



All-in-One
LK-790 CCTV

User Guide ver.1

Thank you for choosing Lukas Dash Camera.

This manual is based on the LK-790 CCTV model.
The latest firmware & manual version can be found
at our website www.lukashd.com.

■ Please read carefully before using this product ■

- ※ This manual should be reviewed and retained for future reference.
- ※ Qrontech reserves all rights to this manual in accordance with the copyright law.
- ※ Content of this manual is subject to change without notice to ensure quality control.
- ※ Differences in device functionality may differ depending on firmware.
- ※ This product was designed as an accessory for safe driving. In case of an accident, all responsibility is held by the driver. Please use this product responsibly.

■ Scope of guarantee and responsibility ■

- ※ This product is for recording video image and sound for the simulation of an accident. Recorded data may then be used as evidence and/or reference purposes. We cannot guarantee this product to capture all accident related video image and sound. Quality may differ due to weather condition(s).
- ※ We will not be held responsible for any damages and/or data corruption or loss caused by a malfunction of this product.
- ※ In general, the memory card lifespan for this product is 6 months and may be subject to data corruption or loss due to static electricity and/or external voltage. For this reason, it is highly recommended for the user to copy and save important data to other media (hard disk, CD, portable memory etc.).
- ※ Memory card may contain corrupt images (image recording omissions, image cuts, frame change and omission, other defect in image recording) due to a decrease in reading/writing speed and other defects. For the best results, please use Lukas genuine SD memory cards and format periodically (Once a week for 16G SD memory card).
- ※ We will not be held responsible for any damages related to engine output if user records in parking mode without a portable auxiliary battery.
- ※ This device complies with FCC radiation exposure limits for an uncontrolled environment. Avoid operating this device at a distance less than 20cm from the user.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area, is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This device complies with Part 15 of the FCC's Rules. Operation is subject to the following two conditions:
1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesirable operation.

Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

LK-790 CCTV

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1. Instruction for Use

■ 1-1. Device Precautions ■

Before proceeding, please read and observe all instructions and warnings in this manual.

- ※ Do not expose the device to heavy impacts.
- ※ Do not install this product in a vibration place or shock.
- ※ Do not move while the device is working.
- ※ When cleaning is necessary, shut down the system and unplug the unit from the outlet.
Do not use liquid cleaners. Use only a dry cloth for cleaning.
- ※ Handle with care, do not drop the unit.
- ※ It may cause fire or electric shock when you use broken power cable.
- ※ Do not remove the cover, to reduce the risk of electric shock.
- ※ Do not expose the camera to rain or other types of liquid.
- ※ Do not place it in an area with poor ventilation or in an area close to fire or other sources of heat.
Doing so may damage the unit as well as cause fire or an electric shock.
- ※ Avoid moist place have risk Do not attempt to disassemble or modify the product.
- ※ We recommend to use prevent lightning when there is lightning area a lot.
- ※ Turn the power off immediately when smoke goes up from the product or the smell of smoke comes from the product.

■ 1-2. GPS ■

- ※ Commercial GPS has margin of error more than 15m. GPS signal may not be received depending on the surrounding environment such as buildings, underground parkades, and trees.
- ※ A combination of factors including weather can delay the time to receive the first GPS signal after power is connected to the device.



■ 1–3. Memory Card ■

1. Do not remove the memory card by force while the product is in recording mode.
Be sure to turn off the product before removing the memory card. Removing the memory card while the device is on may damage the video file or cause an operation error of the memory card.
2. Formatting SD Card once a week (16G) is recommended.
Repetitive writing and deletion by the device CCTV can cause damage to the memory card(s) and files. Accordingly, periodic formatting of the memory cards can prevent files from being damaged.
The lifespan of a memory card is 6 months and we are not responsible for any recording errors that may take place as a result of prolonged usage after the 6 month period.
3. Please use Lukas Genuine memory cards to ensure the best quality.
We will not be held responsible for any problems related to the usage of memory cards not provided by us.
4. Handle with care when inserting and removing the memory card(s) to avoid burns.
The memory card(s) operate at high temperatures, and we recommend you use caution when inserting and removing.
5. Operating temperatures may vary depending on the performance of memory cards.
6. Be sure to backup your recorded videos using an extra storage device. (PC, external HDD, etc.)
A backup of the memory card data using an external storage device may prevent the loss of important data.
7. Please use reformatting a memory card when you change setting on configuration.
8. Please format the SD card through Lukas viewer program on PC or Lukas App
Format by using Lukas viewer program after connecting SD card reader to PC or format on Lukas Configuration in Lukas APP.

