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Questions for Product Development Qualification – Industrial PCs

Company:	_____
Contact:	_____
Telephone:	_____
Fax:	_____
E-mail:	_____
Project ID:	_____

1. What is the customer's application?
2. What is the customer's per unit price point?
3. Is the customer willing to pay for NRE? Will the customer pay a percentage of NRE upfront, or will it be amortized over the cost of units?
4. How many units will the customer commit to purchasing each year?
5. Delivery schedule:
 - a. All computers at once?
 - b. Delivery spread out over a few months?
6. How much time is the customer willing to allow for product engineering and development?
7. Does the computer need to carry any certifications / approvals (UL, FM, ATEX, CE, etc.)? *NOTE:* Certification is an on-going process. Price quotes will reflect accordingly.
8. Is the customer willing to accept a unit that has undergone testing as a production unit?

9. Does the computer need to be sealed? If so, to what rating (IP66, NEMA 4, NEMA 4-3D, etc.)?

10. Does the computer need to have a monitor?
 - a. LCD or CRT?
NOTE: CRTs are generally considered a non-durable solution, and the cost of LCDs is decreasing.
 - b. What size (in inches)?
NOTE: 15" – 19" LCDs becoming market standard; anything outside these options provided at a cost premium.
 - c. Nit requirements?

11. Does the computer need to have a touch screen? Any preference (NFI, Infra-red, Resistive, Acoustic, etc.)?

12. Does the customer need a touch screen with touch surround?
 - a. If so, will it be hardware or software?
 - b. What is the configuration of the keys?
 - c. Standard LCD mounting configuration is in the upper-left corner. Agreed?

13. How does the computer need to be mounted (e.g., desktop, panel with holes, panel with studs, VESA, 19"-rack)?

14. What are the hardware requirements?
 - a. Board architecture (main board, PC104, backplane, etc)
 - b. Processor
 - c. Memory
 - d. Drives (hard drive, solid state HD, floppy, CD-ROM, DVD-ROM, etc.)
 - e. Network interface
 - f. Video
 - g. Power Supply
 - 1.) AC or DC
 - 2.) Range
 - 3.) Redundancy requirements
 - h. Operating system
NOTE: Embedded Windows expensive solution. Will customer provide their own version of embedded Windows?
 - i. Expansion capabilities (PCI, VGA, ISA, etc.)
 - j. Audio
 - k. I/O (USB, PS2, Printer, etc.)

IMPORTANT NOTE: Given constant change in the computing industry, component availability and pricing will change from year to year. Customer will agree to clear upgrade path (preferred), or be willing to buy all components up front based on long-term projected need.

15. What shock and vibration requirements does the computer need to meet?
16. What humidity requirements does the computer need to meet?
17. At what operating temperature extremes must the computer operate? *NOTE:* Anything above 60°C may require active cooling. Active cooling will ultimately increase the NRE and per unit cost of the computer.

_____°C to _____°C
18. Are there any physical dimensional constraints? If so, please provide dimensional requirements.
19. Can the customer provide a specification drawing (or picture) that helps define requirements?
20. Will the customer need an industrial mouse and/or keyboard to interface with the industrial computer?
21. Other requirements or notes?