



# **Communication Matrix**

---

## About the Manual

The manual is for reference only. Slight differences might be found between the manual and the product. All designs and software are subject to change without prior written notice. Product updates might result in some differences appearing between the actual product and the manual. If there is any doubt or dispute, we reserve the right of final explanation. We are not liable for losses incurred due to operating the product in ways that are not in compliance with the manual.

## Revision History

Version	Revision Content	Release Time
V1.0.0	First release.	October 2025

## Communication Matrix

Source Device	Source IP Address	Source Port Number	Destination Address	Destination Address	IP Destination Port Number (Listening)	Protocol	Port Description	Destination Configurable (Yes/No)	Port Authentication Mode	Encryption Mode	Enabled by Default (Yes/No)	Notes
SSH client	The IP address of the SSH client's host	None	Dahua device	IP address of Dahua device	22	TCP	When the device malfunctions, use SSH for system diagnostics.	No	Password	SSH	No	None
ONVIF or web client	The IP address of ONVIF or web client	None	Dahua device	IP address of Dahua device	80	TCP	Device management can be performed by connecting to the device using an ONVIF client or a browser.	Yes	Password	Protocol-defined encryption	Yes	None
ONVIF or web client	The IP address of ONVIF or web client	None	Dahua device	IP address of Dahua device	443	TCP	The ONVIF client or browser connects to the device through a secure channel.	Yes	Password	SSL/TLS	Yes	None
RTSP client	RTSP client IP	None	Dahua device	IP address of Dahua device	554	TCP	The client can obtain audio and video data collected or stored by the device through the RTSP service.	Yes	Password	Supports SSL/TLS according to the configuration	Yes	None
Web plug-in client	The IP address of web plug-in client	None	Dahua device	IP address of Dahua device	5000	TCP	The Dahua devices can communicate using the Dahua's private protocol.	No	Password	None	Yes	None
SDK client	SDK client IP	None	Dahua device	IP address of Dahua device	8088	TCP	When the device application experiences a failure, the device firmware can be updated through the AOL (Always On Line) operation and maintenance upgrade service.	No	Password	None	No	None
SDK client	SDK client IP	None	Dahua device	IP address of Dahua device	37777	TCP	The Dahua client tool or management platform can manage the devices through the Dahua's private protocol.	Yes	Password	Protocol-defined encryption	Yes	None
DHCPv4 server	DHCPv4 server IP	67	Dahua device	IP address of Dahua device	68	UDP	Devices can receive DHCPv4 packets from the DHCP server through this port and obtain an IP address assigned by the DHCP server.	No	None	None	No	None
Network management server	Network management server IP	None	Dahua device	IP address of Dahua device	161	UDP	Devices can connect to the network management system through the SNMP protocol and be monitored by it.	Yes	Designated Configuration	Supports DES and AES according to the configuration	No	None
DHCPv6 server	DHCPv6 server IP	547	Dahua device	IP address of Dahua device	546	UDP	Devices can receive DHCPv6 packets from the DHCP server through this port and obtain an IP address assigned by the DHCP server.	No	None	None	No	None
Router	Router IP	None	Dahua device	IP address of Dahua device	1900	UDP	Connection with devices in the network can be established through UPnP services.	No	None	None	None	None
ONVIF client	ONVIF client IP	None	Dahua device	IP address of Dahua device	3702	UDP	Device discovery is conducted through the ONVIF device discovery service based on multicast.	No	None	None	Yes	None
SDK client	SDK client IP	None	Dahua device	Broadcast Address	5050	UDP	Device discovery is performed through the Dahua's private protocol based on broadcast.	No	None	None	Yes	None

Source Device	Source IP Address	Source Port Number	Destination Address	Destination IP Address	Destination Port Number (Listening)	Protocol	Port Description	Destination Port Configurable (Yes/No)	Authentication Mode	Encryption Mode	Enabled by Default (Yes/No)	Notes
Client that support Bonjour	The IP addresses of client that support Bonjour	5353	Dahua device	224.0.0.251 or ff02::fb	5353	UDP	Devices and other services in the network can be discovered through Bonjour services.	No	None	None	No	None
SDK client	SDK client IP	None	Dahua device	239.255.255.251 or IP address of Dahua device	8087	UDP	Device discovery is conducted through the AOL (Always On Line) device discovery service based on multicast.	No	None	None	No	None
SDK client	SDK client IP	None	Dahua device	IP address of Dahua device	37778	UDP	The Dahua devices can communicate using the Dahua's private protocol.	Yes	Password	Protocol-defined encryption	Yes	None
SDK client	SDK client IP	None	Dahua device	239.255.255.251 or IP address of Dahua device	37810	UDP	Device discovery is performed through the Dahua's private protocol based on multicast.	No	None	None	Yes	None
P2P server	P2P server IP	None	Dahua device	IP address of Dahua device	1025-65535	UDP	Devices communicate peer-to-peer through P2P services, randomly selecting ports for communication within a specified range once the function is enabled.	No	Password	Protocol-defined encryption	No	None

ENABLING A SMARTER SOCIETY AND BETTER LIVING

**ZHEJIANG DAHUA VISION TECHNOLOGY CO., LTD.**

Address: No.1399 Binxing Road, Binjiang District, Hangzhou, P. R. China | Website: [www.dahuasecurity.com](http://www.dahuasecurity.com) | Postcode: 310053 | Email: [dhoverseas@dhvisiontech.com](mailto:dhoverseas@dhvisiontech.com) | Tel: +86-571-87688888 28933188