

telesend[®]

HD video wireless system

TELETEST[™]
the cameraman's choice



confidence monitoring live broadcast links



transmission
5GHz range
licence free
<1 ms latency
20-40m range

video
HDMI
HD-SDI
high quality
uncompressed

audio
stereo
line level
headphones
loudspeakers

world's first: portable LCD monitor with internal HD receiver

HD-SDI HIGH-DEFINITION SERIAL DIGITAL INTERFACE

HDMI™ HIGH-DEFINITION MULTIMEDIA INTERFACE



product range overview transmitters and receivers

HD receiver

OZE3615
HDMI receiver
HDMI & HD-SDI outputs



HD LCD receivers

OZE3616 / OZE3617
HDMI receiver
CVBS & HD-SDI inputs



world's first
internal HD receiver

HD transmitter

OZE3611
HDMI transmitter
HDMI & HD-SDI inputs



HD transmitter

OZE3610
HDMI transmitter
HDMI input



battery adapters

mini DV Sony, Canon, Panasonic, JVC
broadcast Anton Bauer, PAG, V-lock

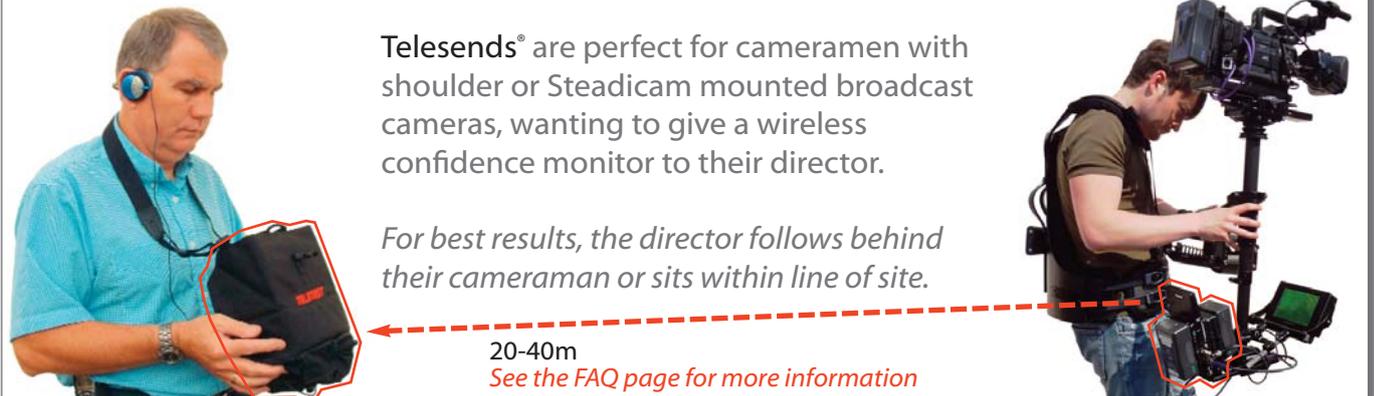


use a **teletest[®]** wireless system
for close range broadcast applications

confidence monitoring

Telesends[®] use low power, 5GHz licence exempt frequencies, perfect for affordable, close range broadcast applications.

Whilst distances of 70m are achievable, **teletest[®]** recommends that telesends[®] are used on shoots requiring close ranges of 20-30m.

