



V1.0
USER MANUAL



8K 30Hz HDMI over HDBaseT Extender Kit
JTD-3080 | JTECH-EX8K30-35M

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Scan the QR code below or visit <https://resource.jtechdigital.com/products/3074> to view and access detailed digital resources regarding this unit.



Safety Instructions:

- Before using this product, please carefully read the following safety instructions to ensure its proper use and keep this manual for future reference:
- To prevent electric shock, do not attempt to open the product.
- Only qualified personnel should perform any repairs or maintenance.
- Always place the product on a stable, flat surface to prevent it from falling.
- Do not expose the product to water, moisture, or high-humidity environments to avoid the risk of damage.
- To prevent damage from direct sunlight or high temperatures, do not expose the product to such environments.
- Do not place the product near heat sources like radiators, heat registers, stove, or other heat-producing apparatus.
- Do not place any objects on top of the product to avoid damage.
- Use only the attachments and accessories specified by the manufacturer.
- During lightning storms or prolonged periods of disuse, unplug the power supply to prevent damage.

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1. Introduction

This product is a cost-effective, slim transmitter and receiver kit with HDCP 2.3 compatibility. It supports resolutions up to 8K@60Hz 4:2:0, 8K@30Hz 4:4:4, and 4K@120Hz, allowing 8K and 4K video signals to be extended up to 40m/131ft over a Cat 6a/7 cable.

