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Advice To Power Supply Designers (Part 1): Beware The Needy Semiconductor Vendor

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As the number of companies designing power supplies in the U.S. continues to diminish under the pressure of increased global industry competition and consolidation with greater emphasis on financial efficiency, U.S. based companies today must do more with fewer engineering resources. All the while, they must attempt to offer innovative solutions that optimize efficiency while simultaneously reducing product costs.

The conditions imposed by the global market on the dwindling number of U.S. power supply companies means that semiconductor vendors are now finding that their time in front of these customers has diminished as well. Consider a world where multiple semiconductor vendors are producing components that are very similar in functionality and capability but are designed only to address existing concepts that have been on the market for many years. Why would a customer accommodate multiple vendors for similar products that have limited differentiation. Sounds crazy, right? Well, it's already happening.

Due to the aforementioned pressures, U.S. design engineers have aggressive schedules and project deadlines while operating with limited personnel. Therefore it's logical to expect that these customers are now less likely to freely allocate their time to vendors that do not offer them a compelling advantage/service to support their objectives and meet their challenges.

Consider a team of 10 engineers participating in an hour-long vendor meeting containing product overviews and updates, etc. once per quarter. Let's assume each of these engineers are paid $50/hour salary for their skills. That's $500 for an hour that is allocated for a single vendor meeting once per quarter. If we multiply that by 10 vendors per quarter, that's $5,000 for the quarter or $20,000 per year. Over a five-year period the total becomes substantial.

And this expenditure does not take into account the lost productivity that results from the meetings. That's something that cannot be recaptured and could have potentially been spent elsewhere to produce a return for the time invested.

Companies need to be more vigilant about establishing a means to measure the value they are reaping from semiconductor vendors. This might include setting some criteria for measuring the return on the time spent in meeting with such vendors.

As an industry professional, I have observed numerous interactions between semiconductor vendors and the end customer over a 20+ year period. In recent times I have observed that few semiconductor vendors really comprehend the customer interaction process from the top levels of management all the way down to the field personnel. Unfortunately, this also comes at a time when greater understanding of customer needs and the highest standards for interaction are needed most. This explains why customers today are reaping less value from their vendors.

So how do customers define and discern which vendors are able to offer them value for their time invested versus ones that needlessly consume their time for their own internal benefit? How do we establish a criteria that ensures the customer gets the best value for their time?

Let's start by considering a true story from 25 years ago. Around this time, a young upcoming outside sales person was doing a fair amount of business at one of his customers and was seeking to grow that sales number even further. He asked the high ranking VP of purchasing and materials management, "What do I need to do to get more of your business?"

The VP looked at him in surprise and said, "If you have to ask me that question then it's clear to me that you are unable to recognize and anticipate what you should be doing to achieve that goal. We expect vendors to have a clear understanding of our company and be able to recognize where they can bring value to our process."

Certainly this must have come as a shock to the salesperson, but the VP was completely correct. After all, if a salesperson and his accompanying resources are calling on an account, they should have some idea of the customer's needs and how to utilize their resources effectively to bring value to their customer on a regular basis.

To begin the process of identifying worthwhile vendors, let's start by identifying what I will call the "needy" vendor. This is the vendor that frequently wants a customer's time and attention but in the end has nothing to offer in terms of service or better components. This vendor is focused on maximizing their internal gain without any regard for bringing value to the customer's day-to-day operations.

This supplier typically offers "me too" products, coming close in performance to products that have already been on the market for a few years but offering no known performance differentiation or advantage. It is quite common for the needy vendor to approach customers and ask them to qualify a similar part on a project that's already in production as opposed to producing an option to address upcoming and more advanced technical needs for newer platforms.

The vendor's goal here is to achieve a quick path to revenue by targeting a design already in production by offering to lower the price. Attempting to win business based on price, they frequently ask the customer to provide them "target pricing" to win the business. This is because they lack awareness of product pricing in the current market or want to determine how much profit they can make before offering their own quote. We deem this type of vendor a parts seller and not a "solutions" provider.

