

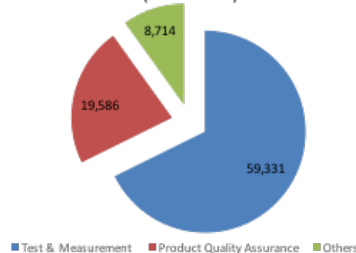
## Anritsu (6754, JP)

Exchange: Tokyo Stock Exchange 1  
Sector: Test & Measurement Equipment  
Market Cap: JPY126.4 billion  
P/B: 1.6x (3/17 act)

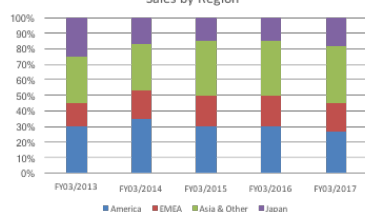
Recommendation: Outperform  
Share Price: JPY915 (5/2/2017)  
Target Price: JPY1,296  
P/E: 42.1x (3/18 CE)  
Div. Yield: 1.6% (3/18 CE)



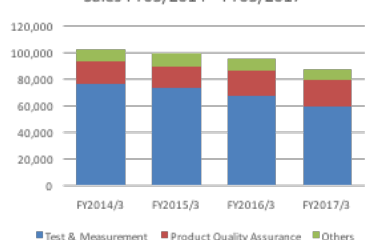
Sales by Segment for FY03/2017  
(JPY million)



Sales by Region



Sales FY03/2014 - FY03/2017



## Highlight

METRICAL maintains Anritsu as "Outperform," upgrading to 'Outperform' from "Hold" on February 12<sup>th</sup> 2017. Its positive business outlook has been kept and T&M sale is expected to accelerate in late 3Q in FY03/2018 that is slightly earlier than previous projection as 5G standardization pushes the demand. According to the recently formed agreement on 5G standardization by major world carriers, specification of NSA-NR should be completed in March 2018 and 5G commercialization will be scheduled in 2019. Consequently, the share price is more likely to rise as clearer view on T&M business comes out much clearer. TP has been raised to JPY1,296 from JPY1,210 based on the revised positive outlook.

## Business Description

Anritsu was founded 1895 and has led Japan's communication industry as a manufacturer of test & measurement equipment and expanded its business in worldwide. Its business is divided by 3 segments of Test & Measurement (T&M), Product Quality Assurance (PQR) and Others. Sales by segment for FY03/2017 is shown on the Table on left. T&M accounts for 68%, PQR does for 22% and Others accounts for 10% of the total sales.

### T&M

T&M provides equipment to 3 categories of customers such as smartphone makers and chip-set makers for mobile market, carrier operators for network infrastructure and electronics device makers for electronics market. Due to slower CapEx of smartphone makers, sales have decreased as shown the Table on left, but seem to hit the bottom in 2Q.

### PQR

PQR provides foods, drug and cosmetics makers its equipment for inspecting contamination, weight measurement and packages. Anritsu projects to enhance the business worldwide from steadily moderate growth, as the demand of inspection is expanding in both of Japan and worldwide.

### Others

Others consists of 2 business such as information & communication business and devices business. Information & communication business provides monitoring and control system to mainly government for public infrastructure in river and water through Anritsu Networks. Devices business provides optical/ultra-high-speed devices for optical communications

networks and telecommunications equipment to electric device makers and telecommunication equipment manufacturers through Anritsu Devices.

## Industry Overview and Competitive Positioning

### Industry Overview

#### T&M

T&M sale is very likely to recover from 4Q FY03/2018 buoyed by acceleration of 5G standardization. The business has been stagnated for 3 years due to sluggish demand from smartphone makers. Meanwhile, Anritsu is tiring to develop T&M demand to automotive, IoT and 5G related areas that is anticipated to commence in 2H of 2017. As a result of the arrival of IoT/5G, many new services can be expected to start, including 4K and 8K image transmission, home energy management systems (HEMS), and automated driving. To realize this service, key technology includes high speed of transmission (100 times the speed of current LTE), multiple log-ons (a large number of users to log on and use the Internet at the same time) and without breaking up (data response time will be 1/1,000 a second). To meet these conditions, T&M will play a vital role for helping the network system advance further. In addition to IoT/5G connectivity, demand will expand to cloud computing and AI. In fact, latest projects include such new areas. For instance, development of automated driving as well as in operator-driven IoT such as Category M and NB-IoT is becoming in full swing from this year. Also, major operators in Japan and overseas are announcing plans for verification tests for 5G commercialization and Investment in 5G is beginning to materialize soon. Meanwhile, wireline market maintains solid demand of measurement instruments for development and manufacture of optical modules, led by increasing demand by data center that is raising investment for high speeds and high capacity.

