Detailed Technical Specifications for lock-in based widefield camera

1) Widefield lock-in camera: (01.no.)
   1. The camera should be a widefield lock-in camera with a pixel size of 24 um x 24 um
   2. The number of pixels should be greater than 500x500
   3. The fill factor should be more than 20% and there should be micro-lenses for better collection efficiency
   4. The full well capacity should be 500 ke-
   5. The quantum efficiency at 650 nm should be >70%
   6. The lock-in camera should have >200000 parallel demodulators
   7. There should be internal and external trigger options
   8. The available reference frequencies should be between 300 Hz and 140 KHz
   9. The phase resolution should be 0.1 deg or better
   10. The available filter time constant should between 0.25 ms -325 ms
   11. The number of frames per acquisition should be between 4-900
   12. The dynamic range for signals should be a minimum of 2 x10 bit(X,Y)
   13. The available output data should include amplitude and phase in either polar or cartesian coordinates for each pixel.
   14. Background suppression should be 21 bit equivalent or better
   15. The camera package should include the relevant software modules required for operation
   16. The camera package should include the relevant electrical modules and cables required for control signal and data transfer including, but not limited to, a Gigabit Ethernet cable, an LIA module, and a configurable modulation test.
   17. The camera should have C-mount compatibility and have M6 mountable screw threads
   18. An appropriate cooling mechanism should be provided for safe operation.
   19. The camera dimensions should be no more than 100x65x180mm

2) Active Cooling Module for C4 / C4M: (01.no.)
   A) Dual-mini silent fan with off switch

3) Advanced heliDriver D3 - Driver for H8/H9/C4: (01.no.)
   A) Base module with slots for 2 general
   B) extension modules and 1 Real Time Ethernet
   C) extension module. Low-noise light source driver, UART/USB-C configuration interface, DIN rail mount, mounting bracket

4) Lock-In Amplifier Module for heliDriver D3A: (01.no.)
   A) 16 IOs (CMOS 5V), reference input, internal reference output, signal generator

5) Led Module for Lock-In Amplifier Module D3A: (01.no.)
   A) LED module to generate optical test signals

6) Power Supply for heliCam C4 to D3 / D3A:
   A) PS1.0-24V60W-D3 Output: 24V DC, 60W Input: 115/230VAC

7) Connecting cable heliInspect H8/H9/C4: (01.no.)
A) HI-CC8-L5.0-CF suitable for drag chains length = 5 m

8) GigE Cable H8/H9/C4: (01.no.)
   A) HI-GE8-L5.0-CF suitable for drag chains length = 5 m

9) BNC-BNC Cable: (02. nos.)
   A) CO-058BNCX200-010 length = 3m

10) Warranty- 1 year