

WISENET

СЕТЕВАЯ КАМЕРА

Руководство пользователя

PNM-7000VD

SLA-2M2400D/SLA-2M2800D

SLA-2M3600D/SLA-2M6000D



Сетевая Камера

Руководство пользователя

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❖ Первоначальный ID администратора - "admin", а пароль следует задать при первом входе в систему.

Для надежной защиты личной информации и предотвращения ущерба от кражи данных меняйте пароль каждые три месяца.

Имейте в виду, что ответственность за безопасность а также за любые проблемы, связанные с ненадлежащим обращением с паролем, несет пользователь.

ВАЖНЫЕ ПРАВИЛА ТЕХНИКИ БЕЗОПАСНОСТИ

1. Прочтите эти правила.
2. Сохраните эти правила.
3. Принимайте во внимание все предупреждения.
4. Следуйте всем правилам.
5. Не используйте изделие вблизи воды.
6. Очищайте загрязненные места на поверхности изделия мягкой, сухой или влажной тряпкой.
(Не используйте моющие средства либо косметические продукты, содержащие спирт, растворители, либо ПАВ, либо смазочные материалы, поскольку они могут привести к деформации или повреждению продукта.)
7. Не загорайте никакие вентиляционные отверстия. Выполните установку изделия в соответствии с инструкциями изготовителя.
8. Не устанавливайте изделие рядом с источниками тепла, такими, как радиаторы, решетки системы отопления, или другими устройствами, которые генерируют тепло (включая усилители).
9. В целях безопасности не отказывайтесь от использования вилок поляризованного или заземляющего типа. Вилка поляризованного типа имеет два ножевых контакта, один из которых шире другого. Вилка заземляющего типа имеет два контакта и третий заземляющий штырь. Широкое лезвие третьего заземляющего штыря предусмотрено для вашей безопасности.
Если вилка поставляемого вместе с аппаратом шнура питания не подходит для вашей розетки, попросите опытного электрика заменить старую розетку.
10. Не наступайте на шнур питания и не допускайте его защемления, особенно вблизи от штепсельной вилки, в месте подключения к розетке и там, где шнур выходит из изделия.
11. Пользуйтесь только теми приспособлениями/ принадлежностями, которые рекомендованы изготовителем.
12. Используйте устройство только с тележкой, подставкой, штативом, кронштейном и столом, указанными производителем или приобретенными вместе с устройством.
Во избежание травм вследствие опрокидывания тележки с устройством соблюдайте осторожность при ее передвижении.
13. Отсоединяйте устройство от сети во время грозы или если оно не используется в течение длительного времени.
14. Все работы, связанные с техническим обслуживанием изделия, должны выполняться квалифицированными специалистами по техническому обслуживанию. Обслуживание изделия требуется выполнять, когда изделие получило какое-либо повреждение, например, был поврежден его шнур питания или вилка шнура питания, внутрь изделия попала жидкость или посторонние предметы, изделие подверглось воздействию дождя или влаги, изделие не работает должным образом, а также после падения изделия.
15. Данное изделие предназначено для питания от утвержденных источников питания с маркировкой "Class 2" или "LPS" с номинальным выходом PoE , 0.35A. (PNM-7000VD)
16. Данное изделие предназначено для питания от утвержденных источников питания с маркировкой "Class 2" или "LPS" с номинальным выходом 5 В пост. тока, не менее 0.25 А. (SLA-2M2400D/2M2800D/2M3600D/2M6000D)
17. Если при установке изделия прилагать чрезмерные усилия, возможно повреждение с нарушением работы камеры.
Если с силой устанавливать устройство, пользуясь неподходящими инструментами, возможно повреждение устройства.
18. Не допускается установка устройства в местах, где присутствуют или могут появляться химические вещества или пары масла. Поскольку пищевые масла, например, соевое, могут вызвать повреждение или привести к деформации устройства, не устанавливайте его на кухне или вблизи кухонного стола.
В противном случае возможна порча устройства.
19. При установке устройства будьте осторожны, не допускайте попадания химических веществ на его поверхность.
Некоторые химические растворители, например, очистители или клеящие вещества, могут сильно повредить поверхность продукта.
20. Если монтировать/демонтировать устройство не рекомендованным образом, нельзя гарантировать выполнение функций/соответствие характеристик устройства.
Устанавливайте устройство, обратившись к разделу "Установка и подключение" в руководстве пользователя.
21. Установка или эксплуатация устройства в воде может привести к значительному повреждению изделия.



ПРЕДУПРЕЖДЕНИЕ

ВО ИЗБЕЖАНИЕ ПОВРЕЖДЕНИЙ, СЛЕДСТВИЕМ КОТОРЫХ МОЖЕТ БЫТЬ ПОЖАР ИЛИ ПОРАЖЕНИЕ ЭЛЕКТРИЧЕСКИМ ТОКОМ, НЕ ДОПУСКАЙТЕ ПОПАДАНИЯ ДАННОГО ИЗДЕЛИЯ ПОД ДОЖДЬ ИЛИ В УСЛОВИЯ ВЫСОКОЙ ВЛАЖНОСТИ. ЗАПРЕЩАЕТСЯ ВСТАВЛЯТЬ КАКИЕ-ЛИБО МЕТАЛЛИЧЕСКИЕ ПРЕДМЕТЫ В ВЕНТИЛЯЦИОННЫЕ РЕШЕТКИ ИЛИ ДРУГИЕ ОТВЕРСТИЯ В ОБОРУДОВАНИИ.

Не подвергайте устройство воздействию жидкостей. Не следует также ставить на него предметы, наполненные жидкостью, например вазы.

Во избежание травм данное устройство должно быть надежно закреплено на стене/потолке в соответствии с инструкциями по установке.

ВНИМАНИЕ

	ВНИМАНИЕ ОПАСНОСТЬ ПОРАЖЕНИЯ ЭЛЕКТРИЧЕСКИМ ТОКОМ. НЕ ОТКРЫВАТЬ	
ВНИМАНИЕ : ВО ИЗБЕЖАНИЕ ПОРАЖЕНИЯ ЭЛЕКТРИЧЕСКИМ ТОКОМ, НЕ СНИМАЙТЕ ЗАДНЮЮ КРЫШКУ.ВНУТРИ НЕТ ДЕТАЛЕЙ, ОБСЛУЖИВАЕМЫХ ПОЛЬЗОВАТЕЛЕМ. ДЛЯ ТЕХНИЧЕСКОГО ОБСЛУЖИВАНИЯ ОБРАЩАЙТЕСЬ К КВАЛИФИЦИРОВАННОМУ СПЕЦИАЛИСТУ.		

ОПИСАНИЕ ГРАФИЧЕСКИХ ОБОЗНАЧЕНИЙ



Молния со стрелкой в равностороннем треугольнике предупреждает пользователя об "опасном напряжении" в корпусе изделия, которое может представлять риск поражения электрическим током.



Восклицательный знак в равностороннем треугольнике предупреждает пользователя о важных инструкциях по работе и обслуживанию в руководстве, которое прилагается к устройству.

Класс Конструкции I

Устройства КЛАССА I следует подключать к ЭЛЕКТРО розетке с защитным заземлением.

Батарея

Не подвергайте батареи (батарейный блок) чрезмерному нагреванию под воздействием солнечных лучей, огня и т.п.

Отключение устройства

Отсоедините вилку кабеля питания от устройства в случае повреждения. Обратитесь к местному специалисту по ремонту.

При использовании за пределами США с соединениями одобренными соответствующим органом, может использоваться кодировка HAR.

ВНИМАНИЕ

Существует риск взрыва при замене батарее на батарею несоответствующего типа. Утилизируйте использованные батареи в соответствии с инструкциями.

Настоящие инструкции по обслуживанию предназначены только для квалифицированных специалистов.

Во избежание поражения электрическим током не следует выполнять работы по обслуживанию, описанные в инструкциях по эксплуатации, если вы не обладаете соответствующей квалификацией.

Выходной разъем CVBS устройства предназначен для облегчения монтажа и не рекомендуется использовать его для целей мониторинга.

