

# 6616 TOREX SEMICONDUCTOR

Sponsored Research  
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## Revised FY3/21 guidance reverses to YoY gains

3Q-only GPM/OPM approached pre-US/China trade war levels

### SUMMARY

- The company revised full-term FY3/21 guidance at 16:30 on Friday 2/12, announcing 3Q results and its new 5-year MTP at 16:00 on Monday 2/15. A summary of 3Q results and revised guidance is shown in the table below. Despite the negative impact from COVID-19 on mainly automotive equipment demand and high base for comparison seen in 2Q results with 1H cumulative OP of ¥260mn (-21.0% YoY), the company posted 9-months cumulative 3Q OP of ¥693mn (+29.7%). Based on stronger-than-expected 3Q results, the company revised up full-term FY3/21 by 80% from ¥500mn (-26.3%) → ¥900mn (+32.7%), reversing to a forecast for YoY profit gains.
- Phenitex continued to see significant recovery of industrial equipment in North America and consumer electronics in greater China. The strong recovery in orders supported higher utilization rates, boosting margins. Torex the parent recorded a decline in sales due to disappearance of special automotive demand last term associated with China's nationwide rollout of ETC, however achieved increased profits helped by effective cost control. As can be seen in the table on P3, a key takeaway from 3Q results is that 3Q-only GPM and OPM approached levels prior to the US-China tariff war which escalated from summer 2018.
- Strong Oct-Dec results was not an isolated event specific to Torex. Global no. 1 supplier of analog devices Texas Instruments (TXN) posted a blowout 4Q, with sales +22% and OP +45%, citing strong demand in personal electronics and industrial equipment, and recovery underway in automotive. Japan exports to China, one indicator we have found to be a reliable proxy for the health of the global electronics supply chain, has posted consistent YoY gains since last July. Any concern

### 3Q 3/21 Results and Full-Term FY3/21 Revision Summary

[J-GAAP]	1Q 3/21	2Q 3/21	3Q 3/21	4Q 3/21	FY3/21	FY3/21	CHG AMT	CHG PCT
JPY mn, %	act	act	act	CE	revised	last CE	vs. last	vs. last
Net sales	5,858	5,551	5,762	6,329	23,500	23,000	500	2.2
GP	1,325	1,211	1,607	—	—	—	—	—
GPM %	22.6%	21.8%	27.9%	—	—	—	—	—
OP	195	65	433	206	900	500	400	80.0
OPM %	3.3%	1.2%	7.5%	3.3%	3.8%	2.2%	—	—
Ord. profit	180	(2)	348	174	700	400	300	75.0
Profit ATOP	169	(11)	231	112	500	340	160	47.1
YoY %	1Q 3/21	2Q 3/21	3Q 3/21	4Q 3/21	FY3/21	FY3/21		
Net sales	22.1	0.3	2.9	13.6	9.3	7.0		
GP	4.4	(14.8)	11.1	—	—	—		
OP	148.9	(74.1)	111.6	43.9	32.7	(26.3)		
Ord. profit	1,470.3	TR	45.2	10.3	3.5	(40.8)		
Profit ATOP	1,301.2	TR	73.1	(11.7)	19.8	(18.6)		

Source: compiled by Sessa Partners from TANSBIN financial statements and 2.12 revision press release

### 3Q Follow-up

# TOIREX

#### Focus Points:

Power management IC specialist with attractive growth profile from new applications driven by 5G, IoT-connected devices and the electrification of cars.

#### Key Indicators

Share price (3/24)	1,628
YH (20/1/14)	1,743
YL (20/3/13)	855
10YH (14/11/6)	3,187.5
10YL (14/5/20)	725.8
Shrs out. (mn shrs)	11.55
Mkt cap (¥ bn)	18.81
EV (¥ bn)	15.30
Shr eqty ratio (12/31)	61.8%
21.3 P/E (CE)	35.6x
21.3 EV/EBITDA (CE)	7.1x
20.3 ROE (act)	2.18%
20.12 P/B (act)	0.96x
21.3 DY (CE)	1.97%

#### 1Y weekly share price



Source: SPEEDA

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## TOREX SEMICONDUCTOR Consolidated Earnings Trend and FY3/21 Revised Full-term Guidance

[J-GAAP] JPY mn, %	FY3/16 act	FY3/17 act	FY3/18 act	FY3/19 act	FY3/20 act	9M 3/21 act	FY3/21 rev'd CE	FY3/21 last CE	CHG AMT vs last CE	CHG PCT vs last CE
Net sales	10,621	21,560	23,997	23,897	21,501	17,171	23,500	23,000	500	2.2
YoY	6.5	103.0	11.3	(0.4)	(10.0)	7.8	9.3	7.0		
Gross profit	5,063	5,900	7,177	6,494	5,452	4,142	—	—		
GPM	47.7%	27.4%	29.9%	27.2%	25.4%	24.1%				
SG&A expenses	3,923	4,649	4,964	4,943	4,774	3,449	—	—		
Ratio to sales	36.9%	21.6%	20.7%	20.7%	22.2%	20.1%				
Depreciation	442	1,219	934	1,085	1,312	860	1,252	1,325	(73)	(5.5)
EBITDA	1,582	2,470	3,147	2,636	1,990	1,554	2,152	1,825	327	17.9
YoY	(9.9)	56.2	27.4	(16.2)	(24.5)	10.2	8.1	(8.3)		
EBITDA margin	14.9%	11.5%	13.1%	11.0%	9.3%	9.0%	9.2%	7.9%		
Operating profit	1,140	1,251	2,212	1,551	678	694	900	500	400	80.0
YoY	(15.6)	9.8	76.8	(29.9)	(56.3)	29.7	32.7	(26.3)		
OPM	10.7%	5.8%	9.2%	6.5%	3.2%	4.0%	3.8%	2.2%		
Ordinary profit	971	906	1,998	1,820	676	526	700	400	300	75.0
YoY	(42.2)	(6.7)	120.6	(8.9)	(62.9)	1.4	3.5	(40.8)		
Profit ATOP	580	2,931	902	1,049	418	388	500	340	160	47.1
YoY	(53.5)	404.9	(69.2)	16.3	(60.2)	33.5	19.8	(18.6)		
EPS (¥)	54.59	308.77	99.44	95.89	38.03	35.53	45.76	31.14	14.62	
DPS (¥)	32.00	32.00	34.00	38.00	40.00	16.00	32.00	32.00	0.00	
BPS (¥)	1,022.30	1,267.65	1,338.74	1,717.90	1,712.30	1,701.46	—	—		
Overseas sales ratio	70.6%	71.9%	71.0%	71.8%	67.2%	67.3%	—	—		
Avg. forex rate (USD)	¥120.1	¥108.9	¥110.8	¥110.7	¥109.1	¥105.9	¥105.0	¥106.0	-¥1.0	
Capex	602	988	1,149	3,323	1,497	860	1,476	1,776	(300)	
R&D	204	229	406	357	403	—	—	—		
Cash and deposits	6,617	7,769	10,835	10,982	9,281	11,168	—	—		
Interest bearing debt	3	6,094	4,980	4,671	4,649	7,659	—	—		
ST loans	3	2,423	2,483	1,903	2,902	2,902	—	—		
LT loans < 1Y	—	1,174	1,103	1,021	605	1,120	—	—		
LT loans	—	2,496	1,394	1,748	1,143	3,638	—	—		
Net cash (net debt)	6,613	1,675	5,855	6,311	4,632	3,509	—	—		
Net assets	10,929	15,598	19,085	19,638	18,672	18,614	—	—		
Non-controlling int.	43	4,165	4,582	44	—	—	—	—		
Shr Eqty + Accum OCI	10,886	11,432	14,503	19,594	18,672	18,614	—	—		
Total assets	12,973	25,210	27,995	28,386	27,847	30,134	—	—		
Equity ratio (%)	83.9	45.3	51.8	69.0	67.1	61.8	—	—		
ROE (%)	5.3	26.3	7.0	6.2	2.2	—	—	—		
Amt dividends paid	340	305	341	425	438	—	—	—		
Consol. payout (%)	58.6	10.7	34.2	39.6	105.2	—	—	102.6		
DOE (%)	3.1	2.7	2.6	2.5	2.3	—	—	1.8		

NOTE: by Japanese accounting convention, figures reported in thousand yen are truncated (cut off) when displayed in million yen, however YoY percentages and various financial ratios are calculated based on thousand yen. In order to preserve accuracy of YoY percentages and ratios, figures here are input in thousand yen and displayed rounded off to the nearest million yen. SOURCE: compiled by Sessa Partners from company TANSBIN financial statements.

