

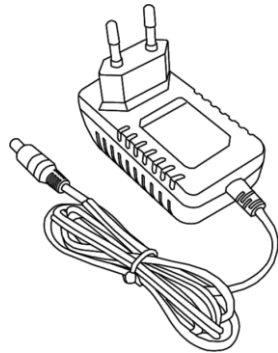
USER MANUAL

Cyfrowy modulator HDMI-DVB-T

Model Nr : R86111

Modulator HDMI-DVB-T R86111 jest urządzeniem, które wejściowy sygnał podany na złącze HDMI moduluje w standardzie DVB-T. Można na niego podać sygnał w wysokiej rozdzielczości Full HD. Posiada wejście HDMI oraz wyjście RF DVB-T.

1. Zasilacz AC 100V ~ 240V 50HZ/60Hz, DC5V/2A



2. MDULATOR HDMI-DVB-T

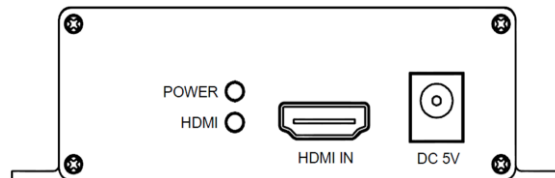


FIG.1 Widok od strony złącz (HDMI, zasilanie)

PWR LED: dioda POWER ON/OFF

HDMI LED: dioda HDMI wejście

HDMI IN: HDMI wejście

DC5V: zasilanie 5V DC in jack

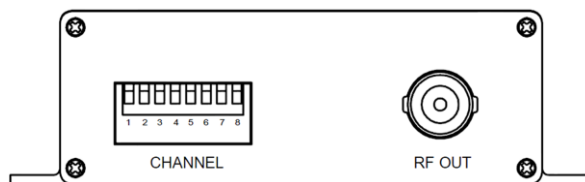


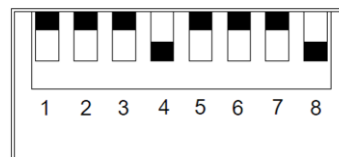
FIG.2 Widok od strony złącza RF DVB-T

Uwaga:

1. Maksymalna długość transmisji sygnału przy pomocy kabla: 500m
2. Modulator nie posiada wsparcia dla protokołu HDCP
3. Poziom wyjściowy sygnał RF DVB-T z modulatora 100 dBuV – w przypadku przesterowania głowicy odbiornika na który podawany jest sygnał RF DVB-T z modulatora zaleca się zastosowanie tłumika sygnału RF.
4. Konfiguracja kanału DVB-T przy pomocy przełączników



e.g.1 Kanał 1 (0000 0001)



e.g.2 Kanał 11 (0001 0001)

Poniższa tabela przedstawia wykaz pozycji przełączników w modulatorze w celu wyboru kanału DVB-T (0-ustaw przełącznik w pozycji góra, 1-ustaw przełącznik w pozycji dół.)