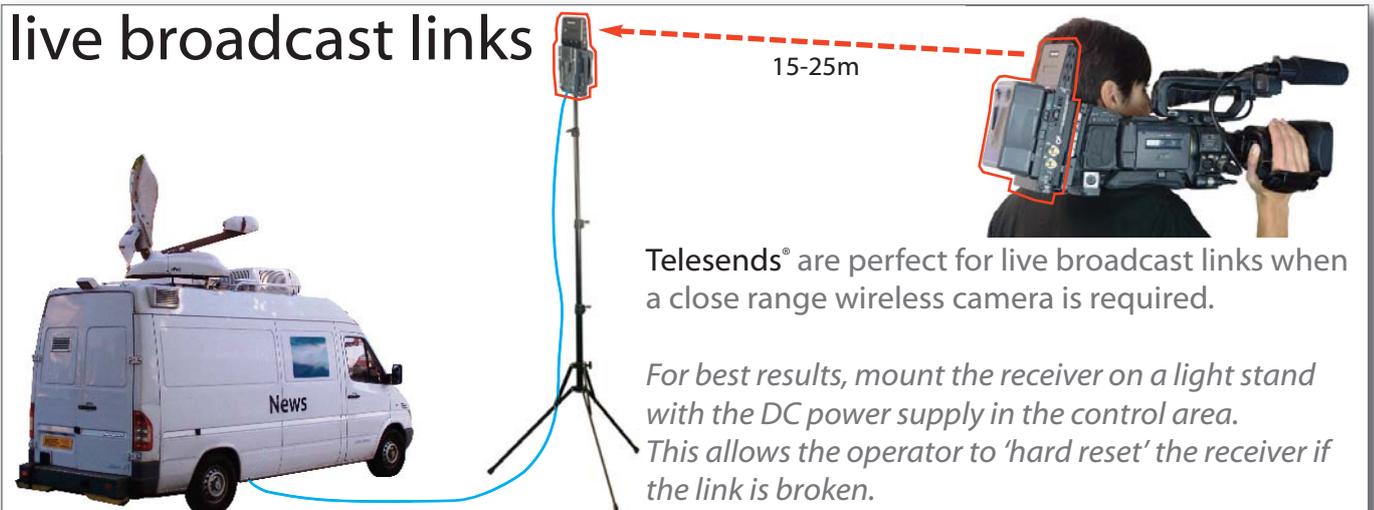


Telesends[®] are perfect for cameramen with shoulder or Steadicam mounted broadcast cameras, wanting to give a wireless confidence monitor to their director.

For best results, the director follows behind their cameraman or sits within line of site.

20-40m
See the FAQ page for more information

live broadcast links

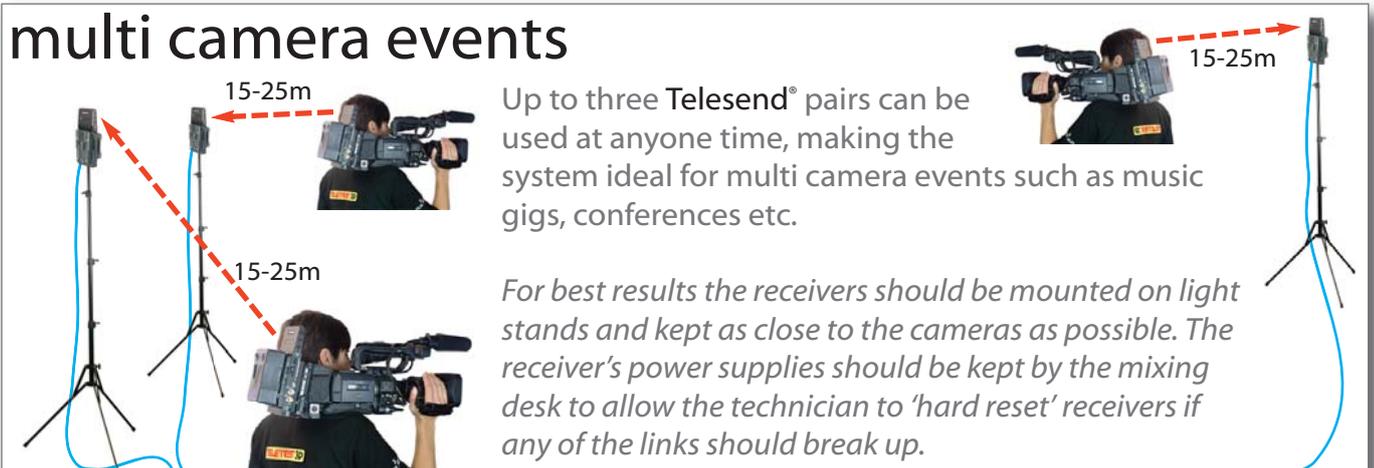


15-25m

Telesends[®] are perfect for live broadcast links when a close range wireless camera is required.