- about supply chain inventory build following reports of double-booking last spring due to special demand from COVID-19 (teleworking etc.) appear to be in the rearview mirror. While the company's share price has recovered sharply from the lows last spring, it is still below the level prior to the US-China tariff war in 2018. Given the cyclical nature of the company's business, the current P/E of 35.6x and EV/EBITDA of 7.1x do not capture the nature of a full-fledged recovery scenario, in our opinion. The old adage that you buy a steel stock on 100x P/E and sell it on 10x P/E comes to mind. We believe the P/B ratio of 0.96x for a B/S with a strong net cash position and proven commitment to enhancing shareholder rebates remains undervalued. Thematic drivers include 5G/IoT and camera/sensor applications for automotive equipment and security systems.

TOREX SEMICONDUCTOR Quarterly Consolidated Earnings Trend

JPY mn, %	1Q 3/19	2Q 3/19	3Q 3/19	4Q 3/19	1Q 3/20	2Q 3/20	3Q 3/20	4Q 3/20	1Q 3/21	2Q 3/21	3Q 3/21
	act	act	act	act	act	act	act	act	act	act	act
<b>Net sales</b>	<b>6,203</b>	<b>6,266</b>	<b>6,074</b>	<b>5,353</b>	<b>4,797</b>	<b>5,534</b>	<b>5,598</b>	<b>5,571</b>	<b>5,858</b>	<b>5,550</b>	<b>5,762</b>
YoY	8.6	2.8	0.6	(13.0)	(22.7)	(11.7)	(7.8)	4.1	22.1	0.3	2.9
• Phenitec contrib.	3,727	3,539	3,642	2,884	2,595	2,885	3,035	3,322	3,688	3,330	3,411
YoY	15.1	0.7	4.4	(19.6)	(30.4)	(18.5)	(16.7)	15.2	42.1	15.4	12.4
• Torex	2,476	2,727	2,432	2,469	2,202	2,649	2,563	2,249	2,170	2,220	2,351
YoY	0.1	5.7	(4.6)	(3.7)	(11.1)	(2.9)	5.4	(8.9)	(1.5)	(16.2)	(8.3)
<b>Gross profit</b>	<b>1,921</b>	<b>1,892</b>	<b>1,530</b>	<b>1,151</b>	<b>1,269</b>	<b>1,422</b>	<b>1,446</b>	<b>1,315</b>	<b>1,325</b>	<b>1,210</b>	<b>1,606</b>
GPM	31.0%	30.2%	25.2%	21.5%	26.5%	25.7%	25.8%	23.6%	22.6%	21.8%	27.9%
SG&A	1,246	1,216	1,218	1,263	1,191	1,170	1,241	1,172	1,129	1,146	1,174
Ratio to sales	20.1%	19.4%	20.1%	23.6%	24.8%	21.1%	22.2%	21.0%	19.3%	20.6%	20.4%
Depreciation	195	239	300	351	305	317	335	355	269	278	325
YoY	(11.8)	4.4	29.9	38.7	56.4	32.6	11.7	1.1	(11.8)	(12.3)	(3.0)
<b>EBITDA</b>	<b>870</b>	<b>915</b>	<b>612</b>	<b>239</b>	<b>384</b>	<b>568</b>	<b>540</b>	<b>498</b>	<b>464</b>	<b>343</b>	<b>758</b>
YoY	28.7	5.8	(21.5)	(71.0)	(55.9)	(37.9)	(11.8)	108.4	21.1	(39.6)	40.4
Ratio to sales	14.0%	14.6%	10.1%	4.5%	8.0%	10.3%	9.6%	8.9%	7.9%	6.2%	13.2%
<b>Operating profit</b>	<b>675</b>	<b>676</b>	<b>311</b>	<b>(112)</b>	<b>78</b>	<b>252</b>	<b>204</b>	<b>144</b>	<b>195</b>	<b>65</b>	<b>433</b>
YoY	48.4	6.5	(43.5)	TR	(88.4)	(62.7)	(34.4)	TB	148.9	(74.2)	112.3
OPM	10.9%	10.8%	5.1%	-2.1%	1.6%	4.6%	3.6%	2.6%	3.3%	1.2%	7.5%
• Phenitec contrib.	487	413	186	(182)	59	4	78	84	122	(33)	189
YoY	60.7	(19.6)	(46.1)	TR	(87.9)	(99.0)	(58.1)	TB	106.8	TR	142.3
OPM	13.1%	11.7%	5.1%	-6.3%	2.3%	0.1%	2.6%	2.5%	3.3%	-1.0%	5.5%
• Torex	188	263	125	70	19	248	126	60	73	98	244
YoY	23.7	117.4	(39.0)	(54.8)	(89.9)	(5.7)	0.8	(14.3)	284.2	(60.5)	93.7
OPM	7.6%	9.6%	5.1%	2.8%	0.9%	9.4%	4.9%	2.7%	3.4%	4.4%	10.4%
Ordinary profit	924	819	227	(150)	11	268	240	157	180	(3)	348
YoY	98.3	27.8	(62.5)	TR	(98.8)	(67.3)	5.7	TB	16.4x	TR	45.0
Profit ATOP	496	469	123	(39)	12	146	133	127	168	(11)	230
YoY	112.0	75.7	(58.0)	TR	(97.6)	(68.9)	8.1	TB	13.9x	TR	72.9

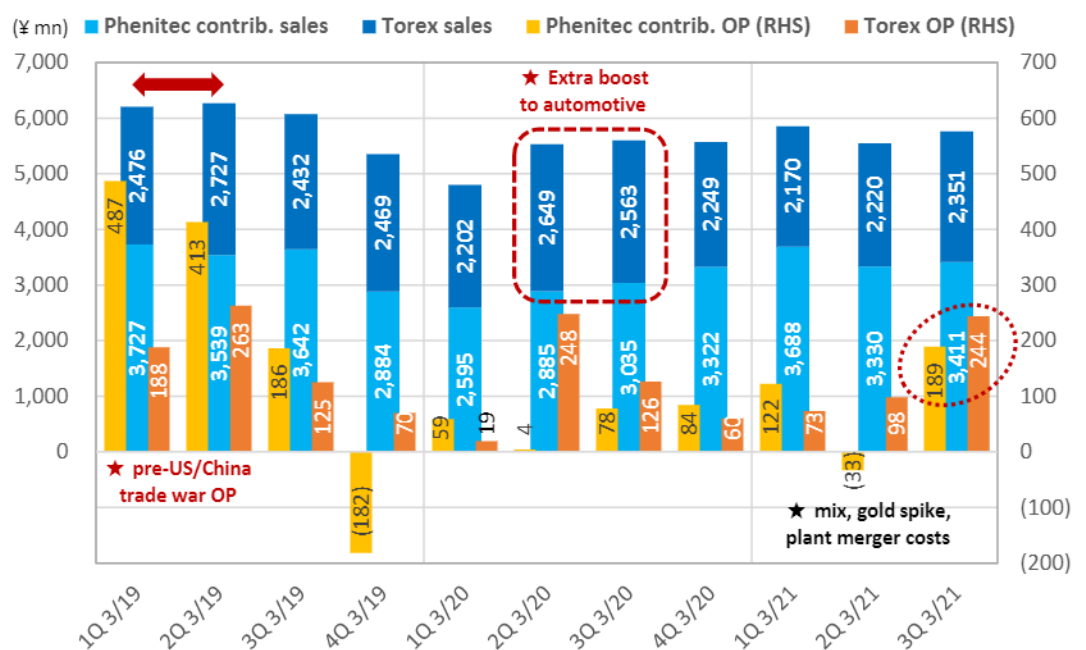
Source: compiled by Sessa Partners from company IR results briefing presentation materials.



