

July Sales Up +17.9% YOY Comparisons Are Becoming More Difficult

Regional Performance:

Worldwide year-to-date sales increased +30.6%.

At +38.6% YTD, Europe is exhibiting the highest sales growth. Japan trails the industry at +23.2%. All regions have double-digit growth YTD. Comparisons to prior year were quite easy in the first half of 2021.

ROW's YOY increase in sales at +24.9% is the highest YOY growth in July. ROW also has the highest YOY growth in bookings at +52.6%.

2021 Currency Impact:

The industry grew at +26.7% YTD in July in local currencies versus +30.6% in USD, a 3.9-point difference.

Top 10 Connector Companies:

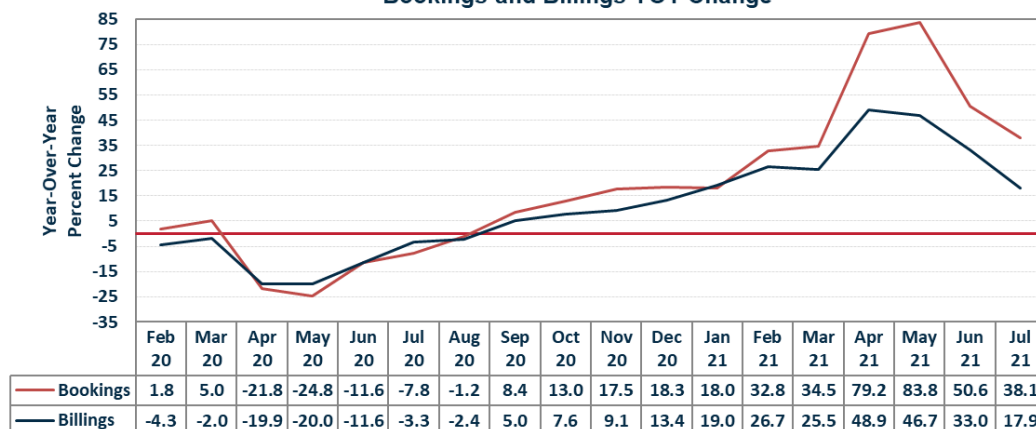
48 companies achieved a top 10 ranking in 2020 using global sales by regions, markets, and products as the defining factors. This is down from 50 companies in 2019.

Merger and Acquisition Services Buy & Sell-Side

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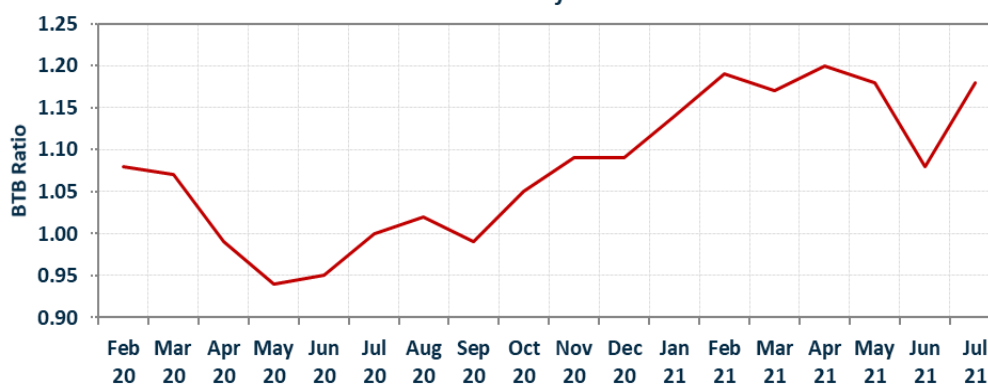
July bookings were up +38.1% from 2020. Sales for the month were up +17.9% YOY. Sequentially, bookings and billings were down from June. Year-to-date sales are up +30.6%.

Bookings and Billings YOY Change



The book-to-bill ratio in July was 1.18 as orders and billings began to normalize a bit with harder comparisons. YTD, the book-to-bill ratio is 1.11.

Connector Industry Book-to-Bill

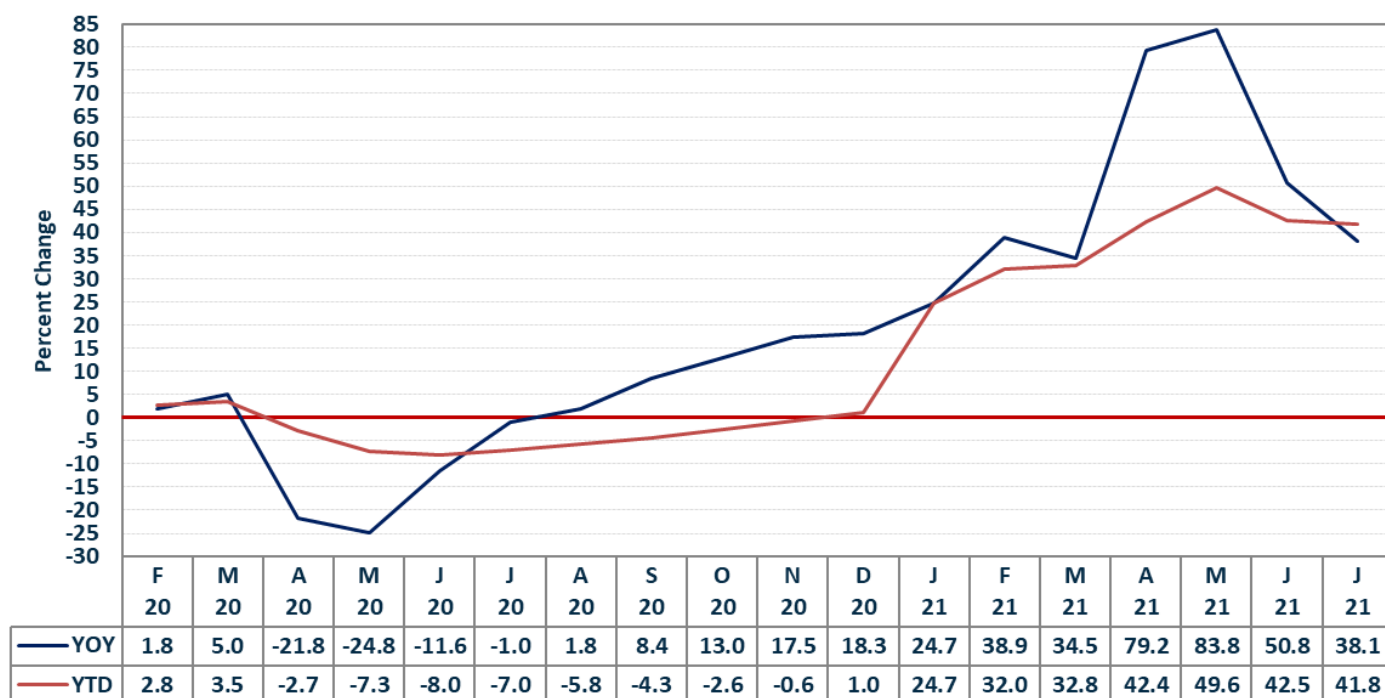


Booking Highlights and Conclusions

Sequential, Year-Over-Year, and Year-To-Date Bookings Percentage Change – 2019/2020/2021

Month	Sequential			Year-Over-Year			Year-To-Date		
	2019	2020	2021	2019	2020	2021	2019	2020	2021
Jan	1.0%	0.2%	2.3%	-3.7%	3.9%	24.7%	-3.7%	3.9%	24.7%
Feb	7.7%	5.5%	17.7%	-6.2%	1.8%	38.9%	-5.0%	2.8%	32.0%
Mar	-4.5%	-1.4%	-3.5%	-6.8%	5.0%	34.5%	-5.6%	3.5%	32.8%
Apr	-2.2%	-27.2%	1.7%	-8.8%	-21.8%	79.2%	-6.4%	-2.7%	42.4%
May	6.9%	2.9%	5.2%	-7.0%	-24.8%	83.8%	-6.5%	-7.3%	49.6%
Jun	-8.9%	7.0%	-12.3%	-9.0%	-11.6%	50.8%	-6.9%	-8.0%	42.5%
Jul	2.8%	15.2%	-0.7%	-8.4%	-1.0%	38.1%	-6.9%	-7.0%	41.8%
Aug	7.8%	10.7%		-5.2%	1.8%		-6.6%	-5.8%	
Sep	-7.1%	-0.9%		-4.3%	8.4%		-6.4%	-4.3%	
Oct	0.6%	4.7%		-6.6%	13.0%		-6.4%	-2.6%	
Nov	10.8%	15.2%		-1.9%	17.5%		-6.0%	-0.6%	
Dec	-7.8%	-7.2%		4.6%	18.3%		-5.2%	1.0%	

