

WiSeNet

SIECIOWA NAGRYWARKA WIDEO

Podręcznik specyfikacji produktu

XRN-2010/2011/2010A/2011A
XRN-3010/3010A
XRN-1610/1610S/1610A/1610SA



Sieciowa Nagrywarka Wideo

Podręcznik specyfikacji produktu

Prawa autorskie

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Znaki towarowe

Wszystkie znaki handlowe wymienione w niniejszym dokumencie są zastrzeżone. Nazwa niniejszego produktu i inne znaki handlowe wymienione w niniejszym podręczniku są zastrzeżonymi znakami handlowymi odpowiednich właścicieli.

Ograniczenia

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- ❖ Konstrukcja i dane techniczne urządzenia mogą ulec zmianie bez powiadomienia.
Użytkownik może pobrać najnowszą wersję ze strony internetowej Hanwha Techwin. (www.hanwha-security.com)

- ❖ Początkowym ID administratora jest „admin” a hasło powinno zostać ustawione podczas pierwszego logowania.
Hasło należy zmieniać co trzy miesiące, aby zapewnić ochronę danych osobowych i zapobiec szkodom wynikającym z kradzieży informacji.
Proszę pamiętać, że odpowiedzialność za bezpieczeństwo i wszelkie szkody wynikające z brakiem dbałości o hasło ponosi użytkownik.

WAŻNE ZALECENIA DOTYCZĄCE BEZPIECZEŃSTWA

Przed rozpoczęciem eksploatacji urządzenia należy uważnie przeczytać niniejsze instrukcje dotyczące obsługi. Należy przestrzegać poniższych instrukcji bezpieczeństwa. Niniejszą instrukcję obsługi należy zachować do użycia w przyszłości.

- 1) Przeczytać tę instrukcję.
- 2) Zachować instrukcję.
- 3) Zwrócić uwagę na wszystkie ostrzeżenia.
- 4) Przestrzegać wszystkich instrukcji.
- 5) Nie używać urządzenia w pobliżu wody.
- 6) Zabrudzoną powierzchnię produktu wyczyścić miękką, suchą szmatką lub wilgotną szmatką. (Nie używaj żadnych detergentów ani produktów kosmetycznych zawierających alkohol, rozpuszczalniki, surfaktanty lub substancje oleiste, ponieważ mogą one spowodować odkształcenie lub uszkodzenie produktu).
- 7) Nie zasłaniać otworów wentylacyjnych; zamontować zgodnie z instrukcjami producenta.
- 8) Nie montować w pobliżu źródeł ciepła, takich jak grzejniki, promienniki, piece lub inne urządzenia (również wzmacniacze) wytwarzające ciepło.
- 9) W żadnym wypadku nie próbować obchodzić zabezpieczeń konstrukcyjnych wtyczki i gniazda z bolcem uziemiającym. Wtyczka ma dwa bolce i otwór na bolec uziemiający. Bolec uziemiający chroni przed porażeniem prądem elektrycznym. W celu zapewnienia bezpieczeństwa urządzenie wyposażono we wtyczkę ze stykiem uziemiającym. Jeśli wtyczka dołączona do urządzenia nie pasuje do gniazdka, należy zwrócić się do elektryka celem wymiany przestarzałego gniazdka ściennego.
- 10) Zabezpieczyć przewód sieciowy, tak aby nie być przydeptywany ani ściskany; szczególną uwagę należy zwrócić na wtyczki, rozgałęźniki i miejsce, w których przewód wychodzi z urządzenia.
- 11) Używać wyłącznie elementów wyposażenia/akcesoriów zalecanych przez producenta.
- 12) Urządzenie umieszczać tylko na wózku, stojaku, trójnogu, półce lub stole zalecanym przez producenta lub sprzedawanym razem z urządzeniem. W przypadku użycia wózka podczas przemieszczania zestawu wózek/urządzenie należy zachować ostrożność, aby uniknąć obrażeń spowodowanych jego wywróceniem.
- 13) W czasie burzy z wyładowaniami atmosferycznymi lub w przypadku nieużywania urządzenia przez dłuższy czas należy odłączyć urządzenie od zasilania.
- 14) Wszelkie czynności serwisowe należy powierzyć wykwalifikowanym pracownikom serwisu.
W przypadku uszkodzenia urządzenia w jakikolwiek sposób, np. w razie uszkodzenia przewodu zasilającego lub wtyczki, rozlania płynu lub upadku przedmiotów na urządzenie, wystawiania urządzenia na działanie deszczu lub wilgoci, nieprawidłowości w działaniu lub upadku urządzenia, należy oddać urządzenie do serwisu.



PRZED ROZPOCZĘCIEM

Niniejszy podręcznik zapewnia informacje o obsłudze wymagane przy użytkowaniu urządzenia i zawiera opis każdego elementu składowego, jego funkcji oraz menu lub ustawień sieciowych. Należy pamiętać o następujących uwagach :

- Prawa autorskie do niniejszego podręcznika należą do firmy Hanwha Techwin.
- Nie można kopiować niniejszego podręcznika bez wcześniejszej pisemnej zgody firmy Hanwha Techwin.
- Nie ponosimy odpowiedzialności za żadne uszkodzenia produktu spowodowane użyciem niestandardowych produktów lub naruszeniem instrukcji zawartych w niniejszym podręczniku.
- Jeśli konieczne jest otwarcie obudowy systemu w celu sprawdzenia źródła problemu, należy skonsultować się ze specjalistą ze sklepu, w którym nabyto produkt.
- Przed dodaniem napędu dysków twardych lub zewnętrznego urządzenia pamięci masowej (pamięci USB, twardego dysku USB) należy sprawdzić, czy są zgodne z tym urządzeniem. Aby uzyskać listę kompatybilności, skontaktuj się z punktem sprzedaży.

Ostrzeżenie

Akumulator

Wymiana akumulatora w produkcie na niewłaściwy może doprowadzić do eksplozji. Z tego względu należy użyć tego samego typu akumulatora, co używany w produkcie. Poniżej znajduje się specyfikacja akumulatora używanego obecnie.

- Napięcie normalne : 3V
- Pojemność normalna : 210m Ah
- Standardowe obciążenie ciągle : 0,4 mA
- Temperatura pracy : -20°C ~ +60°C (-4°F ~ +140°F)

Uwaga

- Podłącz przewód zasilający do uziemionego gniazdka elektrycznego.
- Wtyczka sieci zasilającej stosowana jest jako urządzenie rozłączające, dlatego powinna być łatwo dostępna przez cały czas.
- Baterii nie należy wystawiać na działanie zbyt wysokiej temperatury, np. promienie słoneczne, ogień itp.
- Zagrożenie wybuchem w przypadku użycia baterii nieprawidłowego typu. Zużyte baterie należy poddawać utylizacji zgodnie z instrukcjami.
- W przypadku upływu okresu eksploatacji dysku twardego zapisane na nim dane wideo mogą zostać uszkodzone, a ich odzyskanie może okazać się niemożliwe.
- Dioda LED stanu dysku twardego systemu ciągle miga, co oznacza, że połączenie systemu z dyskiem twardym funkcjonuje normalnie. Regularnie sprawdzaj diodę LED stanu dysku twardego, aby upewnić się, że ciągle miga. "W przypadku awarii dysku twardego nagrywanie może okazać się niemożliwe. Regularnie sprawdzaj stan nagrywania i twórz kopie zapasowe ważnych danych."

Wyłączenie systemu

Wyłączenie zasilania w czasie pracy produktu lub wykonanie niedozwolonych czynności, może doprowadzić do uszkodzenia dysku twardego lub produktu. Może to również spowodować nieprawidłowe działanie twardego dysku przy korzystaniu z tego produktu.

Aby bezpiecznie wyłączyć zasilanie, wybierz opcję Zakończ z menu i kliknij przycisk <OK> w wyskakującym okienku, a następnie odłącz przewód zasilający.

Użytkownik może zainstalować system UPS w celu zapewnienia bezpiecznej pracy i uniknięcia strat spowodowanych przez nieoczekiwaną awarię zasilania. (Aby uzyskać odpowiedzi na pytania dotyczące systemu UPS, należy skontaktować się ze sprzedawcą.)



- W przypadku nieprawidłowego wyłączenia ponowne uruchomienie może zająć więcej czasu z powodu przywracania danych z twardego dysku w celu poprawnego działania.

Temperatura pracy

Gwarantowana temperatura pracy niniejszego produktu zawiera się w przedziale od 0°C ~ 40°C (32°F ~ 104°F). Niniejszy produkt może nie działać prawidłowo, jeśli zostanie uruchomiony po długim okresie braku zasilania w temperaturze poniżej gwarantowanej.
W przypadku użycia urządzenia po długim okresie przechowywania w niskiej temperaturze należy umieścić je przez pewien czas w temperaturze pokojowej, a następnie go uruchomić.
W szczególności dla wbudowanego w produkcie dysku twardego gwarantowana temperatura zawiera się w zakresie od 5°C ~ 55°C (41°F ~ 131°F). Dysk twardy może nie działać w temperaturze poniżej gwarantowanej.

Gniazdo Ethernet

Ten sprzęt jest przeznaczony do użytku wewnątrz budynków i całe okablowanie komunikacyjne ogranicza się do wnętrza budynku.

Środki ostrożności dotyczące bezpieczeństwa

Początkowym ID administratora jest „admin” a hasło powinno zostać ustawione podczas pierwszego logowania.
Hasło należy zmieniać co trzy miesiące, aby zapewnić ochronę danych osobowych i zapobiec szkodom wynikającym z kradzieży informacji.
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Produkty NVR posiadające poszczególne funkcje

Funkcja	Produkty
Wentylator	XRN-3010, XRN-3010A, XRN-2010, XRN-2010A, XRN-2011, XRN-2011A, XRN-1610, XRN-1610A, XRN-1610S, XRN-1610SA
RAID	XRN-2011, XRN-2011A
iSCSI	XRN-2010, XRN-2010A, XRN-2011, XRN-2011A, XRN-1610, XRN-1610A, XRN-1610S, XRN-1610SA
PoE	XRN-1610S,XRN-1610SA
P2P	XRN-3010A, XRN-2010A, XRN-2011A, XRN-1610A, XRN-1610SA
Pilot	XRN-1610, XRN-1610A, XRN-1610S, XRN-1610SA
Joystick	XRN-3010, XRN-3010A, XRN-2010, XRN-2010A, XRN-2011, XRN-2011A, XRN-1610, XRN-1610A, XRN-1610S, XRN-1610SA
Rozszerzony monitor	XRN-3010, XRN-3010A, XRN-2010, XRN-2010A, XRN-2011, XRN-2011A, XRN-1610, XRN-1610A, XRN-1610S, XRN-1610SA
Przeł. awar.	XRN-3010, XRN-3010A, XRN-2010, XRN-2010A, XRN-2011, XRN-2011A
Nagrywanie rozproszone	XRN-3010, XRN-3010A

SPIS TREŚCI

INFORMACJE OGÓLNE	3	Ważne Zalecenia Dotyczące Bezpieczeństwa
	3	Przed Rozpoczęciem
	5	Spis Treści
	6	Funkcje
	7	Nazwy części i ich funkcje (Przód)
	8	Nazwy części i ich funkcje (Tył)

INSTALACJA	9	Sprawdzanie stanowiska montażowego
	9	Montaż w regale
	10	Dodawanie Dysku Twardego

PODŁĄCZANIE INNEGO URZĄDZENIA	13	Podłączanie do urządzenia zewnętrznego
	13	Podłączanie urządzenia USB
	13	Podłączanie Wejścia/Wyjścia Alarmu
	14	Podłączanie do sieci

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WIDOK URZĄDZENIA	22	Widok urządzenia
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FUNKCJE

Niniejsze urządzenie służy do rejestracji danych wideo i audio z kamer sieciowych na twardy dysk i umożliwia odtwarzanie z twardego dysku. Zapewnia również środowisko zdalnego monitorowania wideo i audio w sieci za pomocą zdalnego komputera.