3Q GPM of 27.9% was the highest level since 2Q 3/19, approaching the 30% level prior to the US-China tariff war, signaling a full-fledged recovery is now underway.

While Torex 3Q sales declined -8.3% mainly due to weakness in automotive equipt., 3Q OP rose +93.7% due to successful cost control. Phenitec 3Q sales rose +12.4% due to ongoing strength in industrial equipt. and consumer electronics. 3Q OP rose +142.3% as a result of higher utilization rates.

3Q 3/21 OP highest level since 2Q 3/19 pre-US/China tariff war escalation



## Torex Sales Trend by Application and Design-in based\* Region

JPY mn, %	1Q 3/19	2Q 3/19	3Q 3/19	4Q 3/19	1Q 3/20	2Q 3/20	3Q 3/20	4Q 3/20	1Q 3/21	2Q 3/21	3Q 3/21
<b>by Application</b>											
<b>Torex sales</b>	<b>2,476</b>	<b>2,727</b>	<b>2,432</b>	<b>2,469</b>	<b>2,202</b>	<b>2,649</b>	<b>2,563</b>	<b>2,249</b>	<b>2,170</b>	<b>2,220</b>	<b>2,351</b>
• Industrial equipt.	966	1,063	945	953	784	912	933	834	872	763	805
• Automotive equipt.	381	384	362	408	350	615	457	327	241	249	352
• Medical equipt.	36	26	26	37	25	21	29	43	73	44	43
• Wearable equipt.	71	74	37	56	53	66	54	47	50	100	100
• Other	1,022	1,180	1,062	1,015	990	1,035	1,090	998	934	1,064	1,051
<b>YoY</b>											
<b>Torex sales</b>	<b>0.1</b>	<b>5.7</b>	<b>(4.6)</b>	<b>(3.7)</b>	<b>(11.1)</b>	<b>(2.9)</b>	<b>5.4</b>	<b>(8.9)</b>	<b>(1.5)</b>	<b>(16.2)</b>	<b>(8.3)</b>
• Industrial equipt.	9.8	14.3	(0.1)	(2.0)	(18.8)	(14.2)	(1.3)	(12.5)	11.2	(16.3)	(13.7)
• Automotive equipt.	(3.5)	(3.3)	(18.1)	(13.9)	(8.1)	60.2	26.2	(19.9)	(31.1)	(59.5)	(23.0)
• Medical equipt.	80.0	(13.3)	(23.5)	54.2	(30.6)	(19.2)	11.5	16.2	192.0	109.5	48.3
• Wearable equipt.	10.9	19.4	(31.5)	5.7	(25.4)	(10.8)	45.9	(16.1)	(5.7)	51.5	85.2
• Other	788.7	(45.4)	(1.0)	(2.5)	(3.1)	(12.3)	2.6	(1.7)	(5.7)	2.8	(3.6)
<b>by Region</b>											
<b>Torex D-in* sales</b>	<b>2,476</b>	<b>2,727</b>	<b>2,432</b>	<b>2,469</b>	<b>2,202</b>	<b>2,649</b>	<b>2,563</b>	<b>2,249</b>	<b>2,170</b>	<b>2,220</b>	<b>2,351</b>
• Japan	1,086	1,159	1,070	1,086	950	1,090	1,104	1,043	896	895	958
• Asia	791	896	818	807	724	1,001	980	700	781	849	876
• Europe	345	402	304	379	305	329	268	310	259	242	304
• North America	254	270	240	197	223	229	211	196	234	234	213
<b>YoY</b>											
<b>Torex D-in* sales</b>	<b>0.1</b>	<b>5.7</b>	<b>(4.6)</b>	<b>(3.7)</b>	<b>(11.1)</b>	<b>(2.9)</b>	<b>5.4</b>	<b>(8.9)</b>	<b>(1.5)</b>	<b>(16.2)</b>	<b>(8.3)</b>
• Japan	8.8	6.5	0.4	(5.1)	(12.5)	(6.0)	3.2	(4.0)	(5.7)	(17.9)	(13.2)
• Asia	(0.3)	13.0	(8.7)	(4.7)	(8.5)	11.7	19.8	(13.3)	7.9	(15.2)	(10.6)
• Europe	(19.0)	0.5	(7.9)	13.1	(11.6)	(18.2)	(11.8)	(18.2)	(15.1)	(26.4)	13.4
• North America	(1.2)	(10.0)	(6.6)	(17.2)	(12.2)	(15.2)	(12.1)	(0.5)	4.9	2.2	0.9

\*Note: Torex 'Design-in' based sales = regional sales adjusted on orders received basis.

Torex 3Q sales declined -8.3% mainly as a result of the decline in automotive equipt. due to sharp production cuts by automakers in the 1H as well as reactionary decline to special demand last term associated with China's nationwide rollout of ETC. However, 3Q OP of ¥244mn (+93.7%) recovered sharply thanks to successful cost control efforts and temporary mix improvement, and OPM recovered to 10.4%.

Japan exports to China (graph on top of P5), one indicator we have found to be a reliable proxy for the health of the global electronics supply chain, has posted consistent YoY gains since last July. In addition, key domestic automotive electronics shipments all posted significant recoveries in the Oct-Dec quarter. Note that the value of car AVC equipment 3Q shipments exceeded the level in Oct-Dec 2018, and quarterly drive recorder (DR) shipments have returned to previous highs, indicating that a full-fledged recovery is likely now underway.

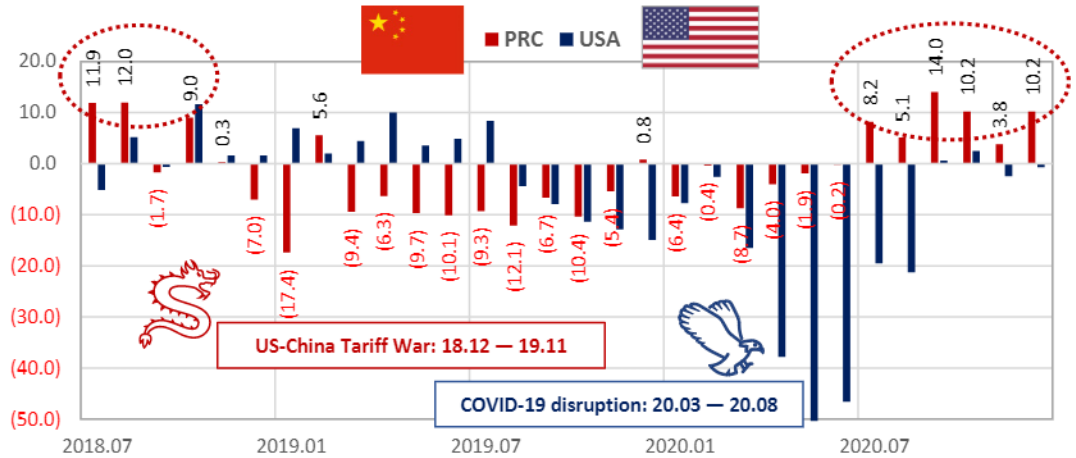
## Inductor built-in micro DC/DC converter target markets / applications

Personal Electronics	Industrial Equipment	Automotive Equipment	Medical Equipment
Wireless earphones	5G optical transceivers	Drive recorders	Blood pressure monitors
Wearables	Microcontroller boards	ETC onboard units	Blood sugar monitors
Beauty care products	Sensor modules	Car navigation	Fingertip pulse oximeters
Bluetooth, WiFi, GPS modules	Camera modules	AV main units	Healthcare equipment
	Home security	Camera and sensor modules	
	POS terminals	Keyless entry	
	IoT device modules	Power sliding doors	
		Sub displays	



Japan exports to China are one measure of the health of the global electronics supply chain

Japan Exports by Destination: exports to China are back to pre-tariff war growth trend