For best results, mount the receiver on a light stand with the DC power supply in the control area. This allows the operator to 'hard reset' the receiver if the link is broken.

multi camera events



15-25m

Up to three Telesend[®] pairs can be used at anyone time, making the system ideal for multi camera events such as music gigs, conferences etc.

For best results the receivers should be mounted on light stands and kept as close to the cameras as possible. The receiver's power supplies should be kept by the mixing desk to allow the technician to 'hard reset' receivers if any of the links should break up.

HD LCD receivers

TELETESTTM
the cameraman's choice

OZE3616 / OZE3617

HDMI receiver with CVBS & HD-SDI monitor inputs



perfect for directors: **world's first**



The HDMI receiver is built inside the TELESEND LCD monitor.

Choose an adapter plate for your batteries, fit the monitor into the optional carry case and hand it to your director for a day of wireless free monitoring.

The director can listen to the camera's audio output using the built in stereo headphone amplifiers.

Using a single button, the director can simply reset the receiver should the wireless link break up.



contact **teletest**[®] for support +44 1202 646100 sales@teletest.tv

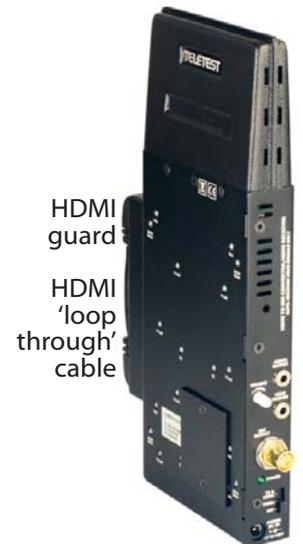
HD receiver

OZE3615

HDMI receiver with HDMI & HD-SDI outputs



receiver
connected to OB van
or mixing desk



mounting hole on receiver base
1/4"W thread

perfect for live broadcasts

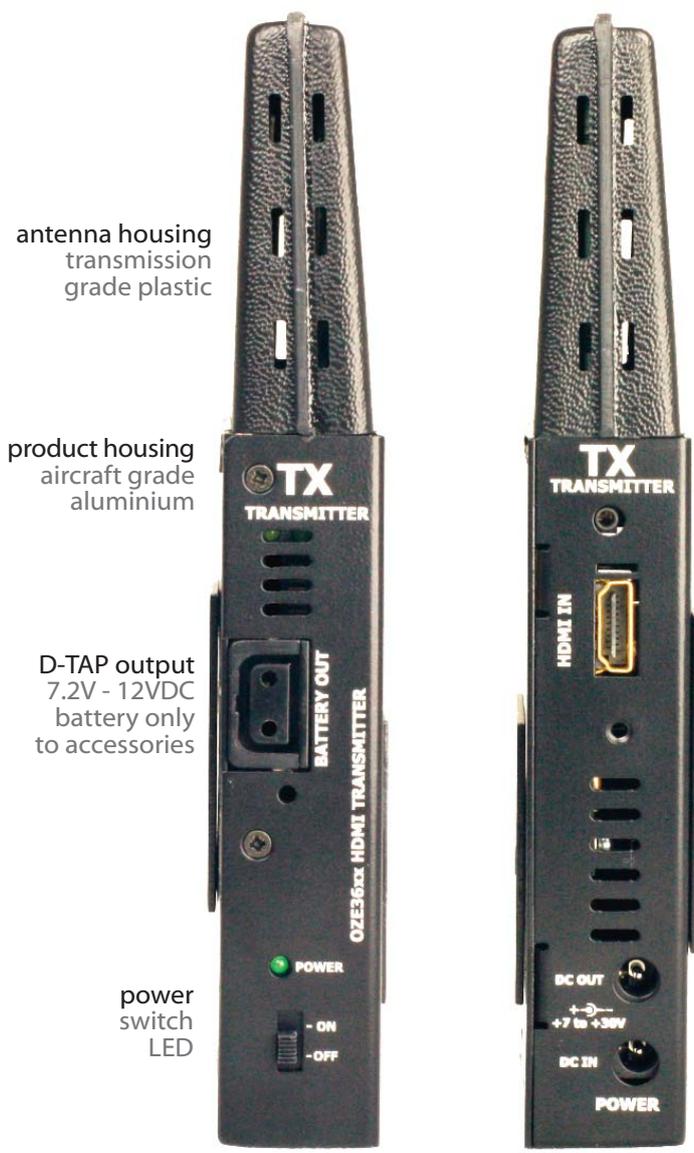
The HD receiver, mounted on a light stand close to the camera, provides a broadcast quality signal for OBs and live events. The receiver's DC power supply is best kept with the technician at the mixing desk so they may 'hard reset' the receiver should the wireless link break up.