Bookings - YOY and YTD



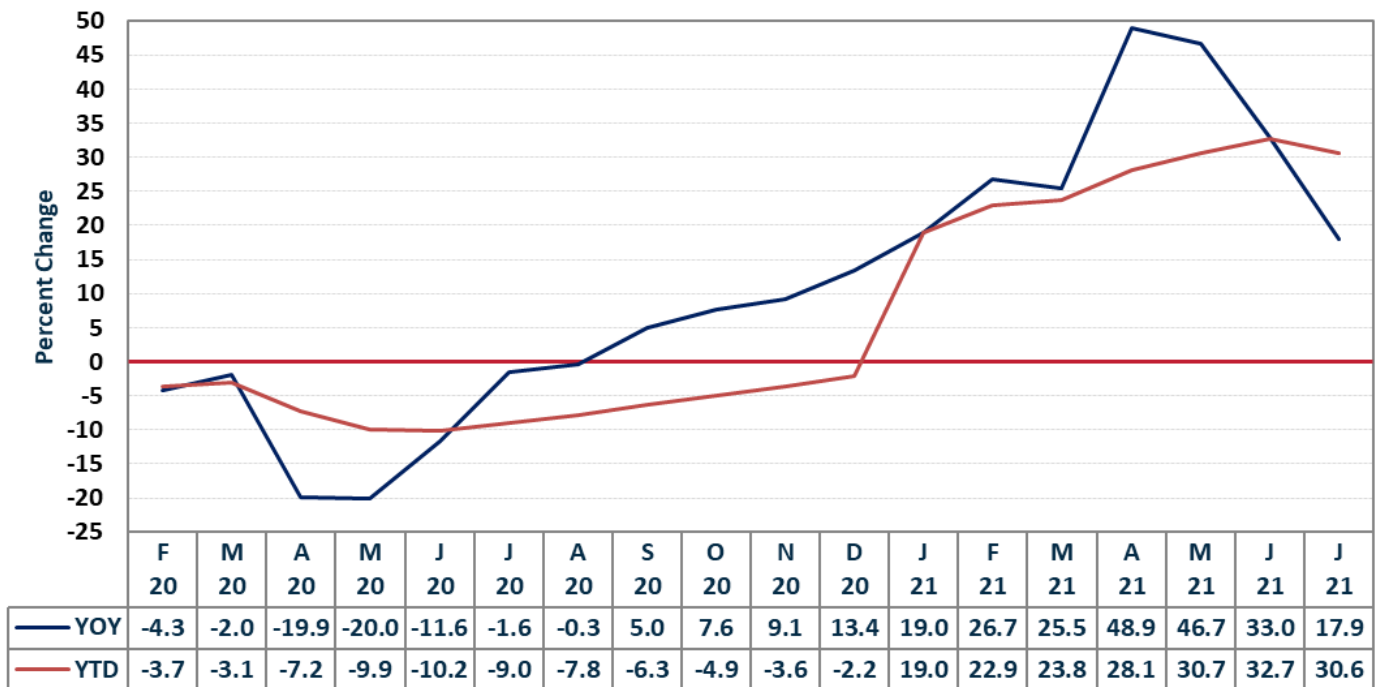
- July bookings rose +38.1% year-over-year.
- Orders decreased -0.7% sequentially.
- The book-to-bill ratio for July was 1.18 and 1.11 YTD. The book-to-bill ratio is starting to normalize a bit as the comparisons become more difficult.

Billing Highlights and Conclusions

Sequential, Year-Over-Year, and Year-To-Date Billings Percentage Change – 2019/2020/2021

Month	Sequential			Year-Over-Year			Year-To-Date		
	2019	2020	2021	2019	2020	2021	2019	2020	2021
Jan	0.3%	-2.8%	-1.6%	-1.0%	-3.1%	19.0%	-1.0%	-3.1%	19.0%
Feb	6.8%	5.5%	12.6%	-2.5%	-4.3%	26.7%	-1.8%	-3.7%	22.9%
Mar	-3.2%	-0.9%	-1.1%	-2.4%	-2.0%	25.5%	-2.0%	-3.1%	23.8%
Apr	-3.7%	-21.2%	-1.5%	-5.4%	-19.9%	48.9%	-2.8%	-7.2%	29.3%
May	9.0%	8.8%	7.1%	-4.3%	-20.0%	46.7%	-3.1%	-9.9%	32.7%
Jun	-4.2%	5.8%	-3.8%	-4.2%	-11.6%	33.0%	-3.3%	-10.2%	32.7%
Jul	-2.0%	9.0%	-4.2%	-3.1%	-1.6%	17.9%	-3.3%	-9.0%	30.6%
Aug	7.0%	9.0%		-4.9%	-0.3%		-3.5%	-7.8%	
Sep	-2.9%	1.7%		-3.7%	5.0%		-3.4%	-6.3%	
Oct	-4.1%	-1.0%		-6.9%	7.6%		-3.7%	-4.9%	
Nov	9.8%	11.4%		-3.4%	9.1%		-3.7%	-3.6%	
Dec	-11.2%	-7.7%		-0.1%	13.4%		-3.8%	-2.2%	

Billings - YOY and YTD

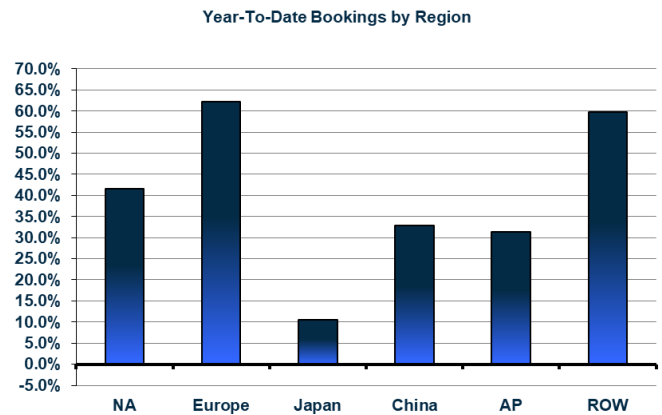


- July billings grew +17.9% YOY.
- Billings are up +30.6% for the year.
- Sequentially billings decreased -4.2%, the largest sequential decline since December 2020.

Regional Performance

July 2021 Bookings

Region	Sequential	YOY	YTD
NA	-1.2%	44.5%	41.5%
Europe	-3.7%	31.2%	62.1%
Japan	8.2%	50.2%	10.5%
China	0.0%	36.0%	32.9%
AP	-0.8%	35.8%	31.4%
ROW	6.4%	52.6%	59.8%
Total	-0.7%	38.1%	41.8%

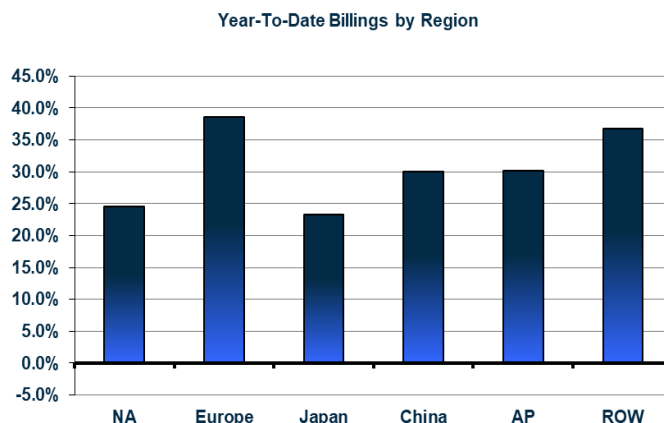


- July bookings increased +41.8% YTD. Bookings performance in July continued at a healthy pace.
- Year-over-year, all regions experienced double-digit growth, with ROW outpacing Japan and North America.
- Year-over-year comparisons through the first half of the year have been relatively easy because COVID-19 was still impacting orders at this time last year. This will not last much longer, as bookings turned positive in August of 2020 and have stayed that way.
- We have booked more orders than sales for nine consecutive months (\$7.0 billion). This has resulted in increasing lead times, increasing prices and decreasing on-time delivery performance. The large order volume is a function of demand for electronics, but also, we believe customers are over-ordering as a hedge against product shortages and price increases.