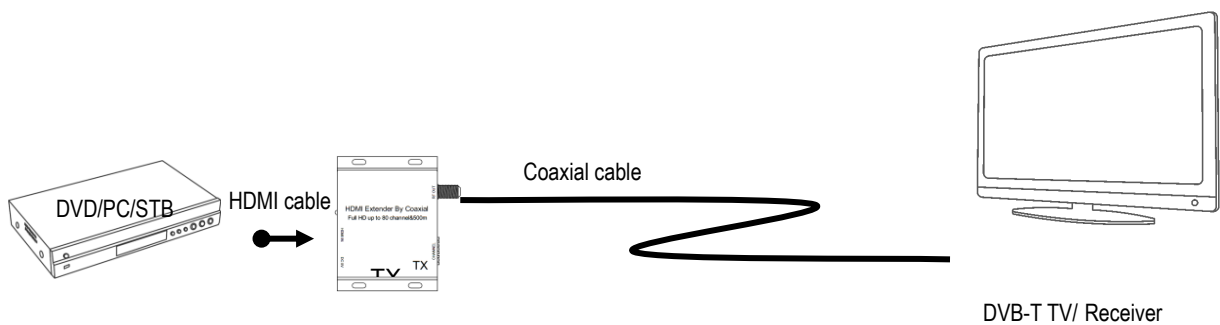
| Kanał ID | Ustawienia przełączników (12345678) | Częst. (MHz) | BW (MHz) |
|----------|---------------------------------------|----------------|------------|
| 1 | 0000 0001 | 142.5 | 7 |
| 2 | 0000 0010 | 149.5 | 7 |
| 3 | 0000 0011 | 156.5 | 7 |
| 4 | 0000 0100 | 163.5 | 7 |
| 5 | 0000 0101 | 177.5 | 7 |
| 6 | 0000 0110 | 184.5 | 7 |
| 7 | 0000 0111 | 191.5 | 7 |
| 8 | 0000 1000 | 198.5 | 7 |
| 9 | 0000 1001 | 205.5 | 7 |
| 10 | 0001 0000 | 212.5 | 7 |
| 11 | 0001 0001 | 219.5 | 7 |
| 12 | 0001 0010 | 226.5 | 7 |
| 13 | 0001 0011 | 410 | 8 |
| 14 | 0001 0100 | 418 | 8 |
| 15 | 0001 0101 | 426 | 8 |
| 16 | 0001 0110 | 434 | 8 |
| 17 | 0001 0111 | 442 | 8 |

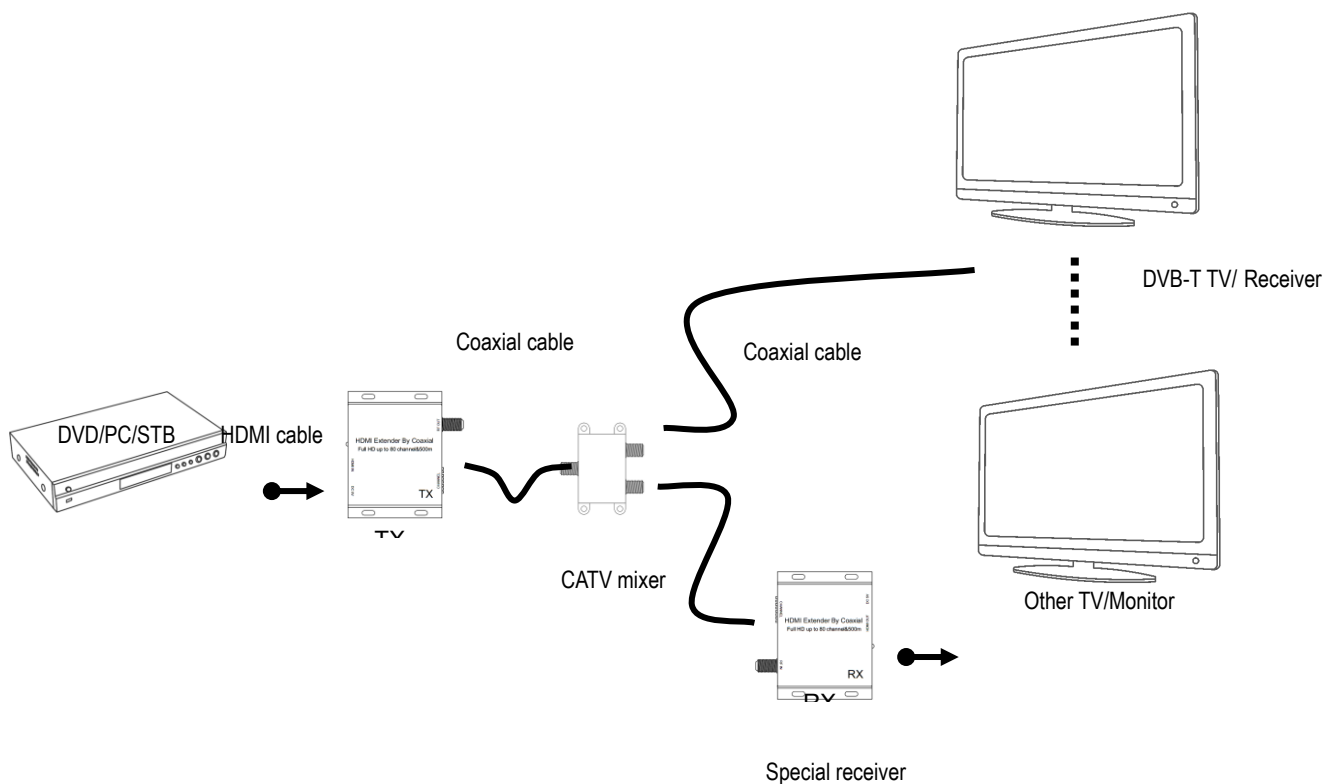
| Kanał ID | Ustawienia przełączników (12345678) | Frequency (MHz) | BW (MHz) |
|----------|---------------------------------------|-------------------|------------|
| 41 | 0100 0001 | 634 | 8 |
| 42 | 0100 0010 | 642 | 8 |
| 43 | 0100 0011 | 650 | 8 |
| 44 | 0100 0100 | 658 | 8 |
| 45 | 0100 0101 | 666 | 8 |
| 46 | 0100 0110 | 674 | 8 |
| 47 | 0100 0111 | 682 | 8 |
| 48 | 0100 1000 | 690 | 8 |
| 49 | 0100 1001 | 698 | 8 |
| 50 | 0101 0000 | 706 | 8 |
| 51 | 0101 0001 | 714 | 8 |
| 52 | 0101 0010 | 722 | 8 |
| 53 | 0101 0011 | 730 | 8 |
| 54 | 0101 0100 | 738 | 8 |
| 55 | 0101 0101 | 746 | 8 |
| 56 | 0101 0110 | 754 | 8 |
| 57 | 0101 0111 | 762 | 8 |

