

# HITACHI

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## **CW-Z3**

### **COMPACT LIGHT-WEIGHT LOW DELAY DIGITAL WIRELESS CAMERA SYSTEM**

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**Ideal solution for Outside Broadcasting and ENG Production**



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#### **General Features:**

**Integrated wireless Digital COFDM Camera Transmitter with FFT-MRC  
Digital Receiver**

**Camera Menue ,Full Camera Remote Control ,Intercom ,Tally , Audio  
Camera Genlock**

**ideal for use with Triax Camera system**

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## CW-Z3 INTEGRATED WIRELESS CAMERA ADAPTER

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### Specifications:

<b>Output power:</b>	Approx: 100mW and 1W switchable
<b>Frequency range:</b>	2.1 to 2.7 GHz easy adjustable with configuration panel, 100KHz steps
<b>Encoding:</b>	Delay approx:1 Frame with Camera Genlock
<b>Modulation:</b>	COFDM 64QAM,16QAM,QPSK
<b>System:</b>	MPEG II: 4: 2: 2 / 4: 2 :0
<b>Band width:</b>	7 or 8 MHz
<b>Carriers:</b>	2000
<b>FEC:</b>	1/2,2/3,5/6,7/8
<b>Guard Interval:</b>	1/4,1/8,1/16,1/32
<b>Power consumption:</b>	11-17DC appx:40W
<b>Weight:</b>	2,8kg

### With Hitachi ENG Cameras and 1,5"VF:

<b>Power consumption:</b>	approx:60W
<b>Weight:</b>	6,5kg

<b>Battery mount:</b>	V-Mount
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### Features:

<b>Tally:</b>	Red,Green
<b>Audio 1 :</b>	192kBps MPEG II via camera front microphone
<b>Audio 2:</b>	Line input Via Rear panel of Camera adapter (optional)
<b>Camera Genlock:</b>	Via UHF Antenna
<b>Remote data:</b>	Via UHF Antenna
<b>Dockable to Hitachi Camera heads:</b>	S-3000 ,V-21, Z-3500, V-35, SK-777 -888-900
<b>Remote Control with Hitachi remote controller:</b>	RC-Z3,CP-7,RC-Z21A,CP-7JY,RC-Z33
<b>Intercom:</b>	Bi-directional intercom, talkback via headphone Integrated Intercom receiver; talkback via COFDM link, Push-To-Talk control via camera head.

### Connectors:

1. <b>Intercom / Remote antenna:</b>	SMA(f) 50 Ohm
2. <b>RF output:</b>	N(f) 50 Ohm
3. <b>DC in:</b>	4XLR(m)
4. <b>Headset:</b>	5XLR(f)
5. <b>Configuration :</b>	4pin Lemo(f)

### Intercom Receiver

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(built into CW-Z3)

**Frequency range:** 0,1 – 1.299,95 MHz **Modulation:** A3 (AM), F3 (FM, WFM)

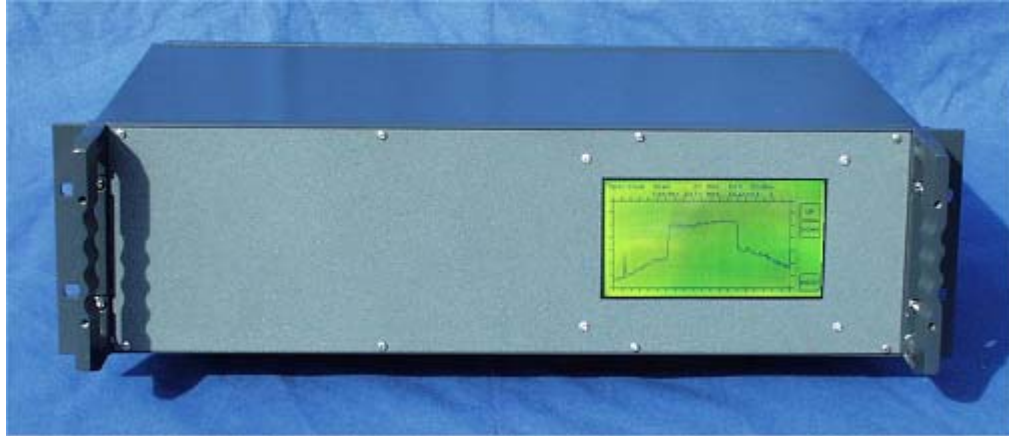
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## CW-Z3 STANDARD ACCESSORIES

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**DR2000: 2- Channel Auto Diversity Receiver with Touch screen panel**

**DR6000: 6- Channel Auto Diversity Receiver with Touch screen panel**



### DR2000/6000 FFT-MRC Diversity Receiver

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#### Feature:

**FFT-MRC Diversity :** Automatic detection of Modulation parameters

**Integrated Touch Screen panel:** Frequency setting ,  
Spectrum Display  
C/N&Modulation Parameter display

#### Specifications

**RF input** 70-850 MHz **Levels:** -95... 0dBm(QPSK)  
24VDC feed,500mA maximum -90...-10dBm(16QAM)  
-85...-25dBm(64QAM)

**Demodulator:** COFDM,ETS 300744,2K Carriers

**Decoder:** **Video**  
MPEG 2 4:2:0, [MP@ML](#), 1.5Mbit/s to 15 Mbit/s  
MPEG-2 4:2:2, [422P@ML](#), up to 50Mbit/s

**Audio**  
MPEG-2 Layer 2.64 kbit/s to 384 kbit/s

**Power:** 100-240VAC, 50 –60 Hz approx.100W

**Dimensions:** 485(W)x132(H)x400(D) mm, 19”Rack,3U

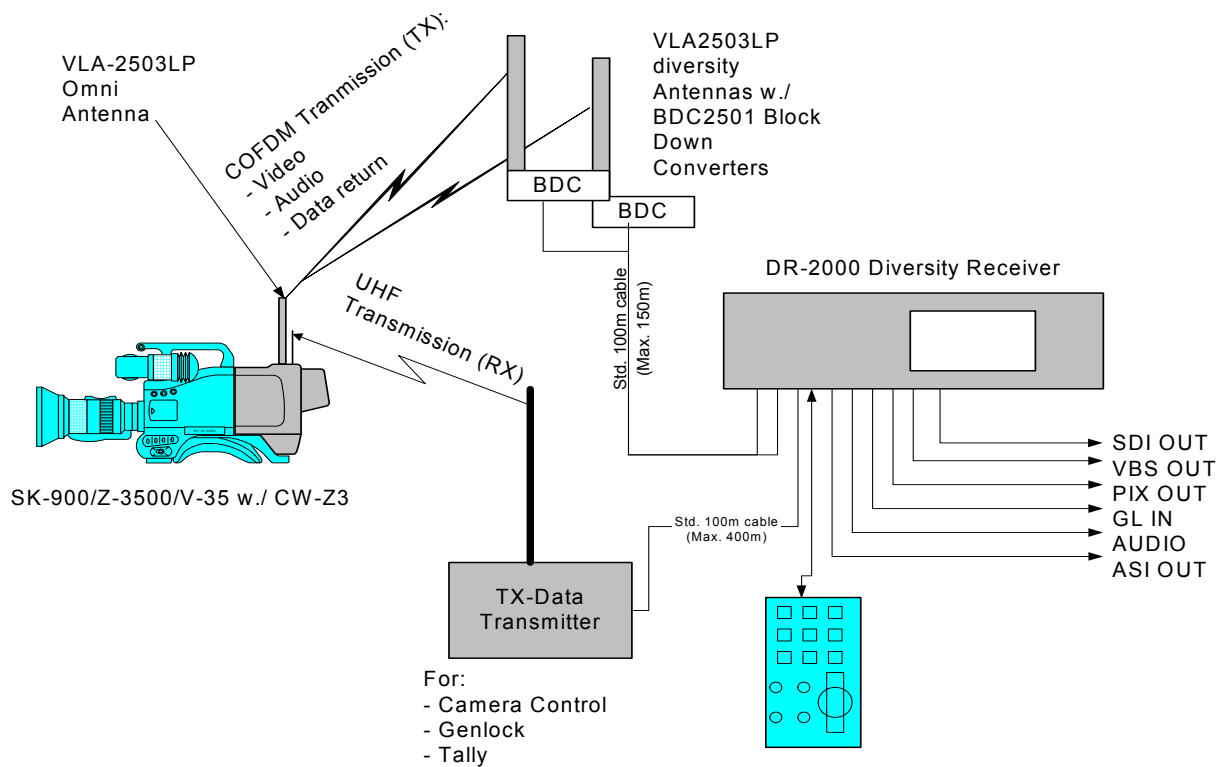
**Weight:** approx.11kg

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## DR2000/6000 INPUTS/OUTPUTS

OUTPUT SIGNALS	CONNECTORS	INPUT SIGNALS	CONNECTORS
SDI	2xBNC(f)	AC POWER	1XPower con (f)
VBS	2xBNC(f) PAL/NTSC	Antenna	DR2000 2xBNC(f) DR6000 6xBNC(f)
PIX	1xBNC(f)	Genlock	BNC(f)
AUDIO	9 PIN SUB D 3xXLR Male via adaptor cable ( 600 Ohm balanced)	Tally	15 pin SUB D(m)
Audio 1 L	Camera Rear Panel(option)	Remote Control	4pin Hirose(m)
Audio 1R	Camera Front Mic.	Aux	9 PIN SUB D(f)
Audio 2 L	Data Channel	PC	9 PIN SUB D (f)
Audio 2R	Return Audio from Camera Headset		
Remote Data	BNC(f)		