Regional Performance

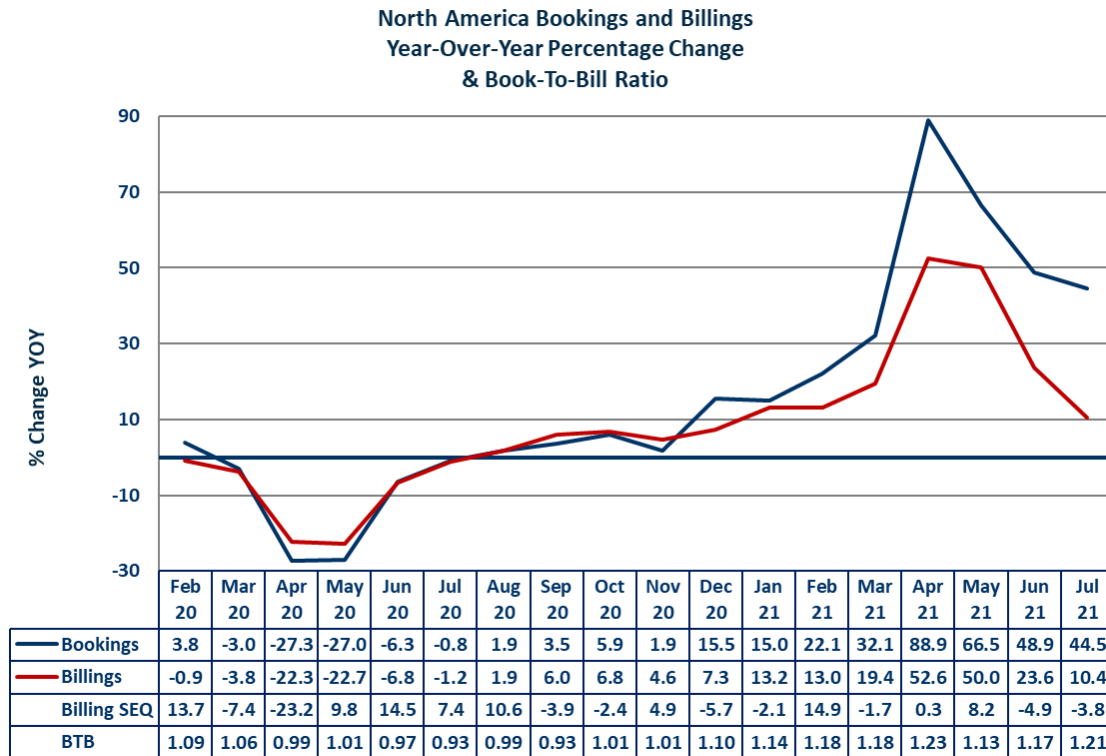
July 2021 Billings

Region	Sequential	YOY	YTD
NA	-3.8%	10.4%	24.5%
Europe	-7.1%	22.8%	38.6%
Japan	0.4%	21.1%	23.2%
China	-2.2%	17.5%	30.0%
AP	-5.0%	21.2%	30.1%
ROW	-3.8%	24.9%	36.7%
Total	-4.2%	17.9%	30.6%



- July connector sales growth increased +17.9% YOY as demand for electronic products and automobiles continued to accelerate.
- Year-over-year, all regions experienced double-digit growth, with ROW growing at the quickest pace of any region at +24.9%, followed by Europe.
- Sequentially, sales decreased in all regions except Japan.
- While 2021 should see strong sales growth, head-winds still prevail in the third quarter, especially in the automotive and telecom markets where semiconductor shortages will put downward pressure on connector sales growth.
- The third and fourth quarters sales will also face the challenge of harder comparisons as the connector industry rebounded strongly in the second half of 2020. We are already seeing this impact in July.
- Over the past decade, YTD July sales have averaged 56.9% of annual sales. If the historical average is achieved in 2021, the industry sales would be \$77,794 million for an increase of +24.0%.

North America: The following chart displays the year-over-year percentage change in bookings and billings for the last 18 months. The monthly book-to-bill (BTB) ratio is also displayed.



North America Performance

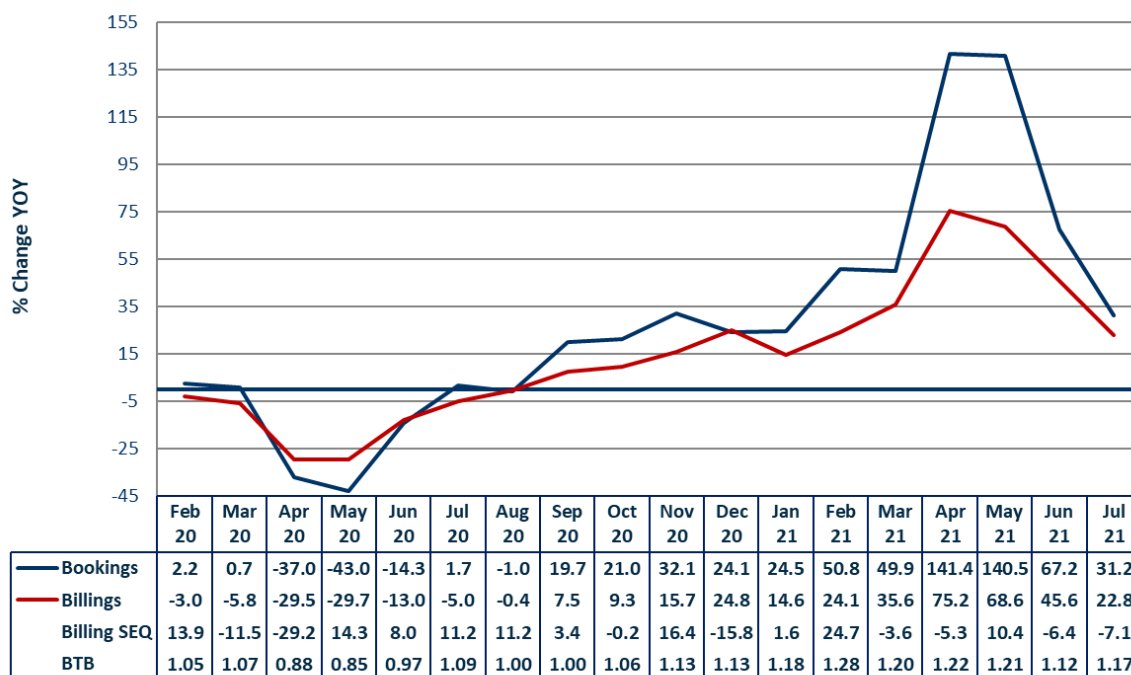
- Sales grew +10.4% and orders were up +44.5% YOY in July. North American billings were down sequentially -3.8%. The book-to-bill remained strong at 1.21.
- Industrial production increased 6.6% YOY in July.
- Manufacturing PMI fell to 61.2 in August from 63.4 in July.
- US unemployment fell to 5.4% in July, the lowest rate since March 2020. The number of unemployed is still high at 8.7 million.
- Retail sales in the US was up 15.8% in July YOY.
- The annual inflation rate in the US in July remained at 5.4%. According to the CPI data, the price for appliances overall rose 4.9% in July compared to 2020 and laundry equipment increased by 17.9%. Refrigerator pricing rose 12.3%. Notably, the core CPI, which removes volatile energy and food prices increased 0.3% in July and 4.3% over the last 12 months.
- US automotive sales in June were down 1.1% from June and up 15.8% YOY.

Conclusions

The US economy is running strong, but the annual inflation rate is still running high. These higher rates are upsetting the financial markets and the Federal Reserve. The higher prices are causing the Federal Reserve Board to re-evaluate raising rates sooner rather than later. This will cool off the economy which will negatively impact business, the stock market, and the connector industry.

Europe: The following chart displays the year-over-year percentage change in bookings and billings for the last 18 months. The monthly book-to-bill ratio is also displayed.