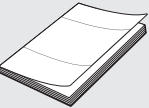
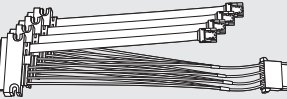
- Przyjazny użytkownikowi interfejs
- Obsługuje szeroką gamę rozdzielczości 4K (3840X2160, 4096X2160, 4000X3000)
- Wyświetla obraz w wysokiej rozdzielczości 4K za pośrednictwem portu HDMI
- Nagrywanie i odtwarzanie obrazu wideo
- Nagrywanie i odtwarzanie dźwięku
- Obsługuje standard ONVIF Profile S oraz protokoły RTP / RTSP
- Wyświetlanie stanu działania dysku dzięki technologii HDD SMART
- Możliwość nadpisywania danych na dysku twardym
- Tworzenie kopii zapasowych za pomocą protokołów USB 2.0, 3.0 i zewnętrznego dysku twardego
- Jednoczesne odtwarzanie 16 kanałów
- Różne tryby wyszukiwania (Czas, zdarzenie, Int., tekst, kopia zapasowa, ARB)
- Różne tryby nagrywania (normalny, zdarzenie, nagrywanie zaprogramowane)
- Wejście/wyjście alarmu
- Funkcja zdalnego monitorowania przy użyciu przeglądarki Windows Network Viewer
- Monitorowanie na żywo przy użyciu kamery sieciowej
- Kreator instalacji (Ustawienia ułatwione, Skrócone ustawienia)
- Obsługuje funkcję zdalnego monitorowania smartfona przez obsługę P2P (XRN-2010A/2011A/3010A/1610A/1610SA)

Zawartość zestawu

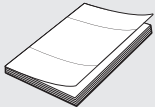
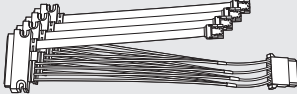
Produkt należy rozpakować i umieścić na płaskiej powierzchni lub w miejscu, w którym ma zostać zainstalowany. Należy sprawdzić, czy w zestawie oprócz urządzenia głównego znajdują się poniższe elementy.

- Wygląd podzespołów może różnić się od wyglądu na przedstawionej ilustracji.
- Kategoria i ilość akcesoriów może różnić się w zależności od regionu sprzedaży.
- W niektórych regionach HDD nie jest zainstalowany fabrycznie. Liczba wkrętów mocujący HDD, kabli zasilani, kabli danych SATA i kabli zasilania/danych SATA zmienia się w zależności od modelu.

XRN-2010/2011/2010A/2011A/3010/3010A

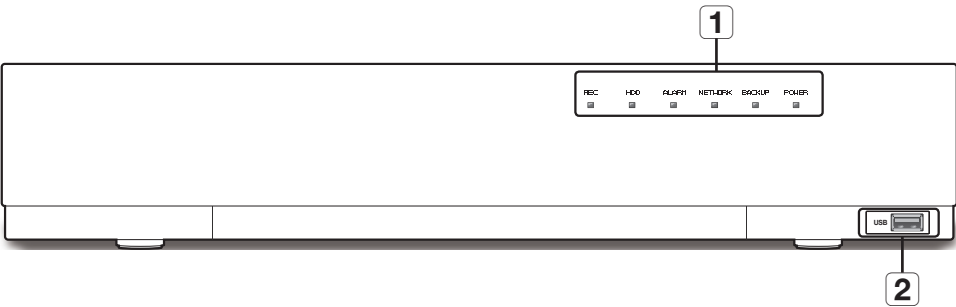
		
NVR	Mysz	Przewód Zasilający
		
Skrócona instrukcja obsługi	Blok zacisku	Szyna
		
Śruba do mocowania wspornika	HDD SATA/Przewód zasilający (Niedostępny w modelu XRN-2011/2011A)	Śruba mocująca dysk twardy (Niedostępny w modelu XRN-2011/2011A)

XRN-1610/1610S/1610A/1610SA

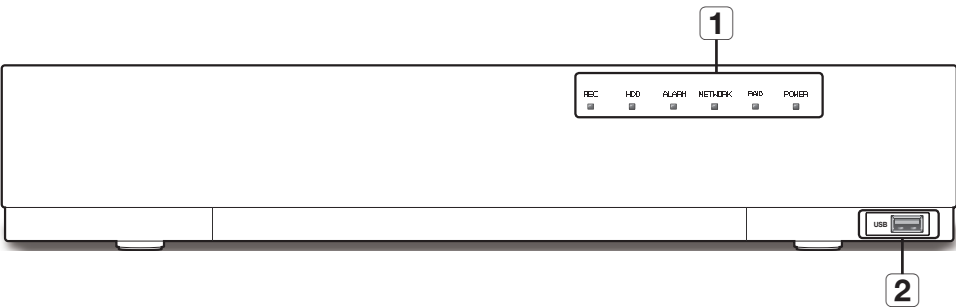
		
NVR	Mysz	
		
Przewód Zasilający	Blok zasilania	
		
Skrócona instrukcja obsługi	Szyna	Śruba mocująca dysk twardy
		
Śruba do mocowania wspornika	HDD SATA/Przewód zasilający (XRN-1610/1610A)	Przewód zasilający SATA (XRN-1610S/1610SA)
		
Przewód transferu danych SATA (XRN-1610S/1610SA)		

NAZWY CZĘŚCI I ICH FUNKCJE (PRZÓD)

XRN-2010/2010A/3010/3010A/1610/1610S/1610A/1610SA



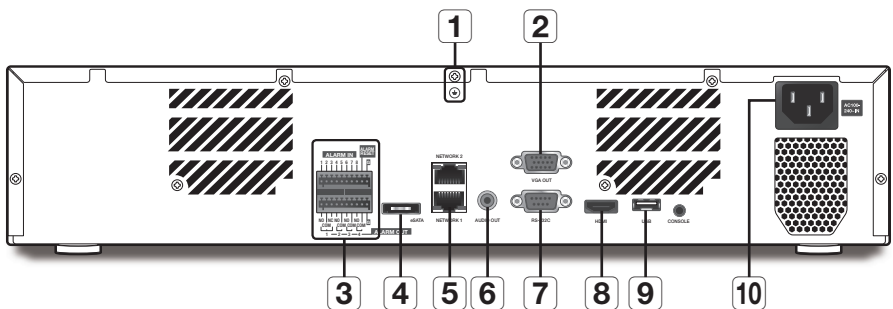
XRN-2011/2011A



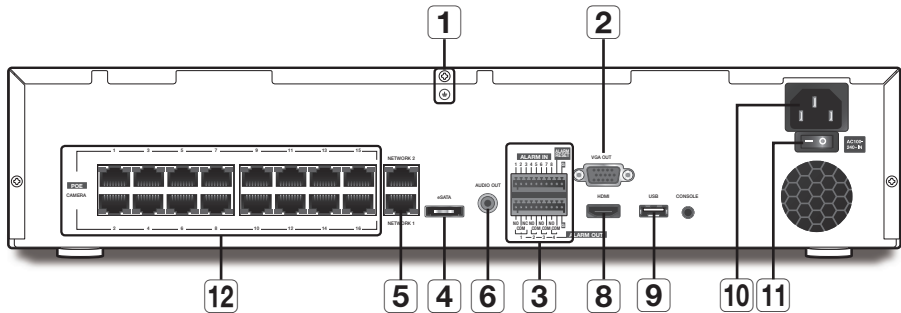
Nazwa		Funkcja
1	Wskaźnik LED	REC : Zapala się w trakcie nagrywania.
		HDD : Wyświetla normalną ścieżkę dostępu do twardego dysku. Dioda włączy się po uzyskaniu dostępu do dysku twardego.
		ALARM : Zapala się, gdy następuje zdarzenie.
		NETWORK : Wyświetla stan łącza sieciowego oraz przesyłu danych.
		BACKUP : Pozostaje WŁĄCZONY, gdy używana jest kopia zapasowa. (XRN-2010/2010A/3010/3010A /1610/1610S/1610A/1610SA)
		RAID : Pozostaje WŁĄCZONY, gdy używana jest macierz RAID. Miga, jeśli kopia zapasowa zostanie włączona podczas korzystania z macierzy RAID. (XRN-2011/2011A)
		POWER : Pokazuje stan zasilania Wł./Wyt.
2	USB	Służy do podłączania urządzeń USB. (Obsługa technologii USB 2.0)

NAZWY CZĘŚCI I ICH FUNKCJE (TYŁ)

XRN-2010/2011/2010A/2011A/3010/3010A/1610/1610A



XRN-1610S/1610SA



Nazwa		Funkcja
1	Podłączenie uziemienia	Zacisk do podłączenia osobnego przewodu uziemiającego. ▪ Dodatkowy przewód uziemiający zapewni większe bezpieczeństwo eksploatacji urządzenia.
2	VGA OUT	Wyjście sygnału wideo VGA.
3	ALARM	- ALARM IN : Wejścia alarmu. (1~8 CH) - ALARM RESET : Gniazdo resetowania alarmu. - ALARM OUT : Wyjścia alarmu. (1~4 CH)
4	eSATA	Zacisk do podłączenia zewnętrznego urządzenia pamięci masowej.
5	NETWORK1	Port zalecany do podłączenia kamery, odbierający obraz przesyłany z kamery.
	NETWORK2	Port zalecany do nawiązania połączenia z siecią, przeglądarką Web Viewer lub iSCSI.
6	AUDIO OUT	Wyjście sygnału audio (gniazdo RCA).
7	RS-232C	Zacisk przewodu używanego do komunikacji szeregowej (zamienny).
8	HDMI	Złącze HDMI.
9	USB	Służy do podłączania urządzeń USB. (Obsługa technologii USB 3.0)
10	Zasilanie	Zacisk zasilania.
11	Włącznik zasilania	Przełącznik Wł./Wył. zasilania. (XRN-1610S/1610SA)
12	PoE (CAMERA)	Port zasilania podłączane do kamery. (XRN-1610S/1610SA)

▪ Ekran [CONSOLE] przeznaczony jest wyłącznie do napraw serwisowych.

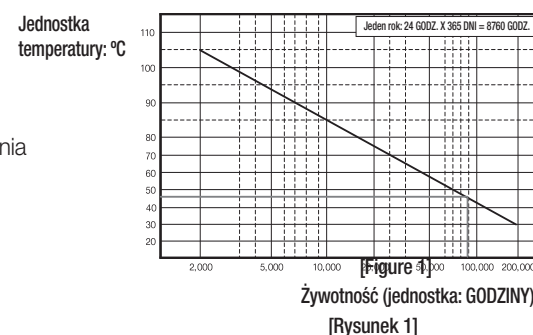
Przed użyciem produktu należy zapoznać się z poniższymi informacjami.

- Produktu nie należy używać na zewnątrz.
- Nie wolno rozlewać wody lub innych płynów na część łączącą produktu.
- Nie należy narażać systemu na działanie nadmiernej siły lub wstrząsów.
- Nie należy na siłę wyciągać wtyczki zasilania.
- Produktu nie wolno samodzielnie rozmontowywać.
- Nie przekraczać znamionowych wartości wejścia/wyjścia.
- Należy stosować wyłącznie atestowane przewody zasilające.
- W przypadku produktów z wejściem uziemiającym należy stosować wtyczkę zasilania z uziemieniem.

SPRAWDZANIE STANOWISKA MONTAŻOWEGO

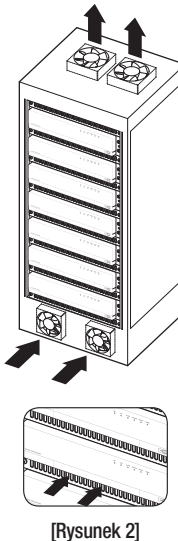
Niniejsze urządzenie jest wysokiej klasy urządzeniem wyposażonym w dysk twardy o dużej pojemności i inne kluczowe układy elektroniczne.

Należy pamiętać, że zbyt wysoka temperatura wewnętrzna urządzenia może doprowadzić do awarii systemu lub skrócenia żywotności produktu (patrz rys. z prawej strony). Przed zainstalowaniem produktu należy zapoznać się z poniższymi instrukcjami.



W przypadku montowania urządzenia w szafie należy przestrzegać następujących instrukcji.

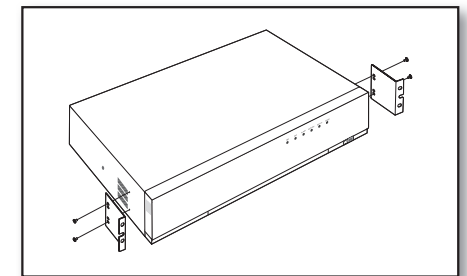
1. Należy upewnić się, że regał nie jest uszczelniony wewnątrz.
2. Należy zapewnić cyrkulację powietrza przez wlot i wylot zgodnie z ilustracją.
3. W przypadku ustawienia tych urządzeń lub innych urządzeń montowanych w szafie w sposób pokazany na rysunku 2 należy zapewnić przestrzeń na wentylację lub zainstalować wentylator.
4. Aby zapewnić naturalną konwekcję powietrza wlot należy umieścić u dołu regału, a wylot u góry.
5. Zaleca się, aby przy wlocie i wylocie zamontować wentylatory, zapewniające odpowiednią cyrkulację powietrza. (W celu zabezpieczenia przed pyłem lub ciałami obcymi przy wlocie należy zamontować filtr).
6. Wewnątrz regału i w jego otoczeniu należy utrzymywać temperaturę 0°C - 40°C (32°F - 104°F) zgodnie z rysunkiem 1.



MONTAŻ W REGALE

Zainstaluj szynę zgodnie z ilustracją, następnie wkręć śruby po obydwu stronach.