## DR2000 TYPICAL APPLICATION



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## CW-Z3 STANDARD ACCESSORIES

**Data Transmitter:** Enables the Transfer of Remote Data and Genlock Signal to Camera Receiver



### Data Transmitter Specification:

<b>Frequencies:</b>	455,850 – 457,120 MHz or 465,530 – 466,800 MHz each band split into 128 channels	
<b>Transmission Power:</b>	10mW , 500mW(option)	
<b>Power Consumption:</b>	50mA @ 12VDC	
<b>Dimensions :</b>	175(W) x 60(H) x 80(D) mm	
<b>Weight:</b>	0,75 kg	
<b>Input/Outputs:</b>	DC in:	4XLR(m)
	Data in:	BNC(f) 75 Ohm / TTL
	RF out	N(f) 50 Ohm
<b>Data Cable:</b>	RG-58	Coax 50 Ohm
<b>Max. Cable length:</b>	400m	<b>Standard:100m</b>

### Configuration Panel:

Enables to change Set-up of the CW-Z3



### Block down Converter&Omni Stick Antennas

Enables the low-loss transfer of signal from antenna to receiver using up to 150m UHF cables



### Set- up functions

CHANNEL SET  
MODE SELECT  
VIDEO INPUT SET  
AUDIO INPUT SET  
PROFILE SET  
FREQUENCY SET

Use with 4 pin RS 232  
Interface Cable

**BDC 2501** Frequency range:2.5-2.7GHz

**BDC 2401** Frequency range:2,3-2.5GHz

**BDC 2401** Frequency range:2,2-2.7GHz

### Accessories

**VLA2203LP** Omni Stick Antenna  
2,0-2,5GHz H360°V75° , Gain 3dBi,  
Dimension .200x20mm,Weight:80g

**Portable Antenna reflector for omni antenna(option)**

**VLA2417LP** Directional Antenna (option) :  
2,2-2,7GHz ,H85° ,V6,5°16,5dBi,  
Dimensions:1220x85x35mm

**Cable :** LCD-99 Sat cable with F-Type connectors

**Adapter :** F-Type to BNC for the DR2000 Antenna input

**Cable lengths :**Standard 100m,max.150m,with repeater 500m

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## HITACHI PORTABLE CAMERA & ACCESSORIES

Broadcast Cameras	Model	QTY	Professional cameras	QTY
Camera head	SK-900,SK-888 SK-777-SK-777A	1	Z-3500,V-35 S-3000,V-21,Z-3000	1
1,5 inch VF	VF-158	1	GM-9	1
Tripod adapter	TA-Z3	1	TA-Z3	1
Microphone holder	MH-Z3	1	MH-Z3	1
Microphone	MC-Z2	1	MC-Z2	1
Camera case	CL-Z4	1	CL-Z4	1
Rain cover	RC-900	1	RC-3500	1
Camera remote control unit	CP-7,CP-7JY,RC- Z33	1	RC-Z3,RC-Z21A,RC-Z33	1
Battery	E-10	4 or 2	Battery	1
Battery charger	VL-4S or VL-2S	1	Battery charger	1
Headset	DT-108, MT-12F	1	DT-108, MT-12F	1

## HITACHI CW-Z3 WIRELESS SYSTEM & ACCESSORIES

2 Way Diversity System	Model	QTY	6 Way Diversity System	QTY
Wireless camera adapter	CW-Z3/W2	1	CW-Z3/W6	1
Configuration panel	CF	1	CF	1
Omni –directional stick antenna	VLA2203LP	3	VLA2203LP	7
Down converter	BDC2501 BDC2401 BDC2502	2	BDC2501 BDC2401 BDC2502	6
Antenna reflector(option)	AF	2	AF	6
Diversity receiver	DR2000	1	DR6000	1
Data Transmitter (Genlock&Remote control)	DT	1	DT	1
100 meter 50 Ohm Coax cable	RG-58	1	RG-58	1
100 meter Sat cable	LCD-99	2	LCD-99	6
Sector Antenna(option)	VLA2417LP	2	VLA2417L	6

## INTERCOM TRANSMITTER

Only supplied if required. Please use any Country Specific Audio Transmitter with the 0,1 – 1.299,95 MHz frequency range

## OPTIONAL FEATURES

- Second audio channel : 3XLR Line input on Rear panel of CW-Z3
- Intercom TX Connection: Built into DR2000/DR6000 Country specific audio (or PMR) Transmitter.
- Data Transmitter Amplifier: 450MHz ,500mW ,20dB N-N with weather protected housing