| | | | | | | | |
|----|-----------|-----|---|----|-----------|-----|---|
| 18 | 0001 1000 | 450 | 8 | 58 | 0101 1000 | 770 | 8 |
| 19 | 0001 1001 | 458 | 8 | 59 | 0101 1001 | 778 | 8 |
| 20 | 0010 0000 | 466 | 8 | 60 | 0110 0000 | 786 | 8 |
| 21 | 0010 0001 | 474 | 8 | 61 | 0110 0001 | 794 | 8 |
| 22 | 0010 0010 | 482 | 8 | 62 | 0110 0010 | 802 | 8 |
| 23 | 0010 0011 | 490 | 8 | 63 | 0110 0011 | 810 | 8 |
| 24 | 0010 0100 | 498 | 8 | 64 | 0110 0100 | 818 | 8 |
| 25 | 0010 0101 | 506 | 8 | 65 | 0110 0101 | 826 | 8 |
| 26 | 0010 0110 | 514 | 8 | 66 | 0110 0110 | 834 | 8 |
| 27 | 0010 0111 | 522 | 8 | 67 | 0110 0111 | 842 | 8 |
| 28 | 0010 1000 | 530 | 8 | 68 | 0110 1000 | 850 | 8 |
| 29 | 0010 1001 | 538 | 8 | 69 | 0110 1001 | 858 | 8 |
| 30 | 0011 0000 | 546 | 8 | 70 | 0111 0000 | 866 | 8 |
| 31 | 0011 0001 | 554 | 8 | 71 | 0111 0001 | 874 | 8 |
| 32 | 0011 0010 | 562 | 8 | 72 | 0111 0010 | 882 | 8 |
| 33 | 0011 0011 | 570 | 8 | 73 | 0111 0011 | 890 | 8 |
| 34 | 0011 0100 | 578 | 8 | 74 | 0111 0100 | 898 | 8 |
| 35 | 0011 0101 | 586 | 8 | 75 | 0111 0101 | 906 | 8 |
| 36 | 0011 0110 | 594 | 8 | 76 | 0111 0110 | 915 | 8 |
| 37 | 0011 0111 | 602 | 8 | 77 | 0111 0111 | 924 | 8 |
| 38 | 0011 1000 | 610 | 8 | 78 | 0111 1000 | 930 | 8 |
| 39 | 0011 1001 | 618 | 8 | 79 | 0111 1001 | 938 | 8 |
| 40 | 0100 0000 | 626 | 8 | 80 | 1000 0000 | 946 | 8 |