#### PQR

Due to the increasing demand for security and safety, the market of inspection equipment is expected to grow at slightly higher pace of 5% per year. Since enforcement of Product Liability Law in 1994, maintaining high standards of quality assurance has been required for food and pharmaceutical products. Furthermore, as a result of a number of incidents of contamination in products, consumers are more likely to be aware of food safety has grown and quality assurance has become a big issue for the manufactures. In North America, demand for inspections to detect contaminants in meat products is increasing. Moreover, requirement by US Food and Drug Administration (FDA) would be supportive, as the regulatory requires that food products and pharmaceuticals sold in the United States be labeled properly and that safety and proper efficacy be assured. In China and Southeast Asia, along with develops next generation technology of communication industry and R&D cost is likely to go ahead of revenue. Anritsu Device Co. Ltd focuses on developing semiconductor laser that is used for high-speed optical communication. Semiconductor laser market in Japan is estimated to grow

from JPY158 billion in 2015 to JPY288 billion in 2019 according to Fuji-Keizai Group.

## Competitive Positioning

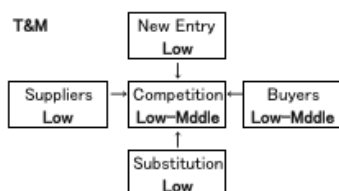
### T&M

#### Buyers (Low-Middle risk):

For both of Mobile and Network market, collaboration with customers is a key. Co-working with device makers in development of chips and carrier operators in next generation network project is a strength. Anritsu expands R&D activities in US, Asia, Europe and Japan that helps to enhance co-development in proximity to customers. Such a customizing products and services reduce buyers risk.

#### Suppliers (Low risk):

Anritsu as one of the top T&M equipment manufacturers has close and long-term relationship with suppliers. T&M equipment is value added products are assembled by parts and components. Many of components are alternatively procured from suppliers globally.



Competition (Low-Middle risk): Due to its high technology and limited number of players would reduce competition risk in industry. However, if restrained investment by smartphone makers and deliberate attitude of network investment by carrier operators are maintained, competition in industry would be intense. In addition, as Keysight goes up to hardware T&M market more aggressively led by recently decided consolidation of Ixia, whereas Anritsu comes down to software solution. As a result, competition is likely to become intense.

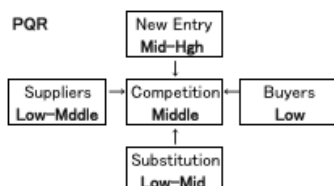
New Entry (Low risk): Due to its high technology and co-working with customers, threat of new entry would be limited. As many of products are customized, a new entrant requires time for customization and co-development to meet customer need.

Substitution (Low risk): Due to its nature of products, T&M equipment is an essential equipment before chip and network system are used in practice. Substitution risk would be minimal.

### PQR

#### Buyers (Low risk):

The market is expanding as customer base and the number of inspection process are increasing, although a number of manufacturers provides inspection equipment. Deli and 'bento' lunch box vendors to convenience stores are aggressively raising inspection equipment due to the increase of contamination risk. In fact, Anritsu increased sale of X-ray analyzer to the vendors in Japan and developed meat processors in North America.



## Suppliers (Low risk):

Inspection equipment is not a commodity product and is less dependent on material prices and many of components are alternatively procured from suppliers globally. Anritsu has long-term relationship with suppliers on T&M equipment. This is advantage for producing inspection equipment, too.

Competition (Middle risk): Due to the number of players, the competition is relatively higher than other criteria. While the demand of inspection equipment is increasing and the market is likely to grow at solid pace for the time being, the competition would be stable at this moment. Once the market was soft, the competition risk would increase.

New Entry (Middle-High risk): Not only test & measurement equipment makers but other manufacturers enter into the market from sensor makers, machinery makers, LED makers and etc. New entry risk is middle to high.

Substitution (Low-Mid risk): Inspection process is in various ways. Recently, X-ray analyzer is getting popular replaced from image sensor. Equipment makers have to develop new technology continuously for meeting customer demand, as inspection process, need and regulation are continuously changing.

## **Investment Summary**

### **Business Outlook**

In short-term view, sales are likely to be in line with its guidance for FY08/2017OP, but OP is expected to move higher than the company projection. In fact, an increasing number of projects in IoT field such as Category M and NB-IoT as well as commercialization of 5G are finally beginning to materialize. Demand for T&M equipment in 5G investment is expected to be rising after late 3Q FY2017.

