

CS 1500



 Safety & Regulatory Guide

Notice

© Carestream Dental LLC, 2019. The information in this document is subject to change. Neither Carestream Dental LLC nor any of its subsidiaries shall be liable for errors contained herein or for incidental damages in conjunction with the furnishing, performance, or use of this material. No part of this publication may be reproduced without the permission of Carestream Dental LLC.

All trademarks and registered trademarks are the property of their respective holders.

The CS 1500 is intended for professional use only.

US Federal law restricts this device to sale by or on the order of a dentist.

The CS 1500 intraoral camera is also marketed and sold as the WAVE PICT + intraoral camera.

Manual Name: *CS 1500 Intraoral Camera Safety and Regulatory Guide*

Part Number: 9H0953

Revision Number: 06

Print Date: 2019-02



Contents

Chapter 1	Conventions in This Guide	1
Safety Information	Warnings and Safety Instructions	2
	Camera	2
	Computer	4
	Hygiene and Disinfection.	5
	General Warnings	5
	Cleaning the Plastic Button Ring Cover	6
	Cleaning and Disinfecting the CS 1500	6
	Cleaning the Camera	6
	Disinfecting the Camera	6
	Visually Inspecting the Camera for Damage	7
	Disposing of the Battery	8
Chapter 2	Marking and Labeling Symbols	9
Regulatory Information	Label Locations	10
	Wireless Connection	10
	Wired USB Connection	12
	Indications for Use.	13
	Regulatory Information	13
	Electromagnetic Compatibility Precautions	14
	Guidance and Manufacturer's Declarations	14
	EMC Standards for Intraoral Camera	18
	Wireless:	18
	Electromagnetic Interference and Electrostatic Discharge	19
	Conforming with European and International Standards	19
	Communications Equipment	21

	Accessories . . . . .	.21
	Other Equipment . . . . .	.21
	Cabling . . . . .	.22
Chapter 3	Factory . . . . .	.23
Technical	Manufacturer . . . . .	.23
Specifications	Model . . . . .	.23
	Technical Specifications . . . . .	.23
	Minimum Computer System	
	Requirements . . . . .	.26
Chapter 4	Manufacturer's Address . . . . .	.27
Contact Information	Authorized Representatives . . . . .	.27

1 Safety Information

Conventions in This Guide

The following special messages emphasize information or indicate potential risks to personnel or equipment.



WARNING: Warns you to avoid injury to yourself or others by following the safety instructions precisely.



Important: Alerts you to a condition that might cause problems.



Note: Emphasizes important information.



Tip: Provides extra information and hints.

Warnings and Safety Instructions



WARNINGS:

Camera

- You **MUST** read and understand this safety information before using the camera.
- The system should be used in the hospital environment except for near active HF SURGICAL EQUIPMENT and the RF shielded room of an ME SYSTEM for magnetic resonance imaging, where the intensity of EM DISTURBANCES is high.
- Before using the camera, check the outer surfaces of the camera and any accessories to ensure there are no rough surfaces, sharp edges, or protrusions which may cause a safety hazard.
- The surface temperature of the LED window may rise to 40°C. Do not allow the window to come in contact with the patient's mouth for more than 10 minutes.
- You are responsible for the operation and maintenance of this camera. You **MUST** have training to use the camera.
- **DO NOT** place objects within the field of operation of the unit.
- When the unit is not in use, ensure that the camera is turned **OFF**.
- **DO NOT** use this camera in conjunction with oxygen-rich environments. This unit is not intended for use with flammable anesthetics or flammable agents.
- **DO NOT** pull or twist the cable.
- **DO NOT** drop the camera.