HD transmitters

OZE3610

HDMI transmitter with HDMI input



antenna housing
transmission
grade plastic

product housing
aircraft grade
aluminium

D-TAP output
7.2V - 12VDC
battery only
to accessories

power
switch
LED



HDMI transmitter
on 15mm rods

mini DV battery
on battery adapter



HDMI input
to transmitter

mini DV battery adapter
on rear of HDMI transmitter
Sony, Canon, JVC, Panasonic

power output
power input loop
through

power input
7 to 30V DC



broadcast battery adapter
on rear of transmitter
*needs adapter plate to accept
PAG, V-lock, Anton Bauer*

perfect for camcorders & DSLRs

This compact HD transmitter is designed for modern video camera equipment with HDMI outputs.

The HD transmitter can be mounted on all popular 15mm rod 'shoulder mounted systems' used by many professionals.

With the appropriate adapter, any battery can be used, from mini DV to broadcast. There are two power outputs, D-tap and 2.1mm, for powering accessories such as video lights or DVRs.

HDMI guard

HDMI cable +
connector guard



HD transmitters *continued...*

OZE3611

HDMI transmitter with HDMI & HD-SDI inputs

antenna housing
transmission
grade plastic

product housing
aircraft grade
aluminium

D-TAP output
12VDC
battery only
to accessories

stereo audio
line level input

SDI input
*to internal
HD-SDI to HDMI
converter*

SDI output
relocked video
loop-through

power switch
converter only
converter & TX

power input
7 to 30V DC

TRANSMITTER TX

TRANSMITTER HDMI INPUT

CONTROL OUTPUT

SDI-HDMI CONVERTOR/HDMI OUTPUT

HDMI input
to transmitter

*from camera
or from internal
HD-SDI to HDMI
converter*

HDMI output
*from internal
HD-SDI to HDMI
converter*

*to monitor
or to HDMI transmitter
'HD-SDI & HDMI'
telesends[®] only*

transmitter
on broadcast camera

transmitter
on steadicam

HDMI guard

HDMI
'loop
through'
cable

broadcast battery adapter
on rear of transmitter
PAG, V-lock, Anton Bauer

perfect for broadcast cameras

This HD transmitter fits between the battery and the battery adapter on a broadcast camera or the base of a Steadicam.

The HD-SDI loop through enables both the transmitter and the cameraman's confidence monitor to be used at the same time.



mounting telesends®

every shoot is different

use different mounts for your **telesends®**

select your mounting tool

- telesend® transmitters can be mounted on tripods, light stands, broadcast cameras, teleplates® (see next page) and 15mm rods systems - perfect for camcorder & DSLR rigs.

- telesend® stand alone receivers are best mounted on lighting stands so they can be kept as close as possible to the camera and high up, keeping a clear line of sight.



