TPC Semiconductor Market Survey

December 2022
We recently completed our monthly survey (~8,200 respondents) which saw very slight improvement in both C4Q22’s and C1Q23’s outlook for growth and seasonality. Additionally, the bookings outlook for both C4Q and C1Q was slightly improved vs. last month’s survey.

The survey showed C4Q22 outlook improved vs. last month; with 19% expecting q/q growth vs. 17% previously; while 55% see it as weaker vs. 55% last month.

The survey showed C1Q23 also improved vs. last month with 8% seeing the quarter being better vs. 6% previously; while 61% see it as worse vs. 60% last month.

Backlog cancellation expectations (slide 7) continues to show weak trends and is roughly at a 6 year low.

Key product inventory and availability (slide 8) roughly the same across all key products and are now at nominal levels.

Inventories growth outlook (slide 9) showed a slight moderating vs. last month for both C4Q and C1Q.

The survey also shows pricing (slide 10) moderating slightly (59% see C4Q down >2% q/q vs. 63% last month).
Q/Q Demand Growth Outlook

**4Q22 Growth Expectations**

- Jul: 55%
- Aug: 48%
- Sep: 52%
- Oct: 55%
- Nov: 55%
- Dec: 21%
- Jan: 19%

Legend: Red = Worse than Q3, Green = Better than Q3

**C4Q Growth Expectations**

Year 2017 to 2022, showing percentages for each quarter with red and green bars indicating worse or better than Q3.

**C1Q22 Growth Expectations**

- Oct: 80%
- Nov: 61%
- Dec: 8%

**C1Q Growth Expectations vs. C4Q**

Year 2017 to 2023, with red and green bars for each quarter showing comparison with Q4.
Q/Q Seasonality Expectations

4Q22 Seasonality Expectations

C4Q Seasonality Expectations

C1Q22 Seasonality Expectations

C1Q Seasonality Expectations

November/December 2022

TPC Proprietary
Q/Q Bookings Growth Expectations

4Q22 Bookings Expectations

- Jul: 53%
- Aug: 43%
- Sep: 48%
- Oct: 50%
- Nov: 46%
- Dec: 9%
- Jan: 9%

- Red: Worse than 3Q
- Green: Better than 3Q

C4Q Bookings Expectations

- 2017: 0%
- 2018: 70%
- 2019: 50%
- 2020: 50%
- 2021: 50%
- 2022: 50%

- Red: Worse than Q3
- Green: Better than Q3

C1Q22 Bookings Expectations

- Oct: 53%
- Nov: 51%
- Dec: 49%
- Jan: 5%
- Feb: 5%
- Mar: 5%
- Apr: 5%

- Red: Worse than Q4
- Green: Better than Q4

C1Q Bookings Expectations

- 2017: 20%
- 2018: 40%
- 2019: 20%
- 2020: 70%
- 2021: 20%
- 2022: 20%
- 2023: 20%

- Red: Worse than Q4
- Green: Better than Q4
Book to Bill History & Trends
(Calendar quarters)

End of month trendline decreasing over last 4 qtrs.
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 above nominal inventory levels

November/December 2022  TPC Proprietary
Q/Q Inventory Growth

C4Q22 Inventories vs. C3Q22

C3Q22 Inventories vs. C2Q22
Q/Q Pricing Trends

C4Q22 Pricing vs. C3Q22

C1Q23 Pricing vs. C4Q22
Vertical Outlook

[Graph showing trends in Automotive, Industrial, Communication, and Consumer sectors from January 2018 to October 2022]