### **Competitive Positioning and Risks**

T&M and PQR are different positioning, although both business is in prospective markets going forward. T&M has a limited number of players, higher entry barrier and lower substitution risk. In contrast, PQR has a number of competitors with relatively lower entry barrier and higher substitution risk. PQR market is expected to remain stable growth, whereas T&M market is expected to expand from end of 2017 after sluggish investment by both of smartphone makers and carrier operators for a few years.

### **Valuation**

The previous report on February 12<sup>th</sup> 2017 verified applying valuation multiples on MV/EBIT, MV/EBITDA and MV/FCF referring peer of Ixia and Keysight. In case of applying multiple of 14x of MV/EBIT, 11x of MV/EBITDA and 20x of MV/FCF for T&M segment to Anritsu for FY03/2017 (E), the share price would rise by 27% to JPY1,259 from the closing price as of May 2<sup>nd</sup>.

## Financial Stability

Anritsu has maintained positive free cash flow, operating cash flow and working capital even while it has receded its profitability since FY03/2012. Due to positive outlook of T&M business from FY03/2018, financial position is very likely to get strong.

## Business Outlook

### Full Year FY03/2017 Result

Total sale slid 8.3% YoY to JPY87,638 million and OP, EBT and NP fell 28.2% YoY to JPY4,234 million, 33.2% YoY to JPY3,628 million and 27.4% YoY to JPY2,734 million for FY03/2017, as mobile market of T&M business continued slowing, while PQA business and network of T&M were solid. However, 4Q from January-March 2017 for the 3-month period, total sale grew 8.7% YoY to JPY25,374 million and OP jumped 255.6% YoY to JPY2,414 million from JPY721 million for the same period of the previous year.

### Full Year FY03/2018 Outlook by company

Anritsu posts its outlook for FY03/2018. Sale is expected to increase 3.8% YoY to JPY91,000 million, OP, EBT and NP are expected to rise 3.9% YoY to JPY4,400 million, 15.7% YoY to JPY4,200 million and 11.2% YoY to JPY3,000 million respectively.

### FY03/2018 forecast by METRICAL

METRICAL expects sales are likely to be in line with the company guidance, but profits are expected to move higher than company forecast. Sales are expected to increase 3.8% YoY to JPY90,998 million, whereas OP, EBT and NP are expected to move much higher than company forecast to JPY5,167 million, JPY4,932 million and JPY3,498 million respectively.

### Mid-Term Projection

In mid-term projection, T&M is expected to accelerate from 10% to 20% increase in sale buoyed by increasing demand of IoT/5G connectivity toward FY03/2020 and profit margin is expected to improve sharply alongside sale expansion. PQR is expected to increase its sale in line with market growth at 5% and improves profitability at steady rate after temporarily prior investment in FY03/2017. Others segment is likely to remain stable.

## Valuation

There would be room of upside potential for the share price on peer comparison, applying EV/EBITDA and other multiples such as Price/EBIT and EBITDA based on recently acquired Ixia. Anritsu's target share price has been raised to JPY1,296 from JPY1,201 of the previous report due to acceleration of demand on 5G investment. Sum-Of-the-Parts valuation estimates to be JPY1,296 for FY03/2018 (E) based on multiples of Keysight Technologies in



Price/EBIT, Price/EBITDA and Price/FCF of 14x, 11x and 20x for T&M segment.

## EV/EBITDA

EV/EBITDA for FY03/2018(E) is estimated to be 10.4x. Based on positive outlook of mid-term projection in EBITDA for Anritsu, EV/EBDA is expected to decline from 10.2x for FY03/2017 to 4.8x for FY03/2020 (E) (see the Table below).

	Mar-12	Mar-13	Mar-14	Mar-15	Mar-16	Mar-17	Mar-18 (E)	Mar-19 (E)	Mar-20 (E)
Avg. Mkt. Cap	JPY 107,848	JPY 165,006	JPY 186,666	JPY 138,338	JPY 102,325	JPY 100,230	JPY 110,184	JPY 110,184	JPY 110,184
EV	JPY 107,463	JPY 152,417	JPY 164,674	JPY 119,779	JPY 96,842	JPY 85,848	JPY 94,502	JPY 88,481	JPY 79,774
EV/EBITDA	5.85	7.86	9.54	8.70	9.82	10.19	10.42	6.29	4.75
EV*(LT Investme	JPY 103,407	JPY 148,065	JPY 160,052	JPY 115,512	JPY 93,015	JPY 82,187	JPY 90,841	JPY 84,820	JPY 76,113
EV/EBITDA	5.63	7.63	9.27	8.39	9.43	9.75	10.02	6.03	4.53
EV/EBIT	7.68	9.65	11.66	11.01	16.43	20.29	18.29	8.70	6.19
EV/FCF	7.82	20.90	18.25	46.61	38.13	11.94	28.12	10.95	7.41

## Sum-of-the Parts Valuation

Sum-of-the-Parts (SOTP) value is business value of each business segment that is normalized EBIT, EBITDA and FCF from FY03/2012 to FY03/2018 (E) by multiples based on Keysight Technologies for T&M segment, added to net cash and long-term investment securities and land. SOTP value for FY03/2018 (E) is estimated to be JPY1,296 a share that is still 30% discount of closing price of March 2<sup>nd</sup> 2017 (see the Table below).