HDMI transmitter
on 15mm rods

OZE3611 / OZE3615
transmitter / receiver



base screw thread
1/4"W

OZE3610
transmitter



base screw threads
1/4"W
2 x 3mm threads for 15mm rod clamp

telesend®
receiver on light stand
using 1/4"W lighting
spigot adapter

OZA3206
2m light stand

OZA3210
Camera / tripod
handle clamp



*for use with camera
handles and tripod arms
(OZA3215 needed)*



OZX1111
15mm rod clamp

OZA3201
Velcro mount +
ball & socket



*for quick
mounting on
any pole*

OZA3207
lighting spigot
adapter



for use with light stands eg OZA3206



OZA3202 / OZA3205
ball and socket mounts
small / large

OZA3215
1/4"W
screw adapter



OZA3010
2x 1/4"W screw
mount tools



OZX1190
2 x 1/4"W 12mm
screw heads

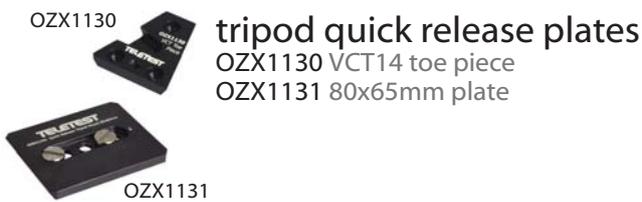


mounting *continued...*

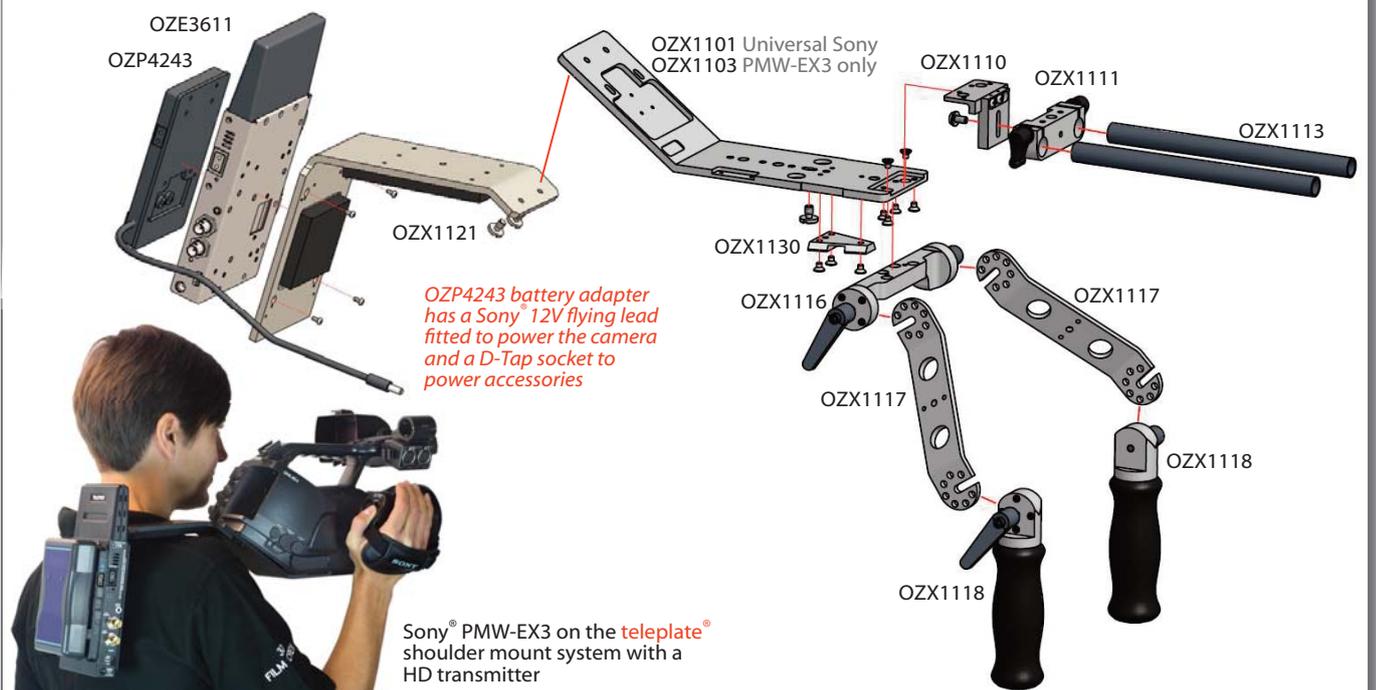
using DSLRs and Sony[®] handheld camcorders
teleplates[®] improve productivity & performance

teleplates[®]