К источнику входного питания может подсоединяться только одна камера.

Оборудование ITE подключается только к сети питания по Ethernet без маршрутизации на оборудование наружной установки.

Внимательно прочитайте приведенные ниже правила техники безопасности.

- Не ставьте устройство на неровную поверхность.
- Не устанавливайте устройство на поверхность, подверженную прямым солнечным лучам, рядом с нагревательным оборудованием или в очень холодном месте.
- Не устанавливайте это устройство вблизи электропроводящего.
- Не следует ремонтировать устройство самостоятельно.
- Не следует ставить на устройство стаканы с водой.
- Не устанавливайте поблизости источники магнитного поля.
- Не допускайте загрождения вентиляционных отверстий.
- Не ставьте тяжелые предметы на устройство.
- При установке/демонтаже камеры надевайте защитные перчатки. Высокая температура поверхности изделия может вызвать ожог.

Руководство пользователя содержит инструкции по использованию продуктов.

В руководстве используются следующие обозначения.

- Справка : сведения по использованию устройства
 - Примечание : На случай возможных повреждений имущества или вреда здоровью людей в результате несоблюдения инструкций
- ✳ Прочтите это руководство по безопасности перед использованием устройств и сохраните его в безопасном месте.

В некоторых условиях установки могут возникать помехи радиосвязи.

Если данное устройство и какое-либо устройство радиосвязи создают взаимные электромагнитные помехи, рекомендуется разнести их на достаточное расстояние или изменить направление приемной антенны.

ОБЗОР 3	3	Важные правила техники безопасности
	6	Рекомендуемая Конфигурация Пк
	6	Рекомендуемые характеристики карт памяти Микро SD/SDHC/SDXC
	6	Комплект Поставки (PNM-7000VD)
	7	Комплект Поставки (Модуль объектива-дополнительный)
	8	Общий Обзор (PNM-7000VD)
	9	Общий Обзор (Модуль объектива)

УСТАНОВКА И ПОДКЛЮЧЕНИЕ 10	10	Установка
	12	Установка/извлечение карты памяти Микро SD
	13	Подключение к Другому Устройству

СЕТЕВОЕ СОЕДИНЕНИЕ И НАСТРОЙКА 14	14	Подключение Камеры Напрямую к Локальной Сети
	14	Прямое Подключение Камеры к Модему DSL/кабельному Модему С Поддержкой Протокола DHCP
	15	Использование Device Manager
	15	Автоматический поиск камеры
	15	Настройка IP-адреса
	16	Регистрация камеры вручную
	16	Автоматическая настройка IP
	17	Настройка Переадресации Диапазона Портов (Распределение Портов)
	18	Подключение к Камере с Локального Компьютера Общего Доступа
	18	Подключение к Камере с Удаленного Компьютера Через Интернет

ИНТЕРАКТИВНАЯ ПРОГРАММА ПРОСМОТРА	19	Подключение к Камере
	20	Установка пароля
	20	Вход
	20	Спецификации подключаемых программных модулей для всех браузеров
	21	Установка дополнительного модуля WebViewer
	21	Использование подключаемого программного модуля веб-просмотра

ПРИЛОЖЕНИЕ 22	22	Поиск и Устранение неполадок
	23	Open Source Announcement

РЕКОМЕНДУЕМАЯ КОНФИГУРАЦИЯ ПК

- Процессор : Intel(R) Core(TM) i7 3,4 ГГц или больше
- Поддерживаемые ОС : Windows 7, 8, 10, Mac OS X 10.10, 10.11, 10.12
- **Дополнительный программный модуль Free web viewer**
Поддерживаемые веб-браузеры : Google Chrome 54, MS Edge 38, Mozilla Firefox 49(который поддерживается только Windows 64bit), Apple Safari 9 (который поддерживается только Mac OS X)

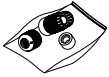
РЕКОМЕНДУЕМЫЕ ХАРАКТЕРИСТИКИ КАРТ ПАМЯТИ МИКРО SD/SDHC/SDXC

- Рекомендуемая емкость : от 16 до 256 Гбайт (типа MLC)
- Для данной камеры рекомендуются карты памяти следующих типов указанных производителей.
 - Производитель : SanDisk, Transcend
 - Линейка изделий: С длительным сроком службы
- Рекомендуется применять карту памяти на 16 Гб или более, которая отвечает спецификации UHS-3 класс (тип MLC).

КОМПЛЕКТ ПОСТАВКИ (PNM-7000VD)

Проверьте наличие всех принадлежностей в комплекте поставки камеры.
(У изделий, продаваемых в разных странах, принадлежности могут отличаться.)

Внешний вид	Название элемента	Количество	Описание
	Камера	1	
	Краткое Руководство (необязательно)	1	
	Гарантийный талон (необязательно)	1	
	Кабель для тестирования монитора	1	Используется для подключения камеры к портативному устройству отображения
	Шаблон	1	Руководство по установке устройства
	Звездобразный ключ	1	Снять/закрепить крышку наверху
	Самонарезающий винт	3	Используются для установки на стену или потолок

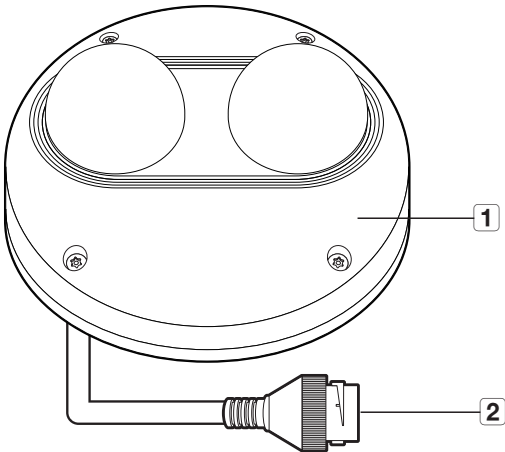
Внешний вид	Название элемента	Количество	Описание
	Пластиковый дюбель	3	Используется для фиксации винта, вставляется в отверстие (повышенная прочность фиксации)
	Крепежные винты	3	Используются для сборки купольного корпуса при установке устройства на трубе, стене, и т.д., или для блокировки отверстий.
	Комплекующий влагостойкий кабель RJ45	1	Используется при установке в сырых местах.
	Влагопоглотитель в виде карты	1	Вставляется при установке.

КОМПЛЕКТ ПОСТАВКИ (МОДУЛЬ ОБЪЕКТИВА-ДОПОЛНИТЕЛЬНЫЙ)

Внешний вид	Название элемента	Количество	Описание	Название модели
	Модуль объектива	1	Крепится к PNM-7000VD	SLA-2M2400D
		1		SLA-2M2800D
		1		SLA-2M3600D
		1		SLA-2M6000D

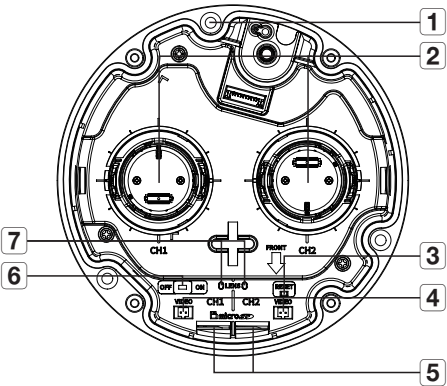
ОБЩИЙ ОБЗОР (PNM-7000VD)

Внешний вид



Элемент	Описание
1 Верхняя крышка	Крышка корпуса, предназначенная для защиты объектива и основного устройства.
2 Соединитель PoE	Питание поступает через кабель Ethernet и подключается к локальной сети.