NAVs:			NAVs:		
Sum of the parts NAV (FY2018/3 (E)):			Future NAV (2020/3 (E)):		
Test & Measurement	1,004	11x EBITDA	Test & Measurement	934	11x EBITDA
Product Quality Assurance	107	15x EBIT	Product Quality Assurance	136	15x EBIT
Others	76	15x FCF	Others	68	10x EBIT
Adjustment	(25)	5x EBITDA	Adjustment	(19)	5x EBITDA
Cash	297	1x Book	Cash	403	1x Book
Land	11	0.75x Book	Land	11	1x Book
Investment	9	0.75x Book	Investment	9	1x Book
Debt	(183)	1x Book	Debt	(183)	1x Book
Minority	(1)	1x Book	Minority	(1)	1x Book
Total SOTP NAV	JPY 1,296	70.6%	Total Future NAV	JPY 1,359	67.3%

## Financial Analysis

As shown key financial ratios and financial statements summary in Appendix, Anritsu's profitability has been deteriorating, but financial position is not much weak. Working capital, operating cash flow and free cash flow are maintained positive. CapEx rose in FY03/2016 for building head office and laboratory due to BCP investment, but FCF will be upbeat alongside recovering T&M business and stable CapEx after F03/2018.

Recovering T&M business led by increasing demand of 5G network would minimize risk in slower smartphone market. Conversely solid demand in network business is likely to intensifying competition with rivals like Keysight.

**Continuing slower smartphone market (Likely, Middle Risk)**

Soft growth in smartphone market is likely to continue for the time being and full recovery is less likely soon. However, demand of IoT/5G connectivity is finally beginning and this would support the business.

**Slower CapEx by carrier operators (Less likely, Middle Risk)**

It took some time for carriers to raise CapEx for the next generation network. One of the reasons was 5G Specification by Verizon has not become standardized, but Non-Standalone New Radio is very likely to lead R&D for the next generation mobile network from 2H 2017.

**Intensifying competition in T&M (Very likely, Low-Middle Risk)**

Anritsu is trying to expand to software solution from providing T&M equipment. Meantime Keysight Technologies is penetrating into hardware market from software. Acquisition of Ixia would accelerate this strategy.