Przełącznik 8-bitowy. 0-ustaw w pozycji góra, 1-ustaw w pozycji dół.

Przykład zastosowania





DANE TECH.

| | |
|--|---|
| HDMI Rozdzielczość..... | 24/50/60fs/1080p/1080i/720p/576p/576i/480p/480i |
| HDMI Audio Format..... | LPCM |
| Częstotliwość RF (wyj.) | 139 ~ 950 MHz |
| Szerokość kanału | 7/8 MHz |
| Liczba kanałów..... | 80 |
| RF wyjście..... | 100 dBμV |
| Typ złącza RF | złącze F |
| Impedancja kabla koncentrycznego | 75Ω |
| Typ kabla..... | RG6 etc. |
| Długość toru RF | ≤500m |
| Max pobór prądu | 650mA |

ZasilanieAC 100V ~ 240V 50HZ/60Hz, DC5V/2A

Temp. pracy -10 ... +45 °C

Wymiary (L x W x H)94x74x28 (mm)

Masa 120g

Enjoy the vivid world!

Dear customer

Thank you for purchasing this product. For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

The products are designed to make your A/V device use more convenient, comfortable, productive and cost-efficient.

The HDMI TO DVB-T Modulator can convert HDMI signal to HD digital TV signal based on DVB-T CATV transmission mode. The product applies RF modulation technology characteristic to realize the HD signal to HD digital TV signal conversion and transmit via coaxial cable over long distance up to 500 meters. By a CATV network mixer , the Modulator over Coaxial cable supports pair to pair and multiple to multiple video matrix.

Our devices offer solutions for noise, space and security concerns, data center control, information distribution, conference room presentation, school and corporate training environments.

INTRODUCTION

FEATURES :

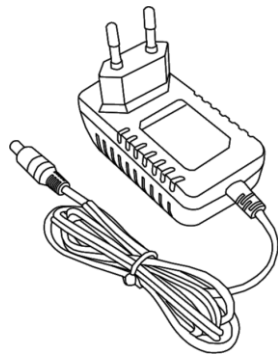
- Supports a HDMI input and a F type/BNC RF output.
- Support HDMI resolution up to 1080P/60Hz.
- Output signal accord with the relevant DVB-T standards, and it can be compatible with any DVB-T TV or receiver.
- Transmission distance up to 500 meters by SYV-75-5 coaxial cable and no need amplification.
- Support 80 channels for option; frequency ranges 139MHz~950MHz.
- Products using the broadcast signal transmission mode, only one line can transmit 48 channels of high-definition video signal at the same time.
- By a CATV network mixer , the Modulator over Coaxial cable supports pair to pair and multiple to

multiple video matrix.

- The use of digital TV communication protocol, anti interference and error correction capability is very strong.
- Installs in minutes. The use of the existing CATV transmission network, no need wiring.