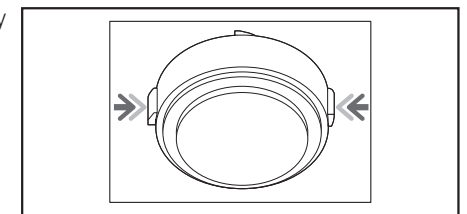
- Wkręć śruby tak, aby nie zostały poluzowane na skutek wibracji.



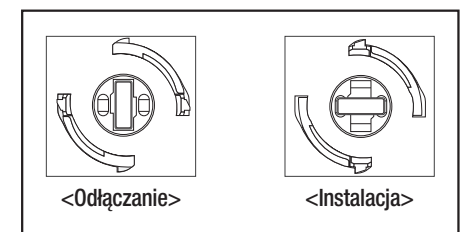
Środki ostrożności podczas instalacji szafy RACK

Aby zainstalować wiele szaf RACK w urządzeniu NVR, należy odłączyć PODPÓRKĘ w dolnej części każdego urządzenia NVR.

1. W dolnej części każdego urządzenia NVR znajdują się cztery PODPÓRKI. Naciśnij wystające części po obu końcach każdej "PODPÓRKI" i przekręć je w kierunku przeciwnym do ruchu wskazówek zegara.



2. "PODPÓRKI" zostaje odłączona od korpusu po jej przekręceniu do końca rowka mocującego.



DODAWANIE DYSKU TWARDEGO

Należy upewnić się, że przewód zasilania jest odłączony od gniazda sieciowego, aby zapobiec porażeniu prądem, odniesieniu obrażeń lub uszkodzeniu produktu.

Aby uzyskać dalsze informacje na temat instalacji twardego dysku, należy skonsultować się z dostawcą, ponieważ nieprawidłowa instalacja lub ustawienia mogą uszkodzić produkt.

- Liczba obsługiwanych dysków twardych: Do 8 dysków twardych
- Przed przystąpieniem do instalacji należy upewnić się, że przewód zasilania jest odłączony od gniazda sieciowego.



Przestrogi dotyczące utraty danych (konserwacja dysku twardego)

Należy dbać o to, by nie uszkodzić danych zawartych na twardego dysku. Przed dodaniem dysku twardego należy sprawdzić zgodność z tym urządzeniem. Jako bardzo delikatne urządzenie dysk twardy jest narażony na usterki, szczególnie na skutek wibracji podczas pracy. Należy zadbać o to, by dysk twardy nie był narażony na wstrząsy. Firma Hanwha Techwin nie ponosi odpowiedzialności za uszkodzenia twardego dysku powstałe z powodu nieuwagi użytkownika lub nieprawidłowego użytkowania.

W niektórych przypadkach może nastąpić uszkodzenie dysku twardego lub zarejestrowanych danych

Aby zminimalizować ryzyko utraty danych z powodu uszkodzenia twardego dysku należy jak najczęściej tworzyć kopie zapasowe danych. W przypadku uderzenia podczas demontażu lub montażu dane zapisane na dysku twardym mogą zostać uszkodzone. Uszkodzenie może spowodować również nagła awaria zasilania lub wyłączenie urządzenia podczas działania dysku twardego. Dysk twardy lub pliki na nim zapisane mogą zostać uszkodzone, jeśli korpus główny zostanie poruszony lub uderzony w trakcie pracy.

Przestroga dotycząca instalacji dysku twardego

1. Nie nadużywać nadmiernej siły podczas pracy z dyskami.
2. Należy uważać, aby nie zgubić zdemontowanych wkrętów i akcesoriów.
 - Jeśli wkręty lub akcesoria nie zostaną zamontowane poprawnie, produkt może ulec uszkodzeniu lub działać nieprawidłowo.
3. Przed dodaniem dysku twardego należy sprawdzić jego zgodność z urządzeniem.
 - Aby uzyskać listę zgodnych urządzeń, należy skontaktować się z najbliższym sprzedawcą.

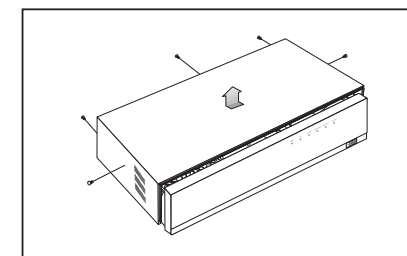
Montaż dysku twardego



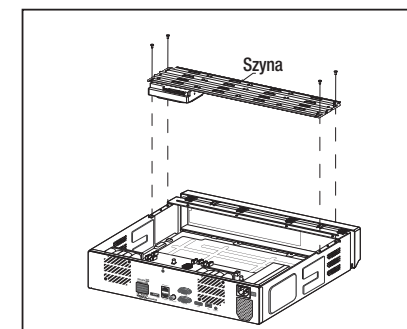
- Jeśli dodajesz nowy lub wcześniej używany dysk twardy do tego produktu poza dyskami twardymi zainstalowanymi oryginalnie, przed użyciem sformatuj nowy dysk twardy ręcznie. Aby dowiedzieć się, jak formatować, zobacz "**Urządzenie / Format**" w Podręczniku Użytkownika Wisenet NVR.

Montaż dysku twardego w modelu XRN-2010/2010A/3010/3010A/1610/1610A/1610S/1610SA

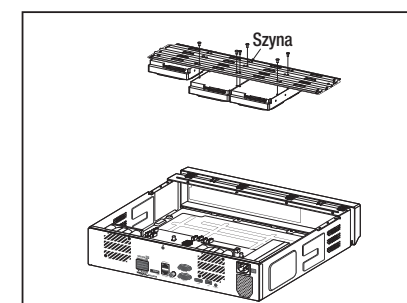
1. Najpierw odkręć wkręty znajdujące się po lewej i prawej stronie oraz z tyłu, a następnie zdejmij osłonę.



2. Odkręć wkręty znajdujące się po lewej i prawej stronie (4 wkręty), a następnie zdejmij uchwyt.

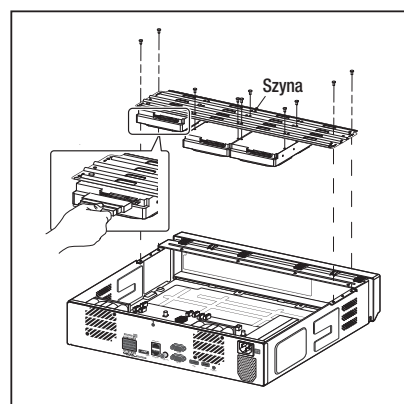


3. Na uchwycie zamontuj dysk twardy i przykręć go wkrętami.



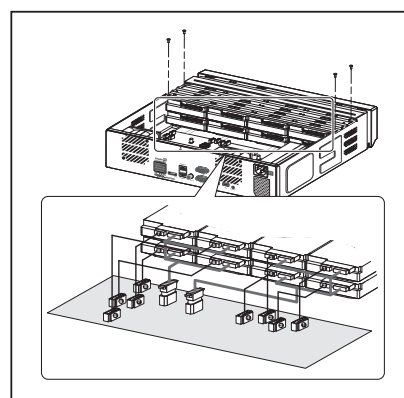
4. Podłącz kabel do dysku twardego, dopasowując numer kabla dysku twardego SATA / kabla zasilającego do numeru pozycji dysku twardego na uchwycie.

- Numer lokalizacji dysku twardego w uchwycie ilustruje rysunek widoczny poniżej.

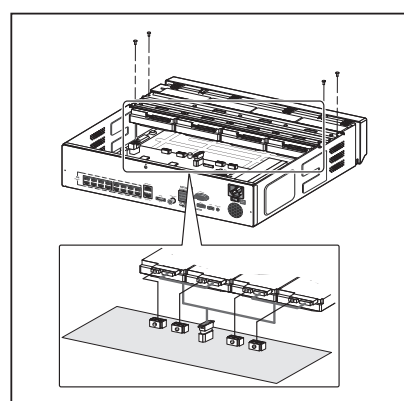


5. Przykręć uchwyt, na którym zamontowany jest dodatkowy dysk twardy, wkrętami do urządzenia NVR, a następnie podłącz kabel SATA / kabel zasilający do złącza na płycie głównej oznaczonego odpowiednim numerem.

- Numery złączy zostały ukazane na rysunku widocznym poniżej.

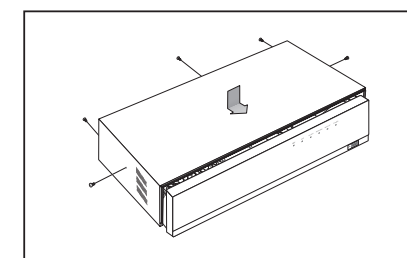


<XRN-2010/2010A/3010/3010A/1610/1610A>



<XRN-1610S/1610SA>

6. Upewnij się, że nie występują żadne problemy z zaciskami, połączeniami i przewodami w produkcie, zamknij pokrywę i przykręć ją wkrętami.

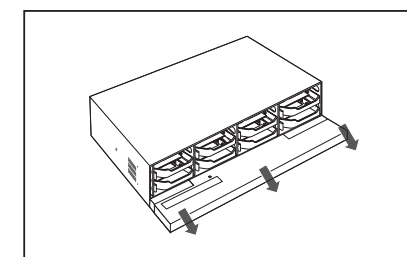


Montaż dysku twardego w modelu XRN-2011/2011A

1. Otwórz przednią pokrywę w celu uzyskania dostępu do uchwytu montażowego dysku twardego.



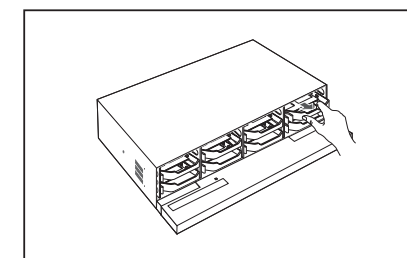
- Przed otwarciem przedniej pokrywki zwolnij połączenie USB, aby uniknąć uszkodzenia portu USB.



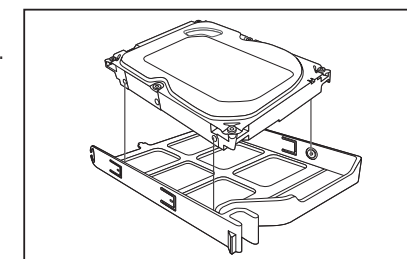
2. Popchnij zatrzask w prawo i wyjmij uchwyt na dysk twardy.



- Podczas wyjmowania uchwytu na dysk twardy uważaj, aby nie poranić dłoni.



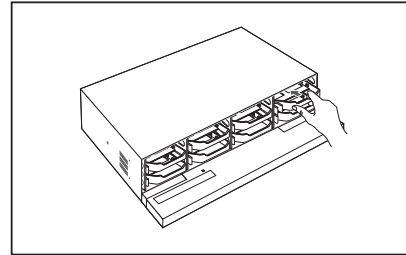
3. Wyrównaj dysk twardy i umieść go w uchwycie. Po umieszczeniu jednej strony lekko naciśnij i umieść drugą stronę.



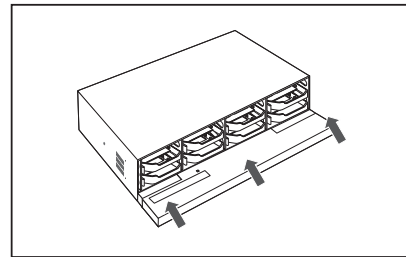
4. Wyrównaj uchwyt z zamontowanym dyskiem twardym z zatrzaskiem obudowy i popchnij go w kierunku płyty.



- Wsuwaj go do momentu usłyszenia dźwięku zamknięcia zatrzasku. Jeśli dysk twardy nie jest dokładnie podłączony, może nie zostać wykryty.



5. Popchnij przednią pokrywę do góry i zamknij ją.

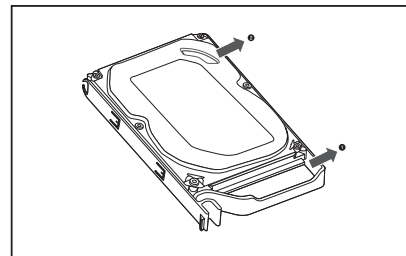


• Wymiana zamontowanego dysku twardego.