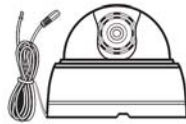
2. Features

■ 2. Main Features ■

- ▶ 2.1M Effective Pixel CMOS Image Sensor
- ▶ 1920X1080p Full HD Recording, Max. 30fps
- ▶ Supports a Variety of Recording Functions
 - Continuous Recording : generates recording files at 3 minute, 5 minute or 10 minute interval continuously
 - Motion Detection Recording
 - Event (Earthquake Detection) Recording
- ▶ Supports Largest Memory Capacity of 256GB (Basic 8GB)
- ▶ Supports Wi-Fi (802.11n 2412~2462MHz)
- ▶ Operating Temperature : -20°C ~ 50°C
- ▶ Supports Dual OS : Android / iOS, Windows / MAC
- ▶ Convenient Adjustment Angle of Camera : Up and Down, Left and Right
- ▶ Supports Security LED

3. Package & Part Name

3-1. Basic Package



Main Device



Power Cable



Top Cover Opener,
Plastic Anchor, Bolt



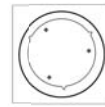
SD Card
(Included in Device)



User Manual



CCTV Operation Sign Sticker



Guide Pattern

- Content of this manual is subject to change without notice to ensure quality control.
- Please use Lukas Genuine basic package.

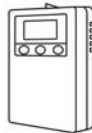
3-2. Additional Accessories



External GPS



External Antenna



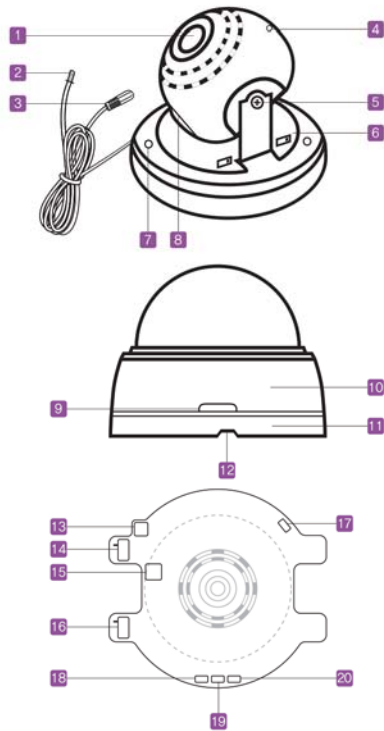
LK-530
Auxiliary Battery



NAS



3-2. Name & Functions of Each Part



Name	
1	LK-790 CCTV Lens
2	External Wi-Fi Antenna-In
3	DC-IN
4	Security LED
5	Vertical Rotating
6	Horizontal Rotating
7	Screw Hole for Wall/Ceiling Installation
8	SD Slot
9	Hole for Opening Top Cover
10	Top Cover
11	Down Cover
12	Hole for Cable
13	External Wi-Fi Connection-IN
14	Wi-Fi / NAS Access Mode Switch
15	Wi-Fi Connection-IN
16	Recording Mode Switch
16	※ Motion Mode : Motion Detection Recording
16	※ Always Mode : Continuous Recording
17	SD Card Format Button
18	Motion Detection
19	GPS-IN
20	Power-IN

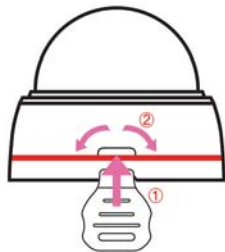
※ Security LED

Continuous Recording	Motion Recording (Pause)	Earthquake (Event) Detection Recording	Motion Detection Recording
Blink interval 10 Sec.	Blink interval 1 Sec.	Blink Fast	Blink Fast

※ You can set the Security LED On/Off on the viewer or Basic > Configuration in the App.
(When it is Off, the security LED doesn't work)

4. Installation

■ 4-1. Detaching Top Cover ■



Top cover can be detached when you turn the top cover opener clockwise or counterclockwise, after insert it the red line in this image.

