EOS 20D

Imaging Sensor

Resolution	<u>Approx. 8.25 million pixels</u> (total pixels: approx 8.5 million)
Recording pixels	<u>3504 x 2336</u>
Sensor type	CMOS sensor, with primary R-G-B filtration
Sensor size	22.5 x 15.0mm
Pixel size	6.4 microns square
Lens focal length factor	Approx. 1.6x

Performance

Maximum frames per second	5 fps (at full resolution)
Maximum number of frames / burst	• <u>JPEG: 22</u> • <u>RAW: 6</u>
Shutter speeds	30 seconds ~ $\frac{1}{8000}$, plus Bulb ($\frac{1}{3}$ or $\frac{1}{2}$-step increments)
Flash sync speed	<u>Up to $\frac{1}{250}$</u>, with EX-series Speedlites
Computer Interface	USB 2.0 (Hi-speed)

Image Recording

Storage media	CompactFlash cards (type I or II, including Microdrives—<u>writing time xx% faster than 10D</u>)
Card compatibility	"FAT32" compatible — OK for cards over 2GB
Image format options	• JPEG (choice of "Fine" or "Normal" compression) • RAW (<u>new .CR2 RAW file format</u>) • RAW + JPEG (any JPEG file size available; <u>JPEG file now written as separate file</u>)
Resolution options	"Large" — 3504 x 2336 (<u>approx. 8.2 million pixels</u>) "Medium" — 2544 x 1696 (<u>approx. 4.3 million pixels</u>) "Small" — 1752 x 1168 (<u>approx. 2 million pixels</u>)
Data recording format	DCF 2.0 and <u>EXIF 2.21</u> • EXIF 2.21 — Adobe 1998 RGB images will open up in proper color space in compatible image-editing software programs (Adobe Photoshop™, etc.)
File numbering	sRGB color space: IMG_0001.JPG or IMG_0001.CR2 Adobe 1998 RGB color space: _MG_0001.JPG or _MG_0001.CR2 • <u>New Canon RAW file format uses ".CR2" suffix</u> • <u>Images shot in Adobe 1998 RGB color space replace first character with "_"</u>
Folders	Automatically created on CF card by the camera
Data Verification	<u>"Original Image Data' can be appended to each image</u> via Custom Function 18-1

Image Playback

LCD monitor	1.8-inch (diagonal) TFT color; approx. 100% coverage
Image playback	Automatic after image is taken, or by pressing "Display" button on rear of body
Playback options	• Single image • Single image with Info (expanded text data, with brightness histogram and highlight alert) • 9-image index • Magnified zoom display (1.5x ~ 10x, in 15 steps)
LCD monitor brightness	Adjustable in 5 levels (via Menu)
Video-out	Yes (to standard TV monitor); NTSC or PAL — selectable on Menu

Canon

Autofocus

Number of AF points Nine
- Arrangement of AF points approximate "golden section" composition

Cross-type sensor Center AF point is high-precision cross-type, when used with lenses $f2.8$ or faster
- All AF points provide single-line coverage with lenses as slow as $f5.6$

AF point selection
1. Manual AF point selection
   via new 9-way multi-controller on back of camera
2. Automatic AF point selection

AF modes
- One-Shot AF (for stationary subjects)
- AI Servo AF (for tracking moving subjects)
- AI Focus AF (auto selection of One-Shot or AI Servo AF)

AF sensor Canon-produced CMOS

AF sensitivity range EV 0.5 ~ 18 (one stop greater low-light performance than EOS 10D)

AF speed Superior to EOS 10D with stationary subjects
- Predictive AF performance in AI Servo AF about the same as EOS 10D

Exposure Control

Shutter speeds 30 seconds ~ $\frac{1}{8000}$, plus Bulb ($\frac{1}{3}$ or $\frac{1}{2}$-step increments); x-sync at $\frac{1}{250}$

ISO range 100 ~ 1600, in full-step increments (ISO 3200 available via Custom Function 8-1)
- Automatic ISO setting in "Green Zone" and picture icon exposure modes;
  base ISO for Auto ISO setting is now 400

Exposure modes Manual, Aperture-priority (Av), Shutter-priority (Tv), Program AE, Depth-of-field AE (A-DEP)
- Full-auto mode ("green zone")
- P.I.C. modes — portrait, landscape, close-up, sports, night portrait, flash off

Metering 35-zone metering sensor
- Evaluative metering (linked to all AF points)
- Center-weighted metering
- Partial metering

Metering range EV 1 ~ 20 (all patterns, at normal temperatures)

Exposure compensation Possible in P, Tv, Av and A-DEP exposure modes
- +/- up to two stops, in $\frac{1}{2}$ or $\frac{1}{3}$-stop increments (via Quick Control Dial)

Auto Exposure Bracketing Possible in P, Tv, Av and A-DEP exposure modes
- +/- up to two stops, in $\frac{1}{2}$ or $\frac{1}{3}$-stop increments

Flash

Compatible flashes All Canon EX-series Speedlites, including new Speedlite 580EX

E-TTL II flash metering
- Flash metering not linked to active AF point
- Distance from compatible EF lenses now used
- Entire metering area can be averaged using Custom Function 14-1

Modeling flash 1-sec. burst of flash possible at 70Hz when depth-of-field preview button is pressed
(580EX, 550EX, 420EX, MR-14EX, MT-24EX and Speedlite Transmitter only)

Wireless E-TTL Fully compatible, including ratio setting over six-stop range

Flash Exposure Compensation Up to +/- 2 stops can be set on camera body (can also be set on compatible speedlites)