PACKAGE CONTENTS:

1. AC power adapter 1pcs



FEATURES OF THE INTERFACE:

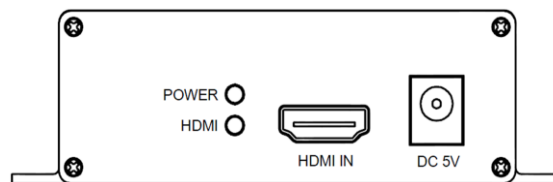


FIG.1 Front Panel View

PWR LED: POWER ON/OFF indicator

HDMI LED: HDMI input indicator

HDMI IN: HDMI signal input

DC5V: 5V DC in jack

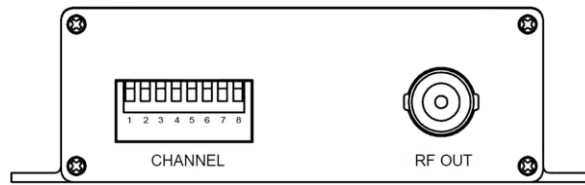


FIG.2 Rear Panel View

CHANNEL: Channel selection switch

RF OUT: RF signal output

OPERATION AND CONNECTION:

1. Pair to Pair mode

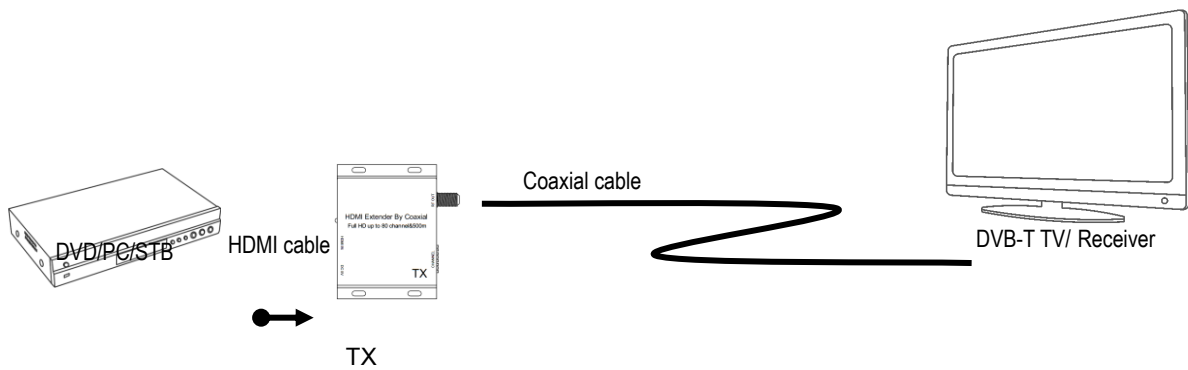


FIG.3 CONNECTION DIAGRAM

1. Connect one SYV-75/RG59 coaxial cable from Modulator (TX) RF OUT into the DVB-T Receiver Tuner /RF IN.
2. Connect one HDMI cable from signal source into the HDMI input port of TX.
3. Set same channel for TX and Receiver (Detailed setting method reference behind the table).
4. Connect adapter power supply to the TX.