- teletest's[®] **teleplates[®]** provide rigid tripod mount and shoulder support for camcorders.
- the shoulder mount provides extra balance for steadier shots and longer endurance
- teletest's[®] battery adapters have D-Tap sockets and flying leads for 8.4V / 12V cameras
- the telesend's[®] transmitter can mount directly onto the shoulder mount for permanent use



example teletest[®] system for Sony[®] camcorders



products and accessories

transmitters

Select the battery adapters required for the transmitter and receiver.

Teletest® will fit the adapters and soak test your telesends® in the factory for 24hrs before despatch.



OZE3610 HDMI input
OZE3611 HDMI & HD-SDI inputs

OZE3610 OZE3611

receivers



OZE3615

OZE3616
OZE3617

OZE3615 receiver HDMI & HD-SDI outputs
OZE3616 LCD receiver 2x CVBS cable inputs
OZE3617 LCD receiver CVBS & HD-SDI cable inputs

power supplies

OZP1212



OZP1212 12VDC mains PSU - 2.1mm DC plug
for the stand alone transmitters and receiver
OZP1212 12VDC mains PSU - XLR4 DC plug
for the LCDreceivers

protective cases



OZA1147

OZE3628

OZA1147 LCD receiver carry case
OZE3628 telesend® rain cover

battery adapters broadcast

PAG®



OZP4200

OZP4200 female
OZP4201 + Canon® 8.4V lead
OZP4202 + Canon® DSLR lead
OZP4203 + Sony® PMW 12V lead
OZP4204 + Sony® HVR 8.4V lead
OZP4208 + XLR4 12V lead
OZP4209 male

Anton Bauer®



OZP4220

OZP4220 female
OZP4221 + Canon® 8.4V lead
OZP4222 + Canon® DSLR lead
OZP4223 + Sony® 12V lead
OZP4224 + Sony® HVR 8.4V lead
OZP4228 + XLR4 12V lead
OZP4229 male

V-lock



OZP4240

OZP4240 female
OZP4241 + Canon® 8.4V lead
OZP4242 + Canon® DSLR lead
OZP4243 + Sony® 12V lead
OZP4244 + Sony® HVR 8.4V lead
OZP4244 + XLR4 12V lead
OZP4249 male

all female adapters include a D-Tap socket

female adapters are fixed to rear of transmitter / receiver / teleplate shoulder mount to hold a battery

male adapters are fixed to front of transmitter/receiver so it can be held by a camera / LCD monitor / teleplate

female adapters with 8.4V / DSLR leads have internal power supplies to reduce the battery's 16V-12V to 8.4V

battery adapters

mini DV



OZP3116

OZP3106 Sony® NPF 7.2V out
OZP3116 Sony® BPU 12V out
OZP3126 Canon® 7.2V out
OZP3136 Panasonic® 7.2V out
OZP3146 JVC® 7.2V out
for HDMI only transmitter OZE3610

OZP3108 Sony® NPF 12V out
OZP3116 Sony® BPU 12V out
OZP3128 Canon® 12V out
OZP3138 Panasonic® 12V out
OZP3148 JVC® 12V out
for HD LCD receivers OZE3616, OZE3617

transmission

Q. What is the range of the **telesends**[®] really like?

A. Every situation is different but you can get 70m line of site and 30m through wooden floors / plasterboard walls. Signals can pass through brick and metal walls but the range is reduced. You will also get better range over concrete / tarmac on a dry day than grass on a wet day, because organic material and moisture absorbs 5GHz frequencies!

Q. Will the **telesend**[®] work in every location, every time?

A. Sorry, no. As **telesends**[®] use low power licence exempt frequencies, you may encounter interference from other users. It is simply not possible to turn up at a shoot and expect such transmission equipment to work every time. You MUST try your **telesend**[®] before the director arrives as if you can't get it to work, you will need to revert to cables.