- **DO NOT** expose the camera to water spray or submerge it in water.
- **DO NOT** expose the camera to high vibrations.
- **DO NOT** expose the camera to ultraviolet radiation for a long period.
- Any other equipment not complying with IEC60601 shall be kept at least 1.83 meters away from the patient.
- **DO NOT** remove the cover of any camera components. For any repairs, contact a qualified Carestream Dental service technician.
- **DO NOT** replace the cables provided with the camera with other cables. Doing so may damage the camera and adversely affect the safety protection and EMC performance of the camera.
- **DO NOT** replace the power adapter provided with the camera with any other power adapter. Substitutes may not provide the required protection against electric shocks and other safety hazards.
- If the equipment is faulty, turn it OFF, display an “Out of Service” notice, and contact a service technician.
- Using components, accessories, cables, and spare parts other than those specified or provided by the manufacturer of this equipment may impair the safety protection of the camera and may result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.
- Do not stare at the LED emission window.
- No modification of this equipment is allowed.
- Additional multiple outlet strips or extension cords should not be connected to the system.

- To power off the device, push the power button for 3 seconds. To isolate the device from the mains supply, unplug the USB/AV/S-Video cables and the adapter from the power outlet.

Computer

- **DO NOT** place the computer and the peripheral equipment connected to it in the immediate vicinity of the patient. Leave at least 1.83 m distance between the patient and the equipment.
- The camera is only intended to be connected to a computer that has agency approval according to the latest edition of applicable safety and EMC standards. Connecting the camera to other equipment may be hazardous.
- See the installation guide for your computer for information about the data processing system, computer, and screen. Leave a sufficient amount of clear space around the computer to ensure that it is properly ventilated.
- Position the screen to avoid light reflections from internal or external lighting for maximum image quality and visual comfort.

Hygiene and Disinfection

Perform the following maintenance activities on the CS 1500 and accessories regularly.

To ensure maximum hygienic safety for the patient, carefully follow the instructions to prepare the CS 1500 camera for use.

To minimize the risk of cross-contamination, after each patient, clean and disinfect the CS 1500. See [“Cleaning and Disinfecting the CS 1500” on page 6](#).

General Warnings



WARNINGS:

- **Read and follow the warnings and personal protection instructions provided in the Safety Data Sheet (SDS) of the disinfectant before use.**
- **The disinfectant should be approved by the applicable competent authority for use on a dental medical device.**
- **You must wear gloves while handling and using the camera.**
- **Always protect the camera with a hygienic barrier sheath before use.**
- **The camera should be disinfected with a U.S. Environmental Protection Agency (EPA)-registered or CE-marked intermediate-level disinfectant solution with tuberculocidal activity between patients.**
- **DO NOT use a disinfectant containing phenolics or iodophors; doing so will damage the surface coating of the camera.**
- **Never put the camera in a sterilizing device or immerse it in water or the disinfectant solution.**
- **Excessive fluids can damage the camera.**
- **Not protected against water spray.**

Cleaning the Plastic Button Ring Cover

Use a 75% Ethanol cleaning solution to prevent cracks, chips, or other damage to the plastic button ring cover.



Caution: Do not use disinfectants containing Diisobutylphenoxyethoxyethyl dimethylbenzyl ammonium chloride, Isopropanol, Ethylene Glycol Monobutyl Ether (2-Butoxyethanol), or similar ingredients to clean the plastic ring cover.

Cleaning and Disinfecting the CS 1500

Cleaning the Camera

If the camera is visibly contaminated with blood or body fluids, you must clean the camera before disinfecting it.

To clean the camera, follow these steps:

- 1 Dampen (**do not soak**) a lint-free cloth with lukewarm water.
- 2 Remove the blood or body fluids with the dampened lint-free cloth.

Disinfecting the Camera

After each patient, the camera must be thoroughly disinfected.

To adequately disinfect the camera, follow the disinfectant manufacturer's instructions for the appropriate contact time.



