RE-HDMI-RG

The transmitter and receiver for HDMI over coax transport

Product description

The HDMI (High Definition Multimedia Interface) is an all-digital commercial standard for the interface of the audio and video signals in high resolution. Our next-generation DVR all use this output for connection to both TV-like monitor that computer in high resolution.

HDMI is an excellent door from the performance point of view, but it is not simple to conduct cable.
The standard HDMI cable allows you to carry the HDMI signal only for a few meters. With special and very expensive HDMI cables can also get to 20 meters, but no further.

To overcome this limitation these RE-HDMI-RG transmitters allow to carry the HDMI signal up to the maximum distance over 500 m using 75 ohm coaxial cable such as RG59, 179, 6, 11 etc. very common in analog CCTV.

Package Contents

- Receiver transmitter
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- 2 feeders 220VAC / 5VDC

Installation

The product consists of a transmitter to be connected to the video source (DVR) and a receiver which connect the TV or monitor. It must be careful not to reverse the two elements: the transmitter is marked by TX written while the receiver RX wrote.

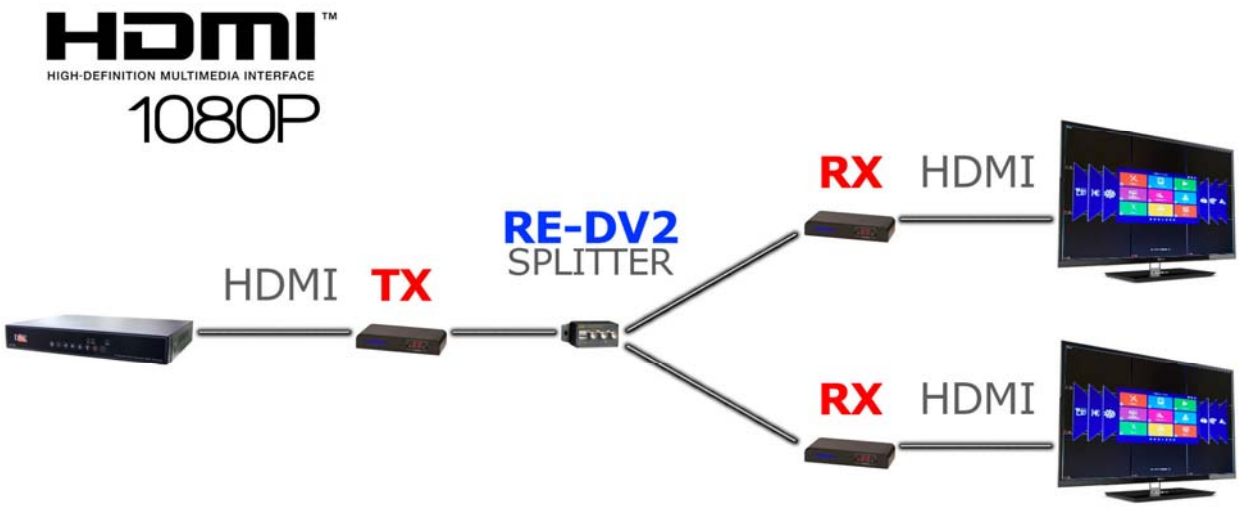
Both the DVR that the monitor are connected to TX and RX HDMI cable with a short (1-2 m. Not supplied). The coaxial cable to carry the signal transport connects with F-type connectors (produced in the female connector), those normally used in satellite TV and cable.

Here we report, for example, the receiver connections

1 - F connector for coaxial cable
2 - yellow LINK LED (only receiver). It lights up when the connection is established with the transmitter. 3 - Reset button

4 - HDMI to connect the equipment (DVR to TX and RX to monitor) 5 - 5VDC power supply socket included

Transmitter and receiver are connected to each other with a 75 Ohm coaxial cable. They are good both large coaxial as RG69, RG6, RG11 is minicoassiali as RG179. Consider that the system involves the use of a cable of at least 20 m in length. The connection to a coaxial cable of a few meters will not work without the insertion of the attenuators. You can be inserted along the coaxial cable of the signal splitters (active, not simple T BNC), realizing in this way the connection between a transmitter and multiple receivers.



If you utlizzano two-way splitter, such as those used in cable TV, you can also use transport more transmitters on a single coaxial cable placed between two splitters. In this way, on the coaxial cable will pass more distinguishable HDMI signals each with its own frequency.

channel selection

Both transmitter and receiver are equipped with a display and two buttons to set the transmission frequency (or from
99). Because the connection between the two can take place it is necessary that the frequency value is the same on both modules. The factory setting is channel 00

In the following pages is the table with the frequencies corresponding to the channels from 0 to 99 choose to use the frequency considered the receiver of the corresponding gain value.
A frequency such as 55 with lower gain (-64dB) for best results on short wiring, while the gain at higher frequencies are best suited to long journeys.

Note that for wiring to below 100 m. It may be convenient to place an attenuator departing from -20 dB, or in the absence of this interpose a cable skein left wrapped.