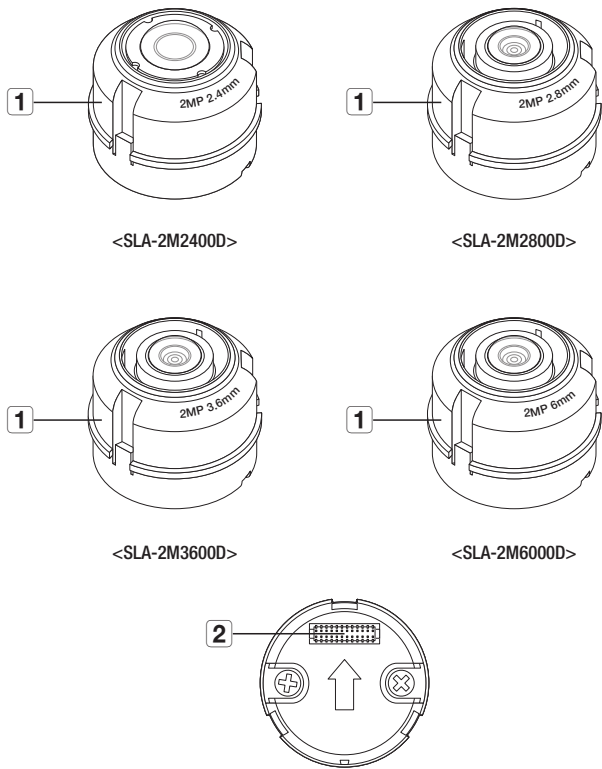
Внутренняя часть



Элемент	Описание
1 Порт для фиксации камеры	Отверстие используется для крепления камеры к потолку.
2 Крепежная часть модуля объектива	Это соединитель для подключения модуля объектива.
3 Кнопка сброса	Восстановление заводских настроек по умолчанию для всех параметров камеры. Для перезагрузки системы нажмите и удерживайте в течение 5 секунд. ! Если сбросить настройки камеры, то сетевые настройки позволят активировать DHCP. Если в сети нет DHCP-сервера, то перед первым подключением к сети необходимо запустить программу Device Manager, чтобы изменить основные сетевые параметры, такие как IP-адрес, маска подсети, шлюз и т. д.
4 Порт тестирования выходного сигнала монитора	Порт вывода для тестирования выходного видеосигнала наблюдения. Подсоедините мобильный дисплей к порту с помощью кабеля для тестирования видеонаблюдения и проверьте видео.
5 Отсек для карты памяти Micro SD	Отсек для карты памяти Micro SD.
6 Переключатель включения/отключения питания	Используется для включения/выключения аппарата.
7 Световой индикатор модуля объектива (норма:зеленый, отклонение от нормы: красный)	Если модуль объектива подсоединен правильно, зеленый светодиод будет светиться, а затем, приблизительно через 40 секунд, погаснет. (для предотвращения нежелательных отражений)

ОБЩИЙ ОБЗОР (МОДУЛЬ ОБЪЕКТИВА)

Внешний вид



Элемент	Описание
1 Модуль объектива	Это модуль объектива, через который записывается видео.
2 Соединитель камеры	Это соединитель для подключения к камере.

УСТАНОВКА



- Эта камера водонепроницаема и соответствует стандарту IP66, однако штекер внешнего кабеля водонепроницаемым не является. Рекомендуется установить это устройство под карнизом во избежание выступаania кабеля наружу.

Меры предосторожности, принимаемые перед установкой

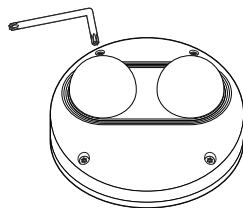
Прежде чем устанавливать камеру, обязательно прочтите приведенные далее инструкции.

- Выберите место для установки, которое сможет выдержать вес, минимум в 5 раз превышающий вес самой камеры.
- Кабели с поврежденной или снятой изоляцией могут стать причиной повреждения устройства или возгорания.
- С целью предосторожности попросите посторонних лиц покинуть место установки. На всякий случай уберите все посторонние личные вещи.
- Если аппарат устанавливать с чрезмерным усилием, это может привести к повреждению камеры из-за неправильной работы.
При сборке неподходящими инструментами с приложением усилий возможно повреждение аппарата.
- Не снимайте модуль объектива при включенном питании.

Разборка

Удалите верх крышки, отвернув четыре винта в направлении против часовой стрелки прилагающимся звездообразным ключом.

- Обратите внимание на то, что ослабевать винты полностью не нужно.

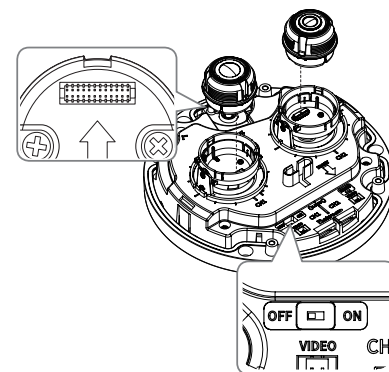


Установка модуля объектива

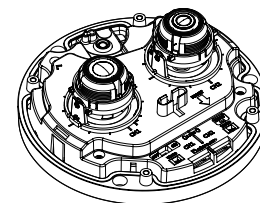
1. Совместите соединитель модуля объектива с соединителем корпуса камеры и закрепите его.



- Не рекомендуется прикасаться к отделенному объективу, поскольку он отрегулирован с завода с настроенным при производственной проверке фокусным расстоянием.



2. Завершите процедуру установки объектива.



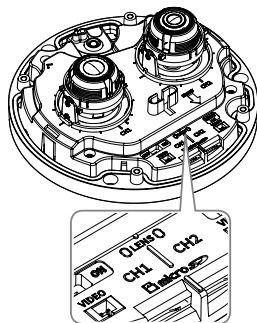
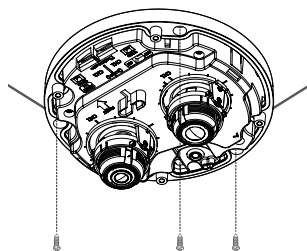
Установка на потолке или на стене

1. Используя прилагающийся шаблон, просверлите отверстия для установки (диаметром 6 мм и глубиной не менее 45 мм), затем вставьте до конца прилагаемые пластиковые дюбели.
2. Совместите установочные отверстия камеры с отверстиями, в которые вставлены пластиковые дюбели, затем заверните самонарезные винты.
3. Накройте сверху крышкой и звездообразным ключом поверните винт по часовой стрелке, чтобы закрепить крышку.

! ■ Если при закреплении крышки винты не были полностью затянуты, это может привести к проблемам с проникновением влаги (IP66).

4. Подключите кабель к камере. Будьте осторожны, чтобы не повредить кабель. Его следует убрать.

! ■ Если модуль объектива подсоединен неправильно, световой индикатор состояния модуля объектива будет светиться красным, как показано на рисунке. Если это произошло, отключите питание выключателем и повторно подсоедините модуль объектива. При нормальном подсоединении индикатор засветится зеленым и приблизительно через 40 секунд погаснет.



Подключение влагостойкого кабеля RJ45 к кабелю локальной сети

! ■ Удостоверьтесь, что камера работает нормально, а затем подключите водостойкий кабель.

1. Вставьте его в направлении, показанном стрелкой.

2. Подключите соединитель локальной сети (вилка) к кабелю.

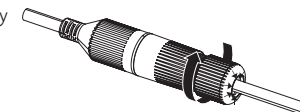
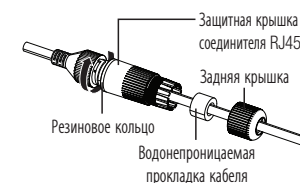
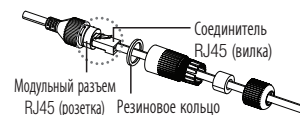
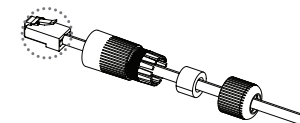
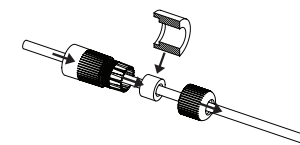
3. Подключите модульный разъем (розетка) к соединителю RJ45 (вилка).

! ■ Храните каждую из частей отдельно.

4. Соедините, повернув модульный разъем RJ45 (розетка) и защитную крышку RJ45 по часовой стрелке (в направлении, указанном стрелкой).