Important: If the camera is visibly soiled, it must be thoroughly cleaned prior to disinfecting. See **"Cleaning the Camera."**

To disinfect the camera, follow these steps:

- 1 Remove the protective sheath.
- 2 Remove all visible soil (see [“Cleaning the Camera” on page 6](#)).
- 3 Dampen (**do not soak**) a lint-free cloth with 0.525% sodium hypochlorite (1:10 dilution of household bleach), or use a commercially prepared disinfectant wipe. For example: Clorox Healthcare Bleach Germicidal Wipes, if in the USA.
- 4 Thoroughly wet the surface of the camera with the disinfectant solution. Allow the surfaces to remain wet for the time specified by the disinfectant manufacturer.



Warning: Do not rinse.

- 5 Allow to dry in the open air.

Visually Inspecting the Camera for Damage

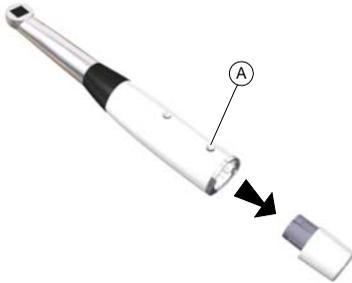
Visually inspect the camera for signs of deterioration, especially around the buttons or the cable. If damage is noted, do not use the camera and contact your representative.

Disposing of the Battery

The battery is a user-replaceable part ordered directly from the distributor or dealer.

To dispose of the battery, follow these steps:

- 1 Press the Battery Release button (A) and gently pull the battery out.



- 2 Hold the camera in one hand, and use your other hand to push the new battery into the bottom of the camera.



- 3 Make sure the battery is locked into place.
- 4 To make sure that the battery and all the cables are inserted correctly, press the ON/OFF for 3 seconds to power ON the camera.

When the battery has reached the end of its useful life, properly dispose of the battery following all local regulations. Your community may offer a battery collection program. Check with program sponsors for participation details.

2 Regulatory Information

Marking and Labeling Symbols

	Type BF applied part symbol classification in accordance with IEC 60601 standards.
	In the European Union, this symbol indicates: DO NOT discard this product in a trash receptacle; use an appropriate recovery and recycling facility. Contact your local sales representative for additional information on the collection and recovery programs available for this product.
	Non-ionizing radiation
	Class II equipment
	Attention: Consult accompanying documentation.
	Refer to instruction manual/booklet.
	Direct current
	Manufactured date
	Manufacturer's address
	Serial number