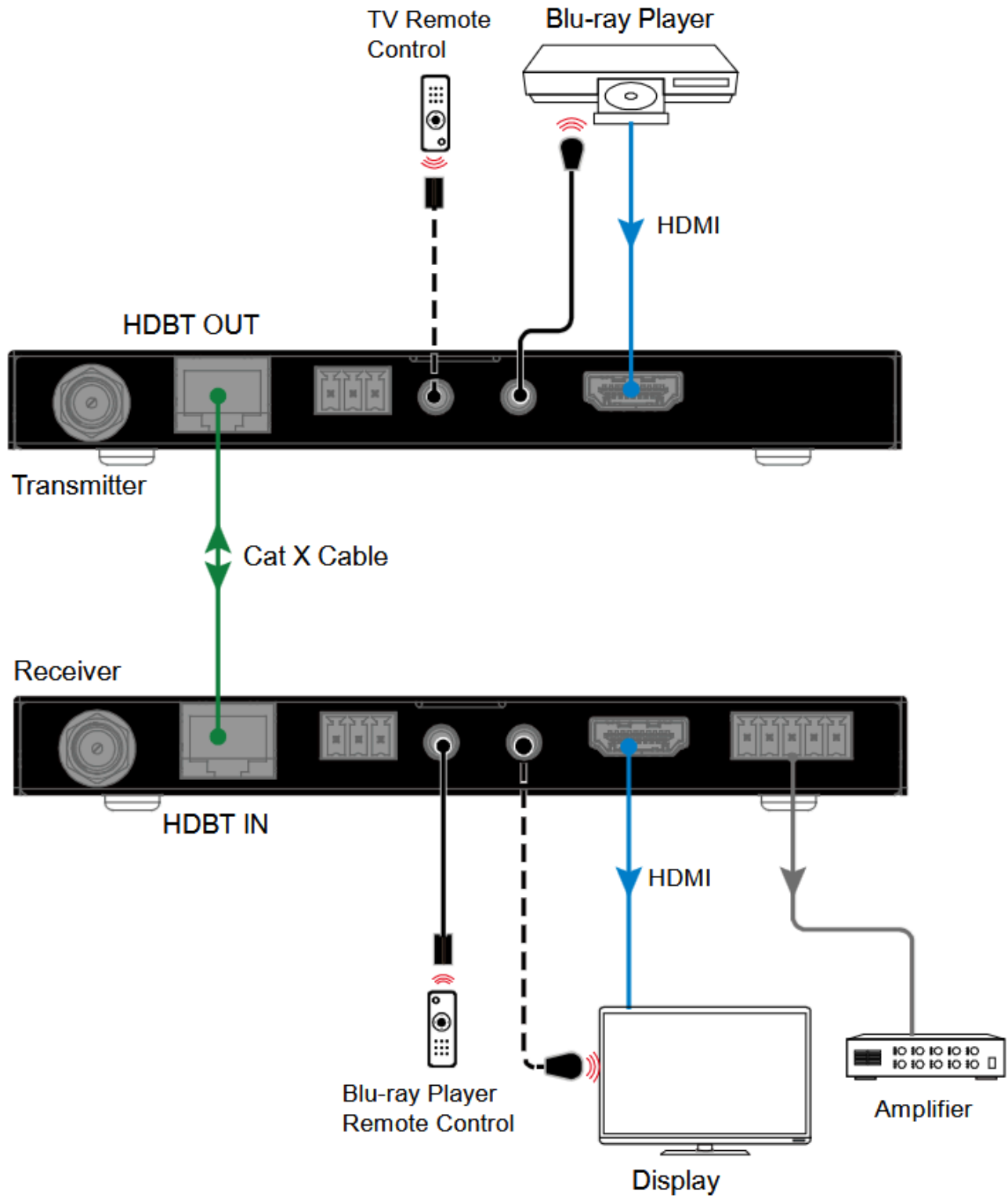
2. Features

- Supports HDMI 2.1 with resolutions up to 8K@60Hz 4:2:0, 8K@30Hz 4:4:4 and 4K@120Hz
- HDCP 2.3 compliant
- Supports HDR10
- Supports bidirectional PoC, allowing a single power adapter at the transmitter or receiver to power both units
- Transmits 8K & 4K video up to 35m/115ft and 1080P video up to 60m/197ft over a single Cat 5e/6 cable
- Transmits 8K & 4K video up to 40m/131ft and 1080P video up to 70m/230ft over a single Cat 6a/7 cable
- Provides one de-embedding audio output
- Includes a DIP switch on each for RS-232 mode, HDCP and EDID configurations (HDCP & EDID apply to the transmitter only)
- Supports bi-directional IR and RS-232 passthrough

3. Package Contents

- (1) x Extender Set
- (1) x Power Adapter (DC 12V 2A) with US Pins
- (2) x 3.5mm 3-pin Phoenix Male Connectors
- (1) x 3.5mm 5-pin Phoenix Male Connector
- (1) x IR Receiver Cable (30–50kHz)
- (1) x IR Emitter Cable
- (8) x Mounting Brackets (with Screws)

4. Application Diagram



5. Specifications

Technical	
Input/Output Signal Type	<p>VESA: 800 x 6006, 1024 x 7686, 1280 x 7686, 1280 x 8006, 1280 x 9606, 1280 x 10246, 1360 x 7686, 1366 x 7686, 1440 x 9006, 1600 x 9006, 1600 x 12006, 1680 x 10506, 1920 x 12006, 2048 x 11526, 2560 x 14406, 5120 x 14406, 5120 x 21606</p> <p>HDTV: 1280 x 720P, 1920 x 1080P, 3840 x 2160P, 4096 x 2160P 7680 x 4320P</p> <p>7680 x 4320P@48Hz/50Hz/60Hz supports only YCbCr 4:2:0.</p>
Maximum Data Rate	HDMI: 40Gbps
Audio Formats Supported	<p>HDMI IN/OUT: Supports multichannel audio up to PCM 7.1, including PCM 2.0/5.1/7.1ch, Dolby Digital, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos, DTS 5.1, DTS-HD Master Audio and DTS:X</p> <p>AUDIO OUT: PCM 2.0ch</p>
General	
Operating Temperature	0°C to 45°C (32°F to 113°F)
Storage Temperature	-20°C to 70°C (-4°F to 158°F)
Humidity	10% to 90%, non-condensing

5. Specifications

ESD Protection	Human-body Model: ±8kV (Air-gap discharge) / ±4kV (Contact discharge)
Power Supply	DC 12V 2A
Power Consumption (Max)	11.4W per pair (via PoC)
Device Dimensions (W x H x D)	5.51" × 0.60" × 3.55" (140mm × 15.3mm × 90.2mm) per unit
Product Weight	0.27kg/0.59lb per unit