Europe Bookings and Billings
Year-Over-Year Percentage Change
& Book-To-Bill Ratio



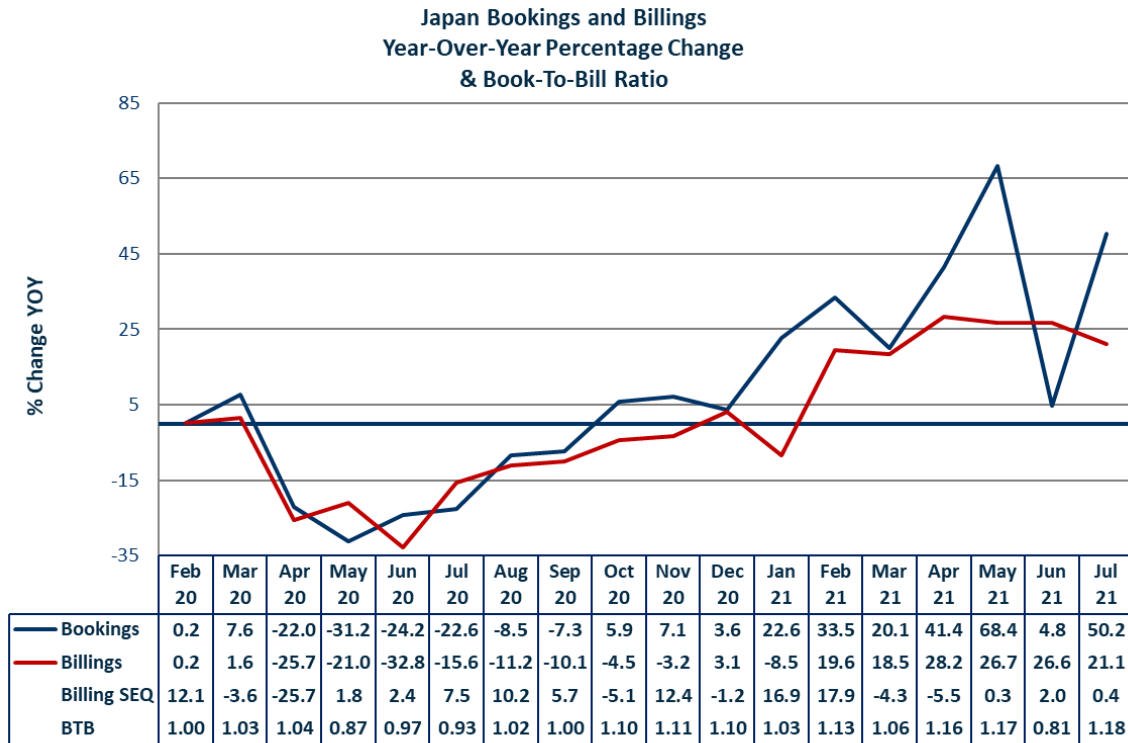
Europe Performance

- YOY billings grew +22.8%, the 11th consecutive positive reading. Orders were up +31.2%, and the book-to-bill ratio was to 1.17. Sequentially, sales were down -7.1%.
- 2Q21 GDP was up 13.6% YOY and 2% sequentially.
- Euro area industrial production increased 9.7% in June YOY.
- The August manufacturing PMI decreased to 61.5 from 62.6 in July.
- June retail sales increased 5.0% YOY and increased 1.5% sequentially.
- Euro area new car registrations were up 27.1% for the first six months of 2021.
- Business confidence rose to 1.9 in July from 1.71 in June.

Conclusions

European new car registrations were up in the first six months of 2021 and their 2Q21 GDP showed sequential growth which has helped their connector industry. The connector industry appears to be out performing Europe's overall economy. Europe has also had strong connector bookings and billings for the last six months due to easier comparisons.

Japan: The following chart displays the year-over-year percentage change in bookings and billings for the last 18 months. The monthly book-to-bill ratio is also displayed.



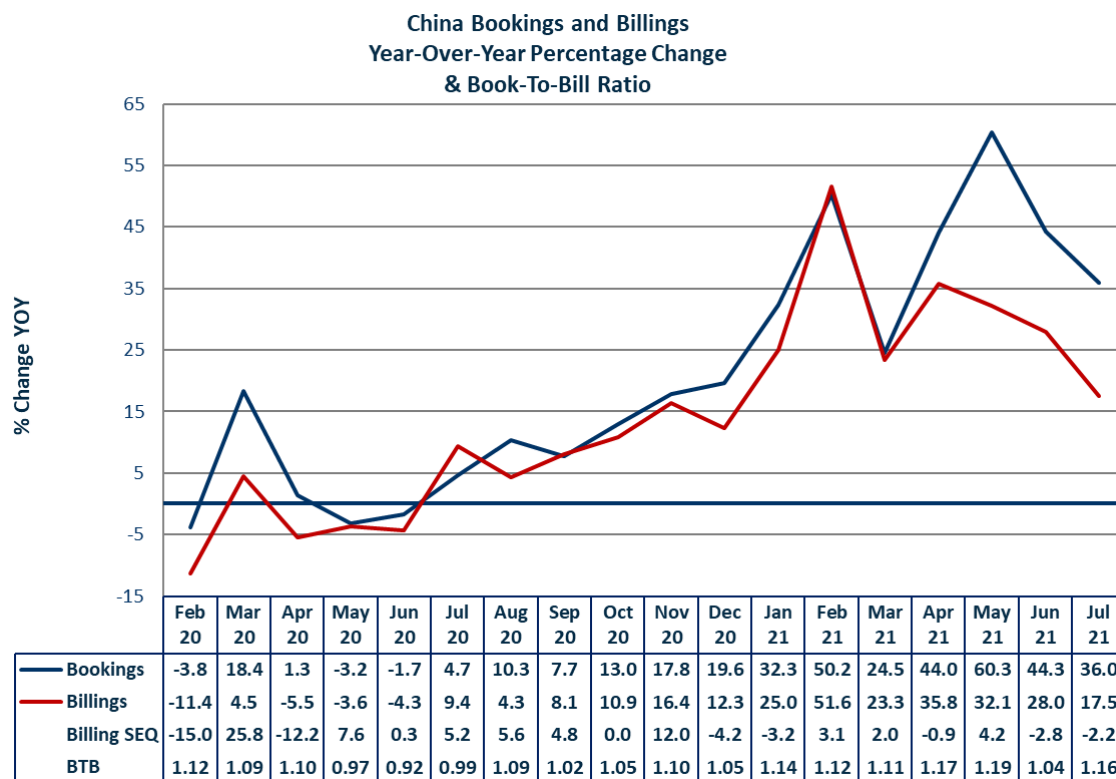
Japan Performance

- Bookings were up +50.2% in July. Sales increased +21.1%. Sequentially, sales were up +0.4%. Japan's book-to-bill ratio was down to 1.18.
- 2Q21 GDP grew 7.5% YOY and 0.3% sequentially.
- Industrial production increased 23.0% YOY in June.
- June retail sales were up 0.1% YOY and 3.1% sequentially.
- The unemployment rate decreased to 2.9% in June.
- Exports increased 37% YOY in July. Exports to the US rose 26.8%. Exports of cars was up 37.2%.
- The August manufacturing PMI decreased to 52.4 from 53.0 in July.

Conclusions

Japan's economy grew 7.5% YOY in Q2 after six consecutive quarters of contraction on a YOY basis. Sequentially, their economy grew a meager 0.3%. This ongoing weak performance will weigh down their connector industry results. They have also had a resurgence of COVID which is impacting their economy. Their booking and sales performance, in the last five months, primarily reflects easy comparisons to the poor results in 2020.

China: The following chart displays the year-over-year percentage change in bookings and billings for the last 18 months. The monthly book-to-bill ratio is also displayed.



China Performance

- Sales and orders, year-over-year, increased +17.5% and +36.0%, respectively. The BTB was 1.16. Sequentially, sales decreased -2.2%.
- Industrial production increased 6.4% YOY in July, the smallest gain since August 2020.
- China's manufacturing PMI fell to 50.3 in July from 51.3 in June. This is the lowest reading since April 2020.
- Retail sales slowed to 8.5% YOY in July compared to 12.1% in June.
- China's auto sales were down 11.9% YOY in July for the third consecutive month.
- Exports from China were up 19.3% YOY in July. Exports to the US slowed to 13.4% growth in July.