Label Locations

Wireless Connection

Figure 1 CS 1500 Camera Wireless Shipping Label, Battery Label



Figure 2 CS 1500 Camera Wireless Label

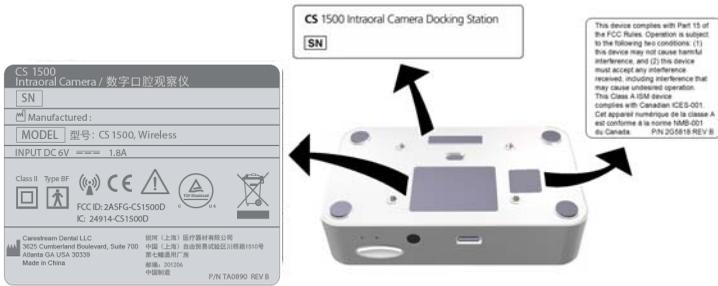


Figure 3 CS 1500 Camera Wireless Charge Station Label

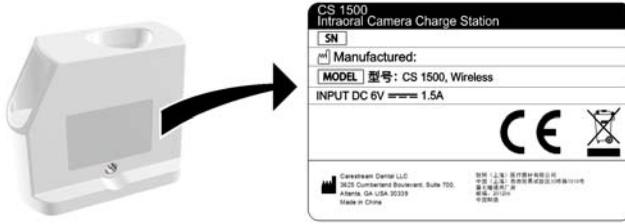


Figure 4 CS 1500 Camera Wireless FCC Canadian Statement, Handpiece Label

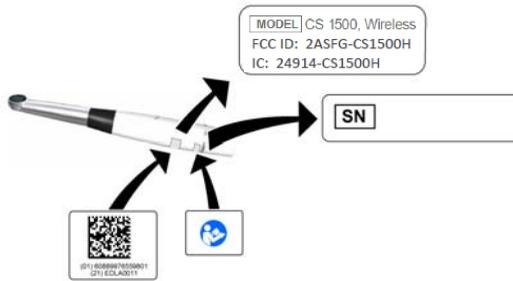
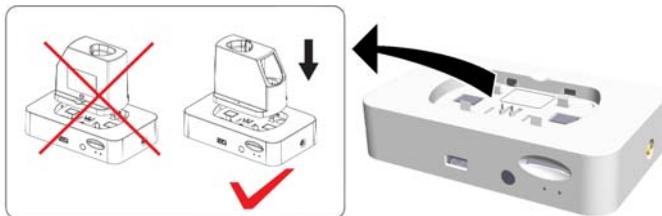


Figure 5 CS 1500 Camera Battery Label



Figure 6 CS 1500 Camera Wireless Charge Station Insert Indicative Label



Wired USB Connection

Figure 7 CS 1500 Camera Wired USB Shipping Label

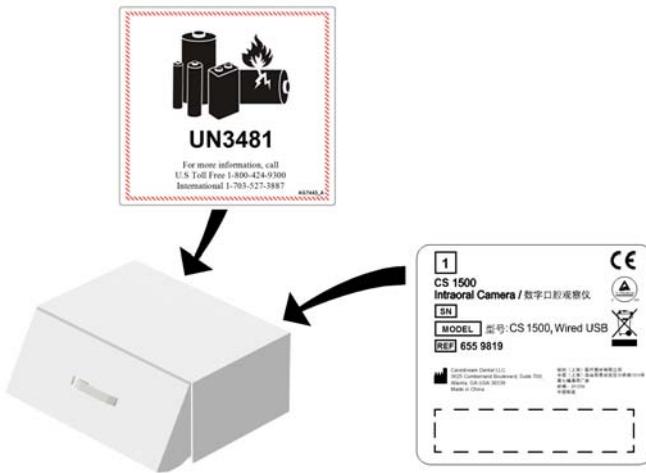


Figure 8 CS 1500 Camera Wired USB System Label

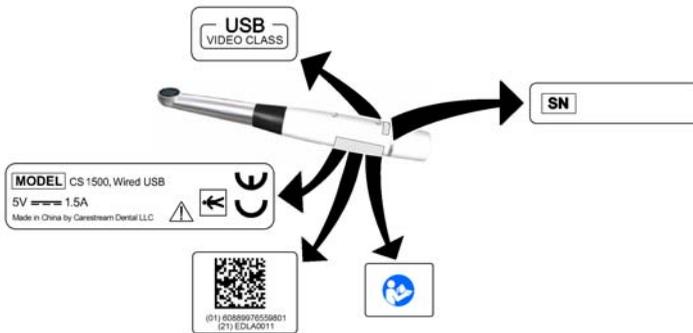
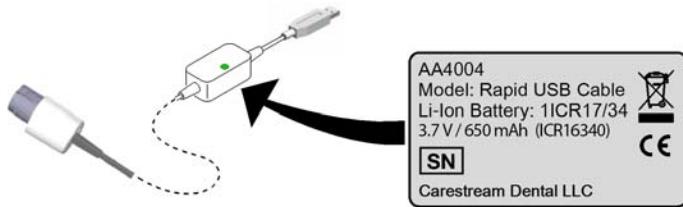


Figure 9 CS 1500 Camera Rapid USB Cable Label



Indications for Use

The CS 1500 intraoral camera is indicated for use by health professionals in viewing and capturing intraoral or extraoral color video images for the purposes of:

- Allowing practitioners to view regions of the oral cavity.
- Assisting communications with the patient by providing a view of treatment areas before and after a procedure.
- Providing images for documentation in patient records.