5. Соедините, повернув защитную крышку RJ45 и заднюю крышку по часовой стрелке (в направлении, указанном стрелкой). Когда задняя крышка встанет на место, водонепроницаемая прокладка кабеля плотно прижмется к кабелю, обеспечив его влагозащиту.

! ■ Необходимо полностью собрать узел, повернув заднюю крышку до конца винтовой резьбы соединителя RJ45.



Наружный монтаж

При монтаже этого устройства вне здания, пожалуйста, обеспечьте его водонепроницаемость с помощью водонепроницаемой ленты бутылкаучука (ее можно купить в магазине) так, чтобы вода не протекла в щель кабеля, выведенного наружу.

1. Подключите кабель PoE.
2. Оберните черный кабельный кожух (Зона A) и зону присоединения кабеля водонепроницаемой лентой (бутылкаучук) так, чтобы лента бутылкаучука перекрывалась больше чем на половину.



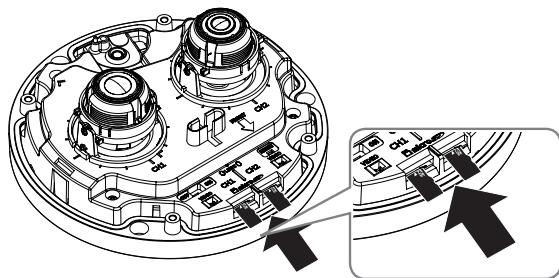
- ❗ Если не обеспечена надлежащая водонепроницаемость кабельного кожуха, это может стать причиной течи. Удостоверьтесь, что кабель обмотан толстым слоем ленты.
- Водонепроницаемая лента сделана из бутылкаучука, который может растягиваться по длине более чем в два раза.

УСТАНОВКА/ИЗВЛЕЧЕНИЕ КАРТЫ ПАМЯТИ МИКРО SD

- ❗ ▪ Перед установкой карты Микро SD отключите кабель питания от камеры.
- Правильно расположенная карта памяти Микро SD вставляется без усилия. Принудительная установка карты памяти Микро SD не той стороной может привести к повреждению.
- Не рекомендуется вставлять или вынимать карту памяти Микро SD во время дождя или при высокой влажности.
- Снятие крышки изделия следует закончить в течение 5 минут, поскольку в противном случае возникает опасность конденсации росы внутри изделия.

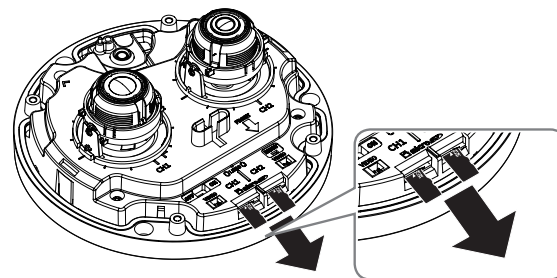
Установка карты памяти Микро SD

1. Отделите крышку от верха камеры.
2. Вставьте карту памяти Микро SD в направлении стрелки, как показано на рисунке.



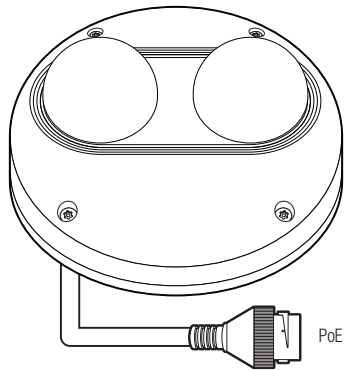
Извлечение карты памяти Микро SD

Мягко нажмите на выступающий конец карточки как показано на диаграмме, чтобы извлечь карточку из гнезда.



- ❗ ▪ Заметьте, что если во время извлечения сильно нажать на карту памяти Микро SD, а затем отпустить ее, она может выскочить.
- Перед извлечением карты памяти SD в меню <Накопитель>, установите устройство в состояние <Выкл.>, нажмите кнопку [Применить] и выключите камеру.
- Если Вы выключите камеру или извлечете из продукта карту памяти Микро SD, содержащую данные, то эти данные могут быть потеряны или повреждены.

ПОДКЛЮЧЕНИЕ К ДРУГОМУ УСТРОЙСТВУ



-
- Выходной разъем CVBS устройства предназначен для облегчения монтажа и не рекомендуется использовать его для целей мониторинга.

Питание и сеть

Подключите соединитель PoE камеры к устройству PoE.

-
- Выполните подключение к соединителю маршрутизатора, поддерживающему PoE.
 - Используйте соединение PoE, совместимое с протоколами IEEE802.3af.

Спецификация сетевого кабеля

Пункт	Содержание	Примечание
Разъем	RJ45 (10/100BASE-T)	
Ethernet	10/100BASE-T	
Кабель	UTP категории 5e	
Макс. расстояние	100 м	Сопротивление по постоянному току ≤ 0,188 Ом/м
Поддержка питания по Ethernet	IEEE 802.3af	

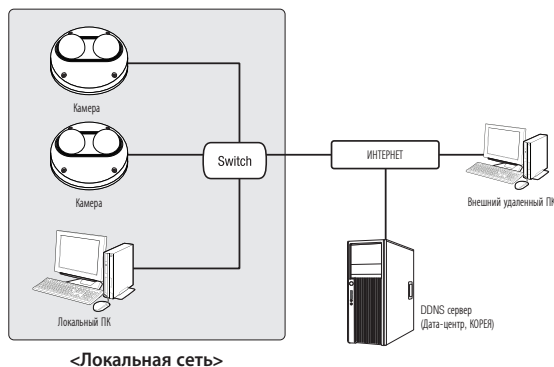
сетевое соединение и настройка

Можно выставить сетевые настройки согласно сетевой конфигурации.

ПОДКЛЮЧЕНИЕ КАМЕРЫ НАПРЯМУЮ К ЛОКАЛЬНОЙ СЕТИ

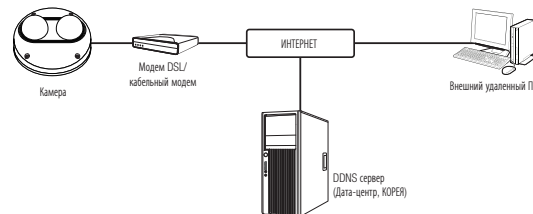
Подключение к камере через локальный ПК в локальной сети

1. Запустите Интернет-браузер на локальном ПК.
2. Введите адрес IP-роутера в адресной строке браузера.



- Удаленный ПК во внешней сети или в Интернете не может подключиться к камере, установленной в интранет, если не задана правильная переадресация портов или установлен фаервол. В этом случае обратитесь к системному администратору для устранения проблемы.
- В Device Manager для установки IP-адреса, маски подсети, шлюза, порта HTTP и типа IP можно использовать исходный пароль «4321». Для лучшей защиты после изменения сетевого интерфейса войдите в web viewer и поменяйте пароль.
- Согласно заводским настройкам по умолчанию, IP-адрес назначается сервером DHCP автоматически. Если сервер DHCP отсутствует, будет задан следующий IP-адрес: 192.168.1.100. Чтобы изменить IP-адрес, нужно использовать Device Manager. Для получения дополнительной информации об использовании Device Manager см. раздел «Использование Device Manager». (Стр. 15)

ПРЯМОЕ ПОДКЛЮЧЕНИЕ КАМЕРЫ К МОДЕМУ DSL/КАБЕЛЬНОМУ МОДЕМУ С ПОДДЕРЖКОЙ ПРОТОКОЛА DDNS



1. Подсоедините напрямую ПК пользователя с сетевой камерой.
2. Запустите Device Manager и измените IP-адрес камеры, чтобы можно было для подключения к Интернету использовать веб-браузер вашего компьютера.
3. Установите подключение к интерактивной программе просмотра в веб-браузере.
4. Перейдите на страницу [Настройка].
5. Перейдите на страницу [Сеть] - [DDNS] и настройте параметры DDNS.
6. Перейдите по меню [Basic] - [IP & Порт] и задайте тип IP для [DHCP].
7. Подсоедините камеру, отключенную от ПК, непосредственно к модему.
8. Перезапустите камеру.