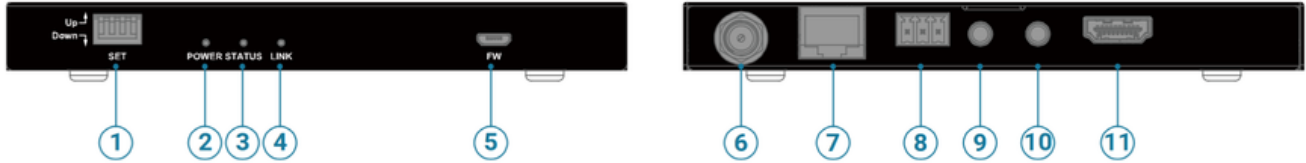
Transmission Distance:

Note: A T568B straight-through Category cable is recommended.

Cable Type	Supported Video and Range
Cat 5e/6	1080P@60Hz - 60m/197ft 4K@60Hz, 8K@60Hz 4:2:0 - 35m/115ft
Cat 6a/7	1080P@60Hz - 70m/230ft 4K@60Hz, 8K@60Hz 4:2:0 - 40m/131ft
HDMI	4K@30Hz, 1080P@60Hz - Input/Output: 10m/33ft 4K@60Hz - Input: 10m/33ft Output: 5m/16ft 8K@60Hz 4:2:0 - Input/Output: 3m/10ft

6. Panel Description

Transmitter



#	Name	Description
1	SET	4-pin switch for RS-232, HDCP and EDID configurations. For more information, refer to the DIP Switch Configurations section
2	POWER	On/Off: Indicates whether the device is powered on
3	STATUS	<ul style="list-style-type: none"> • Blinking: The device is working properly • Off: The device is not working properly
4	LINK	<ul style="list-style-type: none"> • On: The link between the transmitter and receiver is normal • Blinking/Off: Link error or no link
5	FW	Micro USB port. Connect to a PC for firmware update
6	12V	Connect to the included DC 12V 2A power adapter. Note: Connecting the power adapter to the transmitter or receiver can power both units through PoC
7	HDBT OUT	Connect to the HDBT IN port of the receiver
8	RS232	Connect to an RS-232 device for RS-232 data passthrough or to a PC for HDBT firmware update (available only when the first pin of the SET switch is set to the “down” position)

9	IR IN	Connect to the included IR receiver cable
10	IR OUT	Connect to the included IR emitter cable
11	HDMI IN	Connect to an HDMI source device

Receiver



#	Name	Description
1	SET	2-pin switch for RS-232 configurations. For more information, refer to the DIP Switch Configurations section
2	POWER LED	On/Off: Indicates whether the device is powered on
3	STATUS LED	<ul style="list-style-type: none"> • Blinking: The device is working properly • Off: The device is not working properly
4	LINK LED	<ul style="list-style-type: none"> • On: The link between the transmitter and receiver is normal. • Blinking/Off: Link error or no link
5	FW	Micro USB port. Connect to a PC for firmware update
6	12V	Connect to the included DC 12V 2A power adapter Note: Connecting the power adapter to the transmitter or receiver can power both units through PoC

7	HDBT In	Connect to the HDBT OUT port of the transmitter
8	RS232	Connect to an RS-232 device for RS-232 data passthrough or to a PC for HDBT firmware update (available only when the first pin of the SET switch is set to the “down” position)
9	IR IN	Connect to the included IR receiver cable
10	IR OUT	Connect to the included IR emitter cable
11	HDMI OUT	Connect to an HDMI display device
12	AUDIO OUT	Connect to an audio receiver for de-embedded balanced analog audio output

7. DIP Switch Configurations

Transmitter

The 4-pin SET switch on the transmitter configures RS-232 mode, input HDCP, and input EDID. By default, pins 1 to 4 are set to the “Up” position.