There are two configurations for the camera: wired USB and wireless. The wireless configuration is composed of a camera, a docking station, a charge station, and accessories. The wired USB is composed of a camera only.

Regulatory Information

The CS 1500 intraoral camera complies with the following regulations:

- 93/42/EEC European Economic Community Medical Devices Directive, as amended by Directive 2007/47/EC, class I following rule 5
- Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)
- Radio Equipment Directive 2014/53/EU (Wireless ONLY)
- FDA Center for Devices & Radiological Health CDRH - Title 21 CFR 872.6640 (USA)
- Medical Devices Regulations (Canada)

Electromagnetic Compatibility Precautions

Medical electrical equipment requires special precautions regarding electromagnetic compatibility (EMC). Medical equipment must be installed and put into service according to the EMC information provided in this documentation.

Other equipment can interfere with communications with the intraoral camera, even if the equipment complies with CISPR emissions requirements.

Warning: Portable and Mobile RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the intraoral camera, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.

Guidance and Manufacturer's Declarations

Guidance and Manufacturer's Declaration - Electromagnetic Emissions

The CS 1500 intraoral camera is intended for use in the electromagnetic environment specified below. The customer or user of the CS 1500 intraoral camera should assure that it is used in such an environment.

Emissions Test	Compliance	Electromagnetic Environment - Guidance
RF Emissions CISPR 11	Group 1	The CS 1500 intraoral camera uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF Emissions CISPR 11	Class B	
Harmonic Emissions IEC 61000-3-2	Class A	The CS 1500 intraoral camera is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Voltage Fluctuations/ Flicker Emissions IEC 61000-3-3	Complies	

Guidance and Manufacturer's Declaration - Electromagnetic Immunity

The CS 1500 intraoral camera is intended for use in the electromagnetic environment specified below. The customer or the user of the CS 1500 intraoral camera should assure that it is used in such an environment.

Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment - Guidance
Electrostatic Discharge (ESD) IEC 61000-4-2	±8 kV contact ±15 kV air	±8 kV contact ±15 kV air	Floors should be wood, concrete, or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical fast transient/burst IEC 61000-4-4	±2 kV for power supply lines	±2 kV for power supply lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±1 kV line to line	±1 kV line to line	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	0% U _T ; 0,5 cycle At 0°, 45°, 90°, 135°, 180°, 225°, 270°, and 315° 0% U _T ; 1 cycle and 70% U _T ; 25/30 ^a cycles Single phase: at 0° 0% U _T ; 250/300 ^a cycles	0% U _T ; 0,5 cycle At 0°, 45°, 90°, 135°, 180°, 225°, 270°, and 315° 0% U _T ; 1 cycle and 70% U _T ; 25/30 ^a cycles Single phase: at 0° 0% U _T ; 250/300 ^a cycles	Mains power quality should be that of a typical commercial or hospital environment. If the user of the CS 1500 intraoral camera requires continued operation during power mains interruptions, it is recommended that the CS 1500 intraoral camera be powered from an uninterruptible power supply or a battery.
Power frequency (50/60Hz) magnetic field IEC 61000-4-8	30 A/m	30 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.

a) e.g., 10/12 means 10 periods at 50 Hz or 12 periods at 60 Hz

NOTE: U_T is the a.c. mains voltage prior to application of the test level.

Guidance and Manufacturer's Declaration - Electromagnetic Immunity

The CS 1500 intraoral camera is intended for use in the electromagnetic environment specified below. The customer or the user of the CS 1500 intraoral camera should assure that it is used in such an environment.

Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment - Guidance
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz 6 Vrms in ISM bands between 150 kHz and 80 MHz ^a	3 Vrms 150 kHz to 80 MHz 6 Vrms in ISM bands between 150 kHz and 80 MHz ^a	Environment of a professional healthcare facility. WARNING: Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the CS 1500, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2.7GHz	3 V/m 80 MHz to 2.7GHz	

^a The ISM (industrial, scientific and medical) bands between 150 kHz and 80 MHz are 6.765 MHz to 6.795 MHz; 13.553 MHz to 13.567 MHz; 26.957 MHz to 27.283 MHz; and 40.66 MHz to 40.70 MHz.