- ※ It might be fell down when you detach top cover after you set up to ceiling.
- ※ It might have risk of electric shock if you touch inside with wet hand.

■ 4-2. Installation ■

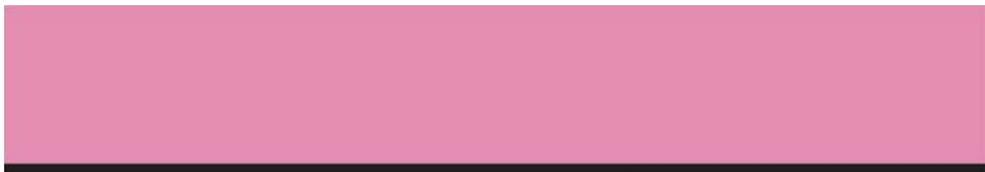


1. Please fix the down cover installation screw supported on wall or ceiling.
 - ※ You can check the interval of screw with guide pattern.
 - ※ Place to accommodate cable hole of down cover when it needs to fix on the wall or ceiling.
2. Connect power after mini DVR power cable and adaptor power cable.
3. Adjust angle of lens appropriate video.
 - ※ Please refer "Adjustment of the Camera Angle" section.
4. Fix up cover to down cover.

■ 4-3. Adjustment of the Camera Angle ■

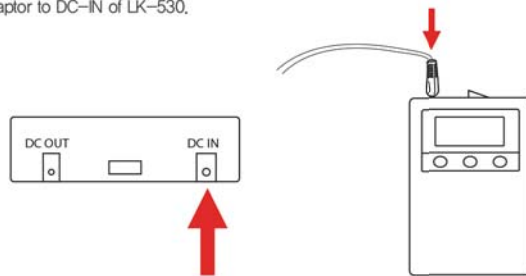


1. Adjust up/down angle of lens with vertical rotating bar.
2. Adjust up/down angle of lens with horizontal rotating bar.
 - ※ Please care not to get dirty to lens when you adjust angle.
 - ※ Please care not to unplug DC-IN or Wi-Fi antenna when you adjust angle.

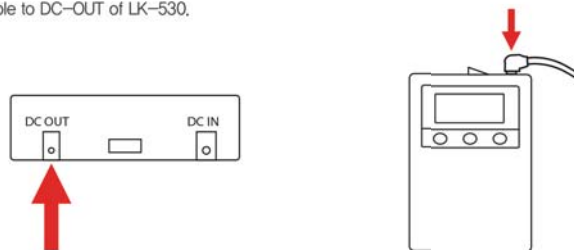


■ 4-4. Connecting Auxiliary Battery LK-530 ■

1. Connect adaptor to DC-IN of LK-530.



2. Connect cable to DC-OUT of LK-530.



2. Connect cable of LK-530 and power cable of LK-790 CCTV



5. Product Usage

■ 5-1. Getting Started with the LUKAS APP ■

- ※ Download the Lukas application on your smartphone.
 - The Lukas application can be found on the Google Play Store and the App Store for iPhone by searching "Lukas".
 - The Lukas application can be used with Android 4.0 or later, iOS 5.0 or later.
 - The Lukas App may not be supported depending on the smartphone.
- ※ Please turn the Wi-Fi / NAS access mode switch to Wi-Fi the dash cam.
- ※ For playback of recorded videos using Wi-Fi, the reception may vary according to the data transfer rate.
- ※ The range of Wi-Fi reception may vary.
- ※ The path of recorded videos may vary depending on the smartphone.

■ 5-2. Connecting to the LUKAS APP ■



[LUKAS APP main menu]



[Connect device with Wi-Fi]



[Put password]

1. Select the Lukas Connect button on the main screen.
 - ※ When the LK-790 CCTV is connected with your smartphone, the Lukas Connect icon will turn green.
2. Select 'Lukas' on the Wi-Fi list.
3. Enter in the default password : '11111111'.
 - ※ For a stable connection, please remain within close proximity with your mini DVR.
 - ※ Change your password to prevent others from accessing your device.
 - ※ Configure your device name and password on the Lukas Viewer program or Lukas App.