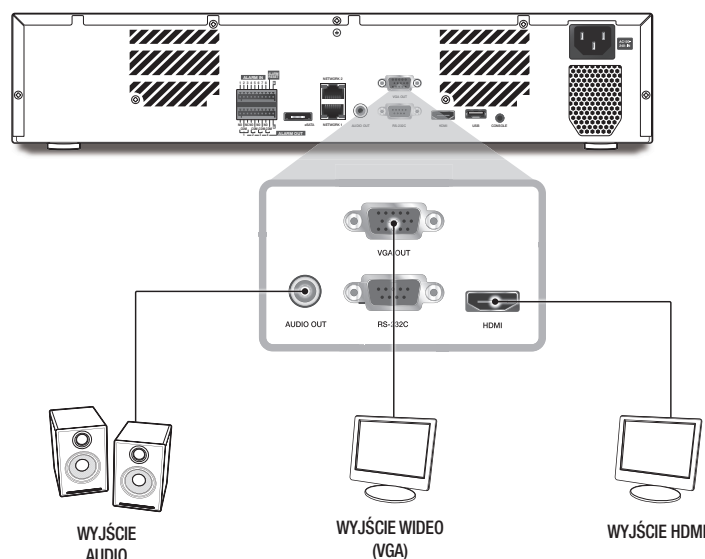
1. Otwórz uchwyt szeroko w kierunku wskazanym przez strzałkę i wyciągnij z niego dysk twardy.
2. Otwórz uchwyt szeroko z drugiej strony i całkowicie wyjmij dysk.



- Procedura wykonywana po wyjęciu dysku twardego w celu jego wymiany wygląda tak samo, jak procedura opisana w punkcie „**Montaż dysku twardego**”.



PODŁĄCZANIE DO URZĄDZENIA ZEWNĘTRZNEGO

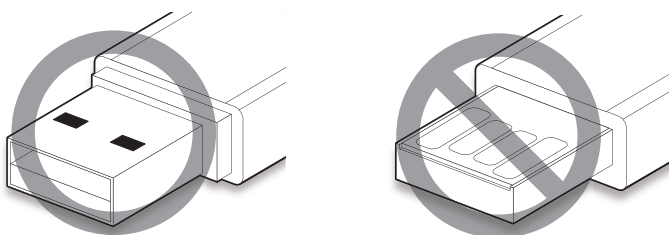


- ! Nieprawidłowe lub inne niż znamionowe źródło zasilania może uszkodzić system. Przed naciśnięciem przycisku zasilanie należy upewnić się, że stosowane jest wyłącznie źródło zasilania zgodne ze znamionowym.

PODŁĄCZANIE URZĄDZENIA USB

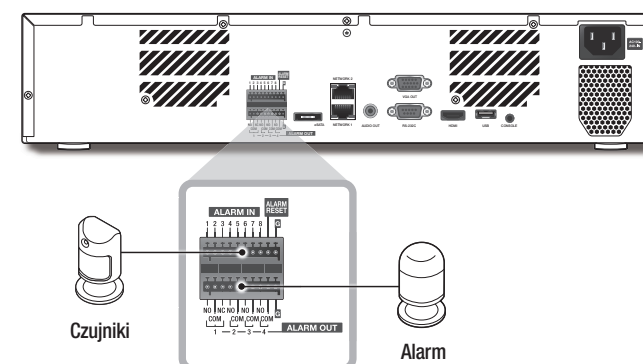
1. Na przodzie urządzenia znajduje się port USB.
2. Do portu USB można podłączyć dysk twardy USB, pamięć USB lub mysz.
3. Jeśli dysk twardy USB jest podłączony do systemu, można go znaleźć i skonfigurować, wykonując czynności w "Menu > Urządzenie > Urządź.pam.mas." Instrukcji Użytkownika Wisenet NVR.
4. Urządzenie obsługuje funkcję podłączania „na gorąco”, która umożliwia podłączanie/odłączanie urządzeń USB w trakcie działania systemu.

- ! Jeśli urządzenie USB służy do tworzenia kopii zapasowych, należy je sformatować na komputerze przy użyciu aplikacji FAT32, jeżeli nie zostało sformatowane na urządzeniu NVR.
- Niektóre urządzenia USB mogą nie działać poprawnie z powodu problemów ze zgodnością, przed użyciem należy to sprawdzić.
 - Tylko urządzenia pamięci USB zgodne ze standardami (mające metalową pokrywę) gwarantują przesyłanie danych.
 - W przypadku zużycia styków elektrycznych urządzenia USB przesyłanie danych pomiędzy urządzeniami może nie działać poprawnie.

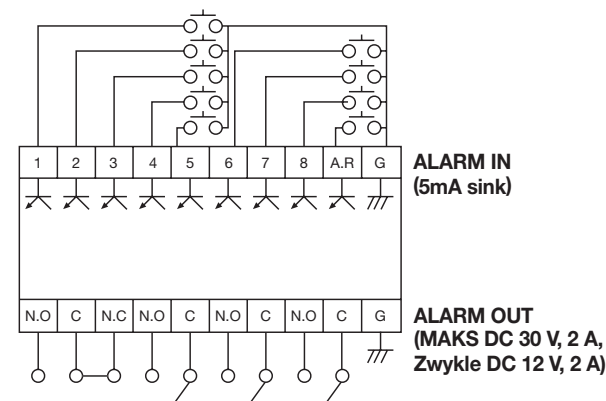


PODŁĄCZANIE WEJŚCIA/WYJŚCIA ALARMU

Wejście/wyjście alarmu z tyłu składa się z następujących elementów.



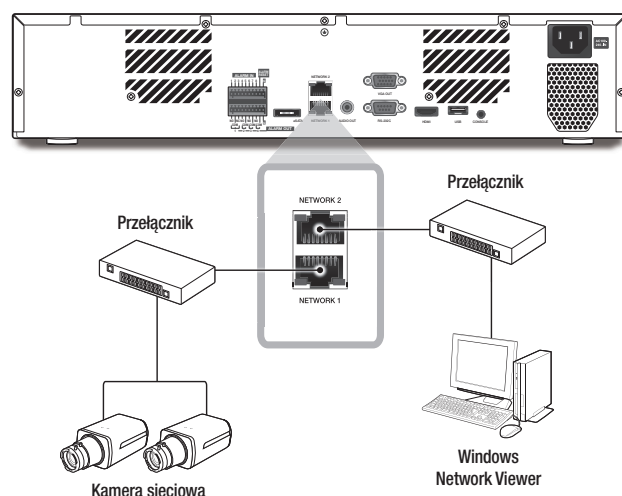
- ALARM IN 1 ~ 8 : Wejście alarmu
- ALARM RESET : Po odebraniu sygnału zerowania alarmu system anuluje bieżące dane wejściowe alarmu i przywraca wykrywanie.
- ALARM OUT 1 ~ 4 : Wyjście alarmu



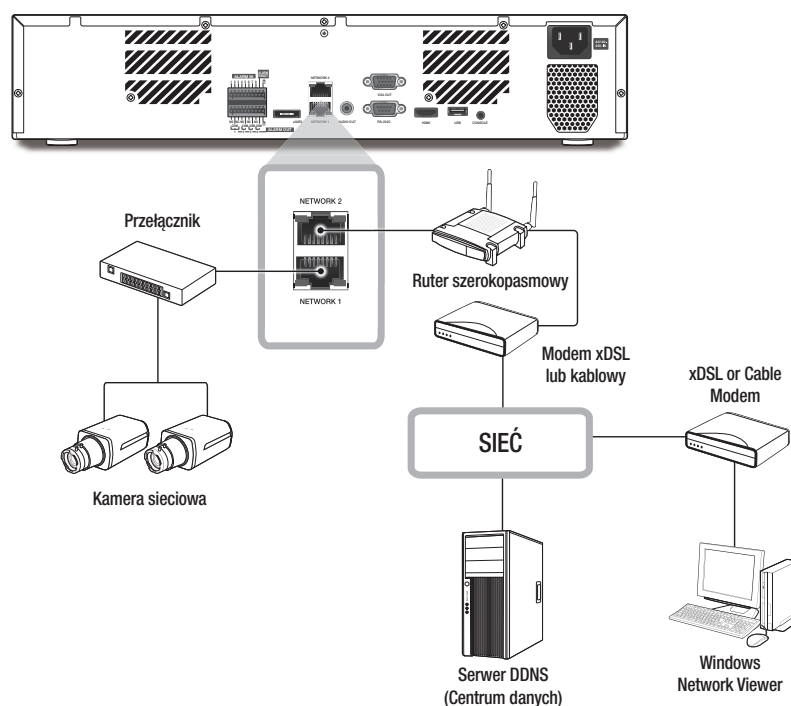
PODŁĄCZANIE DO SIECI

- Aby uzyskać więcej informacji na temat połączenia sieciowego, zobacz "Konfiguracja sieci" w Podręczniku Użytkownika Wisenet NVR.

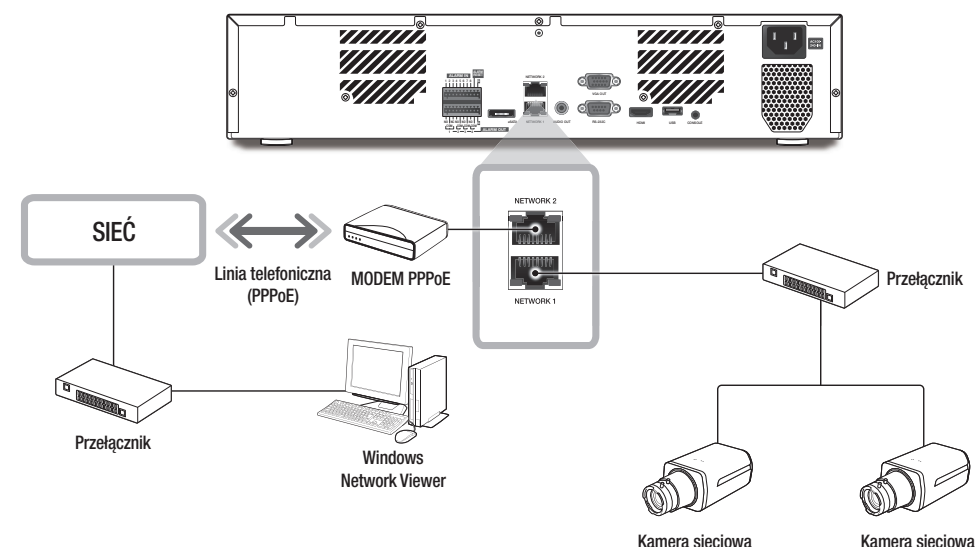
Połączenie sieciowe za pomocą kabla Ethernet (10/100/1000BaseT)



Połączenie sieciowe za pomocą routera

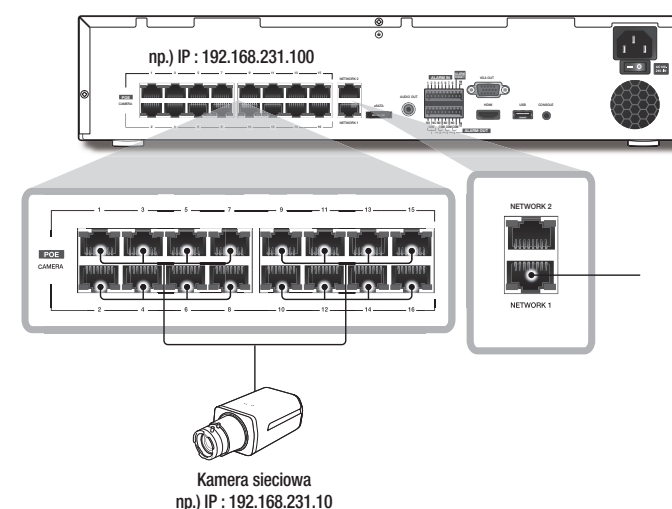


Podłączanie do Internetu przez PPPoE

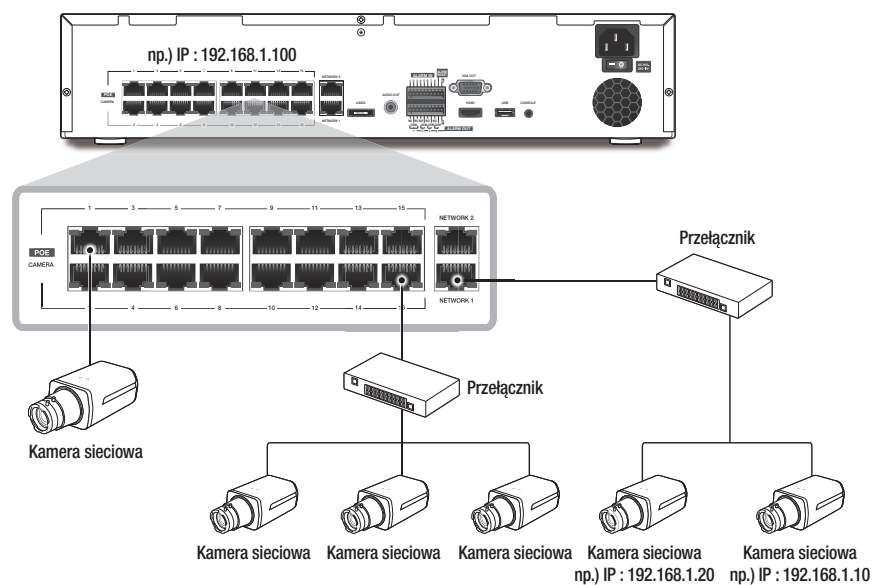


Podłączenie kamery sieciowej (XRN-1610S/1610SA)

