TPC Semiconductor Market Survey

August 6, 2020
TPC July 2020 Survey Summary

Survey Date: July 31- Aug 3
Respondents: ~10,700
Location: Worldwide (~80% Asia)
Who: Active Electronics Industry Professionals
Response Composition (multiple choices): Industrial 45%, Auto 18%, Comm 20%, Computing 24%, Mobile 38%, Data Ctr 22%, Other 14%

• We completed our monthly survey last weekend (~10,700 respondents) which saw continued weakening in C3Q growth expectations. In addition the initial C4Q outlook is weaker than last year.
• End customers have still been reluctant to cancel production to their manufactures instead pushing out production into future quarters but appear to be booking less for the near term during the past 30 days.
• The survey showed a growth outlook for C2Q20 finishing about the same vs. last month with 46% expecting q/q growth vs. 45% previously and 13% seeing it as weaker vs. 11% last month.
• The survey showed a growth outlook for C3Q20 weaker vs. last month with 46% expecting q/q growth vs. 54% previously and 16% see it as weaker vs. 12% last month.
• The survey showed about the same outlook in bookings for C3Q20 compared to C2Q with 22% expecting improving bookings vs. 11% last month, but 32% now expect weaker bookings vs. 25% last month.
• The initial C4Q outlook is weaker vs. last year in growth, bookings and seasonality.
• Backlog cancellation expectations (slide 6) appeared to move sideways vs. last month but remains in the increasing area which we view as a leading negative indicator.
• Availability of critical parts continues to improve and in most cases are at or below normal levels. Slide 7, which shows a more granular view of inventory by key components, showed improvements across most products in inventory and availability.

July 2020

TPC Proprietary
Q/Q Demand Growth Outlook

C2Q20 Growth Expectations

January: 49%
February: 58%
March: 54%
April: 43%
May: 41%
June: 46%
July: 46%

C2Q Growth Expectations vs. C1Q

2017: 20%
2018: 18%
2019: 22%
2020: 13%

3Q Growth Expectations

April: 60%
May: 50%
June: 54%
July: 46%

C3Q Growth Expectations vs. C2Q

2017: 0%
2018: 8%
2019: 12%
2020: 16%
Q/Q Seasonality Expectations

C2Q Seasonality Expectations

3Q Seasonality Expectations

C3Q Seasonality Expectations
Q/Q Bookings Growth Expectations

C2Q Bookings Expectations

C3Q Bookings Expectations

C2Q Bookings Expectations

C3Q Bookings Expectations
C4Q20 Growth Outlook

C4Q Growth Expectations vs. C3Q

C4Q19 Seasonality Expectations

C4Q19 Bookings Expectations Seasonality

July 2020
Backlog Order 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?)

Still seeing most products being at normal inventory levels.
Q/Q Inventory Growth

C2Q20 Inventories vs. C1Q20

C3Q20 Inventories vs. C2Q20
Q/Q Pricing Trends

**C2Q20 Pricing vs. C1Q20**

- **Jan:** 61%
- **Feb:** 62%
- **Apr:** 55%
- **May:** 56%
- **Jun:** 59%
- **Jul:** 61%

**C3Q20 Pricing vs. C2Q20**

- **Apr:** 43%
- **May:** 48%
- **Jun:** 51%
- **Jul:** 61%

Legend:
- **Red:** Down >2%
- **Blue:** Flat +/-2%
- **Green:** Up >2%
Vertical Outlook

The outlook for Communications continues to be above previous years while Auto continues to erode