 00 01 64 5C BB CC	AB AB 00 06 C1 FE 00 01 xx zz...zz yy CD CD zz...zz: brand. ex: hisense (ASCII)
Query model	DD FF 00 06 C1 FE 00 02 xx yy BB CC	DD FF 00 06 C1 FE 00 02 64 5F BB CC	AB AB 00 06 C1 FE 00 02 xx zz...zz yy CD CD zz...zz: model name
Send Remote Controller Key Code	DD FF 00 08 C1 17 00 00 xx zz zz yy BB CC	ex: send menu key: zz zz = 00 00 DDFF0008C1170000010000DFBBCC zz zz = 00 00 - Menu; 00 01 - UP, 00 02 - DOWN, 00 03 - LEFT, 00 04 - RIGHT, 00 05 - OK, 00 06 - Return, 00 07 - Source	AB AB 00 08 C1 17 00 00 xx zz zz yy CD CD
Open Settings	DD FF 00 06 C1 41 00 00 xx yy BB CC	DDFF0006C14100000187BBCC	AB AB 00 06 C1 41 00 00 xx yy CD CD
Open Home	DD FF 00 06 C1 FF 00 1A xx yy BB CC	DDFF0006C1FF001A0123BBCC	AB AB 00 06 C1 FF 00 1A xx yy CD CD
Open CMS	DD FF 00 06 C1 FF 00 13 xx yy BB CC	DDFF0006C1FF0013012ABBCC	AB AB 00 06 C1 FF 00 13 xx yy CD CD
Open Screen Cast	DD FF 00 06 C1 43 00 00 xx yy BB CC	DDFF0006C14300000185BBCC	AB AB 00 06 C1 43 00 00 xx yy CD CD
Turn on Hotspot	DD FF 00 06 C1 44 00 00 xx yy BB CC	DDFF0006C14400000182BBCC	AB AB 00 06 C1 44 00 00 xx yy CD CD
Take Screenshot	DD FF 00 06 C1 4B 00 00 xx yy BB CC	DDFF0006C14B0000018DBBCC	AB AB 00 06 C1 4B 00 00 xx yy CD CD
Freeze Screen	DD FF 00 07 C1 0F 08 00 xx zz yy BB CC	DD FF 00 07 C1 0F 08 00 01 01 C1 BB CC zz = 01 - freeze; 00 – unfreeze	AB AB 00 07 C1 0F 08 00 xx zz yy CD CD

Advanced Control and Automation

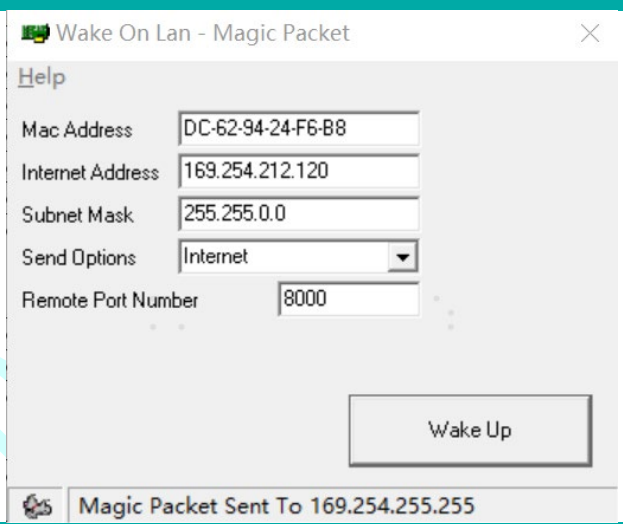
Using Wake on LAN (WOL) for Wired Networks

1. Enable Wake on LAN in the display settings (Settings -> Switch on/off -> Wake-on LAN) (C1).
2. Ensure the display and the PC sending the WOL command are on the same LAN and connected via Ethernet.
3. Use WOL software to send a “magic packet” to wake the display (C2).

C1



C2



Automating Commands and Integrating with Other Systems

- Write scripts using programming languages like Python to automate hex string commands.
- Integrate the Hisense display control into broader home or office automation systems using compatible software.

Testing and Troubleshooting

- Start with basic commands (Power ON/OFF).
- Ensure correct IP and port configurations.
- Disable firewall blocking.
- Confirm firmware is updated.
- Assign static IP addresses to avoid IP changes.

Security Considerations

- Use strong network passwords.
- Limit access to trusted IP addresses.
- Regularly update device firmware.

Conclusion

By following this guide, you can effectively manage Hisense digital signage displays over IP control, with reliable command formats tailored to each product series. For further assistance or updates, you may reach our support team by clicking here.

Hisense

Version: 1.0