Q. How quick does it take for the **telesend**[®] receiver to lock onto the transmitter from start up?

A. Between 5 and 10 seconds. They need the time to automatically search for five free frequencies to lock onto.

Q. Can I use two or more receivers with one transmitter?

A. Sorry, no. Each transmitter and receiver are paired to only work with each other and we can never change this.

Q. How many **telesend**[®] pairs can I use in the same room at the same time?

A. We have managed three pairs at the same time in our workshop - you may achieve four, but we doubt any more.

Q. Do I need to use fully charged batteries with the **telesends**[®]?

A. No. We have conducted tests showing that the **telesends**[®] still work using almost discharged batteries.

Q. What happens when the **telesend**[®] signal breaks up?

A. If the receiver moves out of range or eg a van passes and blocks the signal, then parts of the picture pixelates into small square blocks. If the signal gets worse, the picture freezes before turning black. If the reason for the break up is removed in 5-10secs ie the receiver moves closer to the camera or eg the van has passed, the picture comes straight back on. But if the signal has gone for more than 10secs, the receiver must be reset by turning it off and on again:

1. If the LCD receiver is being held by the director, they can use the power switch on the front.
2. If the stand alone receiver is on a light stand, then the mains PSU should be with the technician at the mixing desk so they can unplug the 12V DC cable from the DC extension lead and plug it in again. It's crude, but it's simple and works.

Note that the signal will ONLY lock back on if the reason for the break up has GONE.

video / audio

Q. Because the **telesends**[®] transmit in HDMI, is the HD-SDI signal still broadcast quality?

A. Yes! HDMI is a transparent digital format so the quality of the HD-SDI signal is unaffected.

Q. Is the video delay (latency) noticeable?

A. No. As the delay is less than 1ms you will not notice any delay.

Q. Is the audio embedded in the SDI video?

A. No, so that sound recorders may transmit the output of their trolley using the 3.5mm stereo jack on the transmitter.

Q. Can I transmit SD-SDI video?

A. No, sorry. However the SDI to HDMI convertor will convert SD-SDI to HDMI if you need a stand-alone convertor.

use with portable LCD monitors

Q. Can I use the receiver with my portable LCD monitor?

A. Many customers who have tried this have been disappointed and returned their **telesends**[®]. *We feel this is because:*

1. The LCD + receiver combo was too big and heavy, so directors didn't like it and didn't want to use it.
2. The director couldn't easily reset the receiver if the signal broke up, so he often had no picture and didn't want to use it.
3. Many cameramen use power hungry LCDs eg the Panasonic BT-LH910 at 26W. The receiver takes 10W and whilst that is less than half the LCD, the extra 1/3 power consumption drains the batteries a 1/3 faster.
4. Many HD LCDs are poorly electrically screened and interfere with the receiver, usually because they were sharing the same battery. This degraded the received signal causing it to break up over distances of even less than 10m.

*So we now discourage cameramen from buying **telesend**[®] stand alone receivers to fit to their existing portable monitors.*

Specifications

LCD receiver

OZE3616 HDMI receiver, CVBS monitor input only

OZE3617 HDMI receiver, CVBS & SDI /HD-SDI monitor inputs

LCD screen	7" 16/9, 800 x 480pixels (1920x1080 max res)	control	power: on / off, status LED, low batt LCD
brightness	450cd/m2 (nits)		receiver: link locked LED, video locked LED
contrast	500:1	voltage input	11-16VDC
video input	HDMI via receiver	power @ 12V	LCD only: 380mA (4.6W)
	2 x PAL/NTSC (OZE3616)		LCD & receiver: 1,240mA (14.4W)
	1 x PAL/NTSC, 1 x SDI / HD-SDI (OZE3617)	dimensions	depth 65mm height 173mm width 175mm
audio input	1 x stereo line level via 3.5mm jack	weight	990g (1,430g with stand)
audio output	stereo speakers and headphones via 3.5mm jack	CVBS video in	PAL / NTSC
connectors	video: 2 x BNC sockets	SDI video in	see common specs plus:
	audio: 3.5mm line input, 3.5mm headphone out		
	power: XLR4 chassis socket		