Function	DIP Switch Position			
	1	2	3	4
RS232 Passthrough (Default)	Up	—	—	—
RS232 for HDBT Firmware Update	Down	—	—	—
Input HDCP on (Default)	—	Up	—	—
Input HDCP off	—	Down	—	—
Copy EDID (Default)	—	—	Up	Up

Use 4K@60 PCM 2CH as EDID	—	—	Up	Down
Use 4K@30 PCM 2CH as EDID	—	—	Down	Up
Use 1080P@60 PCM 2CH as EDID	—	—	Down	Down

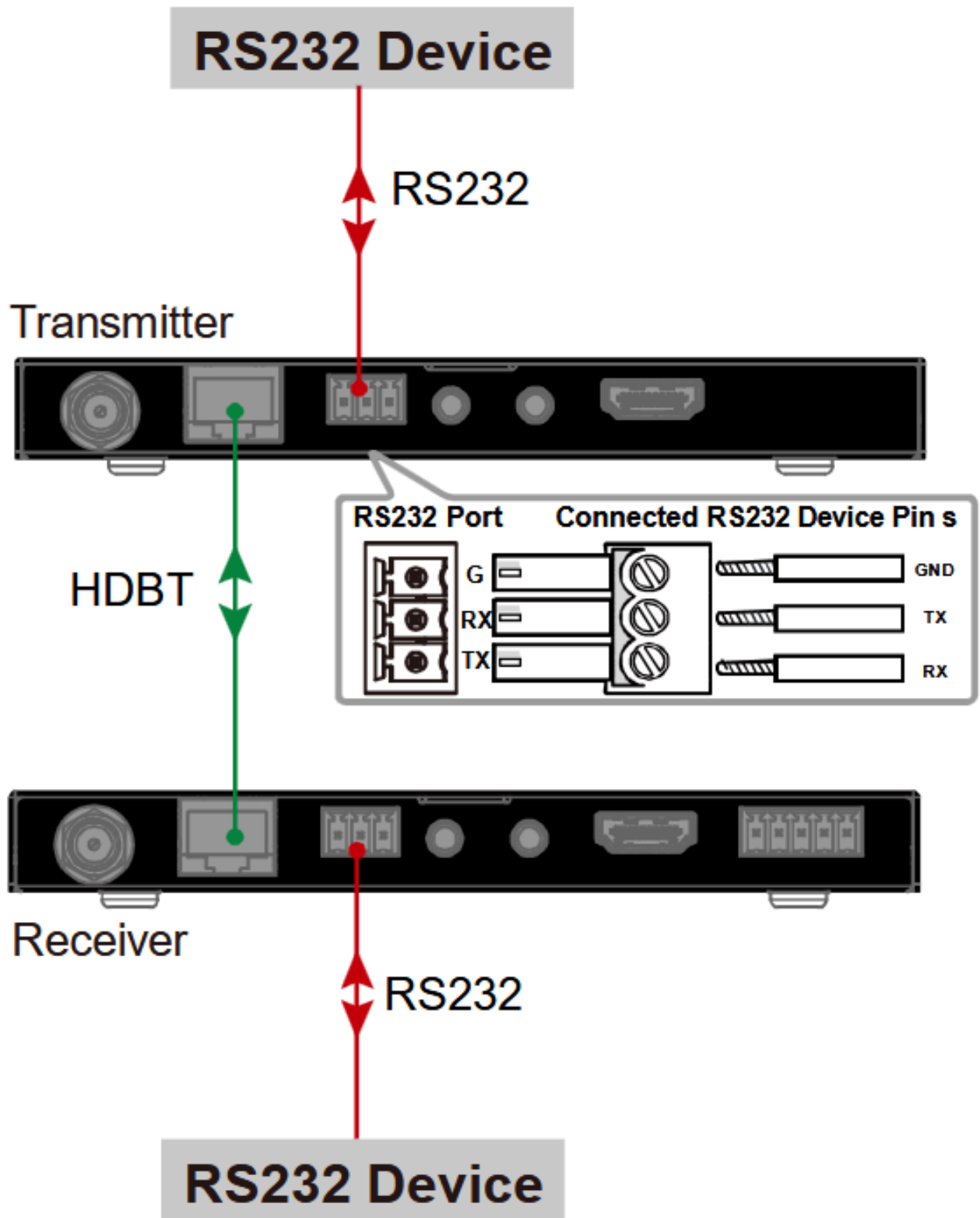
Receiver

The 2-pin SET switch on the receiver configures the RS-232 mode. By default, pin 1 is set to the “Up” position. pin 2 is reserved.