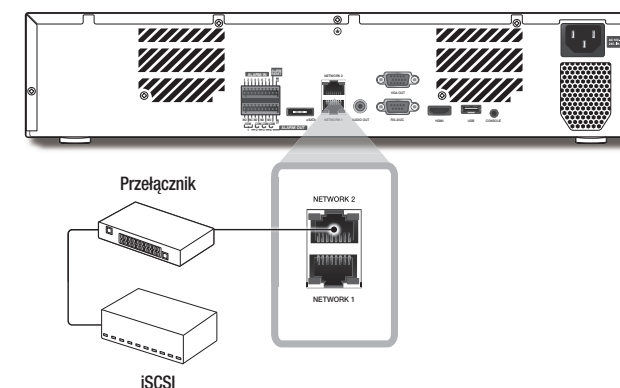
Przykład 1)



Przykład 2)

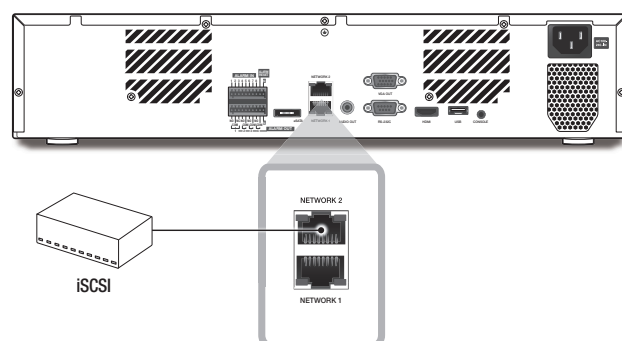


Możesz użyć przełącznika do połączenia



Łączenie z iSCSI

Łączenie bezpośrednio z NVR



• XRN-2010/2011/2010A/2011A

Opcja		Szczegóły	
		XRN-2010/2010A	XRN-2011/2011A
Wyświetlacz			
Kamera sieciowa	Wejścia	Maks. 32 kanały	
	Rozdzielczość	CIF ~ 12MP	
	Protokoły	Wisenet, ONVIF	
Na żywo	Wyświetlacz lokalny	1x HDMI / 1x VGA	
Wydajność			
System operacyjny	Wbudowany	Linux	
Nagrywanie	Kompresja	H.265, H.264, MJPEG	
	Szerokość pasma nagrywania	Maks. 256 Mbps (2 MP 32 nagrywanie kamerą w czasie rzeczywistym)	Maks. 100 Mbps (Tryb RAID-5)
	Rozdzielczość	CIF ~ 12MP	
Wyszukiwanie i odtwarzanie	Pasmo odtwarzania	32 Mbps (16ch jednocześnie)	
	Odtwarzanie jednoczesne	16 kanałów (Monitor lokalny, CMS)	
	Rozdzielczość	CIF ~ 12MP	
	Sterowanie odtwarzaniem	Szybko/wolno Do przodu/do tyłu, Jeden krok w górę/Jeden krok w dół	
Pamięć masowa	Wbudowany	1EA	
	Wewnętrzny HDD	8 (RAID5 : Hot Swap) - Maks. 48TB(Non-RAID), Maks. 36TB(RAID-5)	
	Zewnętrzna	Pamięć masowa iSCSI (Maks. 384TB)	
	RAID	-	RAID-5 (Rozmiar macierzy: macierz 4 dyski twarde x 2)
Kopia zapasowa	Tworzenie kopii zapasowych plików (przez sieć)	BU/Exe(GUI), JPG/AVI(Sieć)	
	Funkcja	Odtwarzanie maks. 16CH, Wyświetlanie Daty/Godziny/Tytułu	

Opcja		Szczegóły	
		XRN-2010/2010A	XRN-2011/2011A
Czujnik	We/Wy	8/4 (NO/NC do wyboru)	
Audio	Wejście	32 kanały (sieć)	
	Kompresja	G.711, G.726, AAC(16/48KHz)	
	Komunikacja dźwiękowa	2-kierunkowa	
Sieć			
Interfejs		RJ-45, Gigabit Ethernet x2	
Protokół		TCP/IP, UDP/IP, RTP (UDP), RTP (TCP), RTSP, NTP, HTTP, DHCP (Server, klient), PPPoE, SMTP, ICMP, IGMP, ARP, DNS, DDNS, uPnP, HTTPS, SNMP, ONVIF (Profile-S), SUNAPI(Server, klient)	
DDNS		Hanwha DDNS	
Szerokość pasma transmisji		512 Mb/s (iSCSI wyl.), 256 Mb/s (iSCSI wł.)	
Maks. liczba użytkowników zdalnych		Wyszukiwanie (3)/Live Unicast (10)/Live Multicast (20)	
Wersja IP		IPv4/v6	
Zabezpieczenia		Dziennik dostępu użytkowników, Filtrowanie IP, 802.1x, Szyfrowanie	
Języki		Angielski, francuski, niemiecki, włoski, hiszpański, rosyjski, turecki, polski, holenderski, szwedzki, czeski, portugalski, duński, rumuński, serbski, chorwacki, węgierski, grecki, norweski, fiński, koreański, chiński, japoński, tajski	
SO		Windows 7, 8.1, 10, Mac OS X 10.9, 10.10, 10.11	
Przeglądarka internetowa		MS IE, Google Chrome, Mac Safari	
Oprogramowanie do wyświetlania obrazów	Typ	SSM, Webviewer, SmartViewer, Wisenet Mobile Viewer	
	Obsługa CMS	SDK/CGI	
Smart Phone	Model obsługiwany	Android, iOS	
	Obsługiwane protokoły	RTP, RTSP, HTTP, CGI	
	Sterowanie	16 kanały na żywo, 1 kanał odtwarzanie	
	Maks. liczba użytkowników zdalnych	Wyszukiwanie (3)/Live Unicast (10)	

Opcja		Szczegóły	
		XRN-2010/2010A	XRN-2011/2011A
Funkcje			
PTZ	Sterowanie	Przez GUI, Przeglądarka, SPC-2000	
	Preset	300 presetów	
Nadmiarowość	Przeł awar	32 (Normalny) + 1 (Czuwanie)	
	ARB	Tak	
Kontrola systemu		Myszka, sieć WWW, SPC-2000 (sterownik)	
Wskaźnik/Interfejs			
Front	Wskaźnik	Wskaźnik stanu LED : HDD Działanie(1), Alarm(1), Zasilanie(1), Nagrywanie(1), Kop zap(1), Sieć(1)	Wskaźnik stanu LED : HDD Działanie(1), Alarm(1), Zasilanie(1), Nagrywanie(1), RAID(1), Sieć(1)
	Przełącznik	N/D	
Złącza	VGA	1EA (Maksymalnie 16 podzielonych ekranów, tryb obsługi na żywo)	
	HDMI	1EA (Na żywo/PB/obsługa konfiguracji) - Obsługa maks. 4K (3840 x 2160)	
Złącza	Audio	Out (1EA, RCA, Line)	
	Ethernet	RJ-45 2EA (LAN/WAN, 1Gbps)	
	Alarm	1) Wejście(8EA, Blok zacisku) 2) Zerowanie Alarmów(1EA) 3) Wyjście (4EA, Blok zacisku) - Wyjścia Przekazu1(NO/NC/COM) - Wyjścia Przekazu2~4(NO/COM)	
	USB	2EA(Przód 1, Tył 1(USB3.0))	
	Pam. masowa	1 e-SATA	
	Numer seryjny	RS-232C	
	Reset	-	
	Kabel zasilania	1EA AC Inlet	

Opcja		Szczegóły	
		XRN-2010/2010A	XRN-2011/2011A
System			
Rejestr	Lista rejestrów	Maks. 20000 każdy (Rejestr systemowy, Rejestr zdarzeń)	
Środowiskowe			
Temperatura działania / Wilgotność		Od +0°C do +40°C (+32°F do +104°F)	
Wilgotność		20% ~ 85% RH	
Elektryczne			
Zasilanie		100 to 240 VAC ±10%; 50/60 Hz, 4~1.5A	
Pobór mocy		99W (6TB HDD x 8ea)	
Mechaniczne			
Kolor / materiał		Czarny / metalowy	
Wymiary (szer. x głęb. x wys.)		440x88x384.8 (17.32" x 3.46" x 15.15") (2U)	
Masa		4,86 kg (Na podstawie numeru dysku twardego)	5,43 kg (Na podstawie numeru dysku twardego)
Normy			
Aprobaty		UL, FCC, KC, CB, CE-EMC, CCC, EAC, PSE	

Specyfikacja wydajności nagrywania dla warunków HDD

Nr	warunki HDD	Odbiór (Mbps)	Nagrywanie (Mbps)	
			Wewnętrzny	iSCSI
1	HDD dla CE / Bez RAID	256	256	-
2	HDD dla CE / RAID 5	100	100	-
3	HDD serwera / Bez RAID	256	256	256
4	HDD serwera / RAID 5	100	100	100

• XRN-3010/3010A

Opcja		Szczegóły
Wyświetlacz		
Kamera sieciowa	Wejścia	Maks. 64 kanały
	Rozdzielczość	CIF ~ 12MP
	Protokoły	Wisenet, ONVIF
Na żywo	Wyświetlacz lokalny	1x HDMI / 1x VGA Dwa monitory
	Wydajność	[Lokalny monitor] - 12M (30fps) - 8.3M(120fps) - 1080p(480fps) - 720P(960fps) - D1(1560fps)
Wydajność		
System operacyjny	Wbudowany	Linux
Nagrywanie	Kompresja	H.265, H.264, MJPEG, WiseStream(H.265, H.264)
	Szerokość pasma nagrywania	Maks. 300 Mbps
	Rozdzielczość	CIF ~ 12MP
Wyszukiwanie i odtwarzanie	Pasmo odtwarzania	32 Mbps (16ch jednocześnie)
	Użytkownik	Maks. 4 użytkowników (1 lokalny, 3 zdalnych)
	Odtwarzanie jednoczesne	Maks. 16 kanałów (Monitor lokalny, CMS)
	Rozdzielczość	CIF ~ 12MP
	Dewarping widoku rybiego oka	Web / CMS
	Sterowanie odtwarzaniem	Szybko/wolno Do przodu/do tyłu, Jeden krok w górę/Jeden krok w dół
Pamięć masowa	Wbudowany	0TB ~ 8TB
	Wewnętrzny HDD	8 (Maks. 64TB)
	Zewnętrzna	-

Opcja		Szczegóły
Kopia zapasowa	Tworzenie kopii zapasowych plików (przez sieć)	BU/Exe(GUI), JPG/AVI(Sieć)
	Funkcja	Odtwarzanie wielokanałowe (do 16), Wyświetlanie daty/godziny/tytułu
Czujnik	We/Wy	8/4 (NO/NC do wyboru)
Audio	Wejście	64 kanały (sieć)
	Kompresja	G.711, G.726, AAC(16/48KHz)
	Komunikacja dźwiękowa	2-kierunkowa
Sieć		
Interfejs		RJ-45, Gigabit Ethernet x2
Protokół		TCP/IP, UDP/IP, RTP (UDP), RTP (TCP), RTSP, NTP, HTTP, DHCP (Server, klient), PPPoE, SMTP, ICMP, IGMP, ARP, DNS, DDNS, uPnP, HTTPS, SNMP, ONVIF (Profile-S), SUNAPI(Server, klient)
DDNS		Hanwha DDNS
Szerokość pasma transmisji		XRN-3010 : 512 Mb/s XRN-3010A : 512 Mb/s (P2P Off), 256 Mb/s (P2P On)
Maks. liczba użytkowników zdalnych		Wyszukiwanie (3)/Live Unicast (10)/Multicast (20)
Wersja IP		IPv4/v6
Zabezpieczenia		Dziennik dostępu użytkowników, Filtrowanie IP, 802.1x, Szyfrowanie
Języki		Angielski, francuski, niemiecki, włoski, hiszpański, rosyjski, turecki, polski, holenderski, szwedzki, czeski, portugalski, duński, rumuński, serbski, chorwacki, węgierski, grecki, norweski, fiński, koreański, chiński, japoński, tajski
SO		Window 7, 8, 10, Mac OS X(10.8 lub nowszy)
Przeglądarka internetowa		MS IE, Google Chrome, Mac Safari
Oprogramowanie do wyświetlania obrazów	Typ	SSM, Webviewer, SmartViewer, Wisenet Mobile Viewer
	Obsługa CMS	SDK/CGI (SUNAPI)
Funkcje		
PTZ	Sterowanie	Przez GUI, Przeglądarka, SPC-2000
	Preset	300 presetów