NOTE: Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast, and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the CS 1500 intraoral camera is used exceeds the applicable RF compliance level above, the CS 1500 intraoral camera should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the CS 1500 intraoral camera.

Guidance and Manufacturer's Declaration - Electromagnetic Immunity

For the immunity to proximity fields from RF wireless communications equipment, the CS 1500 intraoral camera is compliant with the test levels specified below, according to IEC60601-1-2 standard. The customer or user of the CS 1500 intraoral camera should assure that it is used in such an environment.

Test Frequency (MHz)	Band (MHz)	Immunity Test Levels
385	380-390	Pulse modulation 18Hz, 27V/m
450	430-470	FM, ± 5 kHz deviation, 1 kHz sine, 28V/m
710		
745	704-787	Pulse modulation 217Hz, 9V/m
780		
810		
870	800-960	Pulse modulation 18Hz, 28V/m
930		
1720		
1845	1700-1990	Pulse modulation 217Hz, 28V/m
1970		
2450	2400-2570	Pulse modulation 217Hz, 28V/m
5240		
5500	5100-5800	Pulse modulation 217Hz, 9V/m
5785		

EMC Standards for Intraoral Camera

IEC 60601-1-2: 2014 EMC requirements and tests, Medical Electrical Equipment including CISPR11:2009 +A1: 2010.

This equipment complies with radio frequency exposure limits set forth by the FCC and the Innovation, Science and Economic Development Canada for an uncontrolled environment. The docking station should be installed and operated with a minimum distance of 20 cm (7.9 inches) between the device and the user or bystanders. This device must not be co-located or operating in conjunction with any other antenna or transmitter.

Cet équipement est conforme aux limites d'exposition aux radiofréquences définies par la Innovation, Sciences et Développement économique Canada pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm (7.9 pouces) de distance entre le dispositif et l'utilisateur ou des tiers. Ce dispositif ne doit pas être utilisé à proximité d'une autre antenne ou d'un autre émetteur.

This device complies with part 15 of the FCC Rules and contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions: (1) This device may not cause interference. (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Caution: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) L'appareil ne doit pas produire de brouillage; (2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

SAR Value for Handpiece: Limbs: 0.28W/kg, 10g

Wireless:

USA and Canada:

ANSI C63.10:2013
FCC Part 15:2017
RSS-247 (Issue 2):2017

RSS-Gen (Issue 5):2018

RSS-102 (Issue 3):2007

Europe:

EN 300 328 v2.1.1:2016

EN 62479:2010

EN 301 489-1 V2.1.1:2017
EN 301 489-17 V3.1.1:2017

Electromagnetic Interference and Electrostatic Discharge

According to CISPR11:2009+A1:2010 Group 1, Class B.

This device has been designed to operate with the antenna listed below and has a maximum gain of 1.6 dB. Antennas not included in this list or having a gain greater than 1.6 dB are strictly prohibited for use with this device. The required antenna impedance is 50 ohms.

Detachable antenna:

Trade Name: Exceltek

Conforming with European and International Standards

EN 60601-1 / IEC 60601-1: Medical Electrical Equipment, Part 1: General Requirements for Basic Safety and Essential Performance

EN 60601-1-2 / IEC 60601-1-2: Medical Electrical Equipment, Part 1-2: General requirements for basic safety and essential performance – Collateral Standard: Electromagnetic disturbances – Requirements and tests

IEC 60601-2-18: Medical Electrical Equipment, Part 2-18: Particular requirements for the basic safety and essential performance of endoscopic equipment

EN 62471 / IEC 62471: Photobiological safety of lamps and lamp systems: Equipment classification, requirements, and User's Guide