Function		DIP Switch Position	
		1	2
RS232 Passthrough (Default)		Up	—
RS232 for HDBT Firmware Update		Down	—

8. RS-232 Operation

The RS232 ports support bi-directional passthrough, allowing RS232 data to pass between the transmitter and receiver. Before operation, ensure that pin 1 of the SET switches on both units is set to the “Up” position.



9. Troubleshooting

1. Why is there no power to the device?

- Ensure the device is powered on.
- Use the power adapter included in the package.

2. Why is there no picture, or is the video flickering?

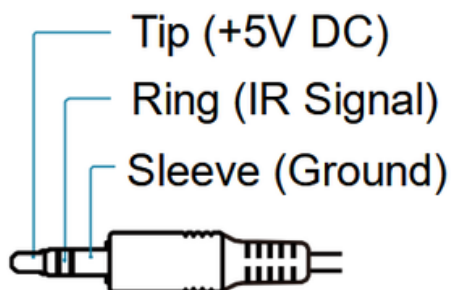
- Make sure all devices are powered on and all cables are properly connected and of good quality.
- Check that cable lengths are within the recommended range (see Specifications table).
- Verify that all LED indicators are functioning normally.
- If connecting a source directly to a display, ensure they can work properly.
- Confirm that the input resolution is supported by the device.

3. Why is the IR signal weak or not working?

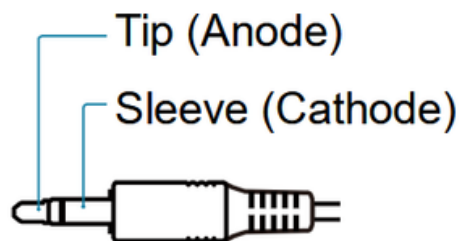
- Confirm that the devices support IR control (not Bluetooth/Wi-Fi).
- Use the IR cables provided in the package and connect them correctly according to the Application Diagram.
- Pay attention to the control angle and distance:

IR Cable	IR Emitter	IR Receiver
Suggested Angle	0°	0°
Distance (Max)	30cm	8m

- When using third-party devices, ensure they follow the pin definition provided below.



IR Receiver Cable



IR Emitter Cable

9. Maintenance

Clean this unit with a soft, dry cloth. Never use alcohol, paint thinner, or benzine to clean.

10. Warranty

If your product does not work properly because of a defect in materials or workmanship, our company (referred to as “the warrantor”) will, for the length of the period indicated as below, “Parts and Labor (1) Year”, which starts with the date of original purchase (“Limited Warranty period”), at its option either (a) repair your product with new or refurbished parts, or (b) replace it with a new or a refurbished product. The decision to repair or replace will be made by the warrantor.

During the “Labor” limited warranty period, there will be no charge for labor. During the “Parts” warranty period, there will be no charge for parts. You must mail-in your product during the warranty period. This Limited Warranty is extended only to the original purchaser and only covers products purchased as new. A purchase receipt or other proof of original purchase date is required for Limited Warranty service.

11. Mail-In Service

When shipping the unit, carefully pack and send it prepaid, adequately insured, and preferably in the original carton. Include a letter detailing the complaint and provide a day time phone and/or email address where you can be reached.

12. Limited Warranty Limits and Exclusions

This Limited Warranty ONLY COVERS failures due to defects in material or workmanship, and DOES NOT COVER normal wear and tear or cosmetic damage. The Limited Warranty ALSO DOES NOT COVER damages which occurred in shipment, or failures which are caused by products not supplied by warrantor, or failures which result from accidents, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, set-up adjustments, mis-adjustment of consumer controls, improper maintenance, power line surge, lightning damage, modification, or service by anyone other than a Factory Service center or other Authorized

Service, or damage that is attributed to acts of God.

There are no express warranties except as listed under “Limited Warranty Coverage”. The warrantor is not liable for incidental or consequential damages resulting from the use of this product or arising out of any breach of this warranty. (As examples, this excludes damages for lost time, cost of having someone remove or re-install an installed unit if applicable, travel to and from the service, loss of or damage to media or images, data or other recorded content. The items listed are not exclusive but are for illustration only). Parts and service, which are not covered by this limited warranty, are your responsibility.



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