Opcja		Szczegóły
Smart Phone	Model obsługiwany	Android, iOS
	Obsługiwane protokoły	RTP, RTSP, HTTP, CGI(SUNAPI)
	Sterowanie	Live(16 kanały) : Obsługa wielu profilów Odtwarzanie(1 kanały)
	Maks. liczba użytkowników zdalnych	Wyszukiwanie (3)/Live Unicast (10)/ Multicast (20)
Nadmiarowość	Przeł awar	N+1 (Include Fail-Back)
	ARB	Tak
Kontrola systemu		Myszka, sieć WWW, SPC-2000 (sterownik)
Wskaźnik/Interfejs		
Front	Wskaźnik	Wskaźnik stanu LED : HDD Działanie(1), Alarm(1), Zasilanie(1), Nagrywanie(1), Kop zap(1), Sieć(1)
Złącza	VGA	Pomocniczy: 1 EA (obsługa ekranu na żywo w trybie podziału na maksymalnie 16 ekranów)
	HDMI	Główny: 1 EA (obsługa trybu na żywo/PB/konfiguracji) - Obsługa rozdzielczości maks. 4K (3840 x 2160, tryb pojedynczego monitora, podział)
Złącza	Audio	Out (1EA, RCA, Line)
	Ethernet	RJ-45 2EA (LAN/WAN, 1Gbps)
	Alarm	1) Wejście(8EA, Blok zacisku) 2) Zerowanie Alarmów(1EA) 3) Wyjście (4EA, Blok zacisku) - Wyjścia Przekazu1(NO/NC/COM) - Wyjścia Przekazu2~4(NO/COM)
	USB	2EA(Przód 1, Tył 1)
	Pam. masowa	1 e-SATA
	Numer seryjny	RS-232C
	Reset	Przełącznik (1EA)
	Kabel zasilania	1EA AC Inlet

Opcja		Szczegóły
System		
Rejestr	Lista rejestrów	Maks. 20000 każdy (Rejestr systemowy, Rejestr zdarzeń)
Środowiskowe		
Temperatura działania / Wilgotność		Od +0°C do +40°C (+32°F do +104°F)
Wilgotność		20% ~ 85% RH
Elektryczne		
Zasilanie		100 to 240 VAC ±10%; 50/60 Hz, 4~1.5A
Pobór mocy		Maks. 99W (338BTU, 6TB HDD x 8ea)
Mechaniczne		
Kolor / materiał		Czarny / metalowy
Wymiary (szer. x głęb. x wys.)		szer. 440x głęb. 88x wys. 384.8 (17.32" x 3.46" x 15.15") (2U)
Masa		4,86 Kg(10.71 lb, Zestaw nie zawiera dysków twardych)

Specyfikacja wydajności nagrywania dla warunków HDD

Tryb	Stan dysku twardego	Nagrywanie
		Wewnętrzny
Tryb ogólny	-	150
Tryb rozproszony	1 dysk twardy	150
	Co najmniej 2 dyski twarde	300

• XRN-1610/1610S/1610A/1610SA

Opcja		Szczegóły	
		XRN-1610/1610A	XRN-1610S/1610SA
Wyświetlacz			
Kamera sieciowa	Wejścia	Maks. 16 kanały	
	Rozdzielczość	CIF ~ 12MP	
	Protokoły	Wisenet, ONVIF	
Na żywo	Wyświetlacz lokalny	1x HDMI / 1x VGA Dwa monitory	
	Wydajność	[Lokalny monitor] 12MP (30fps) 8MP(120fps) 5MP(180fps), 3MP(240fps), 2MP(480fps), 720p(480fps), D1(480fps) [Web] 5MP(30fps), 3MP(60fps), 2MP(120fps), 720p(240fps), D1(480fps)	
Wydajność			
System operacyjny	Wbudowany	Linux	
Nagrywanie	Kompresja	H.265, H.264, MJPEG, WISESTREAM(H.265, H.264)	
	Szerokość pasma nagrywania	180 Mb/s	
	Rozdzielczość	CIF ~ 12MP	
Wyszukiwanie i odtwarzanie	Pasmo odtwarzania	32 Mbps (16ch jednocześnie)	
	Użytkownik	Maks. 4 użytkowników (1 lokalny, 3 zdalnych)	
	Odtwarzanie jednoczesne	Maks. 16 kanałów (Sieć, lokalna)	
	Rozdzielczość	CIF ~ 12MP	
	Dewarping widoku rybiego oka	WEB / CMS	
	Sterowanie odtwarzaniem	Szybko/wolno Do przodu/do tyłu, Jeden krok w górę/Jeden krok w dół	
Pamięć masowa	Domyślnie wbudowane	0 TB ~ 6 TB	
	Wewnętrzny	8 SATA (Maks. 48TB)	4 SATA (Maks. 24TB)
	Zewnętrzna	1 e-SATA, iSCSI (maks. 384 TB)	
Kopia zapasowa	Format pliku	BU/EXE(GUI), JPG/AVI(Sieć)	
	Funkcja	Odtwarzanie maks. 16CH, Wyświetlanie Daty/Godziny/Tytułu	

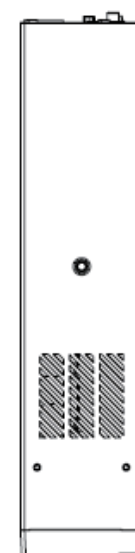
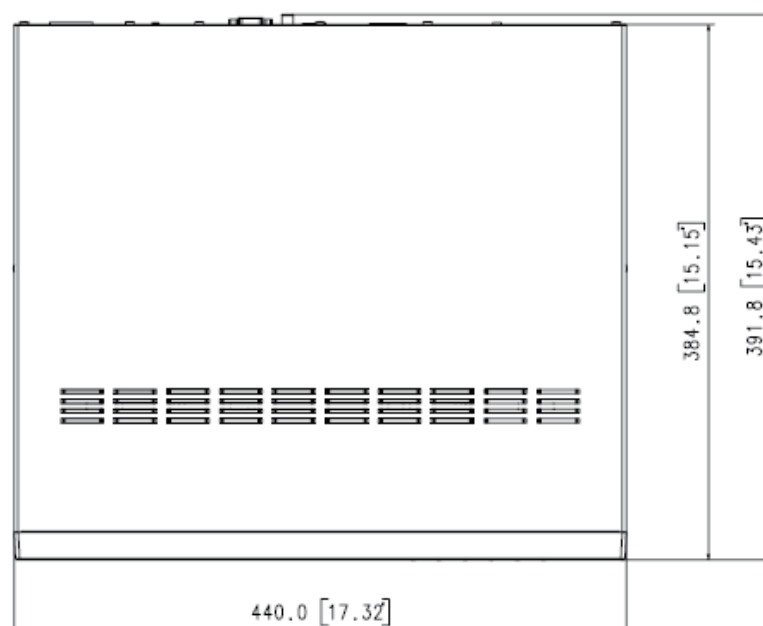
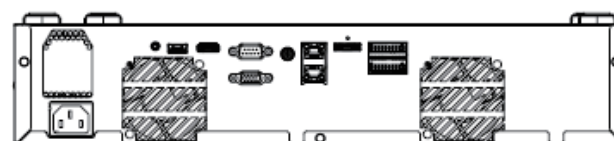
Opcja		Szczegóły	
		XRN-1610/1610A	XRN-1610S/1610SA
Czujnik	We/Wy	8/4 (NO/NC do wyboru)	
Audio	Wejście	16 kanały (sieć)	
	Kompresja	G.711, G.726, AAC(16/48KHz)	
	Komunikacja dźwiękowa	2-kierunkowa (przejście między kamerą a SSM)	
Sieć			
Protokół		TCP/IP, UDP/IP, RTP (UDP), RTP (TCP), RTSP, NTP, HTTP, DHCP (Server, klient), PPPoE, SMTP, ICMP, IGMP, ARP, DNS, DDNS, uPnP, HTTPS, SNMP, ONVIF (Profile-S), SUNAPI(Server, klient)	
DDNS		Hanwha DDNS	
Szerokość pasma transmisji		Maks. 256 Mb/s (iSCSI wyt.), Maks. 128 Mb/s (iSCSI wł.)	
Maks. liczba użytkowników zdalnych		Wyszukiwanie (3)/Live Unicast (10)/Live Multicast (20)	
Wersja IP		IPv4/v6	
Zabezpieczenia		Dziennik dostępu użytkowników, Filtrowanie IP, 802.1x, Szyfrowanie (ID/ PW, nagrywanie, przesyłanie, kopia zapasowa)	
Języki	GUI	Angielski, francuski, niemiecki, włoski, hiszpański, rosyjski, turecki, polski, holenderski, szwedzki, czeski, portugalski, duński, rumuński, serbski, chorwacki, węgierski, grecki, norweski, fiński, koreański, chiński, japoński, tajski	
	Web	Angielski, francuski, niemiecki, włoski, hiszpański, rosyjski, turecki, polski, holenderski, szwedzki, czeski, portugalski, duński, rumuński, serbski, chorwacki, węgierski, grecki, norweski, fiński, koreański, chiński, japoński	
SO		Windows XP(service pack 2 lub późniejszy), Vista, 7, 8, 10, Mac OS X(10.7 lub późniejszy)	
Przeglądarka internetowa		Przeglądarka WebViewer bez wtyczek Obsługiwane przeglądarki: Google Chrome 47, MS Edge 20 WMF: 1 KANAŁ NA ŻYWO (800X600), USTAWIENIA Przeglądarka WebViewer z wtyczkami Obsługiwane przeglądarki: MS Explore 11, Mozilla Firefox 43, Apple Safari 9 * Tylko Mac OS X	
Oprogramowanie do wyświetlania obrazów	Typ	SSM, Webviewer, SmartViewer, Wisenet Mobile Viewer	
	Obsługa CMS	SDK/CGI (SUNAPI)	

Opcja		Szczegóły	
		XRN-1610/1610A	XRN-1610S/1610SA
Smart Phone	Model obsługiwany	Android, iOS	
	Obsługiwane protokoły	RTP, RTSP, HTTP, CGI (SUNAPI)	
	Sterowanie	Tryb na żywo (16 kanałów) : Obsługa wielu profili / Odtwarzanie (1 kanał, maks. 2 MP)	
	Maks. liczba użytkowników zdalnych	Wyszukiwanie (3)/Live Unicast (10)/Multicast (20)	
Funkcje			
Sterowanie kamerą	PoE	-	1) Zużycie energii przez monitor (PoE) 2) Włączenie i wyłączenie sterowania dla każdej kamery PoE 3) Zdalne zerowanie dla każdej kamery PoE
	Synchronizacja czasu	-	Protokół czasu NVR dla kamery PoE (synchronizacja czasu na podstawie czasu NVR)
Prosta konfiguracja		Kreator konfiguracji (język, data i godzina, sieć, automatyczna konfiguracja kamery)	Kreator konfiguracji (język, data i godzina, sieć, automatyczna konfiguracja kamery) ※ z możliwością wyboru trybu PnP i trybu ręcznego
ARB (Autom. odzyskiwanie kopii zapasowej)		Tak	
PTZ	Sterowanie	Przez GUI, Przeglądarka, SPC-2000 (USB)	
	Preset	300 presetów	
Kontrola systemu	Programy sterowania	Myszka, Zdalny sterownik na podczerwień, sieć WWW, SPC-2000 (USB)	
Wskaźnik/Interfejs			
Front	Wskaźnik	Status Zasilania LED 1EA Działanie HDD LED 1EA Status Alarmu LED 1EA Status Nagrywania LED 1EA Działanie sieci LED 1EA Status BACKUPU LED 1EA	
Złącza	VGA	Pomocniczy: 1 EA (obsługa ekranu na żywo w trybie podziału na maksymalnie 16 ekranów)	
	HDMI	Informacje ogólne: 1 szt. (oba modele obsługują tryb na żywo/PB/ustawienia) - Obsługa rozdzielczości maks. 4K (3840 x 2160, w trybie pojedynczego monitora)	