- За информацией об установке DDNS обратитесь к онлайнной справке программы Web Viewer.
- За информацией о задании формата IP-адреса обратитесь к онлайнной справке программы Web Viewer.

ИСПОЛЬЗОВАНИЕ DEVICE MANAGER



- Программу Device Manager можно загрузить с веб-сайта Hanwha Techwin через меню <Technical Guides> – <Online Tool>. (<http://www.hanwha-security.com>)
- Дополнительные инструкции по Device Manager можно найти в меню <Справка> главной страницы.

АВТОМАТИЧЕСКИЙ ПОИСК КАМЕРЫ

Если камера подключена к той же сети, что и ПК, на котором установлен Device Manager, можно найти такую сетевую камеру с помощью функции поиска.

1. Нажмите <Search (Поиск)> на главной странице Device Manager.
2. В открывшемся списке выберите нужную камеру.
 - Проверьте MAC-адрес на наклейке, прикрепленной к камере.

НАСТРОЙКА IP-АДРЕСА

Чтобы изменить сетевые настройки камеры, в поле <Status (Состояние)> должен отображаться значок <Login OK (Вход ОК)>. Чтобы войти в систему, на главной странице нажмите <Authentication (Аутентификация)>.

Настройка статического IP

Вручную введите IP-адрес и информацию о порте.

1. Выберите из списка камеру, у которой нужно изменить параметры IP.
2. Нажмите кнопку <IP Assign (Назначить IP)> на главной странице Device Manager.
3. Выберите <Assign the following IP address (Назначить следующий IP-адрес)>.
 - В данных параметров IP камеры будут отображаться введенные значения.
4. Заполните категории IP-адреса и порта.

В случае отсутствия Широкополосный маршрутизатор

Попросите сетевого администратора выдать вам значения <IP Address (IP-адрес)>, <Subnet Mask (Маска подсети)>, <Gateway (Шлюз)>.

- HTTP Port : Используется для получения доступа к камере через веб-обозреватель. Значение по умолчанию - 80.
- RTSP Port : Порт, который управляет потоковой передачей в реальном времени. По умолчанию установлено значение 554.

В случае использования Широкополосный маршрутизатор

- IP Address : введите адрес, который соответствует IP-диапазону, заданному Широкополосный маршрутизатор. пр) 192.168.1.2~254, 192.168.0.2~254, 192.168.XXX.2~254
- Subnet Mask : параметр <Subnet Mask> Широкополосный маршрутизатор соответствует параметру <Subnet Mask> камеры.
- Gateway : параметр <Local IP Address> Широкополосный маршрутизатор соответствует параметру <Gateway> камеры.



- Параметры могут различаться в зависимости от модели Широкополосный маршрутизатор. Для получения дополнительных сведений см. руководство пользователя соответствующего маршрутизатора.
- Дополнительную информацию о переадресации портов на широкополосном маршрутизаторе см. в разделе "Настройка Переадресации Диапазона Портов (Распределение Портов)". (Стр. 17)

Если к Широкополосный маршрутизатор подключено несколько камер

Настройте параметры, связанные с IP-адресом и портами, в соответствии друг с другом.

пр)

Категория	Камера №1	Камера №2
Настройки, связанные с IP	IP Address Subnet Mask Gateway 192.168.1.100 255.255.255.0 192.168.1.1	192.168.1.101 255.255.255.0 192.168.1.1
Настройки, связанные с портами	Порт HTTP Порт RTSP 8080 554	8081 555



- Если для параметра <HTTP Port> выбрано значение свыше 80, необходимо указать номер <Port> в адресной строке веб-обозревателя, прежде чем получить доступ к камере.
пр) http://IP-адрес : Порт HTTP
http://192.168.1.100:8080

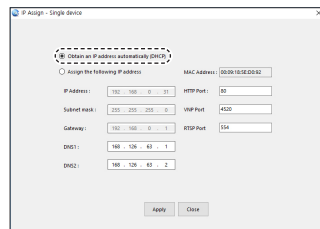
5. Нажмите кнопку [Применить].
6. Если появится сообщение об успешной настройке, нажмите [OK].

Настройка динамического IP-адреса

Получите IP-адрес от DHCP

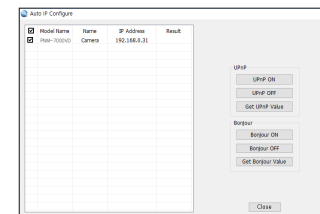
- Примеры динамического IP-окружения
 - Сервер DHCP назначает IP-адрес Широкополосный маршрутизатор с подключенными камерами.
 - Прямое подключение камеры к модему с помощью протоколов DHCP
 - Внутренний сервер DHCP назначает IP-адреса по локальной сети.

1. Выберите из списка камеру, у которой нужно изменить параметры IP.
2. Нажмите кнопку **<IP Assign (Назначить IP)>** на главной странице Device Manager.
3. Выберите **<Obtain an IP address automatically (DHCP) (Получить IP-адрес автоматически (DHCP))>**.
4. Нажмите кнопку **[Apply (Применить)]**.
5. Если появится сообщение об успешной настройке, нажмите **[OK]**.



АВТОМАТИЧЕСКАЯ НАСТРОЙКА IP

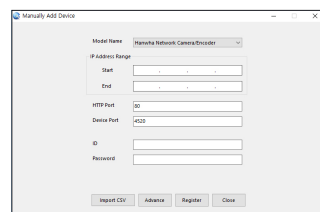
1. Выберите из списка камеру, для которой необходимо автоматически настроить параметры IP.
2. На главной странице Device Manager нажмите **< + >**.
 - Появится меню настроек оборудования.
3. Выберите в меню **<Auto IP Configure (Автоматическая настройка IP)>**.
4. Нажмите кнопку **[Close (Заккрыть)]**.



РЕГИСТРАЦИЯ КАМЕРЫ ВРУЧНУЮ

Если не удастся найти камеру с помощью функции поиска (если камера подключена к внешней сети), ее можно зарегистрировать удаленно, введя ее параметры IP вручную.

1. На главной странице Device Manager нажмите **<Add Devices (Добавить устройства)>** – **<Manually Add Device (Добавить устройство вручную)>**.
2. Введите нужный диапазон IP-адресов.
3. Выберите **<Model Name (имя модели)>** камеры, которую нужно зарегистрировать, и введите данные о порте HTTP, идентификатор и пароль.
4. Нажмите кнопку **[Register (Зарегистрировать)]**.
5. Проверьте, зарегистрировалась ли камера.
 - Проверьте MAC-адрес на наклейке, прикрепленной к камере.

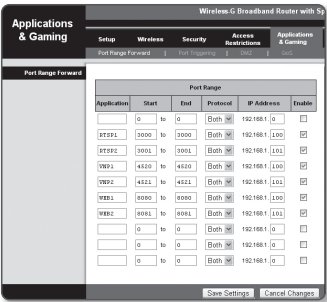


НАСТРОЙКА ПЕРЕАДРЕСАЦИИ ДИАПАЗОНА ПОРТОВ (РАСПРЕДЕЛЕНИЕ ПОРТОВ)

После установки Широкополосный маршрутизатор с подключенными камерами необходимо настроить для него переадресацию диапазона портов, чтобы с удаленного компьютера можно было получить доступ к подключенным камерам.

Переадресации диапазона портов вручную

1. В меню настроек Широкополосный маршрутизатор выберите <Applications & Gaming> - <Port Range Forward>.
Сведения о настройке переадресации диапазона портов для Широкополосный маршрутизатор стороннего производителя см. в его руководстве пользователя.
2. Выберите <TCP> и <UDP Port> для каждой камеры, подключенной к Широкополосный маршрутизатор. Номер каждого из портов, конфигурируемых в IP-маршрутизаторе, следует устанавливать в соответствии с номером, назначенным в пункте меню <Настройка> - <Basic> - <IP & Порт> в Web viewer камеры.
3. Затем нажмите кнопку [Save Settings].
Заданные настройки будут сохранены.