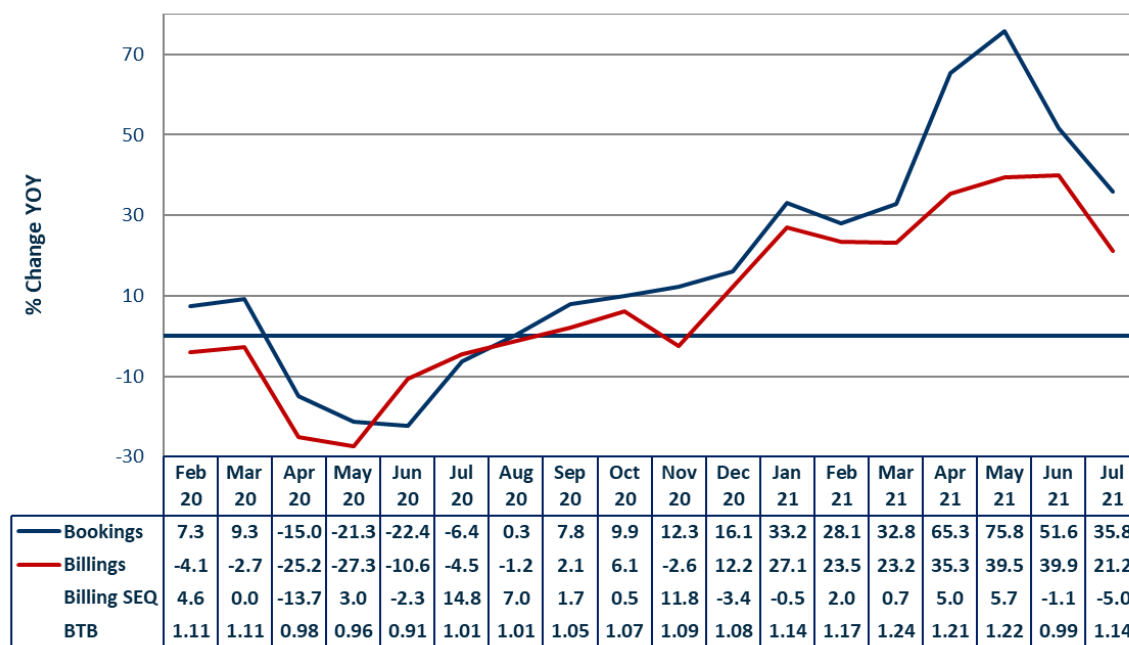
Conclusions

China's industrial production and retail sales continue to grow, but at a much slower pace. Their PMI has almost reached the 50.0 point which would indicate unfavorable business conditions. Their economy, though still growing YOY, is starting to slow on a quarter-to-quarter basis.

For the last 10 months, China has posted double-digit year-over-year growth in both connectors sales and orders. This growth has allowed China to continue to take connector market share from other regions of the world.

Asia Pacific: The following chart displays the year-over-year percentage change in bookings and billings for the last 18 months. The monthly book-to-bill ratio is also displayed.

Asia Pacific Bookings and Billings
Year-Over-Year Percentage Change
& Book-To-Bill Ratio



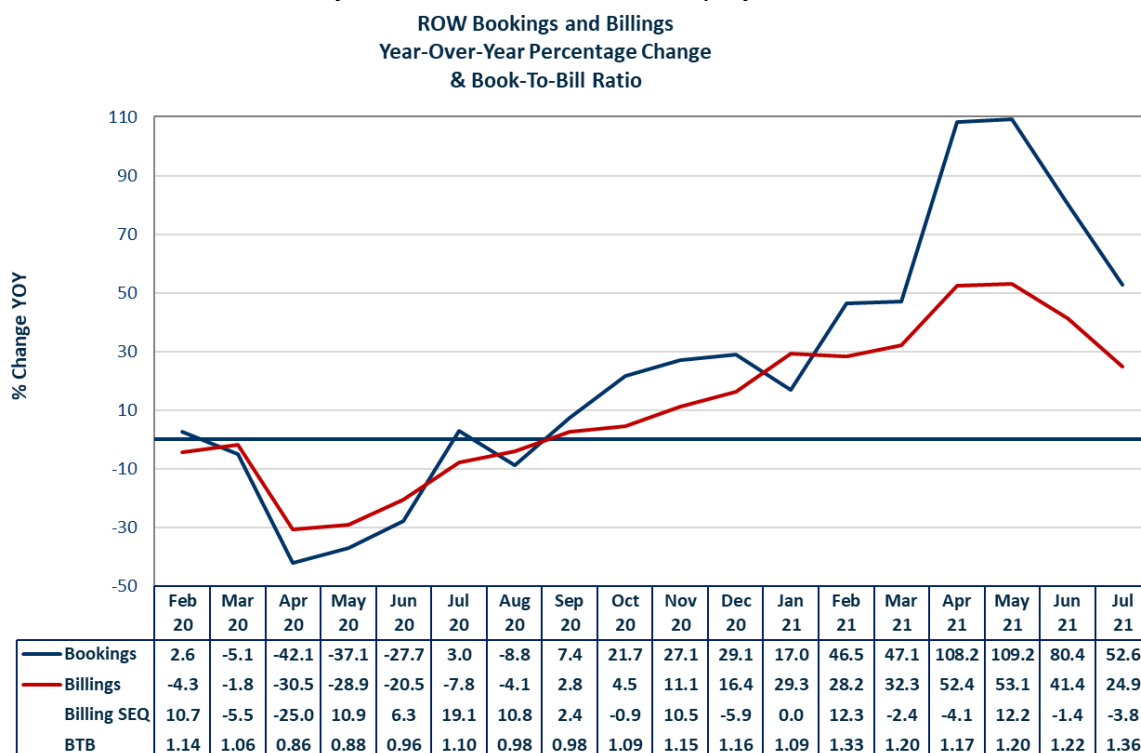
Asia Pacific Performance

- Orders were up +35.8% in July and sales rose +21.2% YOY. The book-to-bill ratio was 1.14. Sequentially, sales decreased -5.0%.
- India's industrial production grew 13.6% YOY in June. Exports were up 9.2% sequentially in July. Exports to the US comprise 15% of their total. The June manufacturing PMI rose to 55.3 in July from 48.1 in June. Inflation in July was 5.59%.
- South Korea's industrial production grew 11.9% YOY in June. Exports increased 29.6% YOY in July. Exports to the US and the EU were up 32% and 44%, respectively. Exports of semiconductor chips rose 39.6% and automobiles 12.3%.

Conclusions

India is doing better than expected with industrial production and exports given their current surge of COVID-19, which should help their connector sales. South Korea's GDP continues to grow sequentially. Their strong economy indicates a positive outlook for connector sales.

Rest of World: The following chart displays the year-over-year percentage change in bookings and billings for the last 18 months. The monthly book-to-bill ratio is also displayed.



Rest of World Performance

- Orders and sales increased +52.6% and +24.9% YOY, respectively, in July. Sequentially, sales in the region decreased -3.8%. The book-to-bill ratio rose to 1.36.
- Brazil's industrial production increased 12.0% YOY in June. The inflation rate rose to 8.99% in July accelerating for the 14th consecutive month. The manufacturing PMI increased to 56.7 in July from 56.4 the prior month.
- Russia's industrial production increased 6.8% YOY in July. Exports increased 26.0% sequentially in June. The inflation rate remained at 6.5% YOY in July. The unemployment rate declined to 4.8% in June from 4.9% in May.

Conclusions

Both Brazil and Russia continue to have growth in their connector industries, which are outperforming their national economies. Both countries will achieve connector industry growth in 2021.

The ROW connector industry sales have grown in double digits for the last nine months primarily from easy comparison to 2020.

2021 YTD Currency Impact on Regional Industry Growth

The dollar has been weakening against the euro, the yen, and the yuan. The following table measures the impact for July 2020 versus July 2021 and shows results for these three currencies.

Local Currency to One USD July 2020 versus July 2021

Currency	2020	2021	% Change
Euro	0.8772	0.8455	3.7%
Yen	106.8365	110.3065	-3.1%
Yuan	7.0145	6.4759	8.3%

Europe, China, and Japan account for approximately 60% of world connector sales. Currency fluctuation to the US dollar can have a significant impact on our reporting of sales performance in US dollars.

The following table shows July year-over-year sales performance by region in US dollars and local currencies.

Industry Sales Performance July 2021 USD-vs-Local Currencies

Region	U.S.\$	Local Currency
North America	24.5%	24.5%
Europe	38.6%	33.4%
Japan	23.2%	27.0%
China	30.0%	19.2%
Asia Pacific	30.1%	30.1%
ROW	36.7%	36.7%
World	30.6%	26.7%

World connector sales are 3.9 percentage points lower when stated in local currencies rather than in US dollars, putting industry performance at +26.7% in July. (versus +30.6% in US dollars). This is the result of the continued weakness of the US dollar compared to these currencies.

2020 Top 10 Connector Companies: Global Sales

This information is excerpted from Bishop & Associates' 2021 [Top 100 Connector Manufacturers](#) connector industry research report.

In the table, Bishop has identified the top 10 largest connector manufacturers by global 2020 sales compared to global 2019 sales.