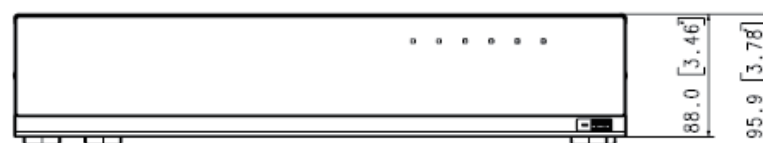
Opcja		Szczegóły	
		XRN-1610/1610A	XRN-1610S/1610SA
Złącza	Audio	Out 1EA(RCA, Line)	
	Ethernet	2 EA (LAN/WAN, 1 Gb/s) - LAN : Łączy w dół do kamery/ koncentratora PoE(PoE+) - WAN: Łączy w górę do CMS	16EA (PoE(PoE+), 100Mbps) 2 EA (LAN/WAN, 1 Gb/s) - LAN : Łączy w dół do kamery/ koncentratora PoE(PoE+) - WAN: Łączy w górę do CMS
	Alarm	Wejście(8EA, Blok zacisku) Wyjście (4EA, Blok zacisku)	
	USB	2EA(Przód 1, Tył 1)	
	Numer seryjny	1 szt. RS-232C (planowane wsparcie podstawowe)	-
	Reset	Tak (przywrócenie ustawień fabrycznych, zerowanie alarmów)	
	Kabel zasilania	Załączony	
System			
Rejestr	Lista rejestrów	Maks. 20000 każdy (Rejestr systemowy, Rejestr zdarzeń)	
Środowiskowe			
Temperatura działania / Wilgotność		Od +0°C do +40°C (+32°F do +104°F)	
Wilgotność		20% ~ 85% RH	
Elektryczne			
Moc wejściowa		100 ~ 240V AC	
Pobór mocy		Maks. 76.3W (8 HDDs)	Maks. 271.9W (4 HDDs, PoE(PoE+) on), Maks. 51.9W (4 HDDs, PoE(PoE+) off) ※ PoE(PoE+) Budget : Max. 200W
Mechaniczne			
Kolor / materiał		Czarny / metalowy	
Wymiary (szer. x głęb. x wys.)		440x88x384.8mm (17.32" x 3.46" x 15.15") (2U)	
Masa		5,44kg	5,1kg

• XRN-2010/2011/2010A/2011A

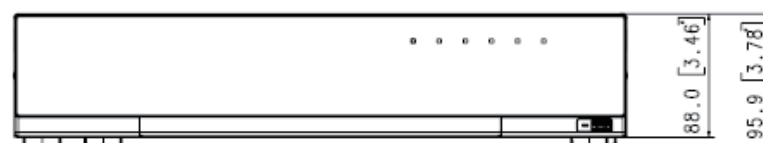
Jednostka : mm (inch)



<XRN-2010/2010A>

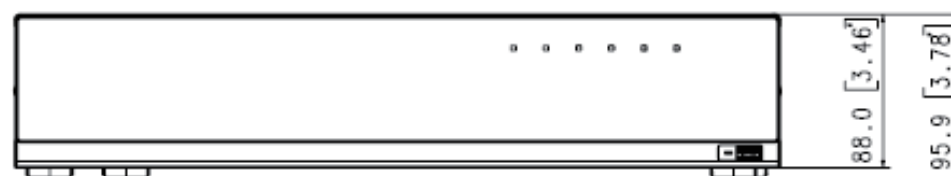
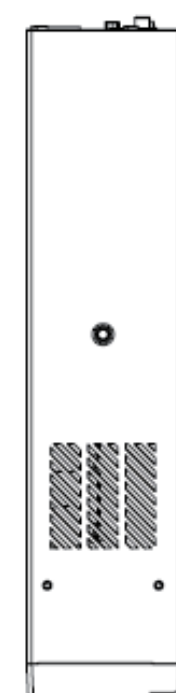
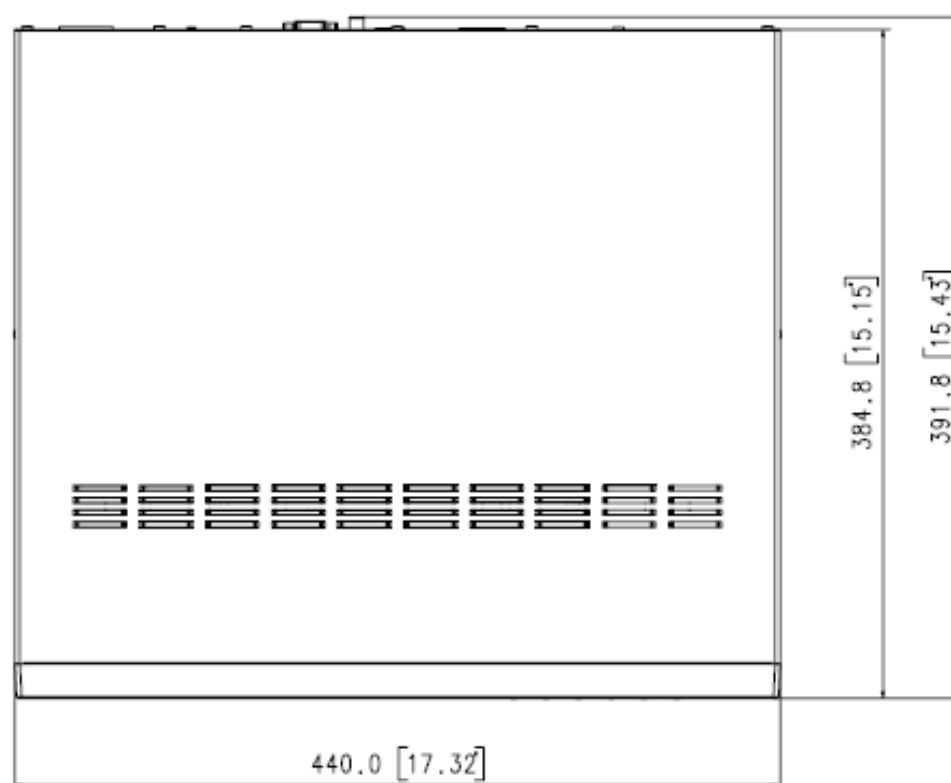
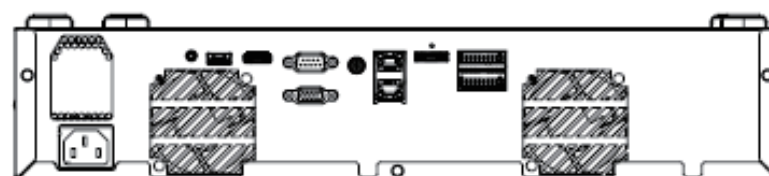


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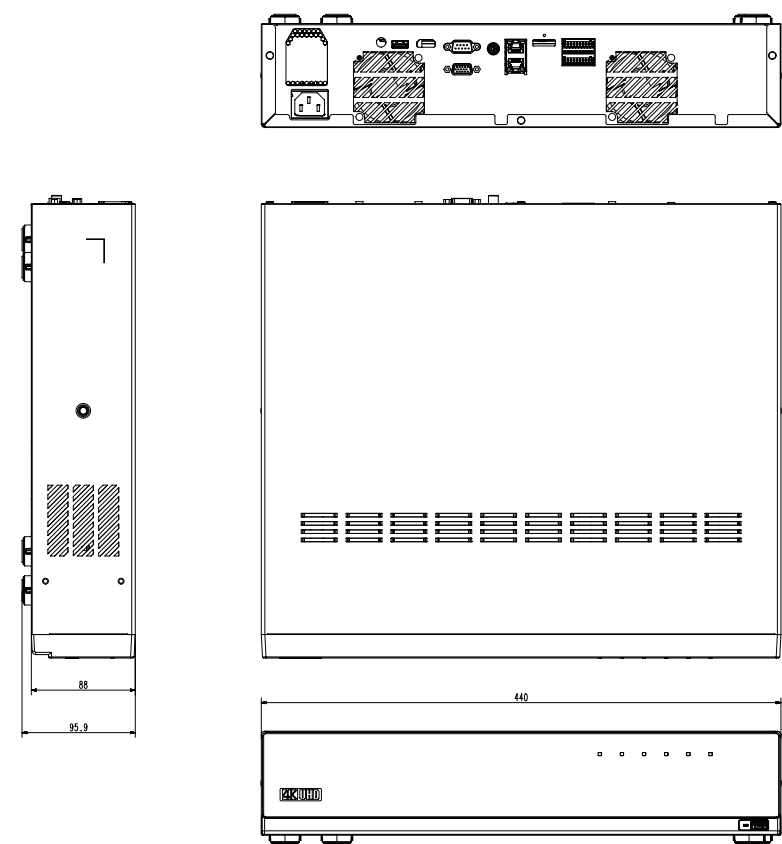
- XRN-3010/3010A

Jednostka : mm (inch)



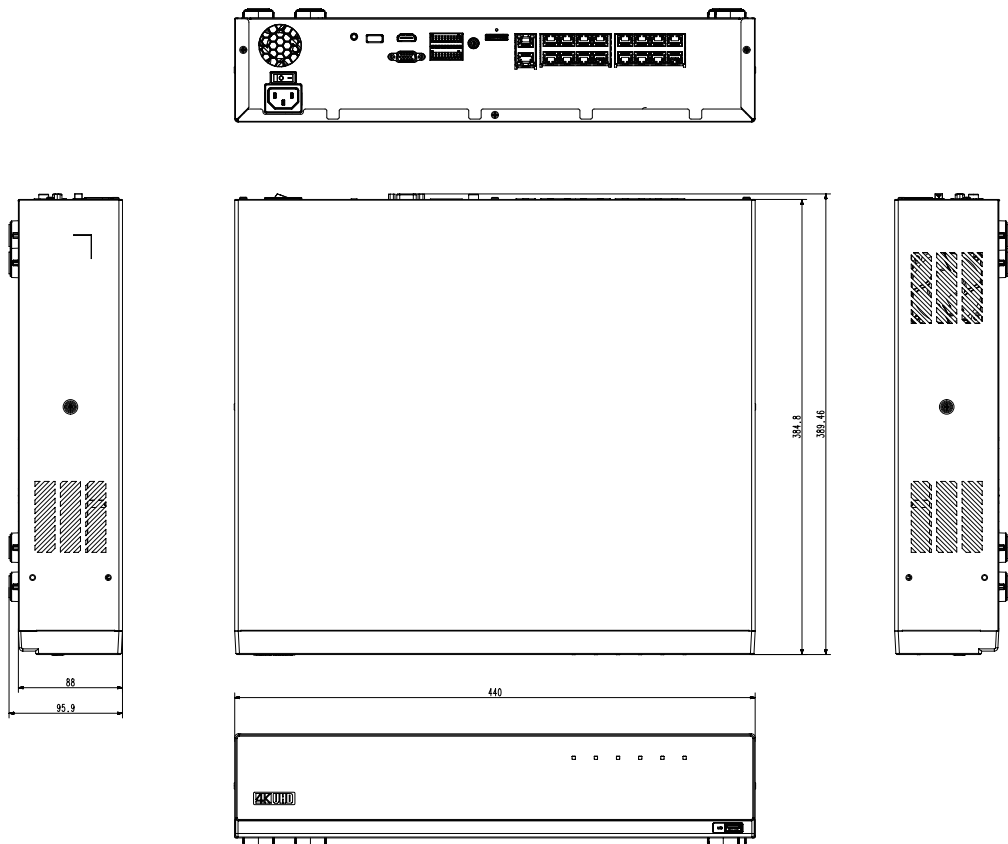
• XRN-1610/1610A

Jednostka : mm (inch)



• XRN-1610S/1610SA

Jednostka : mm (inch)



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- **GPL Software:** bonnie++ 1.03e, busybox 1.23.2, dibbler 0.8.4, Linux Kernel 3.10.y, ethtool-3.11, lsscsi-0.28, memtester 4.0.5, mii-tool-1.8.11, mtd-utils-1.5.1, smartmontools-6.4, udhcp-0.9.8, wpa-suplicant-0.7.3, xfsprogs-3.1.11, gdb-7.8.1, msmtp v1.4.21, parted-3.1, wget v1.18
- **LGPL Software:** ffmpeg-2.4.3, glibc 2.16, Live555, Qt 4.7.2
- **MPL 1.1:** npapi-sdk
- **BSD 2-Clause License:** FreeBSD
- **BSD 3-Clause License:** miniupnpc-1.5-ppc, net-snmp v5.6.2.1, ppp-2.4.5, jquery.sha256, jsbn, libjpeg-turbo, libhttpd v1.4.35, msinttypes, requires, spherical++, sprintf 0.7, System-Verilog-Packet-Library, Text OpenGL Extension Wrangler Library 1.7.0
- **MIT License:** aptechcmstv2, avropendous, cJSON, cJSON-Dave Gamble, dynatree, javascript-ipv6, jqGrid, jQuery UI, jquery-form, jquery-hashchange, jquery-json, jquery-numeric, jquery-throttle-debounce 1.1, JS-Browser-Driver, moon9, noty, Raphael JavaScript Library, wildflower 1.3.Beta
- **libxml2 License:** libxml2 v2.7.7
- **Apache 2.0 License:** RLLib
- **zlib/libpng Lisence:** cximage, HM NIS Edit, Nullsoft Scriptable Install System 2.46, PNG reference library, tinymxml 2.6.2, zlib v1.2.8
- **Boost Software License:** boost 1.57.0
- **Curl License:** curl v7.49.1
- **Microsoft Public License:** Minima, Text Designer Outline Text Library
- **Code Project Open 1.02 License:** CPPPSQLite - C++ Wrapper for SQLite, A reusable, high performance, socket server class - Part3
- **JPEG License:** libjpeg-8b
- **RSA MD4 or MD5 Message-Digest Algorithm License:** JavaScript MD5 1.1, sipxtapi
- **PHP License 3.01:** HPHP-2.1.0, php v5.6.33
- **OpenSSL Combined License:** openssl v1.0.2n
- **PCRE 5 License:** pcre v8.39
- **NTP License:** ntp v4.2.8p10
- **CodeIgniter License:** CodeIgniter
- **GLUT for Win32 License:** GLUT for Win32
- **ISC License:** dhcp 4.3-2rc2
- **Brian Gladman Alternate License:** AES with the VIA ACE
- **Acknowledgement:** This product includes modified version of ffmpeg, Live555, Qt 4.7.2, and npapi-sdk.