II. One to multiple Splitter mode

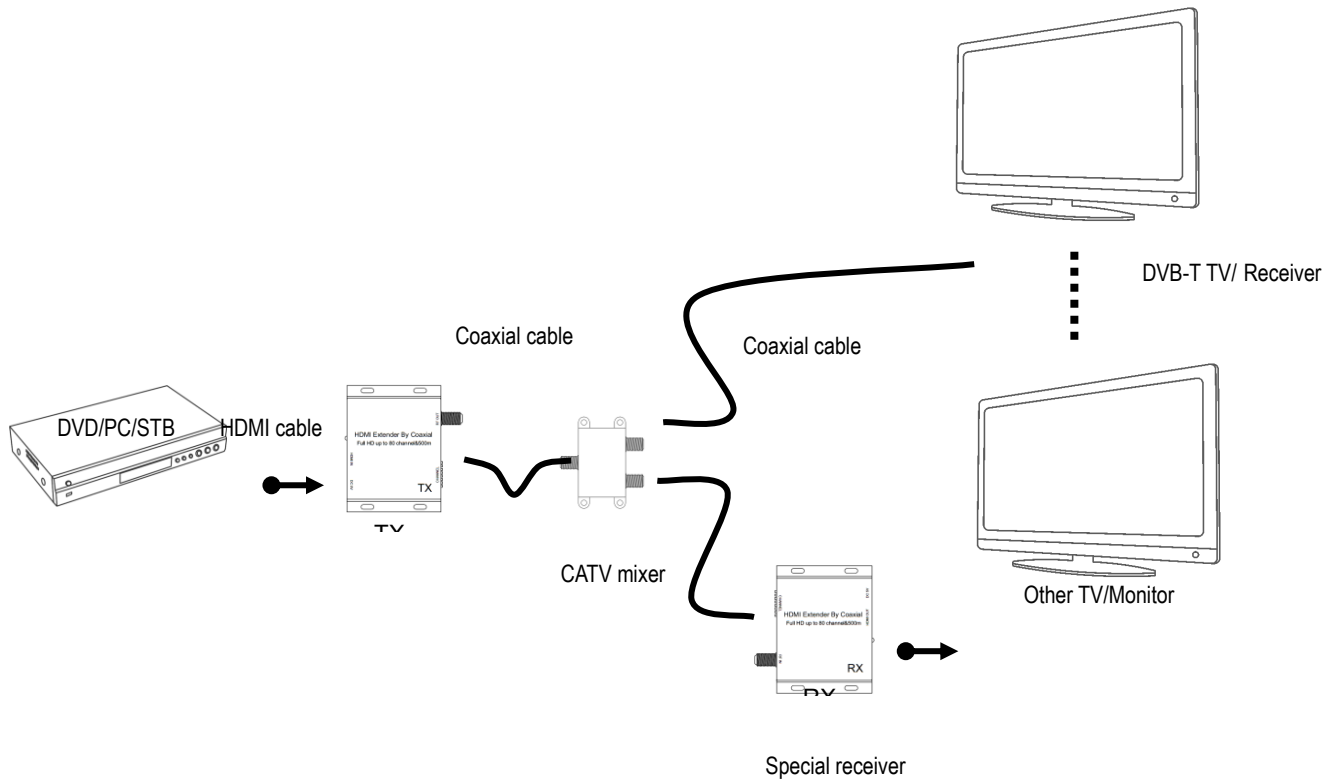


FIG.4 SPLITTER CONNECTION DIAGRAM

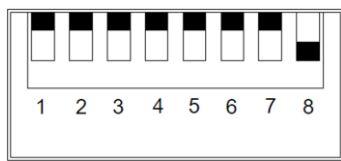
1. Connect one SYV-75/RG59 coaxial cable from TX RF OUT into the input port of CATV mixer.
2. Connect coaxial cables from DVB-T Receiver RF IN into the output ports of CATV mixer.
3. Connect one HDMI cable from signal source into the HDMI input port of TX.
4. Set same channel for TX and Receiver (Detailed setting method reference behind the table)
5. Connect adapter power supply to the TX.
6. Note: The CATV mixer and Special receiver are not included in the package list, you need to buy another.

Notes:

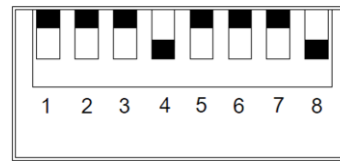
1. In normal conditions, transmission distance up to 500 meters by SYV-75-5 coaxial cable and no

need amplification. For the high-frequency RF signal has signal attenuation, signal strength will become weakened after adding CATV network mixer and multi output.

2. If the signal frequency is high, the transmission attenuation is greater. So choose low channel for long-distance transmission. Otherwise, When the transmission distance is short (less than 100 meters), because the signal is too strong, receiver may protect and can't output normal. So now you should choose high channel or adding attenuator in coaxial cable for the signal attenuation.
3. If the output contents of the signal source contains HDCP key, the RF signal of the modulator output will automatically encrypted also. Then, If you use ordinary DVB-T receiver will not Decoding and output, only use the special receiver to the output normally.
4. With the channel set and frequency values refer to the table below, and channel selection switch setting method is as follows:



e.g.1 CH1 (0000 0001)



e.g.2 CH11 (0001 0001)