Built-in flash
- Covers lenses as wide as 17mm
- Guide Number 42 (feet, at ISO 100); approximate distance range 3~10 feet (ISO 100)
- Pops up $\frac{3}{4}$-inch higher than EOS 10D's flash, to minimize red-eye

Canon

Viewfinder

Focus screen	<u>New Precision Matte screen</u>; non-interchangeable • *Superior focusing contrast and "snap" compared to New Laser Matte type used in EOS 10D*
Viewfinder display	*Virtually identical to EOS 10D* • *White Balance correction icon added along bottom display*
Dioptric adjustment	*User-set from ⁻3.0 ~ ⁺1.0* *(range can be extended using optional Canon Dioptric Lens E, plus Rubber Frame EB)*
Mirror lock-up	*Possible via Custom Function 12-1*
Eyepiece shutter	*None (cover is provided on included strap)*

Color control

Color space	*Standard sRGB, or Adobe 1998 RGB*
White Balance	• *Auto* • *Pre-set (Daylight, Shade, Cloudy, Tungsten, Fluorescent, Flash)* • *Color Temperature (set by user from 2800K ~ 10,000K in 100K increments)* • *Custom (shoot white object or 18% gray card, base WB on that neutral object)*
White Balance correction	<u>*Fine-tuning of overall color*</u>, *after white balance has been set* • <u>*Amber–Blue correction*</u>, *in 9 steps* • <u>*Magenta–Green correction*</u>, *in 9 steps* • <u>*Set on graph on LCD monitor, using 9-way controller*</u> • <u>*Both types of correction can be combined*</u>
White Balance bracketing	*Three separate files written with a single click of the shutter* • <u>*Can be varied in the Amber–Blue direction, or the Magenta–Green direction*</u> • *Can be adjusted up to +⁄− 15 mireds for amber–blue bracketing* • *Can be combined with standard auto exposure bracketing (9 files written to CF card)*
Parameter adjustments	*Vary default levels of Contrast, Sharpness, Color Saturation, and Color Tone* • <u>*Set 1: increased levels of contrast, sharpness and color saturation*</u>; *suited for inkjet prints* • *Set 2: standard levels; suited for manipulation with image-editing software* • *Contrast, Sharpness, Color Saturation and Color Tone can be adjusted over 5-step range* *and applied to any of 3 user-created parameter sets*
Black & White recording	<u>*Set via Parameters in camera's menu*</u>
Black & White parameters	*Adjust Contrast and Sharpness*
Black & White Filter effects	<u>*Gives effects similar to using traditional colored filters with black & white film*</u> • <u>*None (continuous-tone B&W image)*</u> • <u>*Yellow (darker blue skies, lighter skin tones and blemishes)*</u> • <u>*Orange (stronger dark skies; lightens reddish objects)*</u> • <u>*Red (stormy dark blue skies, dark grass, red and orange objects very light)*</u> • <u>*Green (significant lightening of foliage, darkening of reddish objects)*</u>
Black & White Tone effects	<u>*Black & White images with a single color added*</u> — *similar to traditional print toning* • <u>*None (continuous-tone grayscale B&W image)*</u> • <u>*Sepia (warm brownish overall tone)*</u> • <u>*Blue (cool blue overall tone)*</u> • <u>*Purple (overall purple tone)*</u> • <u>*Green (overall greenish tone)*</u>

Interface

Computer connection	<u>USB 2.0 Hi-speed</u>, via small "B"-type USB connection
Remote Control	N3-type push-in terminal (same as EOS 10D, EOS-1D, etc.)
Video-out	Single-pin mini-jack

Direct Printing

Compatibility	• Canon Direct Printing to compact CP-type card photo printers • Bubblejet Direct printing to compatible Canon letter-size printers • PictBridge printing to compatible Canon and other brand printers (PictBridge requires PTP protocol; set under "communications" in camera's menu)
Compatible images	JPEG files only (<u>JPEGs shot in RAW + JPEG mode are OK</u>)
Connection to printer	via USB cable included with camera
Image Optimization	Possible when connected to compatible Canon printers • EXIF print • Vivid Print • Noise reduction
DPOF image marking	Compatible — images can be "tagged" while reviewing on LCD monitor

Power Supply

Battery	BP-511, BP-511A, or BP-512 (rechargeable Lithium-Ion — same as EOS 10D) (BP-511/BP-512: 1100mAh; BP-511A: 1390mAh)
Shooting capacity	TBA
Charger unit	TBA (also can be charged with Compact Power Adapter CA-PS400)
AC Adapter	AC Adapter ACK-E2 (consists of Adapter AC-E2, and "dummy battery" DR-400)
Battery Grip	TBA
Date/Time back-up battery	CR2016 lithium battery — coin-type; user-replaceable (estimated life 5 years)

Body

Exterior material	Magnesium alloy top, front and rear covers
Chassis material	Polycarbonate and stainless steel
Lens mount	EF lens mount; Metal
Compatible with EF-S lenses	<u>Yes</u>
"Best match" lens	<u>New EF-S 17-85mm f4~5.6 IS USM</u> (equivalent to 28-135mm with image stabilization)
Operating temperature range	32° ~ 104°F, at 85% or lower humidity (0° ~ 40°C)
Dimensions (W x H x D)	5.7 x 4.2 x 2.8 in. (114 x 105.5 x 71.5mm) — <u>smaller in all dimensions than EOS 10D</u>
Weight (without battery or CF card)	24.3 oz. (690g) — <u>3.5 oz. (100g) lighter than EOS 10D</u>

Note: <u>Underlined items</u> are new features, or specs superior to EOS 10D