Top 10 Connector Companies Ranked by Global Sales (2019–2020)

2020 Rank	Manufacturer	2019 Sales	2020 Sales	Percent Change
1	TE Connectivity	\$9,916.0	\$9,692.0	-2.3%
2	Amphenol	\$7,339.7	\$7,464.7	1.7%
3	Molex	\$5,301.0	\$5,213.9	-1.6%
4	Luxshare Precision	\$2,974.6	\$3,197.0	7.5%
5	Aptiv (FKA Delphi Connection)	\$3,373.2	\$3,118.2	-7.6%
6	Foxconn (FIT)	\$3,092.3	\$3,052.5	-1.3%
7	Yazaki	\$2,471.0	\$2,197.0	-11.1%
8	JAE	\$1,628.0	\$1,678.0	3.1%
9	J.S.T.	\$1,350.0	\$1,287.0	-4.7%
10	Hirose Electric	\$1,083.0	\$1,220.0	12.7%
Total Top 10		\$38,528.8	\$38,120.3	-1.1%
Total All Other		\$25,640.3	\$24,606.4	-4.0%
Total World		\$64,169.1	\$62,726.7	-2.2%

\$ Millions

2020 Top 10 Connector Companies: Regional Sales

In the table below we identify the top 10 connector companies by sales in each of several geographic regions. In 2020, 26 companies made this list, which represents a one-company addition from 2019, when 25 companies made this list.

2020 Top 10 Connector Companies Ranked by Regional Sales

2020 Rank	North America	Europe	Japan	China	Asia Pacific	ROW
1	TE Connectivity	TE Connectivity	TE Connectivity	Luxshare Precision	Amphenol	Amphenol
2	Molex	Amphenol	J.S.T.	Amphenol	TE Connectivity	TE Connectivity
3	Amphenol	Molex	Yazaki	TE Connectivity	Yazaki	Yazaki
4	Aptiv	Aptiv	JAE	Foxconn (FIT)	Foxconn (FIT)	Sumitomo
5	Yazaki	Rosenberger	Molex	Molex	Molex	Aptiv
6	Samtec	HARTING	Hirose	JONHON	Hirose	Rosenberger
7	Rosenberger	Yazaki	Sumitomo	JAE	LOTES	Korea Electric
8	Carlisle	Phoenix Contact	Amphenol	Aptiv	JAE	Foxconn (FIT)
9	CommScope	Samtec	Hosiden	Shenzhen Deren	Korea Electric	Fujikura/DDK
10	Glenair	Weidmüller	IRISO	Hirose	Sumitomo	Luxshare Precision

Top 10 Connector Companies: Market Sector

The following table identifies the top 10 connector companies in 11 market sectors.

2020 Top 10 Connector Companies Ranked by Market Sector

Rank	Computers and Peripherals	Business Retail Education	Instruments	Medical Equipment	Industrial Equipment	Automotive Equipment
1	Foxconn (FIT)	Molex	Luxshare	TE Connectivity	Amphenol	TE Connectivity
2	Molex	TE Connectivity	Molex	Molex	TE Connectivity	Yazaki
3	Luxshare	J.S.T.	TE	Amphenol	Molex	Aptiv
4	LOTES	Foxconn (FIT)	Rosenberger	Luxshare	HARTING	Rosenberger
5	Amphenol	AVX/Kyocera	Hosiden	Samtec	Phoenix Contact	JAE
6	Shenzhen Deren	Luxshare	Samtec	ODU	Hirose	J.S.T.
7	Foxlink	Fujikura/DDK	Foxconn (FIT)	LEMO	J.S.T.	Sumitomo
8	JAE	Hirose	LEMO	Fujikura/DDK	Belden	Amphenol
9	I-PEX	Sumitomo	Amphenol	BizLink	Weidmüller	IRISO
10	Samtec	LOTES	BizLink	Radiall	Samtec	Korea Electric

Rank	Transportation Equipment	Military Electronics	Telecom Datacom Equipment	Consumer Electronics	Other Electronics Equipment
1	Aptiv	Amphenol	Amphenol	TE Connectivity	Aptiv
2	TE Connectivity	JONHON	Molex	Molex	TE Connectivity
3	Amphenol	Glenair	Luxshare	J.S.T.	Molex
4	Molex	Carlisle	JAE	Hirose	Sumitomo
5	Yazaki	Eaton/Souriau	Foxconn (FIT)	BizLink	Amphenol
6	Carlisle	Cannon	Rosenberger	Luxshare	Foxconn (FIT)
7	Sumitomo	Radiall	TE Connectivity	Foxconn (FIT)	JAE
8	Eaton/Souriau	TE Connectivity	Hirose	Amphenol	Korea Electric
9	Korea Electric	Aptiv	CommScope	CommScope	Hosiden
10	Cannon	Samtec	JONHON	Hosiden	Luxshare

When market sector sales are used as the definition of success, 36 companies achieved a top 10 ranking in 2020, down from 39 in 2019.

Top 10 Connector Companies: Connector Product Type

The following table identifies the 10 largest connector manufacturers in 12 major product categories.

2020 Top 10 Connector Companies Ranked by Product Type

Rank	PCB	I/O Rectangular	IC Sockets	RF	Circular	Telephone/ Telecom
1	TE Connectivity	TE Connectivity	LOTES	Rosenberger	Amphenol	Molex
2	Molex	Luxshare	TE Connectivity	Amphenol	TE Connectivity	Luxshare
3	Amphenol	Foxconn (FIT)	Foxconn (FIT)	Luxshare	LEMO	Amphenol
4	Foxconn (FIT)	Molex	Molex	TE Connectivity	JONHON	TE Connectivity
5	Luxshare	JAЕ	Yamachi	HUBER+SUHNER	Carlisle	Foxconn (FIT)
6	Hirose	Amphenol	<i>Enplas*</i>	CommScope	Belden	CommScope
7	J.S.T.	J.S.T.	Amphenol	JONHON	Eaton/Souriau	Yamachi
8	Samtec	Aptiv	<i>Sensata*</i>	Radiall	Glenair	Foxlink
9	JAЕ	JONHON	Foxlink	Hirose	Aptiv	<i>Telegartner*</i>
10	Shenzhen Deren	Yazaki	Shenzhen Deren	I-PEX	Cannon	Belden

Rank	Fiber Optic	Terminal Blocks	Heavy Duty	Power/ High Voltage	Application Specific	Other
1	TE Connectivity	Phoenix Contact	HARTING	Amphenol	Aptiv	JAЕ
2	Foxconn (FIT)	WAGO	Amphenol	Molex	TE Connectivity	TE Connectivity
3	Amphenol	Weidmüller	TE Connectivity	TE Connectivity	Yazaki	Amphenol
4	Molex	TE Connectivity	Molex	Aptiv	Amphenol	Molex
5	Corning	Amphenol	JONHON	Rosenberger	Molex	Yazaki
6	CommScope	Molex	Eaton/Souriau	J.S.T.	Sumitomo	Yokowo
7	JONHON	<i>Wieland*</i>	J.S.T.	Yazaki	BizLink	JONHON
8	Rosenberger	<i>Lumberg*</i>	Phoenix Contact	JONHON	Korea Electric	Aptiv
9	Aptiv	<i>Metz Connect*</i>	Aptiv	Luxshare	Kostal Kontakt	<i>C.C.P Contact*</i>
10	HUBER+SUHNER	AVX/Kyocera	ODU	AVX/Kyocera	Samtec	Radiall

**Denotes company appearing in top 100, but not top 50*

When success is defined by sales in each of 12 major product categories manufactured, 48 companies achieved a top 10 ranking in 2020, up from 44 in 2019.

Connector Companies That Earned Top 10 Status in 2020

The following table identifies the 48 companies that achieved a top 10 ranking in 2020 using global sales by regions, markets, and products as the defining factors. Note, this is down from 2019 when 50 companies achieved a top 10 ranking. The table also notes the number of top 10 mentions earned under each of the three definitions.

