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PENTAX 645 Z

Description	Art. Code	EAN
645Z	16600	0027075275874

ADVANTAGES

High picture & video quality
√ 51.4M Large CMOS sensor (43.8x32.8mm), ISO 204.800
√ Full HD movie
√ 4K interval movie
√ High-precision exposure control RGB 86K
√ In-body RAW development

Accuracy and Quick response
√ New fast and accurate AF module SAFOX 11 with 27 AF points (25 cross-type points)
√ Quick response (3fps continuous shooting)
√ Faster image processing, instant Review display, and writing to the memory card

High reliability
√ Tough : weather, dustproof and coldproof resistant body (up to -10°C)
√ Weather resistant lenses and flashes
√ Rigid magnesium alloy body, shutter durability

High operability
√ Bright and clear trapezoid prism finder with 98% field of view
√ 3,2'' Tiltable LCD Monitor with 1037K dots
√ LiveView shooting
√ Dual SD-SDHC-SDXC card slot
√ Great ergonomy and Compact dimensions

Mobility and connectivity
√ Image Transmitter 2 Software for easy monitoring from a PC
√ Wifi remote control via Smartphones, tablet and computer with dedicated Pentax Flu Card (in option)
√ USB 3.0
√ HDMI and Stereo-microphone terminal
√ X-Synchro flash terminal

Weight : Approx. 1470g (body only)
Approx. 1550g (including dedicated battery and SD card)

SUPPLIED ACCESSORIES

Rechargeable Lithium-ion Battery D-LI90
Battery Charger D-BC90
AC plug cord
Strap O-ST150
Large eye cup O-EC107
Software (CD-ROM) S-SW150
Hot shoe cover FK,
Body mount cover

OPTIONAL ACCESSORIES

Lithium-Ion battery D-LI90 - 39830
Battery Charger kit K-BC90E - 39834
AC Adapter K-AC132E - 38779
GPS unit O-GPS1 - 39012

645D FOCUSING SCREEN DF-80 WC - 38584
645D FOCUSING SCREEN DG-80 WC - 38582
645D FOCUSING SCREEN DK-80 WC - 38583
Sensor cleaning kit O-ICK1 - 39357
Weatherproof remote control O-RC1 - 39892
Flucard for Pentax 16Go O-FC1 - 38610
Image Transmitter 2 Software - 38553
Cable switch CS-205 - 37248

Flash AF 200FG - 30465
Flash AF 360FGZ II - 30438
Flash AF 540FGZ II - 30456
SLR backpack - 50278

156 mm

117 mm

123 mm

645Z

TECHNICAL SPECIFICATIONS

MODEL DESCRIPTION

Type	TTL autofocus, auto-exposure medium format digital SLR camera
Lens Mount	PENTAX 645AF2 mount with AF coupler, lens information contacts, and power contacts
Usable Lens	PENTAX 645AF2, 645AF and 645A mount lenses

IMAGE CAPTURE UNIT

Image Sensor	Type: CMOS with a primary color filter, Size: 43.8 x 32.8 (mm)
Effective Pixels	Approx. 51.4 megapixels
Total Pixels	Approx. 52.99 megapixels
Dust Removal	Image sensor cleaning using ultrasonic vibrations "DR II" with the Dust Alert function
Sensitivity (Standard output)	ISO AUTO/100 to 204800 (EV steps can be set to 1EV, 1/2EV, or 1/3EV)
Image Stabilizer	Lens-shift type (By using SR system lens)
AA Filter Simulator	Moiré reduction using SR unit. OFF/Type1/Type2