5-3-1. Using the LUKAS APP - SD Card

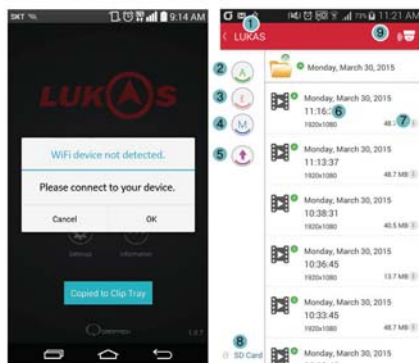
※ You can view your recorded footage saved on the SD Card right from the LUKAS APP.



1. Navigation : Navigate to the Main Screen.
2. Always Video : Display footage captured in Always Recording mode.
3. Event Video : Display footage captured in Event Recording mode.
4. Motion Detection Video : Display footage captured in Motion Detection mode.
5. Customize : Arrange order of footage by time sequence (ascending/descending).
6. Play : View footage file.
7. Delete : Delete footage file.
8. Wi-Fi : Navigate to 'LUKAS Connection'.

5-3-2. Using the LUKAS APP - LUKAS Connection

※ Green indicates a successful connect on the icon of Main Screen.
 Grey indicates a fail connect on the icon of Main Screen.



[When Wi-Fi is disconnected]

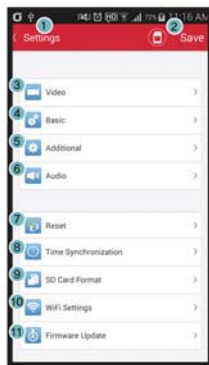
[Wi-Fi Connection]

1. Navigation : Navigate to the Main Screen.
2. Always Video : Display footage captured in Always Recording mode.
3. Event Video : Display footage captured in Event Recording mode.
4. Motion Detection Video : Display footage captured in Motion Detection mode.
5. Customize Order : Arrange order of footage by time sequence (ascending/descending).
6. Play : View footage file.
7. Download : Save footage file onto your Smartphone as a movie clip.
 File path may vary depending on Smartphone and OS.
8. SD Card : Navigate to 'SD Card'.
9. LIVE : View a live video stream from the Camera.



5-4. Using the Lukas App – Configuration

- ※ Configuration only available when Lukas LK-790 CCTV is connected to your Smartphone.
- ※ Menu items may vary depending on Lukas model.
- ※ During changed configuration value is saving, It is need to keep both Dash cam and Smartphone turning 'ON'.



1. Navigation : Navigate to the Main Screen.
2. Save Changes : Changes will be saved and applied.
3. Video : Configure video settings.
4. Basic : Configure basic settings & functions.
5. Additional : Additional settings and functions.
6. Audio : Configure audio quality and settings.
7. Reset : Reset all settings applied to device to default factory settings.
8. Time Synchronization : Synchronize device time with Smartphone.
9. SD Card Format : Format microSD / SD Card.
10. WiFi Connection info, : Verify changes to the Wifi SSID and PASSWORD.
11. Firmware Update : Updates available for your device.

5-5. Using the Lukas APP – Miscellaneous



1. Navigation : Navigate to the Main Screen.
2. Application Version : Displays current mobile app version.
3. Firmware Download : Download the latest firmware.
4. Firmware Version : Displays current firmware version of your device.
5. Call Service Center : Contact Lukas for more information.
6. YouTube : View our YouTube channel.
7. Lukas Homepage : Visit our homepage for more information.



■ 5-4. Upgrading Firmware on the App ■

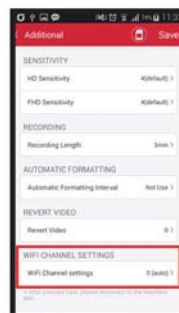
1. Connect to your Lukas device to view current firmware version.
(Information → Firmware version)
2. Navigate to Firmware Download (Information → Firmware Download) after disconnecting Smartphone from Wi-Fi.
3. Download the latest firmware available (Charges may apply depending on carrier).
4. Ensure device and smartphone maintain a stable connection after connecting Smartphone from Wi-Fi again.
5. Upload firmware to your device (Lukas Configuration → Firmware Update).
6. Please wait until it works well when dash cam reboot after the latest firmware upload to dashcam.
※ Please do not restart your Smartphone or dash cam while firmware is being installed.