receiver

OZE3615 HDMI & HD-SDI outputs

video outputs	HDMI & HD-SDI	voltage input	7-30VDC
video input	HDMI for SDI convertor	power @12VDC	convertor only: 260mA (3.2W)
connectors	video: BNC socket, 2 x HDMI sockets		convertor & receiver: 800mA (9.6W)
	audio: 2 x 3.5mm sockets: line output & headphones	dimensions	depth 27mm height 244mm width 102mm
	power: 2.1mm DC socket		width 142mm (with HDMI loop cable+guard)
control	power: on / off, power LED	weight	420g
	audio: volume		

transmitter

OZE3610 HDMI input only

video input	HDMI
connectors	video: HDMI socket
	audio: 3.5mm line input
	power: 2 x 2.1mm DC socket, D-tap socket
control	power: on / off, power LED
voltage input	7-30VDC
power @12VDC	transmitter only: 640mA (7.7W)
dimensions	depth 29mm height 187mm width 102mm
	width 142mm (with HDMI connector guard)
weight	245g

transmitter

OZE3611 HDMI & HD-SDI inputs

video inputs	HDMI & HD-SDI
video outputs	HDMI from SDI convertor
	SDI loop through
connectors	video: 2 x BNC sockets, 2 x HDMI sockets
	audio: 3.5mm line input
	power: 2.1mm DC socket, D-tap socket
control	power: on / off, power LED
voltage input	7-30VDC
power @12VDC	convertor only: 200mA (2.4W)
	convertor & transmitter: 880mA (10.6W)
dimensions	depth 29mm height 237mm width 102mm
	width 142mm (with HDMI loop cable+guard)
weight	420g

common specifications

frequency	5.1GHz - 5.9GHz (licence free)
compliance	FCC, CE
transmit power	13-15dBm +/-2dBm cc*check country restrictions
transmission type	HDMI - uncompressed - MIMI - OFDM
tuning	automatic Dynamic Frequency Selection (DFS)
	up to 3 TX / RX pairs can be used at the same time
range	~10-30m depending on environment
latency	less than 1ms
operating temp	-10° to +50°
HD standards	HDMI 1.3 HD-SDI

<i>transmitted via HDMI link</i>	720p / 50 / 59.94 / 60
	1080i / 50 / 59.94 / 60
	1080sf / 25 / 29.97 / 30
	1080p / 23.98 / 24 / 25 / 29.97 / 30
<i>for SDI - HDMI - SDI convertors</i>	as above plus
SDI	525i / 59.94 / 60
	625i / 50
3G	1080p / 50 / 59.94 / 60
<i>for LCD receiver SDI version</i>	as above plus
	480i/59.94 480p/59.94
	576i/50 576p/50
	1035i/50

wireless links from **teletest**[®]

every situation is different
contact **teletest**[®] for support

also... analogue telesends[®]

Teletest[®] also manufactures analogue telesends[®]. These use composite video on the 5.8GHz band and can be connected to almost all cameras and monitors. The SDI transmitter version has an internal SDI to PAL convertor to make use of camera's additional output. **Teletest**[®] also make the 'World's Brightest LCD Monitor' with an internal analogue receiver.



also... teledrones[®] for UAVs

Teletest[®] also manufactures analogue teledrones[®], a range of analogue 5.8GHz wireless links designed for in-flight video monitoring of Drones and UAVs up to 1km. Using ultra lightweight 'PCB transmitters' and the 'World's Brightest LCD Monitor' with an internal analogue receiver, they are perfect for use when aerial monitoring.



customised kits made for your kit

Contact Nick or Paul at **teletest**[®] and let them know what equipment you have and how you would like to use a wireless system with them.

They will propose one or two telesends[®] for you to consider that will suit your needs.

You can then try your choice of telesends[®] at the factory, at your home or on a shoot with **teletest's**[®] '14 day money back guarantee'.



14 day money back guarantee

try a telesend[®] with your own cameras and monitors

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