FILE FORMATS

Recording Formats	RAW (PEF/DNG), TIFF, JPEG (Exif 2.30), DCF2.0 compliant
Recorded Pixels	JPEG: L (51M: 8256 x 6192), M (36M: 6912 x 5184), S (21M: 5376 x 4032), XS (3M: 1920 x 1440) RAW: L (51M: 8256 x 6192) TIFF: L (51M: 8256 x 6192)"
Quality Level	RAW (14 bit): PEF, DNG JPEG: ★★★ (Best), ★★ (Better), ★ (Good), RAW + JPEG simultaneous recording available
Color Space	sRGB, AdobeRGB
Storage Media	SD, SDHC*, SDXC* memory card, Eye-Fi card, FLUCARD *UHS-I compatible
Dual Card Slot	Sequential save, Save to Both Dual save, Separate RAW/JPG, Copying images between slots possible
Storage Folder	Folder Name: Date (100_1018, 101_1019...) or user-assigned (default: PENTX)
Storage File	File Name: user-assigned (default: IMGP****) File No.: Sequential Numbering, Reset"

VIEWFINDER

Type	Keplerian telescopic trapezoid prism finder
Coverage (FOV)	Approx. 98 %
Magnification	Approx. 0.62 x (55mmF2.8 at infinity), Approx. 0.85 x (75mmF2.8 at infinity)
Eye-Relief Length	Approx. 21 mm (from the view window), Approx 24.1 mm (from the center of lens)
Diopter adjustment	Approx. -3.5 m to + 2.0 m-1
Focusing Screen	Interchangeable Natural-Bright-Matte focusing screen

LIVE VIEW

Type	TTL method using CMOS image sensor
Focus Method	Contrast detection AF (Face Detection, Tracking, Multiple AF Points, Select, Spot) Focus Peaking: ON/OFF
Display	Field of view: approx. 100 %, Magnified view (2x, 4x, 8x, 12x, 16x), Grid Display (Grid Style: 4x4 Grid, Golden Section, Scale, Square 1, Square 2, Grid Color: translucent black, translucent white), Histogram, Highlight Alert, Rotate Display 180°

LCD MONITOR

Type	Tiltable TFT color LCD monitor featuring an air-gapless structure with an AR-coated, tempered-glass front panel
Size	3.2 inch
Dots	Approx. 1037K dots
Adjustment	Brightness, Saturation and Color adjustable

WHITE BALANCE

Type	Combination system of CMOS image and light source detection sensors
White Balance	Auto, Multi Auto, Daylight, Shade, Cloudy, Fluorescent Light (D: Daylight Color, N: Daylight White, W: Cool White, L: Warm White), Tungsten Light, Flash, CTE, Manual (up to 3 settings can be saved), Color Temperature (up to 3 settings can be saved), Copying the white balance settings of a captured image possible
Fine Adjustment	Adjustable ±7 steps on A-B axis or G-M axis

AUTOFOCUS SYSTEM

Type	TTL: phase-matching autofocus
Focus System	SAFOX 11, 27 AF points (25 cross-type focus points in the center)
Brightness Range	EV -3 to 18 (ISO 100, at normal temperature)
AF Modes	Single AF (AF.S), Continuous AF (AF.C), Focus operation customizable
Focusing Area Selection Modes	Spot, Select, Expanded Area AF (S, M, L), Zone Select, Auto (27 AF Points)

EXPOSURE CONTROL

Type	TTL open aperture metering using 86K pixel RGB sensor Metering Modes: Multi-segment metering, Center-weighted metering, Spot metering
Metering Range	EV -1 to 21 (ISO100 at 55mmF2.8)
Exposure Modes	Program, Sensitivity Priority, Shutter Priority, Aperture Priority, Shutter & Aperture Priority, Manual, Bulb, Flash X-sync Speed, USER1, USER2, USER3
EV Compensation	±5 EV (1/3 EV steps or 1/2 EV steps can be selected)
AE Lock	Button type (timer-control: two times the meter operating time set in Custom Setting), Continuous as long as the shutter release button is halfway pressed
Exposure Bracketing	2, 3 or 5 frames, Available with Continuous, Self-timer or Remote Control