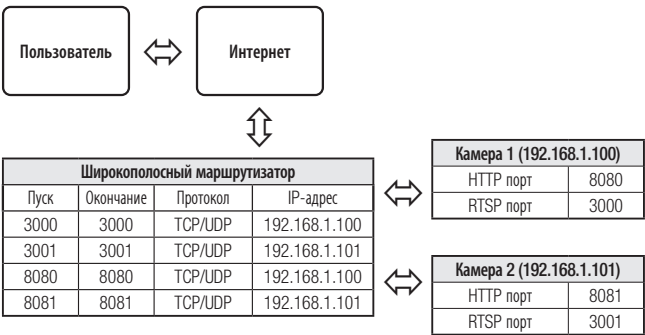


- Настройка переадресации портов является примером настройки IP-маршрутизатора CISCO.
- Параметры могут различаться в зависимости от модели Широкополосный маршрутизатор. Для получения дополнительных сведений см. руководство пользователя соответствующего маршрутизатора.

Настройка переадресации диапазона портов для нескольких сетевых камер

- Правило переадресации порта для Широкополосный маршрутизатор можно задать с веб-страницы его настроек.
- С помощью экрана настройки камеры можно изменить все порты.

Когда камера 1 и камера 2 подключены к маршрутизатору:



- Переадресация портов выполняется без дополнительной настройки роутера, если роутер поддерживает функцию UPnP (включи и работай).
После соединения с сетевой камерой установите в меню <Быстрое соединение> флажок <Wisenet DDNS> в пункте "Настройки -> Сеть -> DDNS".

ПОДКЛЮЧЕНИЕ К КАМЕРЕ С ЛОКАЛЬНОГО КОМПЬЮТЕРА ОБЩЕГО ДОСТУПА

1. Запустите Device Manager.
Она выполнит поиск подключенных камер и составит список найденных.
2. Дважды щелкните нужную камеру, чтобы получить к ней доступ.
Запустится веб-обозреватель и подключится к выбранной камере.



- Получить доступ к найденной камере можно и другим способом: просто введите IP-адрес камеры в адресную строку веб-обозревателя.

ПОДКЛЮЧЕНИЕ К КАМЕРЕ С УДАЛЕННОГО КОМПЬЮТЕРА ЧЕРЕЗ ИНТЕРНЕТ

На удаленном компьютере, который не входит в сетевой кластер широкополосного маршрутизатора, пользователи не могут получить доступ к камерам в сети широкополосного маршрутизатора, используя URL-адрес DDNS конкретной камеры.

1. Прежде чем получить доступ к камере в сети Широкополосный маршрутизатор, необходимо настроить переадресацию диапазона портов для Широкополосный маршрутизатор.
2. На удаленном компьютере запустите веб-обозреватель и введите DDNS URL-адрес камеры или IP-адрес Широкополосный маршрутизатор в адресную строку.
пр) <http://ddns.hanwha-security.com/ID>

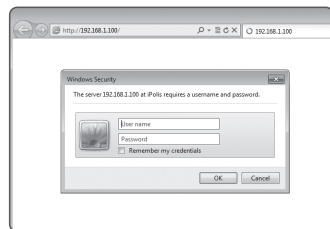


- Чтобы использовать Wisenet DDNS, зарегистрируйтесь на домашней странице Wisenet DDNS (<http://ddns.hanwha-security.com>) и зарегистрируйте продукт через меню **[Мой DDNS]> [Зарегистрировать продукт]**.

ПОДКЛЮЧЕНИЕ К КАМЕРЕ

Обычный порядок действий

1. Запустите веб-обозреватель.
2. Введите IP-адрес камеры в адресную строку.
пр) • IP-адрес (IPv4) : 192.168.1.100
→ http://192.168.1.100
- появится диалоговое окно входа.
• IP-адрес (IPv6) : 2001:230:abcd:ffff:0000:0000:ffff:1111
→ http://[2001:230:abcd:ffff:0000:0000:ffff:1111] - появится диалоговое окно входа.



Номер порта HTTP отличен от 80

1. Запустите веб-обозреватель.
2. Введите IP-адрес и номер порта HTTP камеры в адресную строку.
пр) IP-адрес: 192.168.1.100: номер порта HTTP(8080)
→ http://192.168.1.100:8080 - появится диалоговое окно входа.

Использование URL-адреса

1. Запустите веб-обозреватель.
2. Введите DDNS URL-адрес камеры в адресную строку.
пр) URL-адрес: http://ddns.hanwha-security.com/ID
- появится диалоговое окно входа.



■ Сетевое подключение выключено только в среде LAN.

Подключение через UPnP

1. Запустите систему клиента или операционную систему в подтверждение UPnP протокола.
2. Кликните имя камеры для поиска.
В операционной системе Windows кликните на имя камеры для поиска в меню сети.
- Отобразится окно входа.

Соединение через службу Bonjour

1. Запустите систему клиента или операционную систему в подтверждение Bonjour протокола.
2. Кликните имя камеры для поиска.
В операционной системе Mac кликните имя камеры для поиска во вкладке Bonjour в браузере Safari.
- Отобразится окно входа.

Просмотр DDNS-адреса

Если камера подключена непосредственно к кабельному модему на основе DHCP или к модему DSL, то IP-адрес будет изменяться каждый раз при соединении с Интернет-провайдером (компанией, с которой у вас подписка).

В этом случае вам не будет сообщаться об изменении IP-адреса, выполненном DDNS.

Если вы зарегистрируете устройство с динамическим IP-адресом на сервере DDNS, то во время доступа к этому устройству вы всегда можете проверить, как изменился его IP-адрес.

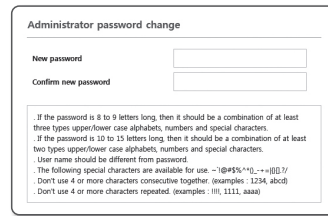
Чтобы зарегистрировать устройство на сервере <DDNS>, посетите веб-сайт <http://ddns.hanwha-security.com>. Сначала зарегистрируйте камеру, а затем задайте <Сеть> - <DDNS> для <Wisenet DDNS> в программе Web Viewer, а также укажите <Код продукта>, который использовался для регистрации DDNS.

УСТАНОВКА ПАРОЛЯ

Когда доступ к продукту выполняется первый раз, необходимо зарегистрировать пароль входа в систему. Когда откроется окно **“Смена пароля”**, введите новый пароль.



- Для нового пароля от 8 до 9 символов, необходимо использовать не менее 3 символов из числа следующих: строчные/прописные буквы, цифры и специальные символы. Для пароля от 10 до 15 символов необходимо использовать не менее 2 типов указанных символов.
 - Допускаются следующие специальные символы : ~!@#\$\$%^&*()_-=![];:/?
- Для лучшей защиты пароля не рекомендуется повторять одинаковые символы либо символы, последовательно расположенные на клавиатуре.
- При утрате пароля можно нажать кнопку **[RESET]** для инициализации продукта. Не теряйте пароль, сохраните его в записной книжке или запомните.



ВХОД

При каждом доступе к камере будет появляться окно входа. Укажите идентификатор пользователя и пароль для доступа к камере.

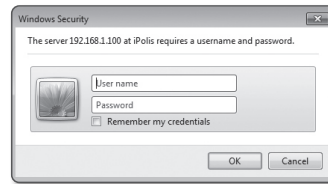
1. Введите **“admin”** в поле ввода **<User Name>**. Идентификатор администратора **“admin”** постоянный и не подлежит изменению.
2. Введите пароль в поле ввода **<Password>**.
3. Нажмите кнопку **[OK]**. После входа в систему отобразится экран интерактивной программы просмотра.



- При доступе к камере через модуль Web viewer уделите внимание безопасности и проверьте, зашифрованы ли данные, содержащие изображение.



- Если установить флажок **“Remember my credentials”** во время ввода данных, то в следующий раз и далее вход в систему будет выполняться автоматически без запроса данных.
- Лучшее качество видео обеспечивается при размере экрана 100%. При уменьшении экрана изображение может быть обрезано по краям.