■ 5-5. Using NAS ■

1. Turn the NAS button to NAS on Wi-Fi / NAS switch.
2. Put information of NAS information on Lukas Viewer.

■ 5-6. Changing Wi-Fi Channel ■

- ※ Wi-Fi reception may vary depend on circumstance.
In this case, you can change the channel with Lukas viewer or Smartphone App.
- ※ You can check Wi-Fi channel around user throw 'Wifi Analyzer' in Google play store.
You can see that Wi-Fi quality is improved.
- ※ You can change Wi-Fi Channel in 'Settings } Additional' on the App.





■ 5-7-1. Lukas Viewer ■

1. Program Installation



※ Lukas Viewer can be found on the SD card(s) that come with your product.
You can download the Lukas Viewer for the LK-790 Nara at any time from our website. (www.lukashd.com)

Recommended PC Specification for Using Lukas Viewer

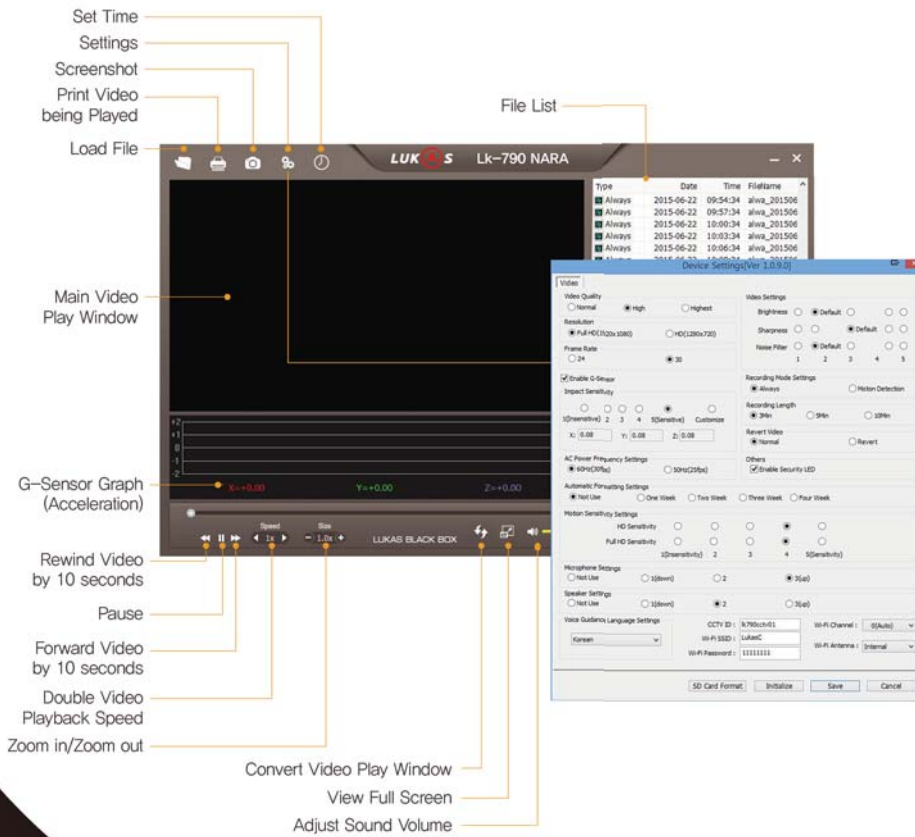
OS : Windows XP SP3, Vista(32Bit), WIN7,8(32/64bit)
H/W : Quad core 2.8Ghz/ 4G RAM
Web Browser: Microsoft internet explorer 7.0
Direct X version: Direct X9.0 (JUNE2010)
Others: Windows.NET Framework 4

※ For best result, please use the Lukas Viewer supplied with your product.
There may be occasional display and sounds cuts, changes in play speed and other errors depending on your computer make and model.



5-7-2. Lukas Viewer Screen Composition

- You can modify mini DVR setting, device time setting etc, as you like by using "settings" on program menus.
- To take full advantage of Full HD resolution, play video in full screen.