SHUTTER

Type	Electronically controlled vertical-run focal plane shutter
Shutter Speed	Auto: 1/4000 to 30 sec., Manual: 1/4000 to 30 sec. (1/3 EV steps or 1/2 EV steps), Bulb

FLASH

Flash Modes	Flash On, Flash On+Red-eye Reduction, Slow-speed Sync, Slow-speed Sync+Red-eye, P-TTL, Trailing Curtain Sync, contrast-control-sync, high-speed sync, wireless sync (available with a dedicated external flash)
Sync Speed	1/125 sec.
Flash Exposure Compensation	-2.0 to + 1.0 EV

DRIVE MODES

Mode Selection	Stills: Single Frame, Continuous (H, L), Self-timer (12 sec., 2sec.), Remote Control (immediately, 3 sec., continuous), Multi-exposure (available with Continuous, Self-timer or Remote Control), Interval Shooting, Interval Composite Movie: Remote Control, Interval Movie Record
Mirror Lock-up Shooting	Available with Continuous, Self-timer, Remote Control or Multi-exposure
Continuous Shooting	Max. approx. 3 fps, JPEG (L:★★★at Continuous H): up to approx. 30 frames, RAW: up to approx. 10 frames, TIFF: up to approx. 12 Max. approx. 1 fps, JPEG (L:★★★ at Continuous L): up to approx. 300 frames, RAW: up to approx. 25 frames, TIFF: up to approx. 15 *When the sensitivity is set to ISO100.
Multi-Exposure	Composite Mode: Additive, Average, Bright Number of Shots: 2 to 2000 images
Interval Shooting	Stills: Interval: 2 sec. to 24 hr. Number of Shots: 2 to 2000 images Start Interval: Now, Set Time Movie: Recorded Pixels: 4K, Full HD, HD Interval: 2 sec. to 1 hr. Recording Time: 14 sec. to 99 hr. Start Interval: Now, Set Time"

CAPTURE SETTING

Custom Image	Bright, Natural, Portrait, Landscape, Vibrant, Radiant, Muted, Bleach Bypass, Reversal Film, Monochrome, Cross Processing
Cross Processing	Random, Preset 1-3, Favorite 1-3
Noise Reduction	Slow Shutter Speed NR, High-ISO NR
Dynamic Range Settings	Highlight Correction, Shadow Correction
Lens Correction	Distortion Correction, Lateral Chromatic Aberration Correction, Peripheral Illumination Correction, Diffraction Correction
HDR Capture	Auto, Type1, Type2, Type3, Exposure Bracket Value adjustable, Auto Align (automatic composition correction function) available
Electronic Level	Displayed in viewfinder and LCD panel (horizontal direction only); displayed on LCD monitor (horizontal direction and vertical direction)

MOVIE

File Formats	MPEG-4 AVC/H.264 (MOV) *Motion JPEG (AVI) for Interval Movie Record
Recorded Pixels	Full HD (1920 x 1080, 60i/50i/30p/25p/24p), HD (1280 x 720, 60p/50p/30p/25p/24p)
Sound	Built-in stereo microphones, external microphone (stereo recording compatible), Recording Sound Level adjustable
Recording Time	Up to 25 minutes; automatically stops recording if the internal temperature of the camera becomes high.
Custom Image	Bright, Natural, Portrait, Landscape, Vibrant, Radiant, Muted, Bleach Bypass, Reversal Film, Monochrome, Cross Processing
Cross Processing	Random, Preset 1-3, Favorite 1-3
HDR *availble only for Inteval Movie	Auto, Type1, Type2, Type3, Exposure Bracket Value adjustable