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## Investment Risks

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## Appendix

JPY million	Test & Measurement		Product Quality Assurance		Others		Adjustment		Total	
FY2014/3	Sales	OP	Sales	OP	Sales	OP	Sales	OP	Sales	OP
1Q (act)	17,755	2,698	2,992	-27	1,617	-55		-149	22,364	2,467
2Q (act)	18,755	3,370	5,174	658	1,756	79		-248	25,685	3,859
3Q (act)	17,480	2,458	3,718	172	1,857	233		-301	23,055	2,562
4Q (act)	21,971	4,482	5,034	405	3,739	684		-337	30,744	5,234
Full Year (act)	75,961	13,008	16,918	1,208	8,969	941	0	-1,035	101,848	14,122
JPY million	Test & Measurement		Product Quality Assurance		Others		Adjustment		Total	
FY2015/3	Sales	OP	Sales	OP	Sales	OP	Sales	OP	Sales	OP
1Q (act)	17,557	1,955	2,839	-365	1,775	25		-193	22,171	1,422
2Q (act)	19,102	2,717	4,819	497	1,911	190		-201	25,832	3,203
3Q (act)	17,994	1,811	3,551	22	2,292	1,014		-194	23,837	2,653
4Q (act)	18,788	2,459	4,987	669	3,219	732		-259	26,994	3,601
Full Year (act)	73,441	8,942	16,196	823	9,197	1,961	0	-847	98,834	10,879
JPY million	Test & Measurement		Product Quality Assurance		Others		Adjustment		Total	
FY2016/3	Sales	OP	Sales	OP	Sales	OP	Sales	OP	Sales	OP
1Q (act)	18,070	1,824	3,683	-3	1,893	-54		-235	23,646	1,532
2Q (act)	17,794	1,326	5,595	579	1,982	33		-233	25,371	1,705
3Q (act)	16,834	1,607	4,387	292	1,955	93		-54	23,176	1,938
4Q (act)	15,030	(52)	5,226	327	3,078	502		-55	23,334	722
Full Year (act)	67,728	4,705	18,891	1,195	8,908	574	0	-577	95,527	5,897
Full Year (CE)	67,500	4,800	19,000	1,200	9,000	-			95,500	6,000
FY2017/3	Sales	OP	Sales	OP	Sales	OP	Sales	OP	Sales	OP
1Q	14,632	733	4,106	133	1,544	-109		-29	20,282	728
2Q	13,836	-263	5,129	385	1,945	64		-44	20,910	142
3Q	14,177	278	4,624	113	2,266	456		-48	21,067	799
4Q	16,686	1,382	5,727	670	2,959	580		-68	25,372	2,564
Full Year	59,331	2,130	19,586	1,301	8,714	991	0	-189	87,631	4,233
Full Year (CE)	58,500	500	20,000	1,400	9,000	300			87,500	2,200
FY2018/3 (E)	Sales	OP	Sales	OP	Sales	OP	Sales	OP	Sales	OP
1Q	14,362	719	4,736	153	1,578	-111		-29	20,676	732
2Q	13,580	136	5,917	444	1,987	65		-44	21,484	601
3Q	13,915	500	5,334	267	2,315	466		-48	21,564	1,184
4Q	17,644	1,781	6,606	330	3,024	593		-55	27,274	2,649
Full Year (E)	59,501	3,136	22,594	1,195	8,904	1,013	0	-176	90,998	5,167
Full Year (CE)	61,000	2,200	21,500	1,500	8,500	700			91,000	4,400
FY2019/3 (E)	Sales	OP	Sales	OP	Sales	OP	Sales	OP	Sales	OP
1Q	16,259	1,626	5,464	177	1,612	-114		-29	23,335	1,660
2Q	15,375	1,537	6,825	512	2,031	67		-44	24,231	2,073
3Q	15,754	1,890	6,153	431	2,366	476		-48	24,273	2,749
4Q	20,415	2,450	7,621	686	3,090	606		-55	31,125	3,686
Full Year (E)	67,802	7,504	26,063	1,806	9,099	1,035	0	-176	102,963	10,168
Full Year (CE)									0	0
FY2020/3 (E)	Sales	OP	Sales	OP	Sales	OP	Sales	OP	Sales	OP
1Q	18,812	2,257	6,303	315	1,647	-116		-29	26,762	2,427
2Q	18,427	2,211	7,873	591	2,075	68		-44	28,375	2,827
3Q	18,881	2,266	7,098	639	2,418	487		-48	28,397	3,343
4Q	24,468	2,936	8,791	791	3,157	619		-55	36,416	4,291
Full Year (act)	80,589	9,671	30,065	2,336	9,297	1,057	0	-176	119,951	12,888
Full Year (CE)									0	0

