STEVE-6DS data sheet

Overview

Product name	STEVE-6DS
Description	A hexapod (6 degrees of freedom) for OIS tests of digital cameras with highly accurate movement, software controlled, CIPA compliant

Features

Vibration Unit (Hexapod)

Active axes	X, Y, Z, θ_X (roll), θ_Y (pitch), θ_Z (yaw)	
Travel range*	X: Y: Z: θ_X, θ_Y: θ_Z:	±17 mm ±16 mm ±6.5 mm ±10 degrees ±21 degrees
Single-actuator design resolution	80 nm	
Min. incremental motion	X, Y: Z: θ_X, θ_Y, θ_Z:	2 µm 1 µm 12 µrad
Repeatability	X, Y: Z: θ_X, θ_Y: θ_Z:	±0.5 µm ±0.2 µm ±8 µrad ±15 µrad
Max. velocity	X, Y, Z: θ_X, θ_Y, θ_Z:	25 mm/s 325 mrad/s
Typ. velocity	X, Y, Z: θ_X, θ_Y, θ_Z:	10 mm/s 250 mrad/s
Accessories	• Base plate with additional quick-release plate (¼“ and ⅜“ UNC screw) • iQ-Mobilemount to mount mobile devices on STEVE-6D	

Motorization

Motor type	Brushless DC motor

Software

System requirements	PC with Windows 7 operating system (or higher) Ethernet port

Functions	• Vibration control module:
	  ○ Sine wave generator
	  ○ CIPA waveform included
	  ○ Custom waveforms
	  ○ Control of iQ-Trigger/iQ-Trigger-T
	• Data analysis module:
	  ○ TE261 image analysis
	  ○ CIPA standard DC-011 method
	  ○ Graphical presentation of results
	  ○ Export of numerical results and PDF reports

API (C++)	Available as a separate option: iQ-Drive API, version 2.0.0

General description hardware

Power supply/consumption	110 V / 230 V, 200 W
Ports	1 x Ethernet port for connection of Controller Unit to PC 1 x I/O port for iQ-Trigger/iQ-Trigger-T 1 x port for power supply
Dimension [W x H x D]	136 x 115 x 136 mm (Hexapod) 320 x 103 x 150 mm (Controller Unit)
Weight	2.2 kg (Hexapod) 2.8 kg (Controller Unit)
Connection to camera	Quick-release plate with ¼“ and ⅜“ UNC screw
Operating conditions	5 - 40 °C
Contents	Hexapod, quick-release plate, controller unit, cable, adapter, STEVE-6D software, user manual iQ-Mobilemount, iQ-Trigger (iQ-Trigger hydraulic finger, L-shaped holder, Manfrotto plate 405, iQ-Trigger USB-Box, wired remote control, power supply, USB cable, iQ-Trigger API)

Requirements of the device under test (DUT)

Max. DUT height/depth	Not limited (refer to max. DUT weight)
Max. DUT weight	2.5 kg (base plate) 0.3 kg (any orientation)
Max. DUT weight CIPA DC-011	2.5 kg (base plate)
Holding force, de-energized	15 N (base plate) 2.5 N (any orientation)

Miscellaneous

Certificate	Hexapod: CIPA certified for DC-011
Standard	Slanted edge analysis according to ISO 12233:2014 IS performance calculation based on CIPA DC-011
Additional	STEVE-6D mounting for IS tests: Honeycomb Breadboard; stable, heavy table

* The travel ranges of the individual coordinates (X, Y, Z, θ_X, θ_Y, θ_Z) are interdependent. The data for each axis in this table shows its maximum travel, where all other axes are at zero positions. The available travel may be less if the other linear or rotational coordinates are not zero.