■ 5-8. Display Live View ■



1 2 3

1 Date Display

2 Time Display

3 Bitrate Display

6. Product Specification & Customer Service

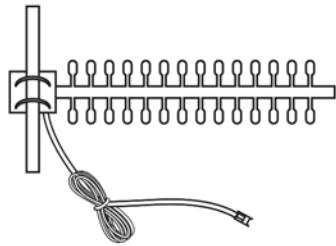
6-1. Product Specification

Item	Specification	Remark
Camera	Full HD dedicated 2.1M Effective Pixel CMOS Sensor, 1/2.9(inch)	
Viewing Angle	Diagonal(approx. 135°) / Effective Angle : Horizontal (Approx. 107°) Vertical (Approx. 55°)	
Recording Resolution & Frame	1920×1080p(Full HD), 30fps	
Wi-Fi	802.11n (2412 ~ 2462MHz)	
Video Compression	H.264(AVI format), Codec profile : H1P(High profile)	
Gravity Sensor	Built-In 3-axis Impact Sensor (Earthquake Detection)	
Storage Media	SD Card : SDHC / SDXC Memory Card (Standard 8GB, Max, 256GB)	
Player Program	General Media Player / Lukas Viewer	
Audio	Built-In Speaker, Microphone	
Power	15V	
Bitrate	1, 2, 3 Mbps	
Operating & Storage Temperature	Operating : -20°C ~ 40°C, Storage : -30°C ~ 50°C	
Size / Weight	111 X 111 X 86 (mm) , 255g	Include Connection Cable, Memory Card

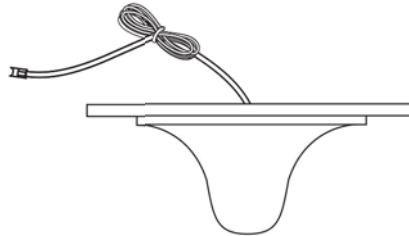
■ 6-3. Appendix ■

※ Connection External Antenna

1. 외장형 안테나를 기둥 또는 천장에 연결 합니다.

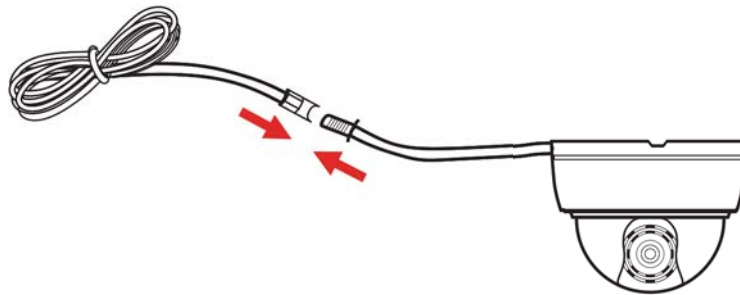


Yagi Antenna



Dom Antenna

2. 외장형 안테나 케이블을 외장 Wi-Fi 안테나 연결 잭에 연결합니다.





A series of horizontal lines for writing, with a faint watermark of a dome-shaped camera lens in the lower right area.



A series of horizontal lines for writing, with a faint line drawing of a bowl or cup on the right side.

Quality Assurance



Quality Assurance

Model Name		Product S/N	
Customer Name		Date of Purchase	MM DD YY
Customer Phone No.		Place of Purchase	

1. A standard 1-year warranty is provided from the date of purchase. However, a 6-month warranty is provided for accessories, including memory card.
2. This product has undergone strict quality control and inspection procedures.
3. Please provide all necessary information when making a warranty claim.
4. This user manual will not be re-issued with a warranty claim. Please retain this manual for future reference.
5. We are not responsible for any charges related to the installation or uninstallation of this product, regardless of warranty status.



1. Certified Company : Qrontech Co., Ltd.
2. Device Name (model name) : LK-790 CCTV
Short range low power wireless device
(Wireless devices for wireless data communication system)(LK-790 CCTV)
3. Certificate No. : MSP-CMM-QRN-CCTV
4. Manufacturer/Manufacturing Country : Qrontech Co., Ltd. / Korea

Seller and user must note that this device electromagnetic wave compatible only for business use in places other than homes.



Conformity European Marking
EU Joint Specification Certificate

Hereby, Qrontech Co., Ltd. declares that this is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC





www.lukashd.com

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