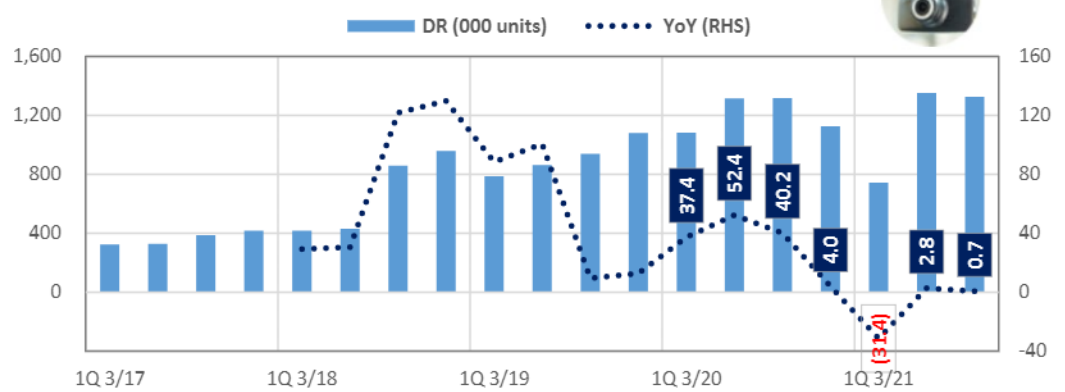
Source: compiled by Sessa Partners from MOF Trade Statistics of Japan monthly press releases.

Full LCD display rear view mirror-type drive recorder (DR)



Source: MAXWIN

Quarterly Trend of Drive Recorder (DR) Unit Shipments in Japan

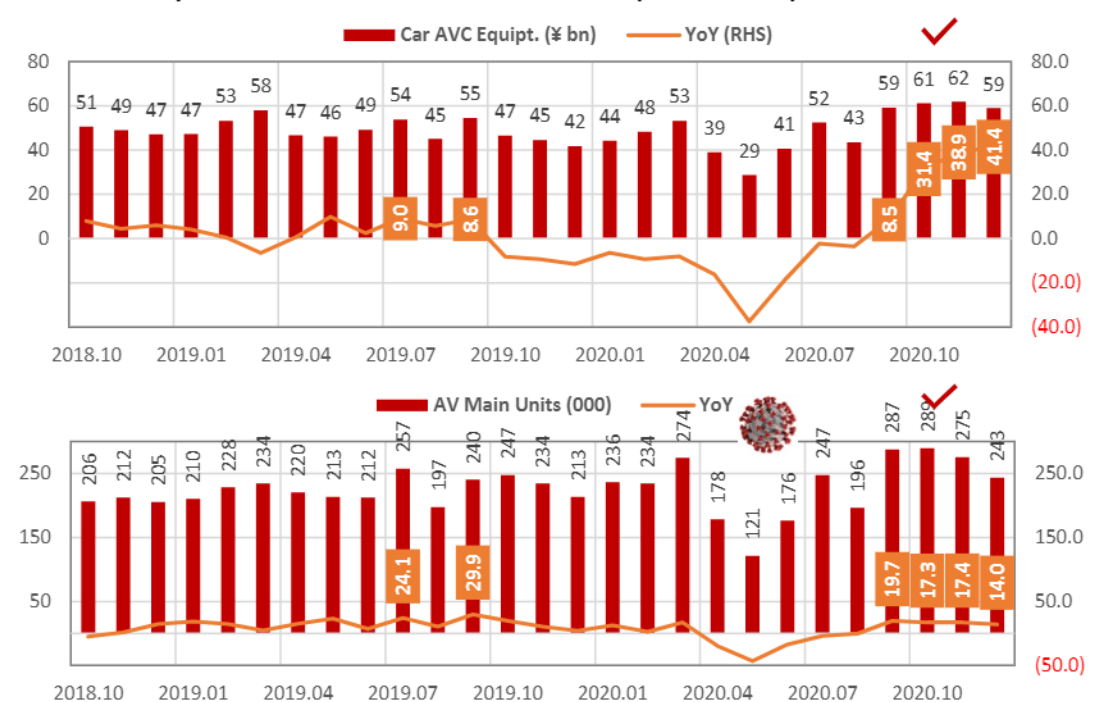


Source: Japan Electronics and Information Technology Industries Association (JEITA)



Selected Trends in Automotive Electronics

JEITA Monthly Trend of Selected Car Electronics Shipments in Japan



Selected unit shipments YoY

Category	Nov-20	Dec-20
Navigation systems	12.3	18.5
Car AV main units	17.4	14.0
Car speakers	3.5	5.9
ETC 2.0 (DSRC)	63.1	63.0

Phenitec 3Q sales increased +12.4% as a result of ongoing strength in industrial equipment in North America and consumer electronics in greater China. As can be seen in the table below, the decline in automotive equipment has slowed sharply, and the company reports that domestic automotive equipment has begun to recover. 3Q OP of ¥189mn (+142.3%) recovered sharply on strong orders boosting utilization rates, and OPM recovered to 5.5%.

The gold price which spiked to over \$2,000/oz during the 2Q, raising raw materials costs, settled down in the Oct-Dec quarter. Although forex losses increased in the 3Q due to the strong yen, depreciation expense is coming in lower than initially planned due to strong orders and busy utilization rates forcing the company to push out completion of the Daiichi Plant integration project into 1H next term. 9-months 3Q cumulative profit attributable to owners of parent increased +33.5% due to a decline in extraordinary losses and tax expense.

1 Year Gold Price in USD/oz



1 Year USD / JPY



## Phenitec\* Sales Trend by Application and Region

JPY mn, %	1Q 3/19	2Q 3/19	3Q 3/19	4Q 3/19	1Q 3/20	2Q 3/20	3Q 3/20	4Q 3/20	1Q 3/21	2Q 3/21	3Q 3/21
<b>by Application</b>											
<b>Phenitec* sales</b>	4,136	3,973	4,075	3,268	2,983	3,251	3,435	3,628	3,982	3,703	3,732
• Industrial equipt.	759	705	1,100	698	408	412	493	696	911	630	588
• Automotive equipt.	908	873	923	856	876	921	892	915	838	738	869
• Medical equipt.	98	63	145	84	70	48	54	116	60	32	34
• Other	2,371	2,332	1,907	1,630	1,629	1,870	1,996	1,901	2,173	2,303	2,241
<b>YoY</b>											
<b>Phenitec* sales</b>	14.9	1.3	5.1	(17.6)	(27.9)	(18.2)	(15.7)	11.0	33.5	13.9	8.6
• Industrial equipt.	(15.3)	(8.7)	29.4	(20.3)	(46.2)	(41.6)	(55.2)	(0.3)	123.3	52.9	19.3
• Automotive equipt.	49.1	11.6	9.8	0.0	(3.5)	5.5	(3.4)	6.9	(4.3)	(19.9)	(2.6)
• Medical equipt.	22.5	(52.6)	70.6	42.4	(28.6)	(23.8)	(62.8)	38.1	(14.3)	(33.3)	(37.0)
• Other	17.7	4.4	(9.3)	(25.0)	(31.3)	(19.8)	4.7	16.6	33.4	23.2	12.3
<b>by Region</b>											
<b>Phenitec* sales</b>	4,136	3,973	4,075	3,268	2,983	3,251	3,435	3,628	3,982	3,703	3,732
• Japan	1,479	1,362	1,356	1,332	1,346	1,410	1,427	1,403	1,280	1,277	1,307
• Asia	1,019	1,070	750	467	495	661	803	805	914	869	1,088
• Europe	198	182	204	205	199	224	261	236	268	244	194
• North America	1,440	1,359	1,765	1,264	943	956	944	1,184	1,520	1,313	1,143
<b>YoY</b>											
<b>Phenitec* sales</b>	14.9	1.3	5.1	(17.6)	(27.9)	(18.2)	(15.7)	11.0	33.5	13.9	8.6
• Japan	27.5	5.6	8.2	1.9	(9.0)	3.5	5.2	5.3	(4.9)	(9.4)	(8.4)
• Asia	25.0	17.8	(23.9)	(53.3)	(51.4)	(38.2)	7.1	72.4	84.6	31.5	35.5
• Europe	8.8	(20.9)	7.4	25.8	0.5	23.1	27.9	15.1	34.7	8.9	(25.7)
• North America	(0.1)	(9.0)	21.7	(15.5)	(34.5)	(29.7)	(46.5)	(6.3)	61.2	37.3	21.1

