Celestron ORIGIN Intelligent Home Observatory Specification

Celestron Origin

Specifications

OPTICS

OPTICAL DESIGN:	Rowe-Ackermann Schmidt Astrograph (RASA)
APERTURE:	152mm
FOCAL LENGTH:	335mm
EFFECTIVE FOCAL RATIO:	f/2.2
OPTICAL COATINGS:	StarBright XLT coatings throughout
FILTER DRAWER:	Integrated, accepts 1.25" or 2" astroimaging filters

IMAGING SENSOR

CMOS IMAGE SENSOR:	Sony IMX178LQJ, colour, back-illuminated
SENSOR SIZE:	8.92mm diagonal
PIXEL SIZE:	2.4µm x 2.4µm
NUMBER OF EFFECTIVE PIXELS:	6.44M (3096 x 2080)
FIELD OF VIEW:	1.27° x 0.85°

INTEGRATED ELECTRONICS

ONBOARD COMPUTER:	Raspberry Pi 4 Model B
MOUNT:	Computerized GoTo altazimuth mount
DEW PREVENTION:	Fully automated heating element integrated into front lens, removable dew shield/lens shade
FOCUS MOTOR:	Autofocus or manual control
COOLING FANS:	One (1) fan for optics, one (1) fan for electronics, both pull air though vents with wire mesh
LED STATUS RING:	Indicates status "at-a-glance"

PORTS

USB-A:	Two (2) on optical tube for accessing raw image files for external processing, one (1) on mount for mobile device charging only

ETHERNET:	One (1) on optical tube
AUXILIARY PORTS:	Two (2) on optical tube, four (4) on mount

POWER

BATTERY:	Integrated LiFePO4, 97.9 Wh, capable of 6+ hours of use
POWER INPUT:	12V DC adapter for charging internal battery or running on external AC power

USER INTERFACE

CELESTRON ORIGIN APP:	Runs on compatible iOS or Android smartphones and tablets
SYSTEM REQUIREMENTS:	iOS 16 or higher, Android 12 or higher

DIMENSIONS

OPTICAL TUBE:	24" x 7" diameter
MOUNT:	18" x 12" x 10"
TRIPOD (COLLAPSED):	13" x 12" x 32"
ASSEMBLED SYSTEM:	24" L x 26" W x 48" H

WEIGHT

OPTICAL TUBE:	10.6 lb
MOUNT:	17.0 lb
TRIPOD:	14.0 lb
TOTAL SYSTEM:	41.6 lb