PLAYBACK FUNCTIONS

Playback View	Single image display, Multi-image display (6, 12, 20, 35, 80 thumbnails), Image magnification (up to 16x, 1x display and quick zoom available), Grid Display (Grid Style: 4x4 Grid, Golden Section, Scale, Square 1, Square 2, Grid Color: translucent black, translucent white), Rotated image display, Histogram (Y histogram, RGB histogram), Highlight Alert, Auto Image Rotation, Detailed Information Display, Copyright Information (Photographer, Copyright Holder), Folder Display, Calendar Filmstrip Display, Slideshow, GPS information (latitude, longitude, altitude, Coordinated Universal Time (UTC))
Delete	Single image, all images, select & delete, folder, Instant Review image
Digital Filter	Base Parameter Adj, Extract Color, Toy Camera, Retro, High Contrast, Shading, Invert Color, Unicolor Bold, Bold Monochrome, Tone Expansion, Sketch, Water Color, Pastel, Posterization, Miniature, Soft, Starburst, Fish-eye, Slim
RAW Development	Development options: Select single image, Select multiple images, Select a folder Development parameters: File Format (JPEG/TIFF), Aspect Ratio, JPEG Recorded Pixels, JPEG Quality, Color Space, Distortion Correction, Lateral Chromatic Aberration Correction, Peripheral Illumination Correction, Diffraction Correction, Color Fringe Correction, White Balance, Custom Image, Digital Filter, HDR, Sensitivity, High-ISO NR, Shadow Correction
Editing Features	Color Moiré Correction, Resize, Cropping (aspect ratio can be changed and tilt adjustment is available), Movie Edit (dividing a movie file and deleting unwanted segments), Capturing a JPEG still picture from a movie, Saving RAW Data, Image Copy, Eye-Fi Image Transfer

CUSTOMIZATION

USER Modes	Up to 3 settings can be saved
Custom Functions	29 items
Mode Memory	11 items
Button Customization/ E-dial Programming	RAW/Fx Button: One Push File Format, Optical Preview, Digital Preview AF Button: Enable AF1, Enable AF2, Cancel AF Preview Dial: Optical Preview, Digital Preview Illumination Button: LCD Panel Illumination, Modeling Flash, Test Flash E-dials (front/rear): customizable to each exposure mode
Enable/Disable Controls	Type1: e-dials (front/rear), EV Compensation button, ISO button, AE Lock button, Green button, Exposure Bracketing button, AF area button Type2: e-dials (front/rear), EV Compensation button, ISO button, AE Lock button, Green button, Exposure Bracketing button, AF area button, four-way controller, AF point change button, OK button, AF button, RAW/Fx button
Text Size	Standard, Large
World Time	World Time settings for 75 cities (28 time zones)
Language	English, French, Germany, Spanish, Portuguese, Italian, Dutch, Danish, Swedish, Finnish, Polish, Czech, Hungarian, Turkish, Greek, Russian, Korean, Traditional Chinese, Simplified Chinese, Japanese
AF Fine Adjustment	±10 step, adjustment for all lenses or individual lenses (up to 20 can be saved)
Copyright Information	Names of ""Photographer"" and ""Copyright Holder"" are embedded to the image file. Revision history can be checked using the provided software.

POWER SUPPLY

Battery Type	Rechargeable Lithium-ion Battery D-LI90
AC Adapter	AC Adapter Kit K-AC132 (Optional)
Battery Life	Number of recordable images: Approx. 700 images Playback time: Approx. 400 minutes *Tested in compliance with CIPA standard using a fully-charged lithium-ion battery under the temperature of 23°C. Actual results may vary depending on the shooting conditions.

INTERFACES

Connection Port	USB 3.0 (micro B), external power supply terminal, cable switch terminal, X-sync socket, HDMI output terminal (Type D) , stereo microphone input terminal
USB Connection	MSC/PTP

DIMENSIONS AND WEIGHT

Dimensions	Approx. 156 mm (W) x 117 mm (H) x 123 mm (D) (excluding protrusions)
Weight	Approx. 1550 g (including dedicated battery and an SD memory card) Approx. 1470 g (body only)

SYSTEM REQUIREMENTS

Windows	Windows 8.1 / 8 / 7 , Vista (32 bit/64 bit)
Macintosh	Mac OS X 10.9 /10.8 / 10.7 / 10.6