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Version 2, June 1991

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Preamble

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University of Cambridge Computing Service,

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1. [1]Mark Andrews <marka@syd.dms.csiro.au> Leitch atomic clock controller

2. [2]Bernd Altmeyer <altmeier@atlsoft.de> hopf Elektronik serial line and PCI-bus devices

3. [3]Viraj Bais <vbais@mailman1.intel.com> and [4]Clayton Kirkwood <kirkwood@striderfm.intel.com> port to WindowsNT 3.5

4. [5]Michael Barone <michael.barone@lmco.com> GPSVME fixes

5. [6]Karl Berry <karl@owl.HQ.ileaf.com> syslog to file option

6. [7]Greg Brackley <greg.brackley@bigfoot.com> Major rework of WINNT port. Clean up recvbuf and iosignal code into separate modules.

7. [8]Marc Brett <Marc.Brett@westgeo.com> Magnavox GPS clock driver

8. [9]Piete Brooks <Piete.Brooks@cl.cam.ac.uk> MSF clock driver, Trimble PARSE support

9. [10]Reg Clemens <reg@dwf.com> Oncore driver (Current maintainer)

10. [11]Steve Clift <clift@ml.csiro.au> OMEGA clock driver

11. [12]Casey Crellin <casey@csc.co.za> vxWorks (Tornado) port and help with target configuration

12. [13]Sven Dietrich <sven_dietrich@trimble.com> Palisade reference clock driver, NT adj. residuals, integrated Greg's Winnt port.

13. [14]John A. Dundas III <dundas@salt.jpl.nasa.gov> Apple A/UX port

14. [15]Torsten Duwe <duwe@immd4.informatik.uni-erlangen.de> Linux port

15. [16]Dennis Ferguson <dennis@mrbill.canet.ca> foundation code for NTP Version 2 as specified in RFC-1119

16. [17]Glenn Hollinger <glenn@herald.usask.ca> GOES clock driver

17. [18]Mike Iglesias <iglesias@uci.edu> DEC Alpha port

18. [19]Jim Jagielski <jim@jagubox.gsfc.nasa.gov> A/UX port

19. [20]Jeff Johnson <jbj@chatham.usdesign.com> massive prototyping overhaul

20. [21]Hans Lambermont <Hans.Lambermont@nl.origin-it.com> or [22]<H.Lambermont@chello.nl> ntpswEEP

21. [23]Poul-Henning Kamp <phk@FreeBSD.ORG> Oncore driver (Original author)

22. [24]Frank Kardel [25]<Frank.Kardel@informatik.uni-erlangen.de> PARSE <GENERIC> driver (14 reference clocks), STREAMS modules for PARSE, support scripts, syslog cleanup

23. [26]William L. Jones <jones@hermes.chpc.utexas.edu> RS/6000 AIX modifications, HPUX modifications

24. [27]Dave Katz <dkatz@cisco.com> RS/6000 AIX port

25. [28]Craig Leres <leres@ee.lbl.gov> 4.4BSD port, ppsclock, Magnavox GPS clock driver

26. [29]George Lindholm <lindholm@ucs.ubc.ca> SunOS 5.1 port

27. [30]Louis A. Mamakos <louie@ni.umd.edu> MD5-based authentication

28. [31]Lars H. Mathiesen <thorinn@diku.dk> adaptation of foundation code for Version 3 as specified in RFC-1305

29. [32]David L. Mills <mills@udel.edu> Version 4 foundation: clock discipline, authentication, precision kernel; clock drivers: Spectracom, Austron, Arbiter, Heath, ATOM, ACTS, KSI/Odetics; audio clock drivers: CHU, WWW/H, IRIG

30. [33]Wolfgang Moeller <moeller@gwdgv1.dnet.gwdg.de> VMS port

31. [34]Jeffrey Mogul <mogul@pa.dec.com> ntptrace utility

32. [35]Tom Moore <tmoore@fievel.daytonoh.ncr.com> i386 svr4 port

33. [36]Kamal A Mostafa <kamal@whence.com> SCO OpenServer port

34. [37]Derek Mulcahy <derek@toybox.demon.co.uk> and [38]Damon Hart-Davis <d@hd.org> ARCRON MSF clock driver

35. [39]Rainer Pruy <Rainer.Pruy@informatik.uni-erlangen.de> monitoring/trap scripts, statistics file handling

36. [40]Dirce Richards <dirce@zk3.dec.com> Digital UNIX V4.0 port

37. [41]Wilfredo Sánchez <wsanchez@apple.com> added support for NetInfo

38. [42]Nick Sayer <mrapple@quack.kfu.com> SunOS streams modules

39. [43]Jack Sasportas <jack@innovativeinternet.com> Saved a Lot of space on the stuff in the html/pic/ subdirectory

40. [44]Ray Schnitzler <schnitz@unipress.com> Unixware1 port

41. [45]Michael Shields <shields@tembel.org> USNO clock driver

42. [46]Jeff Steinman <jss@pebbles.jpl.nasa.gov> Datum PTS clock driver

43. [47]Harlan Stenn <harlan@pfcs.com> GNU automake/autoconfigure makeover, various other bits (see the ChangeLog)

44. [48]Kenneth Stone <ken@sdd.hp.com> HP-UX port

45. [49]Ajit Thyagarajan <ajit@ee.udel.edu> IP multicast/anycast support

46. [50]Tomoaki TSURUOKA <tsuruoka@nc.fukuoka-u.ac.jp> TRAK clock driver

47. [51]Paul A Vixie <vixie@vix.com> TrueTime GPS driver, generic TrueTime clock driver

48. [52]Ulrich Windl <Ulrich.Windl@rz.uni-regensburg.de> corrected and validated HTML documents according to the HTML DTD

[53]gjf

[54]David L. Mills <mills@udel.edu>

References

1. mailto:marka@syd.dms.csiro.au

2. mailto:altmeier@atlsoft.de

3. mailto:vbais@mailman1.intel.co

4. mailto:kirkwood@striderfm.intel.com

5. mailto:michael.barone@lmco.com

6. mailto:karl@owl.HQ.ileaf.com

7. mailto:greg.brackley@bigfoot.com

8. mailto:Marc.Brett@westgeo.com

9. mailto:Piete.Brooks@cl.cam.ac.uk

10. mailto:reg@dwf.com

11. mailto:clift@ml.csiro.au

12. mailto:casey@csc.co.za

13. mailto:Sven_Dietrich@trimble.COM

14. mailto:dundas@salt.jpl.nasa.gov

15. mailto:duwe@immd4.informatik.uni-erlangen.de

16. mailto:dennis@mrbill.canet.ca

17. mailto:glenn@herald.usask.ca

18. mailto:iglesias@uci.edu

19. mailto:jagubox.gsfc.nasa.gov

20. mailto:jbj@chatham.usdesign.com

21. mailto:Hans.Lambermont@nl.origin-it.comv

22. mailto:H.Lambermont@chello.nl

23. mailto:phk@FreeBSD.ORG

24. http://www4.informatik.uni-erlangen.de/kardel

25. mailto:Frank.Kardel@informatik.uni-erlangen.de

26. mailto:jones@hermes.chpc.utexas.edu

27. mailto:dkatz@cisco.com

28. mailto:leres@ee.lbl.gov

29. mailto:lindholm@ucs.ubc.ca

30. mailto:louie@ni.umd.edu

31. mailto:thorinn@diku.dk

32. mailto:mills@udel.edu

33. mailto:moeller@gwdgv1.dnet.gwdg.de

34. mailto:mogul@pa.dec.com

35. mailto:tmoore@fievel.daytonoh.ncr.com

36. mailto:kamal@whence.com

37. mailto:derek@toybox.demon.co.uk

38. mailto:d@hd.org

39. mailto:Rainer.Pruy@informatik.uni-erlangen.de

40. mailto:dirce@zk3.dec.com

41. mailto:wsanchez@apple.com

42. mailto:mrapple@quack.kfu.com

43. mailto:jack@innovativeinternet.com

44. mailto:schnitz@unipress.com

45. mailto:shields@tembel.org

46. mailto:pebbles.jpl.nasa.gov

47. mailto:harlan@pfcs.com

48. mailto:ken@sdd.hp.com

49. mailto:ajit@ee.udel.edu

50. mailto:tsuruoka@nc.fukuoka-u.ac.jp

51. mailto:vixie@vix.com

52. mailto:Ulrich.Windl@rz.uni-regensburg.de

53. file://localhost/backroom/ntp-stable/html/index.htm

54. mailto:mills@udel.edu

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Internet Systems Consortium, Inc.
950 Charter Street
Redwood City, CA 94063
<info@isc.org>
<https://www.isc.org/>

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Na wszystkich etapach produkcji firma Hanwha Techwin dba o środowisko naturalne i wykonuje wiele działań dążąc do dostarczenia klientom produktów niegroźnych dla środowiska. Oznaczenie „Eco” świadczy o tym, że firma Hanwha Techwin wytwarza produkty nieszkodliwe dla środowiska oraz wskazuje, że niniejszy produkt spełnia wymagania przedstawione w dyrektywie RoHS obowiązującej w UE.



Prawidłowe usuwanie produktu (zużyty sprzęt elektryczny i elektroniczny)

To oznaczenie umieszczone na produkcie, akcesoriach lub dokumentacji oznacza, że po zakończeniu eksploatacji nie należy tego produktu ani jego akcesoriów (np. ładowarki, zestawu słuchawkowego, przewodu USB) wyrzucać wraz ze zwykłymi odpadami gospodarstwa domowego. Aby uniknąć szkodliwego wpływu na środowisko naturalne i zdrowie ludzi wskutek niekontrolowanego usuwania odpadów, prosimy o oddzielenie tych przedmiotów od odpadów innego typu oraz o odpowiedzialny recykling i praktykowanie ponownego wykorzystania materiałów.

W celu uzyskania informacji na temat miejsca i sposobu bezpiecznego dla środowiska recyklingu tych przedmiotów, użytkownicy w gospodarstwach domowych powinni skontaktować się z punktem sprzedaży detalicznej, w którym dokonali zakupu produktu, lub z organem władz lokalnych.

Użytkownicy w firmach powinni skontaktować się ze swoim dostawcą i sprawdzić warunki umowy zakupu. Produktu ani jego akcesoriów nie należy usuwać razem z innymi odpadami komercyjnymi..



Sposób poprawnego usuwania baterii, w które wyposażony jest niniejszy produkt

(Dotyczy obszar Unii Europejskiej oraz innych krajów europejskich posiadających oddzielne systemy zwrotu zużytych baterii.)

Niniejsze oznaczenie na baterii, instrukcji obsługi lub opakowaniu oznacza, że po upływie okresu użytkowania baterie, w które wyposażony był dany produkt, nie mogą zostać usunięte wraz z innymi odpadami pochodzącymi z gospodarstw domowych. Przy zastosowaniu takiego oznaczenia symbole chemiczne (Hg, Cd lub Pb) wskazują, że dana bateria zawiera rtęć, kadm lub ołów w ilości przewyższającej poziomy odniesienia opisane w dyrektywie WE 2006/66. Jeśli baterie nie zostaną poprawnie zutilizowane, substancje te mogą powodować zagrożenie dla zdrowia ludzkiego lub środowiska naturalnego.

Aby chronić zasoby naturalne i promować ponowne wykorzystanie materiałów, należy oddzielać baterie od innego typu odpadów i poddawać je utylizacji poprzez lokalny, bezpłatny system zwrotu baterii.

Head Office

6, Pangyo-ro 319 beon-gil, Bundang-gu, Seongnam-si,
Gyeonggi-do, 463-400 Rep. of KOREA
Tel : +82.70.7147.8753 Fax : +82.31.8018.3740
www.hanwha-security.com

Hanwha Techwin America

500 Frank W. Burr Blvd. Suite 43 Teaneck, NJ 07666
Toll Free +1.877.213.1222 Direct +1.201.325.6920
Fax +1.201.373.0124
www.hanwhasecurity.com

Hanwha Techwin Europe

Heriot House, Heriot Road, Chertsey, Surrey, KT16 9DT, United Kingdom
Tel +44.1932.57.8100 Fax +44.1932.57.8101
www.hanwha-security.eu