Maximum length of coaxial cable

These transmitters allow the HDMI cable 1080P resolution up to several hundred meters. The extent of transmission varies drastically depending on the attenuation of the coaxial cable used. If you have available the tables of the manufacturer of the cable you are using you should easily find the attenuation (dB) that the cable introduces the different frequencies. If you do not have these tables you can refer to the generic values, such as those that can be obtained from our online calculator

a page www.dseitalia.it/calcolatore_attenuazione.htm In the table of frequencies to bottom of the page you will notice that the last column shows the sensitivity of the receiver.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Calcolatore dell'attenuazione dei cavi coassiali

Inserire la lunghezza del cavo coassiale (metri o feet): 600 CALC Clear

Attenuazione (dB)

FEET (ft)				Frequenza	METRI (M)			
RG59/U	RG6/U	RG7/U	RG11/U	MHz	RG59/U	RG6/U	RG7/U	RG11/U
4.62	3.42	3.36	2.16	5	15.16	11.22	11.02	7.09
11.28	9	7.32	5.7	55	37.01	29.53	24.02	18.7
21.54	17.22	13.74	10.86	211	70.67	56.5	45.08	35.63
23.34	18.72	14.94	11.88	250	76.57	61.42	49.02	38.98

The maximum permissible cable length must not introduce an attenuation greater than the sensitivity of the receiver, on the contrary must be maintained below a 20/30% security.

Take the case of using the 177.5 MHz frequency factory. At this rate our receiver has a sensitivity of -80 dB. If we consider an average RG59 and use our online calculator to see that 211 MHz (nearest value 177.5), with 600 m. Cable obtain an attenuation of 70.67. It 'a good maximum length to be taken into consideration because it remains below the receiver sensitivity of 80db with a certain margin of safety. Please note that if you are using the equipment

TABLE OF CHANNELS

Channel	Band	Frequency (MHz)	BW (MHz)	RX Sensitivity (dBm)
0	Factory	177.5	7	- 80
1	-	240	8	- 79
2	VHF low band	149.5	7	- 80
3	VHF low band	156.5	7	- 80
4	VHF low band	163.5	7	- 80
5	VHF III	177.5	7	- 80
6	VHF III	184.5	7	- 80
7	VHF III	191.5	7	- 79
8	VHF III	198.5	7	- 75
9	VHF III	205.5	7	- 75
10	VHF III	212.5	7	- 79
11	VHF III	219.5	7	- 79
12	VHF III	226.5	7	- 80
13	Hyper UHF band	410	8	- 79
14	Hyper UHF band	418	8	- 79
15	Hyper UHF band	426	8	- 79
16	Hyper UHF band	434	8	- 79
17	Hyper UHF band	442	8	- 79
18	Hyper UHF band	450	8	- 79
19	Hyper UHF band	458	8	- 79
20	Hyper UHF band	466	8	- 79
21	UHF IV	474	8	- 79
22	UHF IV	482	8	- 79
23	UHF IV	490	8	- 78
24	UHF IV	498	8	- 76
25	UHF IV	506	8	- 71
26	UHF IV	514	8	- 76
27	UHF IV	522	8	- 77
28	UHF IV	530	8	- 74
29	UHF IV	538	8	- 77
30	UHF IV	546	8	- 78
31	UHF IV	554	8	- 76
32	UHF IV	562	8	- 78
33	UHF IV	570	8	- 78
34	UHF IV	578	8	- 78
35	UHF IV	586	8	- 75
36	UHF IV	594	8	- 64
37	UHF IV	602	8	- 76
38	UHF V	610	8	- 78
39	UHF V	618	8	- 78
40	UHF V	626	8	- 78
41	UHF V	634	8	- 78
42	UHF V	642	8	- 75
43	UHF V	650	8	- 76
44	UHF V	658	8	- 77
45	UHF V	666	8	- 77
46	UHF V	674	8	- 78
47	UHF V	682	8	- 77
48	UHF V	690	8	- 77
49	UHF V	698	8	- 78
50	UHF V	706	8	- 77
51	UHF V	714	8	- 77
52	UHF V	722	8	- 77
53	UHF V	730	8	- 76
54	UHF V	738	8	- 70
55	UHF V	746	8	- 64

56	UHF V	754	8	- 77
57	UHF V	762	8	- 78
58	UHF V	770	8	- 78
59	UHF V	778	8	- 78
60	UHF V	786	8	- 78
61	UHF V	794	8	- 78
62	UHF V	802	8	- 78
63	UHF V	810	8	- 79
64	UHF V	818	8	- 79
65	UHF V	826	8	- 77
66	UHF V	834	8	- 77
67	UHF V	842	8	- 76
68	UHF V	850	8	- 77
69	UHF V	858	8	- 77
70	UHF V	866	8	- 77
71	UHF V	874	8	- 77
72	UHF V	882	8	- 77
73	UHF V	890	8	- 77
74	UHF V	898	8	- 74
75	UHF V	906	8	- 74
76	UHF V	915	8	- 74
77	UHF V	924	8	- 74
78	UHF V	930	8	- 70
79	UHF V	938	8	- 70
80	UHF V	946	8	- 70
81	-	240	8	- 79
82	-	250	8	- 79
83	-	260	8	- 79
84	-	270	8	- 79
85	-	280	8	- 79
86	-	290	8	- 79
87	-	330	8	- 79
88	-	340	8	- 79
89	-	350	8	- 79
90	-	360	8	- 79
91	-	370	8	- 79
ninety two	-	380	8	- 79
93	-	390	8	- 79
94	-	400	8	- 79
95	-	410	8	- 79
96	-	420	8	- 79
97	-	430	8	- 79
98	-	440	8	- 79
99	UHF	474	8	- 79