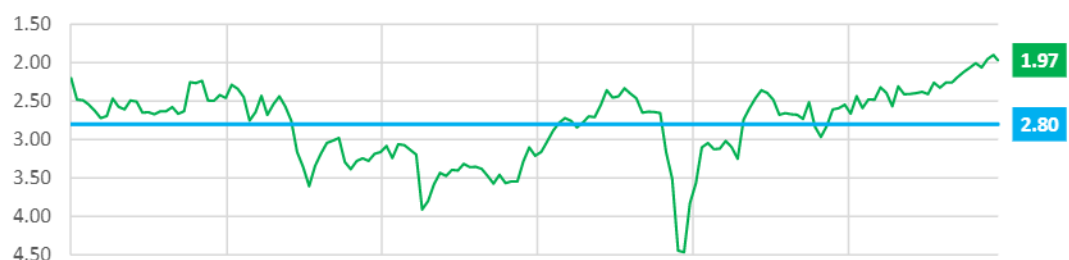
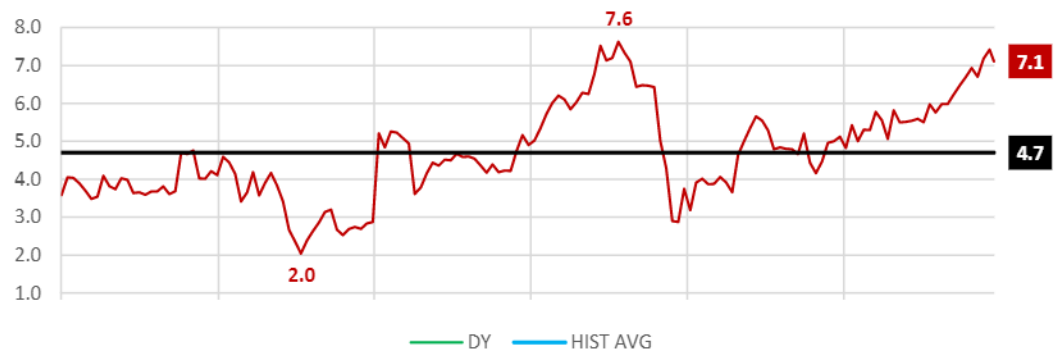
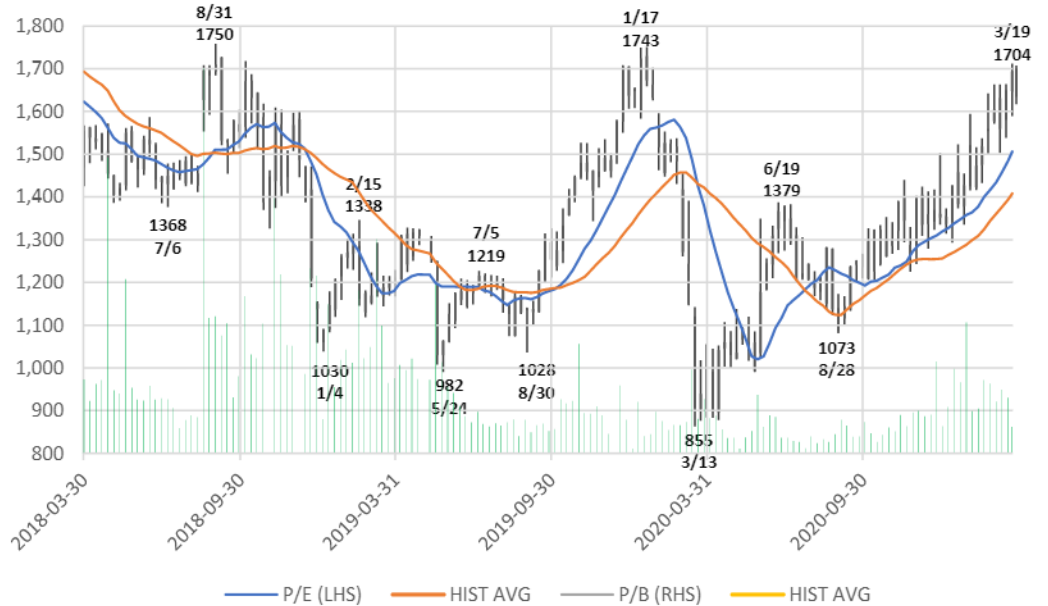
\*Note: Phenitec sales include intra-company transactions with Torex. Classifications subject to change.



**Performance and Valuations: SESSA Smart Charts**

- ✓ The P/E of 35.6x and EV/EBITDA of 7.1x are not expensive near trough earnings for a high growth company, and do not reflect the nature of a robust cyclical recovery
- ✓ The P/B on 0.96x with strong net cash position and proven policy to enhance shareholder rebates is undervalued in our view
- ✓ Thematic drivers include 5G/IoT and camera/sensor applications for automotive equipment and security systems

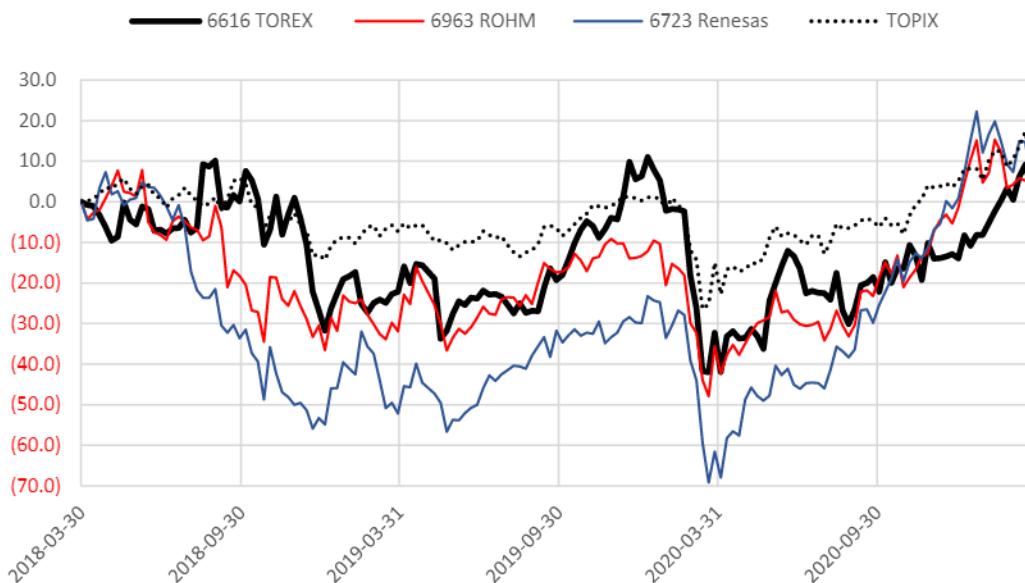
**Sessa Smart Charts: 3-Year Weekly Share Price and Valuations Trend**



Source: compiled by Sessa Partners from SPEEDA historical earnings and price data. Note: FY3/21 based on revised CE.



3-Year Weekly Relative Performance



Source: compiled by Sessa Partners from SPEEDA historical price data.