(Source) Anritsu, METRICAL

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FY2014/3	Sales	COGS	GP	SGA	OP	EBT	Tax	Minority	NP	EPS
1Q (act)	22,365	-10,508	11,857	-9,391	2,466	2,681	-1,060	-7	1,614	11.26
2Q (act)	25,687	-11,479	14,208	-10,349	3,859	3,884	-1,210	-6	2,668	18.61
3Q (act)	23,055	-10,467	12,588	-10,026	2,562	2,725	-955	-8	1,778	12.40
4Q (act)	30,745	-14,445	16,300	-11,066	5,234	4,947	-1,696	8	3,244	22.63
Full Year (act)	101,852	-46,899	54,953	-40,832	14,121	14,237	-4,921	-13	9,304	64.90
FY2015/3	Sales	COGS	GP	SGA	OP	EBT	Tax	Minority	NP	EPS
1Q (act)	22,172	-10,336	11,836	-10,414	1,422	1,350	-534	-7	808	5.64
2Q (act)	25,833	-12,428	13,405	-10,202	3,203	3,661	-985	-5	2,670	18.63
3Q (act)	23,839	-11,117	12,722	-10,067	2,655	2,992	-916	0	2,074	14.79
4Q (act)	26,995	-12,267	14,728	-11,126	3,602	3,587	-1,281	-4	2,304	16.76
Full Year (act)	98,839	-46,148	52,691	-41,809	10,882	11,590	-3,716	-16	7,856	55.82
FY2016/3	Sales	COGS	GP	SGA	OP	EBT	Tax	Minority	NP	EPS
1Q (act)	23,647	-10,971	12,676	-11,146	1,530	1,673	-525	-4	1,143	8.32
2Q (act)	25,372	-12,279	13,093	-11,387	1,706	1,538	-324	0	1,214	8.84
3Q (act)	23,177	-11,007	12,170	-10,231	1,939	1,900	-341	-4	1,555	11.32
4Q (act)	23,334	-12,300	11,034	-10,313	721	322	-477	2	-153	-1.11
Full Year (E)	95,530	-46,557	48,973	-43,077	5,896	5,433	-1,667	-6	3,760	27.37
Full Year (CE)	95,500				6,000	5,300			3,500	25.48
FY2017/3 (E)	Sales	COGS	GP	SGA	OP	EBT	Tax	Minority	NP	EPS
1Q	20,283	-10,069	10,214	-9,487	727	7	18	-19	6	8.32
2Q	20,911	-11,467	9,444	-9,303	141	48	-152	1	-103	8.84
3Q	21,068	-10,744	10,324	-9,525	799	1,158	-368	3	795	5.79
4Q	25,374	-12,888	12,486	-9,922	2,564	2,414	-391	-24	1,999	14.55
Full Year	87,636	-45,168	42,468	-38,237	4,231	3,627	-893	-39	2,695	37.50
Full Year (CE)	87,500				2,200	1,400			1,000	7.28
FY2018/3 (E)	Sales	COGS	GP	SGA	OP	EBT	Tax	Minority	NP	EPS
1Q (E)	20,676	-8,000	12,676	-11,944	732	699	-200	-4	496	8.32
2Q (E)	21,484	-8,391	13,093	-12,492	601	574	-164	-3	407	8.84
3Q (E)	21,564	-9,394	12,170	-8,432	1,184	1,130	-323	-6	802	5.84
4Q (E)	27,274	-16,240	11,034	-11,900	2,649	2,529	-722	-13	1,793	13.05
Full Year (E)	90,998	-42,025	48,973	-44,768	5,167	4,932	-1,409	-25	3,498	36.05
Full Year (CE)	91,000				4,400	4,200			3,000	21.85
FY2019/3 (E)	Sales	COGS	GP	SGA	OP	EBT	Tax	Minority	NP	EPS
1Q (E)	23,335	-10,659	12,676	-11,016	1,660	1,585	-525	-8	1,051	8.32
2Q (E)	24,231	-11,138	13,093	-11,020	2,073	1,978	-324	-10	1,644	8.84
3Q (E)	24,273	-12,103	12,170	-10,591	2,749	2,624	-341	-14	2,270	16.53
4Q (E)	31,125	-20,091	11,034	-15,312	3,686	3,519	-477	-18	3,024	22.01
Full Year (E)	102,963	-53,990	48,973	-47,939	10,168	9,706	-1,667	-50	7,989	55.70
Full Year (CE)	0				0					
FY2020/3 (E)	Sales	COGS	GP	SGA	OP	EBT	Tax	Minority	NP	EPS
1Q (E)	26,762	-14,086	12,676	-10,249	2,427	2,317	-525	-12	1,780	8.32
2Q (E)	28,375	-15,282	13,093	-10,266	2,827	2,698	-324	-14	2,360	8.84
3Q (E)	28,397	-16,227	12,170	-13,970	3,343	3,191	-341	-16	2,834	20.63
4Q (E)	36,416	-25,382	11,034	-16,955	4,291	4,096	-477	-21	3,598	26.20
Full Year (E)	119,951	-70,978	48,973	-51,440	12,888	12,302	-1,667	-63	10,572	63.99
Full Year (CE)	0				0					

(Source) Anritsu, METRICAL

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# METRICAL INC.

corporate governance, investment research & solutions

Cash Flow Analysis (JPY million)	Mar-12	Mar-13	Mar-14	Mar-15	Mar-16	Mar-17	Mar-18 (E)	Mar-19 (E)	Mar-20 (E)
Net Income	7,973	13,935	9,305	7,859	3,760	2,695	3,498	7,989	10,572
Dep.	4,372	3,602	3,138	2,884	3,969	4,197	3,900	3,900	3,900
Amortization	0	0	0	0	0	0	0	0	0
Other non-cash charges	8,448	-4,426	2,629	-2,629	-2,060	1,969	2,555	5,837	7,724
Changes in WC	-4,650	-1,340	-1,280	-532	4,526	346	-1,194	-4,247	-6,030
Op. Cash Flow	16,143	11,771	13,792	7,582	10,195	9,207	8,759	13,479	16,166
Per share	JPY 125.88	JPY 83.36	JPY 96.24	JPY 53.77	JPY 74.23	JPY 67.06	JPY 63.80	JPY 98.17	JPY 117.74
Capex	-2,393	-4,478	-4,770	-5,012	-7,655	-2,015	-5,399	-5,399	-5,399
Free Cash Flow	13,750	7,293	9,022	2,570	2,540	7,192	3,360	8,080	10,767
Per share	JPY 107.22	JPY 51.65	JPY 62.95	JPY 18.22	JPY 18.49	JPY 52.38	JPY 24.47	JPY 58.85	JPY 78.42
Beginning Cash	27,993	39,596	37,690	43,215	34,916	37,391	39,682	40,983	47,003
Net cash used	11,603	-1,906	5,525	-8,299	2,475	2,291	1,301	6,020	8,707
Ending cash	39,596	37,690	43,215	34,916	37,391	39,682	40,983	47,003	55,710