EN 60601-1-6 / IEC 60601-1-6: Medical Electrical Equipment, Part 1-6: General requirements for basic safety and essential performance - Collateral Standard: Usability

EN 62366 / IEC 62366: Medical devices - Application of usability engineering to medical devices

EN 62304 / IEC 62304: Medical device software - Software life cycle Processes

EN ISO 10993-1: Biological evaluation of medical devices - Part 1: Evaluation and testing within a risk management process

EN ISO 14971: Medical devices - Application of risk management to medical devices

EN ISO 15223-1: Medical devices - Symbols to be used with medical device labels, labeling and information to be supplied - Part 1: General requirements

EN 1041: Information supplied by the manufacturer of medical devices

CAN/CSA-C22.2 No. 60601-1: Medical Electrical Equipment - Part 1: General requirements for basic safety and essential performance

ANSI/AAMI ES60601-1: Medical Electrical Equipment - Part 1: General requirements for basic safety and essential performance

CAN/CSA-C22.2 No. 60601-2-18: Medical Electrical Equipment, Part 2-18: Particular requirements for the basic safety and essential performance of endoscopic equipment

EN 300 328: Electromagnetic compatibility and Radio Spectrum Matters (ERM): Wideband Transmission systems; Data transmission equipment operating in the 2.4 GHz ISM band and using wideband modulation techniques

EN 62479: Assessment of the compliance of low-power electronic and electrical equipment with the basic restrictions related to human exposure to electromagnetic fields (10 MHz to 300 GHz)

EN 301 489-1: Electromagnetic compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements

EN 301 489-17: Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for Broadband Data Transmission Systems

Condition	Classification
Type of protection against electric shock	Class II equipment or Internally powered
Degree of protection against electric shock	Type BF Applied Part
Degree of protection against ingress of water	<ul style="list-style-type: none"> • IPX0 Note: When it is covered by the protective sheath, the camera head is IPX1.
Flammable anesthetics	Not suitable for use in the presence of flammable anesthetics or a mixture of flammable anesthetics with air or oxygen or nitrous oxide.
Mode of operation	Continuous operation

Communications Equipment

The wireless version of the CS 1500 intraoral camera operates with a 802.11g protocol. Each channel central frequency is between 2.412GHz (channel 1) and 2.462GHz (channel 11). The adjacent channel is 5 MHz space apart. The working channel bandwidth is 20MHz. The radio output power is 20 mW (nominal).

Accessories

The use of cables, or accessories other than those specified, with the exception of those sold by the manufacturer of the equipment as replacement parts for internal components, may result in increased emissions or decreased immunity of the medical equipment.

Other Equipment

WARNING: Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify normal operation.

Cabling

Interface	Max. Cable Length	Shielded/ Unshielded	Number of interfaces with identical electrical characteristics	Cable Classifications
AC Docking Station - Camera	2.5 m	Unshielded	1	AC - DC Adapter
Docking Station - Camera	2.5 m	Shielded	1	Signal, DC Power (USB)
Docking Station - Charge Station	2.5 m	Unshielded	1	DC Power
Docking Station - Computer	1.5 m	Shielded	1	Signal
Docking Station - Monitor (AV)	1.5 m	Shielded	1	Signal
Docking Station - Monitor (S-Video)	1.5 m	Shielded	1	Signal

3 Technical Specifications

Factory

Rayco (Shanghai) Medical Products Company Limited
Building 7, No. 1510 Chuanqiao Road
China (Shanghai) Pilot Free Trade Zone
201206 Shanghai
PEOPLE'S REPUBLIC OF CHINA

Manufacturer

Carestream Dental LLC
3625 Cumberland Boulevard, Suite 700
Atlanta, GA USA 30339

Model

- CS 1500, Wired USB
- CS 1500, Wireless

Technical Specifications

Components	Technical Specifications
Camera	
Output	<ul style="list-style-type: none">• 1 S-video output• 1 PAL output• 1 NTSC output• 1 VGA video output• 1 digital USB 2.0 output• 1 SD card socket• 1 DC power output
Sensor technology	1/2.5 inch CMOS
Resolution	1024 x 768 pixels