СПЕЦИФИКАЦИИ ПОДКЛЮЧАЕМЫХ ПРОГРАММНЫХ МОДУЛЕЙ ДЛЯ ВСЕХ БРАУЗЕРОВ

Новая программа веб-просмотра Web viewer работает без использования подключаемого программного модуля.

Это позволяет использовать Web viewer даже в среде последних версий браузеров, не поддерживающих подключаемые программные модули, например, Chrome, EDGE и FireFox (только 64-битная Windows).

В зависимости от вашего текущего браузера могут иметь место следующие отличия:

- **Браузеры Chrome, FireFox(который поддерживается только Windows 64bit), EDGE, Safari** : Хотя они не поддерживают подключаемые программные модули, можно использовать Web viewer, так как установлен web viewer, не использующий подключаемый программный модуль.



- Поскольку бесплатный подключаемый программный модуль веб-просмотра имеет более низкие характеристики, чем подключаемый программный модуль веб-просмотра, имеется ограничение на наблюдение под профилями с высоким качеством и воспроизведение сохраненных видеоданных.
Для наблюдения под профилями с высоким качеством и воспроизведения сохраненных видео используйте либо подключаемый программный модуль веб-просмотра, либо программу SmartViewer.
- Условия создания web-средства просмотра, работающего без подключаемого модуля: Выбранный профиль по своим характеристикам превышает MJPEG Full HD 10 кадр/с H.264 (Chrome: поддерживается полноэкранное разрешение / Edge, Firefox, Safari: FullHD 30 кадр/с или выше) H.265 FullHD 10 кадр/с 2 Мбит/с или выше
- Условия воспроизведения без подключаемого модуля: MJPEG/H.264 полноэкранное разрешение, H.265 HD или ниже
- Функция бесплатного подключаемого программного модуля оптимизирована для браузера Chrome.
- Поддерживается адаптивная потоковая передача
- Это функция, которая обеспечивает автоматическое понижение свойств профиля, если задержка больше 5 секунд. Она служит для предотвращения таких явлений, как повышенное время ожидания и отсутствие отклика от браузера при воспроизведении видео в системе с аппаратными характеристиками ниже рекомендуемых.
Профиль видео понижается в следующем порядке: 1920X1080 (20 кадр/с) ->1280X720 (20 кадр/с) ->640X480 (20 кадр/с).

УСТАНОВКА ДОПОЛНИТЕЛЬНОГО МОДУЛЯ WebViewer

Для того чтобы получить доступ к подключаемому программному модулю веб-просмотра и воспроизводить прямое (H.264/H.265) или записанное видео, будет выведено сообщение с предложением установить модуль. Для надлежащего применения функции необходимо установить подключаемый программный модуль веб-просмотра.

1. При самом первом обращении к странице монитора отображается страница установки. Кликните на **[Click Here]**, чтобы начать установку.



■ Если статус загрузки установочного файла плагина приостанавливается на 99% в браузере Internet Explorer, попробуйте еще раз после выбора "Отключить фильтр SmartScreen" в "Инструменты → фильтр SmartScreen".

2. Кликните **[Run]** в окне сообщений.
3. Кликните **[Yes]** когда в окне-примечании появится сообщение о том, что все окна браузеров будут закрыты.



■ Шаги 4 и 5 будут пропущены, если плагин Web Viewer не установлен.

4. Если установлена старая версия плагина Web Viewer, отобразится сообщение в окне-примечании, что старая версия будет удалена. Кликните **[Yes]** когда появится окно-примечание.

5. Кликните **[OK]**.
Старая версия плагина Web Viewer удалена.

6. Кликните **[Install]**, чтобы начать установку плагина Web Viewer.

7. Кликните **[Finish]**.
Установка плагина Web Viewer завершена.

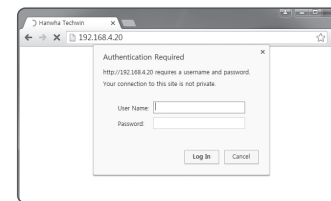


■ В веб-браузере после установки подключаемого модуля webviewer проверьте, установилась ли кнопка webviewer_activeplugin_1ib.control из меню "Инструменты → Управление дополнительными функциями" в состояние "Активировано". Если нет, и если имеется неустранимая проблема, выберите "Инструменты → Опции Интернет → Общие" и удалите все записи поиска. Если проблема не устраняется, зарегистрируйте IP-адрес или домен своей камеры в "Инструменты → Опции Интернета → Безопасность → Доверенные сайты".

ИСПОЛЬЗОВАНИЕ ПОДКЛЮЧАЕМОГО ПРОГРАММНОГО МОДУЛЯ ВЕБ-ПРОСМОТРА

Если доступ к камере производится из веб-браузера Google Chrome, Mozilla Firefox, Safari или MS Edge, можно проверять изображение с камеры и управлять им в реальном времени, не устанавливая отдельные подключаемые программные модули.

1. Для входа в систему введите свои имя пользователя и пароль.
2. После входа в систему появится экран с прямым изображением от камеры.



Настройка камеры

1. Щелкните по значку **[Настройка (⚙)]**.
2. Откроется окно настроек.
3. Можно задать по локальной сети базовую информацию о камере, а также настройки видео, аудио, локальной сети, событий, анализа и системы.
4. Выберите **<Справка (🔗)>** для просмотра подробного описания каждой функции.

ПОИСК И УСТРАНЕНИЕ НЕПОЛАДОК

ПРОБЛЕМА	РЕШЕНИЕ
Если доступ производится через подключаемый программный модуль Free webviewer на Safari через HTTPS, видео не отображается.	- При первоначальном доступе к https во всплывающем окне с предложением аутентификации выберите "Просмотр сертификата подлинности" и установите флажок "Всегда доверять при соединении по IP, назначенному программе веб-просмотра". - Если модуль веб-просмотра по-прежнему не отображает видео после выбора "Далее" в окне сообщения внизу, нажмите командную кнопку + Q, чтобы выйти из браузера Safari, вновь войдите в систему и следуйте процедуре, приведенной выше.
Нет доступа к камере через веб-браузер.	- Проверьте на правильность сетевые настройки камеры. - Убедитесь в правильности подключения всех сетевых кабелей. - Убедитесь в том, что камера получает динамический IP-адрес при использовании DHCP-технологии. - Если камера подключена к Широкополосный маршрутизатор, убедитесь в том, что переадресация портов настроена правильно.
Происходит разрыв соединения по время мониторинга видео в экране просмотра.	- При любом изменении настроек камеры или сети происходит разрыв соединения с наблюдательными терминалами. - Проверьте все сетевые соединения.
Подключенная к сети камера не обнаружена в программе Device Manager.	Отключите фаервол на своем ПК и заново запустите поиск камеру.
Картинки перекрываются.	Убедитесь в том, что две или более камеры не транслируют данные на один и тот же multicast-адрес. Картинки могут перекрываться, если один адрес используется несколькими камерами.
Нет картинки.	- Если задан метод передачи на группу адресов, убедитесь, что в локальной сети, к которой подключена камера, есть роутер, поддерживающий технологию multicast. - Проверка нормальной работы модуля объектива (стр. 11).

ПРОБЛЕМА	РЕШЕНИЕ
<MD / VA> в меню <Событие> установлено в <Активировать>, но уведомления по электронной почте не приходят, даже когда произошло событие аналитики.	Проверьте настройки в следующей последовательности: А. Проверьте настройки параметра <Дата и время>. В. Для параметра <MD / VA> необходимо задать значение <Активировать>. С. Проверьте, выбран ли в меню <Настройка событий> параметр <Настройка событий>.
Можно указывать правила для событий, если параметры <MD / VA> не используются?	Можно. Правила для событий можно устанавливать независимо от настроек анализа интеллектуального видео.
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established by T-Engine Forum
on January 23, 2004
revised on June 17, 2004
revised on December 21, 2006
revised on March 24, 2009

Article 1. Scope of License Agreement

1. This License Agreement sets forth copyrights and the terms and conditions of use applicable to the source code of T-Kernel distributed by T-Engine Forum and any derivative work created therefrom.

