

**BRAND NAME SPECIFICATION**  
**CODE 85 High-Speed Photron Camera**

*Per FAR Part 8 - Required Sources of Supplies and Services and FAR Part 13 – Simplified Acquisition Procedures, the following definitions will help you to determine if your procurement is Sole Source OR Brand Name Specific.*

**DESCRIPTION OF REQUIREMENT:**

The Naval Undersea Warfare Center, Division Newport [REDACTED] has a requirement for a Photron High-Speed Camera. The testing, data analysis and model verification required by projects in the [REDACTED] development programs cannot be met without high speed image data. To gather said data, cameras with the minimum requirements stated below are needed. A Photron camera meeting a certain set of minimum specifications is required. A Photron camera is required to integrate with existing NUWC owned hardware and software systems. The anticipated dollar amount is [REDACTED]

MFGR Part No	Description/Title	Qty	Configs (If applicable)						
NOVA-S20-64M	FASTCAM Nova S20 1100K-M5	1	Monochrome 1100K with 64GB memory and 200ns shutter						

**BRAND NAME SPECIFICATION**

A brand name Photron high speed camera is required (as opposed to other camera brands) in order to be compatible with existing high-speed camera systems [REDACTED]. In addition, in order to meet the requirements of laboratory testing needs, the minimum requirements to achieve the desired imaging capabilities are:

- Camera can integrate with existing NUWC owned Photron high-speed cameras to enable simultaneous capture, syncing and triggering and control via common software. The required software for the already owned Photron high-speed cameras is the Photron Fastcam Viewer (already in house and DADMS approved), which is the same software required to run the Photron FASTCAM Nova S20 1100K-M5)
- Camera can acquire at least 18,500 frames per second (fps) at 1024x1024 pixel resolution. This affords sufficient temporal resolution to capture fast moving objects, with adequate spatial resolution as well.
- Camera can acquire at least 1,000,000 frames per second (fps) at 128x16 pixel resolution. This affords sufficient temporal resolution to capture fast moving objects during very high speed water entry.
- ISO >= 60,000 in monochrome mode. This is required for sufficient image quality in low-light, underwater settings.
- Contains >= 60GB of on-board RAM
- Capable of sync/trigger using external signal

A camera from a different brand will require additional training from the company, which typically costs around [REDACTED] minimum, plus the additional cost of labor associated with training time. An estimate of this additional labor cost is: 64 man hours times [REDACTED] hourly rate which equates to [REDACTED]. Additional

electronics hardware will need to be purchased as well to enable integration of a different camera into our existing Photron camera setup; this additional hardware (pulse generator and BNC accessories) will cost approximately [REDACTED]. Thus, a total additional cost of at least [REDACTED] is expected. Additionally, the lost time in training and re-configuring the existing camera setup will lead to degraded performance of the facility for at least 3 weeks which would negatively affect our ability to reach deliverables for our sponsor and support the Navy mission. A Photron camera that meets the stated requirements is thus justified for this purchase. This purchase represents the known purchases for at least the next 1 year.

Based on the above, the duplicative costs and schedule impact cannot reasonably be expected to be offset by potential savings from competition. Therefore, it is in the best interest of the Government to solicit this requirement on a brand name only basis.

**RESELLERS:**

Must be an authorized Photron reseller.

**Requiring Department:**

Based on the above, I recommend this acquisition be conducted on a Brand Name Specification basis. I certify the technical data which form the basis of this justification are complete and accurate.

**APPROVAL:**

**Contracting Officer:**

Based on the above, I have determined that the circumstances of the contract action deem only this brand can fulfill the requirements. I certify that this justification is accurate and complete to the best of my knowledge and belief.