TPC Semiconductor Market Survey

March 16, 2022
TPC February 2022 Survey Summary

Survey Date: 3/8-3/12 Respondents: ~9,700 Location: Worldwide (~80% Asia) Who: Active Electronics Industry Professionals Response Composition (multiple choices): Industrial 41%, Auto 22%, Comm 18%, Computing 18%, Mobile 29%, Data Ctr 17%, Other 15%

• We recently completed our monthly survey (~9,700 respondents) which saw a slight decreases in C1Q22 outlook for growth while showing slight increases in C2Q22’s growth outlook. The outlook for seasonality stayed largely unchanged. However, C1Q bookings improved ~3% from last month’s survey although much weaker than the last 4 years.
• Our C1Q22 outlook shows a return to more normal pre-COVID expectations, but still slightly better seasonality vs. CY18 & 19. However, the bookings outlook for C1Q22 was weaker and while C2Q22 bookings improved, it is still weaker vs. CY18 & CY19.
• The survey showed C1Q22 weakening slightly vs. last month with 6% expecting q/q growth vs. 7% previously; while 60% see it as weaker vs. 57% last month.
• The survey showed C2Q22 outlook improving vs. last month with 45% expecting q/q growth vs. 41% previously; while 22% see it as weaker vs. 24% last month.
• Backlog cancellation expectations (slide 7) continues to show negative trends.
• Key product inventory and availability (slide 8) generally stayed the same vs. last month with most key products are at or just under nominal levels.
• Inventories growth outlook and pricing (slides 9 & 10) remained roughly the same for both C1Q and C2Q.
Q/Q Demand Growth Outlook

C1Q22 Growth Expectations

C1Q Growth Expectations vs. C4Q

C2Q22 Growth Expectations

C2Q Growth Expectations vs. C1Q

February 2022

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Q/Q Seasonality Expectations

**C1Q22 Seasonality Expectations**

- October: 20%
- November: 21%
- December: 22%
- January: 21%
- February: 11%
- March: 10%
- April: 10%

**C1Q Seasonality Expectations**

- 2017: Above Seasonal = 45%, Below Seasonal = 20%
- 2018: Above Seasonal = 30%, Below Seasonal = 25%
- 2019: Above Seasonal = 35%, Below Seasonal = 30%
- 2020: Above Seasonal = 40%, Below Seasonal = 40%
- 2021: Above Seasonal = 45%, Below Seasonal = 5%
- 2022: Above Seasonal = 30%, Below Seasonal = 25%

**C2Q22 Seasonality Expectations**

- January: 32%
- February: 32%
- March: 15%
- April: 12%

**C2Q Seasonality Expectations**

- 2017: Above Seasonal = 35%, Below Seasonal = 20%
- 2018: Above Seasonal = 30%, Below Seasonal = 25%
- 2019: Above Seasonal = 35%, Below Seasonal = 30%
- 2020: Above Seasonal = 40%, Below Seasonal = 40%
- 2021: Above Seasonal = 45%, Below Seasonal = 5%
- 2022: Above Seasonal = 30%, Below Seasonal = 25%
Q/Q Bookings Growth Expectations

C1Q22 Bookings Expectations

C1Q Bookings Expectations

C2Q22 Bookings Expectations

C2Q Bookings Expectations

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Book to Bill History & Trends
(Calendar quarters)

% Responses with Book-Bill > or = 1.0

1Q17 2Q17 3Q17 4Q17 1Q18 2Q18 3Q18 4Q18 1Q19 2Q19 3Q19 4Q19 1Q20 2Q20 3Q20 4Q20 1Q21 2Q21 3Q21 4Q21 1Q22 2Q22
Qtr Begin Qtr End or Curr Mo 4 per. Mov. Avg. (Qtr End or Curr Mo)
Backlog Order Push Outs/Cancellations vs. 30 Days Ago
(Delta between increasing and decreasing cancellations – Higher % is more positive)
Inventory Status

(Using a scale of 1 to 5 with 1 being extremely low inventory, 3 being the normal amount, and 5 being extremely high; how do you view inventory levels for the following products?)

Most critical product types are now at nominal inventory levels.
Q/Q Inventory Growth

C2Q22 Inventories vs. C1Q22

C1Q22 Inventories vs. C4Q21
Q/Q Pricing Trends

C2Q22 Pricing vs. C1Q22

C1Q22 Pricing vs. C4Q21
The outlook for Communications continues to be above previous years while Auto continues to erode