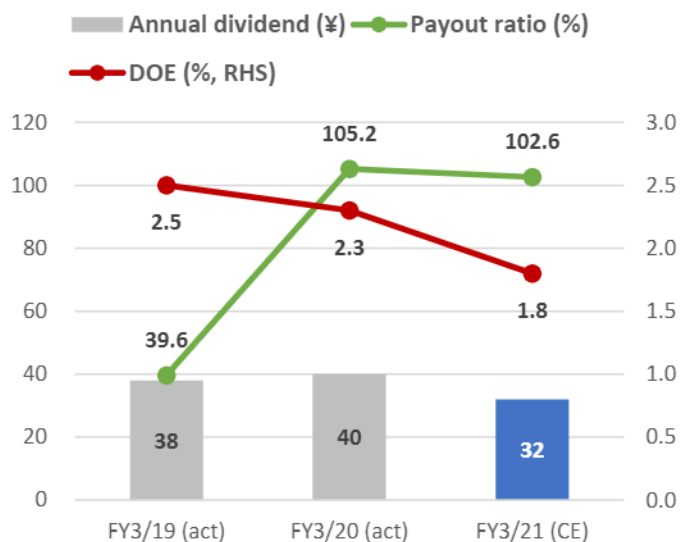
Last year, the share price outperformed the market and larger competitors from 4Q results in May through the 3Q on the extra boost to automotive demand as a nimble niche player picking up orders in specialized segments. Another key driver of the outperformance last year was the high net cash balance utilized to conduct a 5.2% buyback during the 1H, hike the dividend, AND pay down loans. The lower left table shows that **both Chairman Fujisaka and President Shibamiya are in the top 10 shareholders, whose interests are aligned with all shareholders, an attractive point that cannot be understated in our view.**

Conversely, relative performance in 2020 has been lackluster as the share price digests the headwinds from the high base last year. However, stronger than expected 3Q results and unveiling of the new 5-Year MTP through 2025 provide ample catalysts for the share price to catch up to the global rally in semiconductor shares, in our opinion.

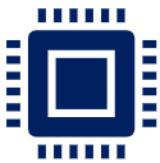
TOREX SEMICONDUCTOR Major Shareholders (2020/09/30)

Rank	Shareholder	(%)
1	The Master Trust Bank of Japan, Ltd. (Trust Acct)	9.97%
2	Custody Bank of Japan, Ltd. (Trust Acct)	7.22%
3	THE BANK OF NEW YORK 133652	5.26%
4	<b>Tomoyuki Fujisaka (Phenitex Chairman)</b>	<b>4.62%</b>
5	The Chugoku Bank, Limited	4.30%
6	ARS Co., Ltd.	4.12%
7	Kibi Kogyo Co., Ltd.	3.62%
8	Takanori Ozaki	2.93%
9	<b>Koji Shibamiya (Torex President)</b>	<b>2.68%</b>
10	Custody Bank of Japan, Ltd. (Trust Acct 5)	2.07%
<b>Top 10 —</b>		<b>46.79%</b>

Source: YUHO 1H FY3/21 Securities Report

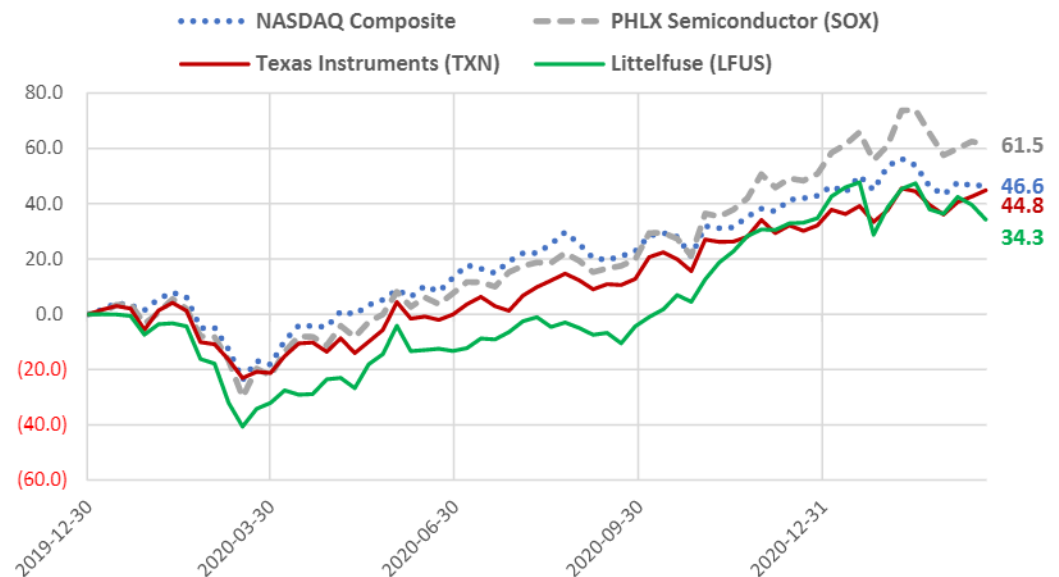






### Global Semiconductor Outlook Revised Up

### Peer and Key N. America Client Weekly Relative Performance from the End of 2019



Source: compiled by Sessa Partners from Yahoo Finance US historical price data.

In its latest semi-annual forecast announced December 1, 2020, WSTS raised its forecasts for the world semiconductor market for 2020 from US\$426bn (+3.3%) → US\$433bn (+5.1%), and for 2021 from US\$452bn (+6.2%) → US\$469bn (+8.4%), with growth accelerating in 2021. In its previous forecast in May, it had revised down the outlook in consideration of negative impact from the global COVID-19 pandemic on the economy. However, as the year progressed, it became clear there were strong positive drivers with demand for remote teleworking, increased time spent at home and medical/wearable applications. Of particular relevance for the TOREX Group are discrete for Phenitec's foundry business and analog for fabless design & development business of the parent, revised outlooks for both highlighted in yellow below. With development and approval of vaccines completed last year, and vaccination programs now in full swing globally, conditions are in place for a sustainable global recovery, the sweet spot for IT and semiconductors which lead recoveries.

### World Semiconductor Trade Statistics (WSTS) Forecast Summary Trend

USD bn, %	Actual Results				May 2020 Forecast				Nov 2020 Forecast			
	CY2018	YoY	CY2019	YoY	CY2020	YoY	CY2021	YoY	CY2020	YoY	CY2021	YoY
Americas	103.0	16.4	78.6	(23.7)	88.7	12.8	94.6	6.7	93.3	18.7	102.2	9.5
Europe	43.0	12.1	39.8	(7.3)	38.2	(4.1)	40.4	5.8	36.5	(8.4)	38.5	5.7
Japan	40.0	9.2	36.0	(9.9)	34.4	(4.4)	35.5	3.3	35.8	(0.6)	37.8	5.8
Asia Pacific	282.9	13.7	257.9	(8.8)	264.7	2.6	281.7	6.4	267.6	3.8	290.9	8.7
<b>WORLD TOTAL</b>	<b>468.8</b>	<b>13.7</b>	<b>412.3</b>	<b>(12.0)</b>	<b>426.0</b>	<b>3.3</b>	<b>452.3</b>	<b>6.2</b>	<b>433.1</b>	<b>5.1</b>	<b>469.4</b>	<b>8.4</b>
Discrete	24.1	11.3	23.9	(0.9)	22.3	(6.6)	23.6	5.7	23.6	(1.2)	25.3	7.2
Optoelectronics	38.0	9.2	41.6	9.3	39.4	(5.1)	41.9	6.1	40.5	(2.6)	44.6	10.2
Sensors	13.4	6.2	13.5	1.2	13.2	(2.1)	13.8	4.6	14.5	7.4	15.6	7.8
Integrated Circuits	393.3	14.6	333.4	(15.2)	351.0	5.3	373.0	6.3	354.6	6.4	383.8	8.3
• Analog	58.8	10.8	53.9	(8.2)	50.8	(5.8)	53.8	5.9	54.0	0.0	58.6	8.6
• Micro	67.2	5.2	66.4	(1.2)	68.2	2.6	69.1	1.4	67.7	2.0	68.4	1.0
• Logic	109.3	6.9	106.5	(2.5)	109.7	2.9	114.0	3.9	113.4	6.5	121.5	7.1
• Memory	158.0	27.4	106.4	(32.6)	122.4	15.0	136.1	11.2	119.4	12.2	135.3	13.3
<b>PRODUCTS TOTAL</b>	<b>468.8</b>	<b>13.7</b>	<b>412.3</b>	<b>(12.0)</b>	<b>426.0</b>	<b>3.3</b>	<b>452.3</b>	<b>6.2</b>	<b>433.1</b>	<b>5.1</b>	<b>469.4</b>	<b>8.4</b>

Source: compiled by Sessa Partners from WSTS semi-annual forecast press releases.