Channel set and frequency reference table

| Channel ID | Switch Setting (12345678) | Frequency (MHz) | BW (MHz) |
|------------|-----------------------------|-------------------|------------|
| 1 | 0000 0001 | 142.5 | 7 |
| 2 | 0000 0010 | 149.5 | 7 |
| 3 | 0000 0011 | 156.5 | 7 |
| 4 | 0000 0100 | 163.5 | 7 |
| 5 | 0000 0101 | 177.5 | 7 |
| 6 | 0000 0110 | 184.5 | 7 |
| 7 | 0000 0111 | 191.5 | 7 |
| 8 | 0000 1000 | 198.5 | 7 |
| 9 | 0000 1001 | 205.5 | 7 |
| 10 | 0001 0000 | 212.5 | 7 |
| 11 | 0001 0001 | 219.5 | 7 |
| 12 | 0001 0010 | 226.5 | 7 |
| 13 | 0001 0011 | 410 | 8 |
| 14 | 0001 0100 | 418 | 8 |
| 15 | 0001 0101 | 426 | 8 |
| 16 | 0001 0110 | 434 | 8 |
| 17 | 0001 0111 | 442 | 8 |
| 18 | 0001 1000 | 450 | 8 |
| 19 | 0001 1001 | 458 | 8 |
| 20 | 0010 0000 | 466 | 8 |
| 21 | 0010 0001 | 474 | 8 |
| 41 | 0100 0001 | 634 | 8 |
| 42 | 0100 0010 | 642 | 8 |
| 43 | 0100 0011 | 650 | 8 |
| 44 | 0100 0100 | 658 | 8 |
| 45 | 0100 0101 | 666 | 8 |
| 46 | 0100 0110 | 674 | 8 |
| 47 | 0100 0111 | 682 | 8 |
| 48 | 0100 1000 | 690 | 8 |
| 49 | 0100 1001 | 698 | 8 |
| 50 | 0101 0000 | 706 | 8 |
| 51 | 0101 0001 | 714 | 8 |
| 52 | 0101 0010 | 722 | 8 |
| 53 | 0101 0011 | 730 | 8 |
| 54 | 0101 0100 | 738 | 8 |
| 55 | 0101 0101 | 746 | 8 |
| 56 | 0101 0110 | 754 | 8 |
| 57 | 0101 0111 | 762 | 8 |
| 58 | 0101 1000 | 770 | 8 |
| 59 | 0101 1001 | 778 | 8 |
| 60 | 0110 0000 | 786 | 8 |
| 61 | 0110 0001 | 794 | 8 |

| | | | | | | | |
|----|-----------|-----|---|----|-----------|-----|---|
| 22 | 0010 0010 | 482 | 8 | 62 | 0110 0010 | 802 | 8 |
| 23 | 0010 0011 | 490 | 8 | 63 | 0110 0011 | 810 | 8 |
| 24 | 0010 0100 | 498 | 8 | 64 | 0110 0100 | 818 | 8 |
| 25 | 0010 0101 | 506 | 8 | 65 | 0110 0101 | 826 | 8 |
| 26 | 0010 0110 | 514 | 8 | 66 | 0110 0110 | 834 | 8 |
| 27 | 0010 0111 | 522 | 8 | 67 | 0110 0111 | 842 | 8 |
| 28 | 0010 1000 | 530 | 8 | 68 | 0110 1000 | 850 | 8 |
| 29 | 0010 1001 | 538 | 8 | 69 | 0110 1001 | 858 | 8 |
| 30 | 0011 0000 | 546 | 8 | 70 | 0111 0000 | 866 | 8 |
| 31 | 0011 0001 | 554 | 8 | 71 | 0111 0001 | 874 | 8 |
| 32 | 0011 0010 | 562 | 8 | 72 | 0111 0010 | 882 | 8 |
| 33 | 0011 0011 | 570 | 8 | 73 | 0111 0011 | 890 | 8 |
| 34 | 0011 0100 | 578 | 8 | 74 | 0111 0100 | 898 | 8 |
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| 37 | 0011 0111 | 602 | 8 | 77 | 0111 0111 | 924 | 8 |
| 38 | 0011 1000 | 610 | 8 | 78 | 0111 1000 | 930 | 8 |
| 39 | 0011 1001 | 618 | 8 | 79 | 0111 1001 | 938 | 8 |
| 40 | 0100 0000 | 626 | 8 | 80 | 1000 0000 | 946 | 8 |

Switch setting note: 0-dial switch to the up, 1-dial switch to the down. In fact, the switch 8 bit code equals to the binary code of channel ID.