Connector Companies with Top 10 Rankings in 2020

World Rank	Company Name	Regions	Products	Markets	Total
1	TE Connectivity	6	12	10	28
2	Amphenol	6	12	10	28
3	Molex	5	10	9	24
4	Luxshare Precision	2	5	7	14
5	Aptiv (FKA Delphi Connection)	4	7	4	15
6	Foxconn (FIT)	3	5	6	14
7	Yazaki	5	3	2	10
8	JAE	3	3	4	10
9	J.S.T.	1	4	4	9
10	Hirose Electric	3	2	4	9
11	Rosenberger	3	3	3	9
12	JONHON	1	7	2	10
13	Sumitomo	3	1	4	8
14	Samtec	2	2	5	9
15	HARTING	1	2	1	4
16	Shenzhen Deren Electr. Co., Ltd.	1	2	1	4
17	Phoenix Contact	1	2	1	4
18	OTES Co. Ltd.	1	1	2	4
19	BizLink Technology Inc.	0	1	3	4
20	Fujikura/DDK Ltd.	1	0	2	3
21	Korea Electric Terminal Co., Ltd.	2	1	3	6
22	Hosiden	1	0	3	4
23	CommScope	1	3	2	6
24	AVX/Kyocera	0	2	1	3
25	Eaton/Souriau	0	2	2	4
26	Radiall	0	2	2	4
27	Carlisle Interconnect	1	1	2	4
28	HUBER+SUHNER	0	2	0	2
29	Belden, Inc.	0	2	1	3
30	IRISO Electronics	1	0	1	2
31	Glenair	1	1	1	3
32	Kostal Kontakt Systeme GmbH	0	1	0	1
33	ITT Interconnect	0	1	2	3
34	I-PEX	0	1	1	2
35	Corning Inc.	0	1	0	1
36	LEMO S.A.	0	1	2	3
37	WAGO	0	1	0	1
38	Weidmüller Interface GmbH & Co. KG	1	1	1	3
39	Yamaichi	0	2	0	2
40	ODU GmbH & Co. KG	0	1	1	2
41	Bel Connectivity	0	0	0	0
42	Smiths Interconnect	0	0	0	0
43	3M Electronic Solutions Division	0	0	0	0
44	Foxlink	0	2	1	3
45	SMK	0	0	0	0
46	ERNI Electronics GmbH	0	0	0	0
47	Lear Corporation	0	0	0	0
48	Yokowo Company., Ltd	0	1	0	1
49	Aces Electronic Co., Ltd	0	0	0	0
50	ept GmbH & Co.	0	0	0	0
54	Lumberg Connect GmbH	0	1	0	1
61	Telegärtner	0	1	0	1
62	Enplas	0	1	0	1
67	Wieland	0	1	0	1
86	C.C.P. Contact Probe	0	1	0	1
87	Sensata Technologies	0	1	0	1
94	METZ Connect/RIA Connect	0	1	0	1
Number of Companies		26	46	36	48

Significant Events

DesignCon 2021

DesignCon 2021 was unlike any of the previous 25 years' events. The continuing prevalence of COVID-19 resulted in the rescheduling of the conference from its traditional late-January dates to August 16-18. The event also relocated from the traditional setting at the Santa Clara Convention Center to the cavernous McEnery Convention Center in downtown San Jose. [Click here to read Bob Hult's review of DesignCon 2021 exhibits, presentations, and new product introductions.](#)

TPC Wire & Cable Acquires The First Electronics Corporation (FEC)

TPC Wire & Cable (TPC), a portfolio company of Audax Private Equity, announced that it has completed the acquisition of The First Electronics Corporation (FEC), a leading supplier of manufactured custom cable assemblies for Military and Defense applications. Founded in 1955 and based in Boston, Massachusetts, FEC has grown to be the leading supplier of electrical wiring harnesses, specializing in the production of over-molded, extra-flexible, multi-conductor, EMI-shielded cable assemblies and harnesses, and electro-mechanical assemblies custom-built for military applications.

TPC recently formed its Engineered Products Division to expand its coverage of high-reliability end markets like Space, Aerospace & Defense, Semiconductor, Subsea, Renewables, and Medical Devices amongst others. The partnership with FEC enhances TPC's solutions offering to these end-markets by expanding its portfolio of specialized wire and cable solutions for high-reliability, mission critical applications.

Omnetics Moves to New Manufacturing Facility

Omnetics is moving to a new state-of-the-art manufacturing facility. The new facility will double Omnetics space from 55,000 to 124,000 square feet enabling the company to expand capacity and capabilities to better serve customers. The new address is 8840 Evergreen Blvd, Minneapolis, MN 55433, USA.

US Inflation Continues

Prices of major appliances, including refrigerators, rose 12.3% in July compared to the year before, the Labor Department reported Wednesday, noting that its consumer price index (CPI) rose 5.4% year over year last month, matching the prior month's gain as the fastest since August 2008. According to CPI data, the price for appliances overall rose 4.9% in July compared to 2020 and laundry equipment increased by 17.9%.

Global Tablet Shipments Slip in 2Q21, But Will Grow 30% in 3Q21

Global tablet shipments reached 34.69 million units in the second quarter of 2021, down 3.5% sequentially and 12.5% on year, according to Digitimes Research.

The Chip Shortage is Getting Worse

It's clear that the global chip shortage shows no sign of abating anytime soon and seems to be getting worse. While the White House is racing to expand chip manufacturing in the US to avoid future shortages, it could be years before that government investment actually pays off for consumers. Companies see the chip shortage as an industry-wide problem that could go unresolved until at least next year and quite possibly into 2023. As the chip shortage continues to rattle car and laptop makers, consumers are all but certain to feel the consequences, possibly in price hikes as high as 10 to 15 percent.

China Recovery Loses Steam as Factory Output and Retail Sales Slow

China's factory output and retail sales growth slowed sharply and missed expectations in July, as new COVID-19 outbreaks and floods disrupted business operations, adding to signs the economic recovery is losing momentum. Industrial production in the world's second largest economy increased 6.4% year-on-year in July, data from the National Bureau of Statistics (NBS) showed on Monday. China's economy has rebounded to its pre-pandemic growth levels, but the expansion is losing steam as businesses grapple with higher costs and supply bottlenecks. New COVID-19 infections in July also led to fresh restrictions, disrupting the country's factory output already hit by severe weather this summer. Data earlier this month also showed export growth, which has been a key driver of China's impressive rebound from the COVID-19 slump in early 2020, unexpectedly slowed in July.

Hon Hai Sees Flat Sales for This Quarter

Hon Hai Precision Industry Co said sales for the third quarter might be flat from the second quarter, after reporting better-than-expected profit for last quarter. Hon Hai chairman Young Liu projected revenue for the company would be flat sequentially this quarter but would increase by 3 to 15 percent year-on-year, amid a possible resurgence of COVID-19 in Asia and uncertainty over the Delta variant of SARS-CoV-2. Sales at the company's consumer electronics business, which includes Apple Inc's iPhone, are projected to decline this quarter compared with the previous three months, Hon Hai said.

Liu said that high comparison numbers in the previous quarter, as well as product transitioning, would result in a slight sequential sales decline in the consumer electronics unit, but total revenue would be little changed sequentially.

The company recently announced that it would acquire a mature 6-inch wafer plant from Macronix International Co. In May, the company said it was to set up a joint chip venture with Yageo Corp/

Hon Hai is also targeting electric vehicles (EV) to diversify its business beyond making products for Apple, which accounts for about 50 percent of its revenue. Although only a small part of the company's revenue, automotive component sales are to break NT\$10 billion this year. Hon Hai plans to roll out its first electric bus next year, he said, adding that the first Hon Hai electric sedan is to begin production in 2023.

Worldwide Shipments of PCs and Tablets Will Maintain Growth Through 2021 But Future Opportunity Leans Towards Notebook PCs

According to a new forecast from the International Data worldwide shipments of PCs are expected to grow 14.2% to 347 million units in 2021. This is down from IDC's May forecast of 18% growth with continued supply chain and logistical challenges cited as the main reasons. The Tablet market is also expected to grow in 2021 but at a much slower pace of 3.4%. Over the full 2021-2025 forecast period, Traditional PCs, inclusive of desktops, notebooks, and workstations, are expected to have a compound annual growth rate (CAGR) of 3.2% while tablets are expected to decline 1.5%. Despite short-term supply constraints related to panels and ICs, notebook PCs will remain the main driver of future PC growth.

Wistron to Link with India's Optimus

The partnership is key to the Taiwanese firm's business ambitions in India, which have so far rested largely on Apple Inc, Wistron's key client in the nation Taiwan's Wistron Corp is partnering with India's Optimus Electronics to build products such as smartphones and laptops, a boost to Indian Prime Minister Narendra Modi's push to make the nation an electronics manufacturing hub. As part of the deal with contract manufacturer Wistron, Optimus is to invest about US\$200 million to ramp up electronics manufacturing in the next three to five years, the two companies said. The partnership is expected to yield revenues of 380 billion rupees (US\$5.12 billion) over five years for Optimus, the company said, adding that it plans to hire about 11,000 workers for its two plants on the outskirts of New Delhi.

Hon Hai, Stellantis Agree to US\$80 million Joint Venture Deal

Taiwan-based manufacturing giant Hon Hai Precision Industry Co. and multinational auto manufacturer Stellantis NV will set up an US\$80 million joint venture, with the deal expected to be signed as early as Oct. 31. Hon Hai's partnership with Stellantis is aimed at providing smart cockpit solutions for vehicles and gaining a foothold in the Internet of Vehicles (IoV) market by offering entertainment, communications and cloud technology-based applications, the company said. In addition, the joint venture is expected to provide solutions for voice recognition, e-commerce, and e-payment for vehicle use, Hon Hai said.