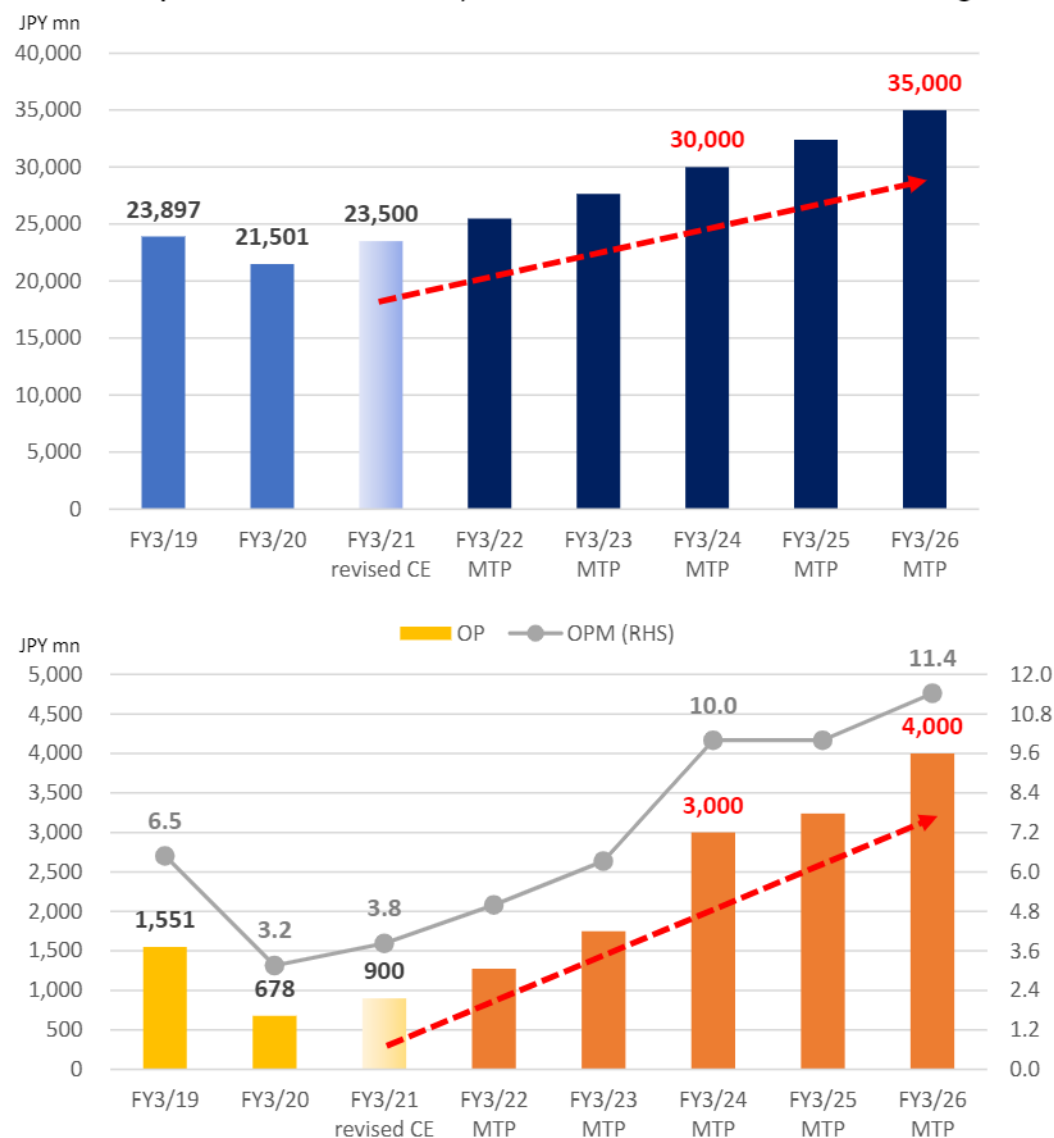


New 5-Year MTP  
2021 – 2025

Along with 3Q results, the company also announced its new 5-year MTP, numerical targets shown in the graph below. The targets imply net sales 5Y CAGR of +8.3%, and OP 5Y CAGR of +34.8%. While the implied OP growth rate may seem slightly aggressive, the company notes that both topline and OPM are consistent with previous norms, and high implied OP growth is a function of recovering off of depressed levels.

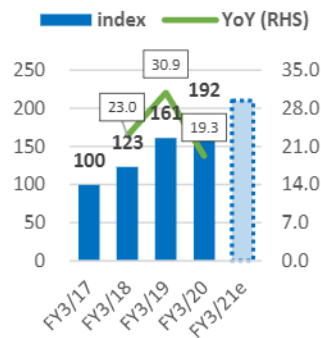
The new MTP promotes ‘green transformation’ through promoting power-saving circuits, reducing mounting board area and promoting low power-loss devices that suppress heat generation. The parent will continue to focus on developing high value-added power management ICs, including further share expansion of inductor built-in micro DC/DC converters, products specialized for 5G/IoT, solutions for solid-state and semi solid-state batteries, ultra-compact large-capacity packages, etc. Initiatives for Phenitec include development of silicon-based power devices and compound semiconductors at Kagoshima, and thorough measures for manufacturing cost reduction, following completion of the Daiichi Plant integration project at Okayama.

TOREX Group Consolidated Net Sales, OP and OPM New MTP 2021 – 2025 Targets



Source: compiled by Sessa Partners from company IR materials.

**Inductor built-in micro DC/DC converters**

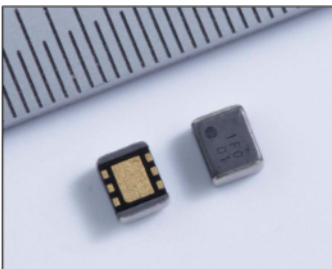


Note: indexed to FY3/17 = 100.

One of the strengths of Torex and a factor driving growth is aggressive new product development of inductor built-in micro DC/DC converters, which have the properties of 1) ultra-compact, 2) low power consumption, 3) high efficiency and 4) low EMI noise, and different package types emphasize the required property. The graph above shows this category has been growing at +24.3% CAGR over the last 3 years.

The XCL303/XCL304 series below targets high-speed optical transceivers for 5G applications, and it is the first inductor built-in micro DC/DC converter product on the market to handle negative output voltage.

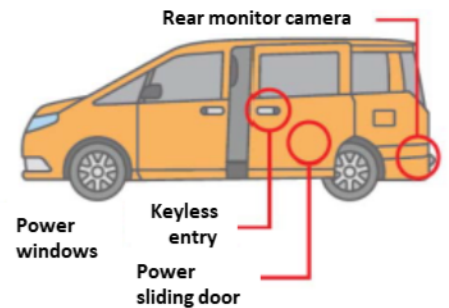
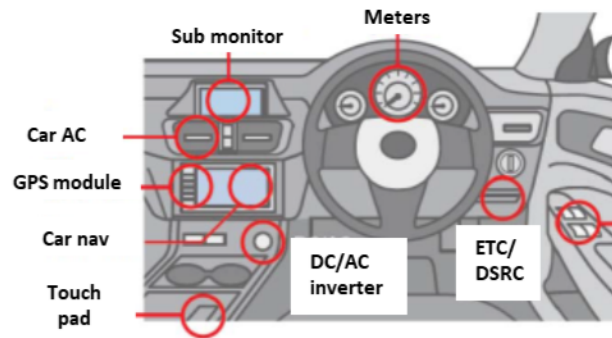
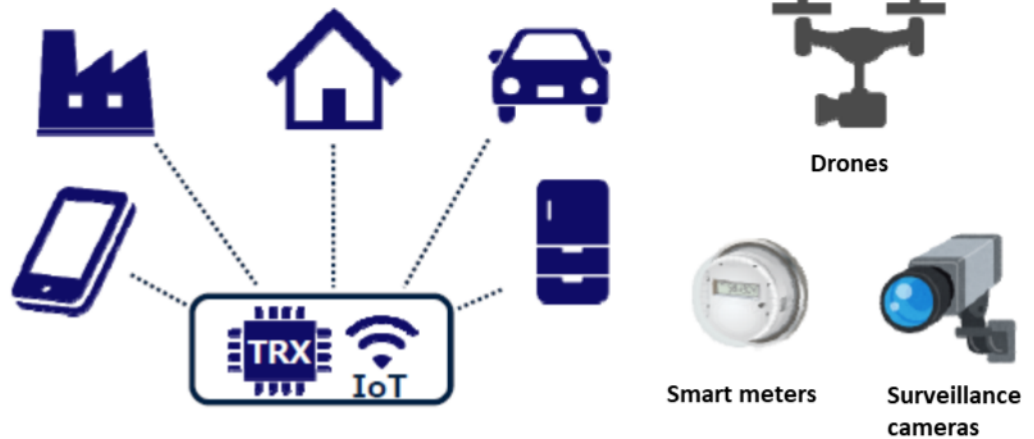
**XCL303/XCL304 Series**  
CL-2025-02 pkg (2.0 x 2.5 x 1.04mm)