SPECIFICATIONS:

R86111

| | |
|---|---|
| HDMI resolution | 24/50/60fs/1080p/1080i/720p/576p/576i/480p/480i |
| HDMI Audio Format..... | LPCM |
| RF frequency range..... | 139 ~ 950 MHz |
| RF Channel B/W..... | 7/8 MHz |
| The number of Channel..... | 80 |
| RF Output power..... | -6dBm |
| RF Connector type..... | The imperial F type/BNC |
| Coaxial cable Characteristic impedance..... | 75Ω |
| Coaxial cable types..... | RG6 etc. |
| RF transmission distance..... | ≤500m SYV-75-5 coaxial standard cable |
| TX Max working current | 650mA |
| Power adapter format Input | AC 100V ~ 240V 50HZ/60Hz, DC5V/2A |
| Operating Temperature range | -10 to +45°C |
| Storage Temperature range..... | -20 to +60°C |

Operating Humidity range10 to 90%RH (No Condensation)
 Storage Humidity range.....5 to 95%RH (No Condensation)
 Case Dimension (L x W x H)94x74x28 (mm)
 Weight 120g

Notes:

Pls use the machine as the instruction listed to keep the long use lifetime of the machine.

1. The machine should be placed at the spot far from the Damp, High-Temperature, Dusty, Erosive, and oxidative environment.
2. All parts will be free from the strong shake, hit, fall.
3. Touching the power adaptor with the wet hands is prohibited.
4. Pls hold the power adaptor head and do not pull the power cord when cut off from the socket.
5. Pls turn the power off when the machines not used for long time.
6. Pls do not open the cover and do not touch the inside parts.
7. Pls use the original factory power adaptor.

FAQ:

Before power on, pls check the connection line carefully. And make sure that all interfaces are normally connected. The common trouble shooting way shows below:

| No. | Problem Description | Solutions |
|-----|---------------------------|---|
| 1 | Non-Power-Connected | <ol style="list-style-type: none"> 1. Check if the power adaptor head is truly and correctly inserted the power socket. 2. Check the power if it is in on status. |
| 2 | Receiver search no signal | <ol style="list-style-type: none"> 1. Confirm the coaxial cables are intact and reliable connection. 2. Confirm the length of coaxial cable is too short. When the transmission distance is short (less than 100 meters), you should choose high channel or adding attenuator in coaxial cable for the signal attenuation. 3. Confirm the TX and RX channel settings should be the same 4. Check the cable quality. (Recommend use SYV-75/RG59 coaxial standard cable) |
| 3 | Receiver no Picture | <ol style="list-style-type: none"> 1. Confirm the HDMI cable of TX is intact and reliable connection. 2. Check the signal source is power on and output normal. 3. Check the signal source output resolution, may be set too high. 4. Confirm the signal source whether contains HDCP key, use special receiver is recommended. 5. Check the HDMI cable quality. |

| | | |
|---|-----------------------------------|---|
| 4 | Image mosaic/ Abnormal Picture | <ol style="list-style-type: none">1. Confirm the coaxial cables are intact and reliable connection.2. Confirm the length of coaxial cable is too short or long.3. Device EDID read error, please reboot.4. Nearby signal interference, proposals to change the other channel |
| 5 | Abnormal sound | <ol style="list-style-type: none">1. Check the signal source output audio format is LPCM. Audio output options of signal source should be set to "Auto" or "LPCM"2. Device EDID read error, please reboot. |