Key Financial Ratios:	Mar-12	Mar-13	Mar-14	Mar-15	Mar-16	Mar-17	Mar-18 (E)	Mar-19 (E)	Mar-20 (E)
ROE	17.03%	25.03%	13.35%	10.37%	4.93%	3.50%	4.41%	9.40%	11.02%
Gross Margin	47.24%	53.86%	53.96%	53.31%	51.26%	48.46%	53.82%	47.56%	40.83%
EBITDA Margin	19.62%	20.49%	16.95%	13.93%	10.33%	9.62%	9.96%	13.66%	14.00%
EBIT Margin	14.95%	16.69%	13.87%	11.01%	6.17%	4.83%	5.68%	9.88%	10.74%
Return on Assets	7.16%	12.11%	7.32%	6.29%	3.02%	2.12%	2.69%	5.64%	6.66%
Return on Fixed Assets	51.64%	80.67%	47.12%	31.59%	14.61%	10.47%	13.59%	31.04%	41.07%
Revenue / Assets	84.13%	82.27%	80.11%	79.14%	76.65%	69.09%	70.11%	72.69%	75.61%
Depreciation / Capex	182.70%	80.44%	65.79%	57.54%	51.85%	208.29%	72.24%	72.24%	72.24%
Depn / Sales	4.67%	3.80%	3.08%	2.92%	4.15%	4.79%	4.29%	3.79%	3.25%
Capex / Sales	2.56%	4.73%	4.68%	5.07%	8.01%	2.30%	5.93%	5.24%	4.50%
Depn / Net FA	28.31%	20.85%	15.89%	11.59%	15.42%	16.30%	15.15%	15.15%	15.15%
Asset / Equity	2.38	1.78	1.70	1.63	1.64	1.62	1.61	1.58	1.55
ROE	17.03%	25.03%	13.35%	10.37%	4.93%	3.50%	4.41%	9.40%	11.02%
Gross Margin	47.24%	53.86%	53.96%	53.31%	51.26%	48.46%	53.82%	47.56%	40.83%
EBITDA Margin	19.62%	20.49%	16.95%	13.93%	10.33%	9.62%	9.96%	13.66%	14.00%
EBIT Margin	14.95%	16.69%	13.87%	11.01%	6.17%	4.83%	5.68%	9.88%	10.74%
Return on Assets	7.16%	12.31%	7.68%	6.24%	3.01%	2.14%	2.73%	5.89%	7.04%