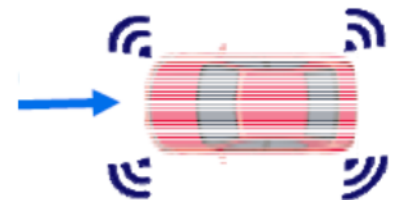
Developed to meet demand for **optical transceivers** for high-speed communication such as 5G between data centers for expected new compact products.

**TOREX Power Management IC Applications Summary**

**INDUSTRIAL: growing number of IoT connected devices**



**AUTOMOTIVE: power management ICs for the sharp increase in sensor and camera modules required for autonomous driving**



**Power Management IC Applications**

**INDUSTRIAL**

Industrial robots / POS registers / POS terminals / Industrial measuring instruments / Smart meters / Security equipment

**AUTOMOTIVE**

Car navigation systems / Car audio systems / Power windows / Power seats / In-vehicle ETC systems / Dashboard cameras / Rear-view monitor cameras / Drive recorders

**MEDICAL & HEALTHCARE**

Electronic thermometers / Scales / Blood pressure monitors / ECGs / Blood glucose monitors / Monitoring equipment

**WEARABLES**

Smartwatches / Smartglasses / Smart cards / Wearable cameras / Wearable devices

**CONSUMER ELECTRONICS**

LCD TVs / Beauty care products / Consumer game consoles / Home appliances / Home theaters / LED lighting

**COMPUTERS & COMMUNICATIONS**

Smartphones / PC peripherals / IC recorders / Digital cameras / Laptops / Electronic dictionaries / E-readers / Portable game devices

Source: results briefing materials

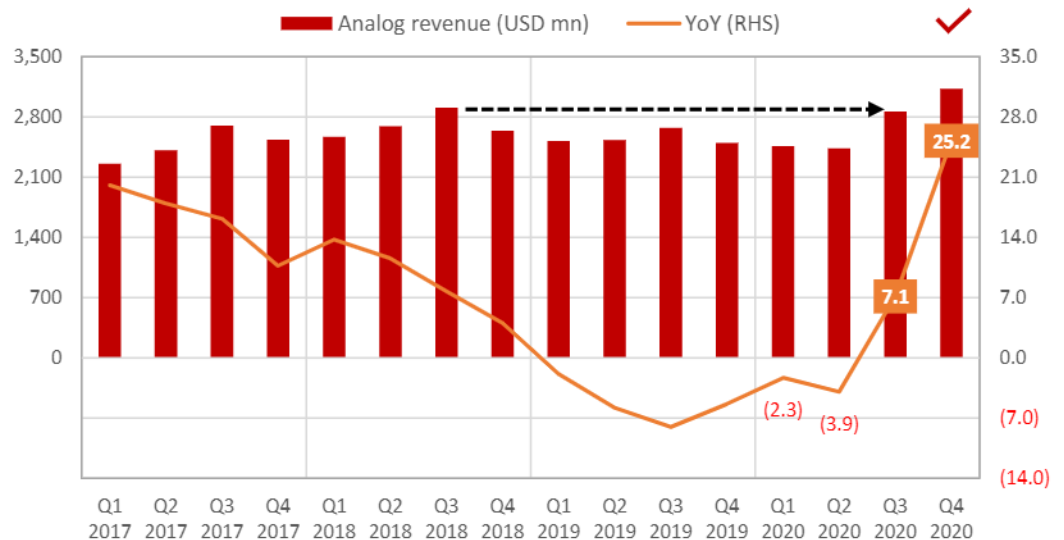
**Texas Instruments (NASDAQ: TXN) Consolidated Earnings Trend**

USD mn, %	FY12/17	YoY	FY12/18	YoY	FY12/19	YoY	FY12/20	YoY
	act		act		act		act	
<b>Total revenue</b>	<b>14,961</b>	<b>11.9</b>	<b>15,784</b>	<b>5.5</b>	<b>14,383</b>	<b>(8.9)</b>	<b>14,461</b>	<b>0.5</b>
▪ Analog (Power, Signal Chain and High Volume)	9,900	16.0	10,801	9.1	10,223	(5.4)	10,886	6.5
▪ Embedded Processing (Connected Microcontrollers)	3,498	15.7	3,554	1.6	2,943	(17.2)	2,570	(12.7)
▪ Other (DLP Products, Calculators and Custom ASICs)	1,563	(13.7)	1,429	(8.6)	1,217	(14.8)	1,005	(17.4)
<b>Total OP</b>	<b>6,083</b>	<b>25.3</b>	<b>6,713</b>	<b>10.4</b>	<b>5,723</b>	<b>(14.7)</b>	<b>5,894</b>	<b>3.0</b>
▪ Analog	4,468	30.8	5,109	14.3	4,477	(12.4)	4,912	9.7
▪ Embedded Processing	1,143	39.9	1,205	5.4	907	(24.7)	743	(18.1)
▪ Other*	472	(24.1)	399	(15.5)	339	(15.0)	239	(29.5)
<b>OPM</b>	<b>40.7%</b>		<b>42.5%</b>		<b>39.8%</b>		<b>40.8%</b>	
▪ Analog	45.1%		47.3%		43.8%		45.1%	
▪ Embedded Processing	32.7%		33.9%		30.8%		28.9%	
▪ Other	30.2%		27.9%		27.9%		23.8%	
<b>Global revenue</b>	<b>14,961</b>	<b>11.9</b>	<b>15,784</b>	<b>5.5</b>	<b>14,383</b>	<b>(8.9)</b>	<b>14,461</b>	<b>0.5</b>
▪ US	1,901	13.0	2,288	20.4	1,827	(20.1)	1,547	(15.3)
▪ China	6,600	10.0	7,000	6.1	7,200	2.9	8,000	11.1
▪ Europe, ME, Africa	2,907	21.5	3,047	4.8	2,707	(11.2)	2,249	(16.9)
▪ Asia	2,224	9.9	2,240	0.7	1,450	(35.3)	1,541	6.3
▪ Japan	1,049	0.9	869	(17.2)	796	(8.4)	734	(7.8)
▪ Rest of World	280	21.2	340	21.4	403	18.5	390	(3.2)

Source: compiled by Sessa Partners from SPEEDA data. \*Note: As of January 1, 2017, royalties were moved from revenue to OI&E.

Dallas-based Texas Instruments generates about 95% of its revenue from semiconductors and the remainder from its well-known calculators. Texas Instruments is the **world's largest maker of analog chips**, which are used to process real-world signals such as sound and power. Texas Instruments also has a leading market share position in digital signal processors, used in wireless communications, and microcontrollers used in a wide variety of electronics applications (SPEEDA).

**Global No.1 Texas Instruments Quarterly Analog Revenue and YoY Trend**



Source: compiled by Sessa Partners from quarterly earnings press releases.

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