Article 2. Definition

1. "T-Kernel" means a real-time operating system controlled and distributed by T-Engine Forum on behalf of the copyright holder thereof.
2. "Source Code" means a source program, including related comments and documentations, for the T-Kernel and the Ported Source Code defined in Article 2.8 which is registered with T-Engine Forum.
3. "Hardware-dependent Part" means the part of the Source Code which depends on hardware and needs to be changed when the Source Code is ported and operated on the target hardware, and is designated and separated as such part.
4. "Compiler-dependent Part" means the part of the Source Code which depends on compiler and needs to be changed when the Source Code is ported and operated on the target hardware, and is designated and separated as such part.
5. "Header File" means the part of the Source Code which contains definitions necessary to develop application programs.
6. "T-Engine Hardware" means the hardware which is manufactured in accordance with the T-Engine Hardware specifications or the μ T-Engine Hardware specifications issued by T-Engine Forum, and registered with T-Engine Forum.
7. "Similar Hardware to T-Engine Hardware" means any hardware (including software which emulates hardware) other than that defined in Article 2.6 above, on which the T-Kernel can be operated.
8. "Ported Source Code" means a source program produced from the Source Code by modifying only its Hardwaredependent Part and/or Compiler-dependent Part to enable it to be operated on the T-Engine Hardware or the Similar Hardware to T-Engine Hardware. The Ported Source Code which is registered with T-Engine Forum shall be included in the Source Code.
9. "Modified Source Code" means a source program modified from the Source Code for the purpose of improving its performance, increasing or decreasing its function, and the like. The Ported Source Code shall not be included in the Modified Source Code.
10. "Binary Code" means an executable code form which is created by compiling programs, which include all or part of the Source Code or the Modified Source Code.
11. "Derivative Work" means the Modified Source Code or the Binary Code.
12. "Embedded Product" means any product which operates with executable code form of the Source Code, the Modified Source Code or the Binary Code loaded on its hardware.
13. "End User" means a consumer who uses the Embedded Product.
14. "System Developer" means any person who develops the Embedded Product by itself or has a third party develop the same, and provides, whether with or without payment, the End User with the Embedded Product.
15. "Distributor of Modification" means any person who produces the Modified Source Code and, whether with or without payment, distributes the same to any third party.

16. "Patch for Modification" means a difference, program, system, or the like in order to create the Modified Source Code from the Source Code or the Binary Code thereof.

17. "Vicarious Execution of Patch Processing" means vicarious execution service to create the Modified Source Code applying the Patch for Modification to the Source Code or the Binary Code thereof.

18. "Source Code User" means a person who uses the Source Code.

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1. to transmit a work to a large number of specific persons through the Internet communication, broadcasting, and the like;
2. to transmit a work to the general public through the Internet communication, broadcasting, and the like automatically in response to a request from the public; and
3. to distribute a copy of a work to the general public or a large number of specific persons.

Article 3. Copyright

1. The copyrights of the Source Code shall be owned by Ken Sakamura.

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1. As provided for in this Article, T-Engine Forum shall provide, and grant a license to use, the Source Code free of charge to any person who has taken the necessary procedure for registration as prescribed by T-Engine Forum and agreed to the T-License.
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 4. to distribute the Binary Code created from the Source Code provided by T-Engine Forum hereunder or from the Source Code modified in accordance with the provision of Article 4.3 (1) above.
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 1. to perform any and all acts set forth in the Article 4.3 above.
 2. to develop and manufacture the Embedded Product containing the Binary Code, and, whether with or without payment, provide the End User with the same and make the Binary Code available to the End User on the Embedded Product.
5. The Source Code User and the System Developer shall be obligated to give a notice that the Source Code is used, in such a way as separately specified by T-Engine Forum, when they use the Source Code or the Binary Code, or make the Binary Code available for the End User on the Embedded Product.

Article 5. Distribution of Modified Source Code

1. Any of A- members of T-Engine Forum may become the Distributor of Modification by obtaining the approval of T-Engine Forum through the registration procedure as prescribed by the Forum provided that only the department of the A- member which has taken the registration procedure may distribute the Modified Source Code in such a way as provided for in this Article as long as it holds the Amembership.
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3. The Distributor of Modification shall, prior to the distribution, inform T-Engine Forum of and register a name and description of the Modified Source Code in such a way as specified by T-Engine Forum.
4. The Distributor of Modification shall determine the name of the Modified Source Code subject to the rules separately established by T-Engine Forum and publish an appropriate notice as required by the rules on the Patch for Modification and the Modified Source Code.
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6. Developer with the Patch for Modification. Provided, however, that the Distributor of Modification shall be obligated to confirm that the System Developer is the Source Code User duly licensed under Article 4.1.
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8. The System Developer shall not distribute the Modified Source Code in further modified form to any third party as a stand-alone software product.
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Article 6. Distribution and Registration of the Ported Source Code

1. The Source Code User and the System Developer may, whether with or without charge, distribute to any third party only the following parts of the Ported

Source Code on the T-Engine Hardware or the Similar Hardware to T-Engine Hardware:

1. The Hardware-dependent Part and/or Compiler-dependent Part; provided that the Source Code User and the System Developer shall inform T-Engine Forum of, and T-Engine Forum may publish, a method for distributing said Part(s) to third parties.
2. The Header File; provided that the Header File shall be distributed together with the Binary Code of the Ported Source Code.
2. Any member of T-Engine Forum may request T-Engine Forum to register and distribute, as an original source code for T-Kernel, the Ported Source Code on the T-Engine Hardware or the Similar Hardware to T-Engine Hardware.
3. Any member of T-Engine Forum who requests the distribution mentioned in the preceding paragraph shall accede to the following conditions:
 1. The member shall confirm that the object hardware is the T-Engine Hardware or the Similar Hardware to T-Engine Hardware.
 2. The member shall provide T-Engine Forum with a complete set of operational environment for the object hardware and T-Kernel free of charge when requesting the distribution.
 3. The member shall submit test results of the Ported Source Code to T-Engine Forum when requesting the distribution.
4. In the event that T-Engine Forum accepts the request mentioned in Article 6.2, T-Engine Forum shall register and distribute the Ported Source Code as the Source Code for T-Kernel. Provided, however, that the Ported Source Code may be treated in the same way as the Modified Source Code until the time of registration hereunder.
5. The provision set forth in Article 3 shall apply to the Ported Source Code registered in accordance with this Article.

Article 7. Use for Other Purpose

1. Any use of the Source Code, the Modified Source Code or the Ported Source Code other than those stipulated in Articles 4, 5 and 6 shall be subject to the prior approval of T-Engine Forum.

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1. T-Engine Forum and the copyright holder of the Source Code warrant that the Source Code does not infringe third party's copyrights. Provided, however, that T-Engine Forum and the copyright holder of the Source Code make no warranty as to the Hardware-dependent Part and/or Compiler- dependent Part set forth in Article 6.2 in the Ported Source Code by any third party.
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3. Any legal dispute which may arise in relation to any breach of this License Agreement shall be subject to the exclusive jurisdiction of the Tokyo District Court.

Article 11. Governing Law and Language

1. This License Agreement shall be governed by and interpreted under the laws of Japan.
2. This License Agreement is executed in both Japanese text and English text provided that the Japanese text shall govern the interpretation and performance of this License Agreement.

Apache License 2.0

Component	Name License	URL
mDNSResponder_bonjour	Apache License 2.0	http://www.apache.org/licenses/LICENSE-2.0

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Julian Seward, jseward@bzip.org

bzip2/libbzip2 version 1.0.5 of 10 December 2007

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iperf-2.0.5	University of Illinois / NCSA Open Source

iperf performance test

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Jean-loup Gailly Mark Adler

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The data format used by the zlib library is described by RFCs (Request for Comments) 1950 to 1952 in the files <http://www.ietf.org/rfc/rfc1950.txt> (zlib format), [rfc1951.txt](http://www.ietf.org/rfc/rfc1951.txt) (deflate format) and [rfc1952.txt](http://www.ietf.org/rfc/rfc1952.txt) (gzip format).



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