The customer interface team for the needy vendor is typically characterized by resources having limited to no understanding of the power supply topology or no regard for the intricacies and challenges that are involved in the power supply design. The needy vendor does not offer any support tools (evaluation boards, software design tools or application notes) to aid or educate the customers in their development effort. Custom evaluation boards for demonstrating innovative ideas are also not readily offered and largely out of the question most of the time.

The needy vendor is strictly focused on trying to win based on price and availability concerns. They do not "invest" in the customer and if the support effort becomes too involved they willingly abandon the effort and attempt to move on to another customer in search of a quicker business transaction. When responding to customer inquiries the needy vendor's answers are lacking any meaningful depth or detail. The customer's questions are treated like an inconvenience.

The needy vendor is also quick to request meetings every quarter in order to satisfy their management-based objective (MBO). However this meeting request also comes without a meaningful agenda or if one is offered, it is limited in scope. That is because the meetings are often arranged for the sole purpose of "checking the box" and performing a visit to satisfy their internal, management established goals. This is done without regard for the value that the customer might realize from the visit. As such the lack of an agenda (or one that is poorly defined and not well planned) does not produce a meaningful outcome for the customer.

Meanwhile, the needy vendor often wonders why it's increasingly difficult to obtain meetings with customers. That's because the meeting agenda is largely focused on what the vendor wants from the customer. Typically this becomes a project reporting exercise with question like:

- "What's the project name?"
- "What CM are you using?
- "Where will it be built?"
- "What are the volumes?
- "What is your forecast?

and so on. This is all to satisfy the vendor's internal reporting systems. Little to nothing of value will be provided to the customer during such meetings. So, as time passes and customers experience this format more than once they begin to retreat from further dialog with the vendor and stop responding to requests for future meetings.

As noted previously, this needy vendor is unable or unwilling to produce leading-edge technology. Instead of focusing on innovation, they produce similar performing parts to those already on the market. This type of vendor does actually have some value. They can be helpful during a shortage situation or when allocation issues arise. But beyond that there is not much they can offer. Also, keep in mind that, in periods of allocation these vendors cater to customers willing to pay the highest margins and abandon any idea of what constitutes a strategic customer. They are purely opportunistic.

At times these vendors will also ask customers to form a "partnership". Yet their half of the partnership often involves obtaining commitments from customers without offering them something of sustainable or meaningful value in return. Furthermore because of their opportunistic nature, this vendor's pricing structures are often not stable or consistent. They abruptly change based on market conditions once the target device has been qualified in a design.

Yet another more unfavorable characteristic of this vendor is their propensity to "end of life" (EOL) parts without sufficient notice. Even more concerning, however, is that these parts are often EOL'd without an adequate alternative in place. The last-time-buy period is typically dictated over a very short interval which means the unfortunate customer must place a very large order to cover enough production builds until a re-design and re-qualification effort can be put in place.

This means a large cash outlay to purchase the inventory is incurred along with inventory carrying costs. Engineering resources are also needed to re-do the design which can come at the expense of other projects that may need to be completed.

And the final attribute of the needy vendor is that their product roadmaps are often not up to date and product schedules almost always show delay. This is usually an indication that they have problems with their internal processes, insufficient or adequately qualified resources or lack of accountability from management to meet the timetables specified. However, once the product is finally released and it is past the customer design cycle window the needy vendor pressures the customer to qualify the device telling them they will offer a lower price than what the customer is currently paying for the competing part.

In conclusion, the needy vendor expects its customers to orient their activities and internal priorities to accommodate the vendor. Yet in attempting to do so they offer nothing of substantial value in return other than a "me too" alternative part. In this scenario, it appears as if the roles and expectations of vendor and customer have been reversed.

Having identified the traits of the needy vendor, customers should now be able to spot these attributes and quickly recognize the vendor as "high risk" and of limited value. Any time spent with such vendors should be kept to a minimum. In part 2 of this article, I will discuss how to identify a high-performance vendor, one that a customer should look to actively engage with on a regular basis.

Do you have any comments on this column? If so, share them with the editor.