'An iPhone with four wheels': Inside Foxconn's Bid to Build EVs

Foxconn, the world's largest contract consumer electronics manufacturer and the biggest supplier to Apple, has long dreamed of building cars.

"If we can make iPhones, why can't we make EVs? It is an iPhone with four wheels," founder and former chairman Terry Gou told internal meetings more than once, according to people at the meetings.

Young Liu, who took over from Gou two years ago, has vowed to have Foxconn's designs, components, mechanical parts, or software inside 5% of global EVs by 2025. But the company has bigger ambitions. It has announced plans to build factories in the U.S. and Thailand that will assemble whole vehicles and is looking for locations to build cars in Europe, too.

The developments come against a backdrop of declining profits from consumer electronics. Foxconn's sales grew just 0.3% last year, and net profit has been shrinking since 2017. EVs are crucial if the company is to boost its gross margin from the current 6% to 10% as targeted. Optimism over its EV push spurred Foxconn's shares to a four-year high in March and they are still up more than 15% since the start of the year. The stakes are high if its EV ambitions stall again.

Foxconn's subsidiaries already supply electronics to many traditional and electric carmakers, from Tesla to BMW, with products ranging from dashboard displays to printed circuit boards plus a host of mechanical and plastic parts. To expand its product set and gather broader know-how, Liu has signed a rash of supply deals and technology development partnerships in the past year and a half. A joint venture with Stellantis, owner of Fiat and Chrysler and the world's fourth-largest automaker, is developing cockpit software for connected cars. A joint venture with Geely of China, launched in January, aims to sell manufacturing and consulting services related to intelligent drive systems, software platforms and even whole vehicles.

Foxconn Enters Chip Production with Macronix Deal

Foxconn, the world's largest assembler of consumer devices such as Apple's iPhone, is entering semiconductor production as part of a plan to expand into electric vehicles.

Foxconn recently announced it will acquire a 6-inch silicon wafer plant and equipment from Taiwan-based Macronix International for NT\$2.52 billion (\$90 million). For Foxconn, it's a first step toward chip production. The company plans to use the fab as part of a plan to ramp up manufacturing of high-growth products such as EVs and electronics equipment used for healthcare. Foxconn's MIH Alliance for EVs has so far attracted more than 1,200 partner companies providing hardware and software. Together, the partners plan to launch an EV kit in October, and a prototype electric bus in 2022.

Elon Musk says SpaceX has Shipped 100,000 Starlink Terminals

Elon Musk said in a series of tweets on Monday that his aerospace venture, SpaceX, has shipped 100,000 Starlink terminals so far, and is now serving 14 countries with license applications pending in others. The tweets imply that Starlink added 10,000 subscribers in about 3 weeks. In late July, the company said it had about 90,000 users of its internet service/

Starlink is an initiative of SpaceX to create a network of tens of thousands of satellites, known in the space industry as a constellation, to deliver high-speed internet to customers anywhere on Earth. SpaceX rolled out its Starlink beta internet service at the end of 2020 with a program that allowed some customers to try it for \$99 a month, not including up-front costs for shipping, taxes, installation and equipment like roof mounts to hold the terminals in place. A Starlink Kit includes a satellite antenna dish, a stand, a power supply, and WiFi router. More recently, SpaceX has indicated it plans to expand the service to work for in-flight internet, or on moving ships and in trucks.

The initiative has been a capital-intensive one for SpaceX already. In 2018, Shotwell predicted it would cost SpaceX about \$10 billion or more to build the Starlink network. Last week, federal filings revealed that SpaceX intends to use its Starship rocket as a primary vehicle to deliver its Starlink Gen2 satellites to orbit. SpaceX has already launched 1,740 satellites as part of Starlink, and is aiming for its Gen2 Starlink system to add around 30,000 internet satellites.

Preorders for Samsung's New Foldable Smartphones Top 800,000 Units

Preorders for Samsung Electronics Co.'s new foldable smartphones have topped 800,000 units in South Korea according to industry sources as the tech giant eyes to mainstream the foldable category with lower prices. An estimated 600,000 units of the Galaxy Z Fold3 and the Galaxy Z Flip3 were preordered through local mobile carriers, while some 200,000 units of unlocked third-generation Galaxy Z foldable devices were purchased by consumers during the one-week preorder period that ended Monday, the sources said. Preorders for the latest Galaxy Z series are 10 times larger than those of the Galaxy Z Fold2. Samsung has sharply lowered prices for its latest Galaxy Z series, which was unveiled on Aug. 11, cutting as much as 400,000 won (US\$340) compared with predecessors, so it can popularize the foldable category. The Z Fold3, which is Samsung's first foldable smartphone supporting its S Pen stylus with an under-display camera, sells for 1.99 million won here. The Z Flip3, whose cover display is four times larger than the previous model, is priced at 1.25 million won. Of the two new foldable models, more consumers opted to buy the clamshell-type Z Flip3 over the Z Fold3. The Z Flip3 reportedly accounted for 60 percent of total preorders.

Xiaomi is Now the World's Largest Smartphone Vendor

According to Counterpoint Research, Xiaomi has become the number one brand in global monthly smartphone sales (sell-through) volumes. It took a 17.1% share of the market in June, outselling both Samsung (15.7%) and Apple (14.3%). 2021 has been Xiaomi's year. The company recently became the largest smartphone vendor in Europe and, in the second quarter, replaced Apple as the world's number two. Now, it sits at the top of the pile above Samsung. Xiaomi's rise has been aided by a huge presence in its home market of China, the world's largest smartphone market, and India—the second biggest. It also has 58 phones listed on its website, ranging from budget models to flagships. Counterpoint believes Xiaomi's position at the top may be short-lived. A wave of Covid infections in Vietnam in June disrupted Samsung's production, resulting in shortages. The Korean firm could move back into the number one position once it recovers.

Lenovo Sees Pandemic-driven PC Demand Persisting as Profit Jumps

China's Lenovo Group Ltd said it expects strong demand for personal computers to continue until at least 2025 as the pandemic permanently changes how people live and work, after it reported a more than doubling in first-quarter profit. The world's biggest maker of personal computers (PC) said it was not seeing a slowdown in pandemic-driven demand, as some analysts have predicted, because many people continue to work from home while companies are purchasing more PCs as they re-open offices. Shares in the company rose by as much as 9.7% after the company posted an almost 120% jump in first-quarter profit to \$466 million, and were on course for their biggest daily percentage gain since March 30.

TOP 100 CONNECTOR MANUFACTURERS



Bishop & Associates has just released a new ten-chapter research report providing a comprehensive analysis of the world's Top 100 Electronic Connector Manufacturers. This new report furnishes detailed statistics that benchmark the leading connector manufacturers by 2019/2020 total sales, sales by end-use equipment market, sales by product category, and many other key industry measurements. All

manufacturers are exhibited by 2020 sales and are ranked by region of the world with percent year-to-year change. This report provides all the key data needed to analyze the sales performance of each of the top 100 worldwide electronic connector suppliers.

The world's top 100 connector manufacturers recorded 2020 shipments of \$58.756 billion. This represented 93.7% of the worldwide connector market, up from 93.1% in 2019. The balance of the connector industry had 2020 shipments of \$4.435 billion and represented 6.3% of the total market.

Over the last decade, we have identified more than 750 connector manufacturers. Over time, many of these have been acquired by larger companies. In fact, if you were to review the list of top 100 connector companies in 2000 with the list of the top 100 connector companies in 2020, you would see that approximately 45% of the companies listed in 2000 were acquired by other companies. Many connector companies offer highly focused product offerings, or support niche markets or specific regions. We continue to discover additional connector companies, especially in China and other developing countries, as well as non-connector companies who are expanding their current product offering to include interconnect, or who are developing application specific connectors to support their other products.

The following table shows percent of sales for the top 100 connector manufacturers, and all other connector manufacturers by geographic region.

Top 100 by Geographic Region - 2020 Sales

Region	1 - 100 Sales	All Other Sales	Total World
North America	XX.X%	X.X%	XX.X%
Europe	XX.X%	X.X%	XX.X%
Japan	X.X%	X.X%	X.X%
China	XX.X%	X.X%	XX.X%
Asia Pacific	XX.X%	X.X%	XX.X%
ROW	X.X%	X.X%	X.X%
Total World	93.7%	6.3%	100.0%

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