

Supply Chain & Logistics Update – March 2022

Date: March 11, 2022
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Dear Valued Customer,

While we start to see some relief with the height of the global pandemic passing us, another new challenge has emerged in the form of a military conflict in Ukraine. We will monitor closely and communicate to you as needed.

Supply Chain Update

- Consensus from suppliers is they do not show any signs of a slowdown in 2022.
- 18 months forecast now required to secure long lead time components.
- Demand side – Expect continued growth throughout most segments.
- Supply side – Small pockets of capacity expansion via investments to own fabs (i.e. On Semi, Diodes) but major foundries still year or two away to have any dramatic impact.
- Expect another wave of price increases.
- Timing devices at top of list of constrained components.
- Risks and Challenges:
 - Energy shortage in China
 - China/Taiwan relations creating geopolitical risks
 - Logistics – Hong Kong backlogged due to COVID
 - Ukraine – Near term and long terms risks (see below)

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Ukraine - Impact to Supply Chain

We are currently assessing the risks as it relates to supply chain (suppliers and sub suppliers, raw materials) and financial (impact from sanctions) with links or implied links to Russia, Ukraine, and Belarus and also monitoring official statements from the Chinese government as a potential precursor related to Taiwan.

Mid to long term impact from potential raw material and energy shortages is another area to consider. Ukraine produces 70% of global supply of neon, which is a key ingredient for making chips, is directly impacted by the war. Two of the world's largest producers in Ukraine have halted their productions. The global chip shortages will worsen if the war drags out.

Logistics

China (Shenzhen/ Dongguan):

- All locations are locked down with likely no out bound air shipments. DHL in Shenzhen and Dongguan has been temporarily suspended likely until March 20th and March 21st.
- On March 14th no small parcel shipments were tendered. Details are available on shipments to the site supply chain and program management team.
- Shenzhen airport terminal remains limited operational with reduced capacity and efficiency is low for only essential traffic. We expect limited or not movements in next week of all air traffic. Airlines are evaluating cancellation options. Expect a longer lead time with 7 days at least.
- FCL and Shenzhen ocean terminal ports are still operational. Feeder service (Nansha/ Zhongshan/ Zhuhai) is still operative with low efficiency up to the moment. Tendered shipments for the week were made.

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Hong Kong:

- Due to the local epidemic situation remains severe with reduction in capacity of flights, manpower and restrictions on cross from China to HKG. Scheduling any shipments between now and end of quarter is a risk. Expect at least 7 day delays

China - Shanghai and other cities

- Cities around Shanghai are starting reducing trucking operations, this will impact availability and efficiency not only in Shanghai, but also Suzhou, Nantong and other cities around.
- Shipping lines and Customs have arranged shift work and deploy limited resources and expect certain delays of efficiency.
- Air operations are still operative at the moment but we will keep monitoring the status.

Russia/Ukraine

- There are no current tangible impacts on our shipments in Europe. The international air traffic control authority has closed the entire airspace around Ukraine creating longer and new transit lanes. Impact occurring but no clearly quantifiable impact at this time.
- The larger impact of the war is the rising oil costs and wartime surcharges. US truckers have started to increase their fuel on local pick/deliveries ranging from 35% to 50%+. Effective March 7th some airlines have added a war surcharge of \$0.20-\$0.40/kg. These sanctions are also occurring on Asia routes due to sanctions on Russian aircraft reducing capacity by 15%+, provider taking on less riskier routing and force majeure for European routes.

The situation is very dynamic and changing daily. See the attached link from DHL on restrictions by province / city www.simplydhl.com/covid-19updates. We will continue to

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actively monitor logistic shipments and process with daily updates provided to the sites and PM on shipment tracking status.