Components	Technical Specifications
Lighting	Super white LEDs / Exempt group LED according to IEC/EN 62471
FOV	80°
View angle	90°
Connecting cable length	2.5 m
Video signal	<ul style="list-style-type: none"> • S-Video • TV (PAL, NTSC) • VGA
Digital connection	<ul style="list-style-type: none"> • USB 2.0 high speed • WiFi 802.11 g
White balance	Automatic
Output impedance	75 ohm
Adapter	100-240V~, 50/60Hz, 500mA output: DC 6.1V/2.5A
Adapter	AC adapter complies with IEC 60601-1
Output of adapter	DC 6.1V, 2.5A
Battery	650mAh; ICR17/34 Li16340C manufactured by SHENZHEN BOFUNENG BATTERY CO., LTD
Rapid USB Cable	
Battery capacity	650mAh
Charging current	75mA
Recommended first charging time	10 hours
Normal charging time	Less than 2 hours
Note: The battery embedded in the Rapid USB Cable complies with IEC/EN 62133 standard. For the battery disposal instructions, see " Disposing of the Battery " on page 1–8 .	
Dimensions	
Camera	191 x 31 x 25 mm
Docking station	149 x 93 x 32 mm
Charge station	92 x 58 x 73 mm
Weight	
Camera without cable/battery	61 g
Camera with battery	91 g

Components	Technical Specifications
Docking station	225 g
Charge station	180 g
Environment	
Operating temperature	+5 ~ 30 °C
Transportation and storage temperature	-10 ~ 60 °C
Operating relative humidity	10 – 85% RH
Transportation and storage relative humidity	10 – 95% RH
Operating atmospheric pressure	700 – 1060 hPa
Transportation and storage atmospheric pressure	600 – 1060 hPa

Minimum Computer System Requirements

If necessary, you must update your computer system configuration.

Item	Minimum System Requirement
CPU	1.8 GHz Intel Pentium IV
RAM	2 GB
Monitor	1024 x 768 minimum screen resolution - 32 bits color mode
Operating system	<ul style="list-style-type: none">• Windows 7 (32 or 64 bits)• Windows 8 or 8.1 (32 or 64 bits)• Windows 10 (64 bits)
USB port	USB 2.0 high speed port
CD/DVD drive	DVD-ROM drive is required to install the product.
Video memory	128M (integrated or dedicated)
Video card driver	Support OpenGL version 1.4 or higher

The computer should be situated in or close to the operating area, in the visual field of the practitioner when using the camera.



Note: The quality of images is affected by the quality of the monitor and monitor settings. See your monitor user's guide for information.

4 Contact Information

Manufacturer's Address



Carestream Dental LLC
3625 Cumberland Boulevard, Suite 700
Atlanta, GA USA 30339
www.carestreamdental.com

Authorized Representatives

Authorized Representative in the European Community

EC	REP
----	-----

Trophy
4, Rue F. Pelloutier
Croissy-Beaubourg
77435 Marne-la-Vallée, Cedex 2
France

Importer for European Union

Carestream Dental Germany GmbH
Hedelfinger Str. 60
70327 Stuttgart
UST ID Nr. DE815716368
Fax. No. 0711 20 70 7331
Handelsregister Nr.; HRB 760305
WEEE-Reg.Nr.: DE90742102

Authorized Representative in Brazil

Carestream Dental Brasil Eireli
Rua Romualdo Davoli, 65
1° Andar, Sala 01 - São José dos Campos
São Paulo - Brazil
CEP (Zip code): 12238-577

For more information, visit: www.carestreamdental.com

To give documentation feedback, visit:

www.carestreamdental.com/documentationfeedback