# METRICAL INC.

## corporate governance, investment research & solutions

	2012/3	2013/3	2014/3	2015/3	2016/3	2017/3	2018/3 (E)	2019/3 (E)	2020/3 (E)
<b>Consolidated Balance Sheets</b>									
<b>Assets</b>									
<b>Current Assets</b>									
Cash and Cash Equivalents	39,596	37,690	43,215	34,916	37,391	39,682	40,983	47,003	55,710
Short-Term Investments	10	22	1,098	1,276	-	-	-	-	-
Notes and Accounts Receivable, Trade	23,471	23,883	25,687	24,811	19,738	21,561	22,388	25,332	29,511
Allowance for Doubtful Receivables	-	-	-	-	-	-	-	-	-
Inventories	14,770	16,159	17,053	19,191	18,376	16,606	17,243	19,510	22,729
Deferred Income Taxes	-	-	-	-	-	-	-	-	-
Other Current Assets	1,097	2,192	2,957	3,932	5,036	4,572	4,747	5,372	6,258
<b>Total Current Assets</b>	<b>78,944</b>	<b>79,946</b>	<b>90,010</b>	<b>84,126</b>	<b>80,541</b>	<b>82,421</b>	<b>85,362</b>	<b>97,217</b>	<b>114,209</b>
<b>Property, Plant and Equipment</b>									
Land	2,497	2,329	2,164	1,997	1,997	1,997	1,997	1,997	1,997
Buildings	15,441	17,274	19,747	24,880	25,741	24,444	29,843	35,242	40,641
Machinery and Equipment	-	-	-	-	-	-	-	-	-
Construction in Progress	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>17,938</b>	<b>19,603</b>	<b>21,911</b>	<b>26,877</b>	<b>27,738</b>	<b>26,441</b>	<b>31,840</b>	<b>37,239</b>	<b>42,638</b>
Accumulated Depreciation	-	-	-	-	-	-	-	1	2
<b>Net Property, Plant and Equipment</b>	<b>17,938</b>	<b>19,603</b>	<b>21,911</b>	<b>26,877</b>	<b>27,738</b>	<b>26,441</b>	<b>31,840</b>	<b>37,240</b>	<b>42,640</b>
<b>Software &amp; Other Intangible Assets</b>									
Goodwill	1,466	1,340	2,023	2,558	3,209	3,721	3,721	3,721	3,721
	1,466	1,340	2,023	2,558	3,209	3,721	3,721	3,721	3,721
<b>Other Assets</b>									
Investments in and Advances to Associates	173	238	249	87	-	-	-	-	-
Investment Securities	1,386	1,785	2,209	2,183	1,830	1,664	1,664	1,664	1,664
Software & Others	-	-	-	-	-	-	-	-	-
Deferred Income Taxes	10,972	11,754	10,264	8,651	8,545	7,979	7,979	7,979	7,979
Other	408	423	483	411	2,761	2,828	2,828	2,828	2,828
<b>Total Other Assets</b>	<b>12,939</b>	<b>14,200</b>	<b>13,205</b>	<b>11,332</b>	<b>13,136</b>	<b>12,471</b>	<b>12,471</b>	<b>12,471</b>	<b>12,471</b>
<b>Total</b>	<b>111,287</b>	<b>115,089</b>	<b>127,149</b>	<b>124,893</b>	<b>124,624</b>	<b>125,054</b>	<b>133,394</b>	<b>150,649</b>	<b>173,041</b>
<b>Liabilities and Stockholders' Equity</b>									
<b>Current Liabilities</b>									
Bank Loans	20,820	2,472	6,898	6,585	7,133	7,565	7,565	7,565	7,565
Notes and Accounts Payable, Trade	9,279	8,189	8,451	11,536	7,133	7,060	7,331	8,295	9,663
Accrued Expenses	715	551	248	82	-	-	-	-	-
Income Taxes	1,794	1,997	3,835	1,785	1,230	1,608	1,670	1,889	2,201
Other Current Liabilities	11,501	12,751	14,364	14,528	6,054	12,161	12,628	14,288	16,645
<b>Total Current Liabilities</b>	<b>44,109</b>	<b>25,960</b>	<b>33,796</b>	<b>34,516</b>	<b>21,550</b>	<b>28,394</b>	<b>29,193</b>	<b>32,037</b>	<b>36,074</b>
<b>Long-Term Liabilities</b>									
Long-Term Debt	9,293	16,945	11,960	9,479	20,434	14,460	14,460	14,460	14,460
Deferred Income Taxes	119	686	323	362	302	256	256	256	256
Termination and Retirement Benefits	9,098	5,708	3,453	1,543	4,290	3,188	3,188	3,188	3,188
Other Long-Term Liabilities	1,849	1,256	2,721	2,327	2,185	2,270	2,270	2,270	2,270
	30,113	19,417	18,858	16,064	27,567	22,025	22,025	22,025	22,025
<b>Total Liabilities</b>	<b>64,468</b>	<b>50,555</b>	<b>52,253</b>	<b>48,227</b>	<b>48,761</b>	<b>48,568</b>	<b>49,367</b>	<b>52,211</b>	<b>56,248</b>
<b>Stockholders' Equity</b>									
Common Stock	17,105	19,052	19,052	19,052	19,052	19,052	19,052	19,052	19,052
Additional Paid-in Capital	26,332	28,110	28,191	28,217	28,220	28,169	28,169	28,169	28,169
Legal Reserve	4,881	15,946	23,521	24,565	23,193	24,394	25,832	31,761	40,274
Retained Earnings	-	-	-	-	-	-	-	-	-
Treasury Stock	(852)	(867)	(868)	(869)	(1,040)	(1,012)	(1,012)	(1,012)	(1,012)
<b>Total Stockholders' Equity</b>	<b>47,466</b>	<b>62,241</b>	<b>69,896</b>	<b>70,965</b>	<b>69,425</b>	<b>70,603</b>	<b>72,041</b>	<b>77,970</b>	<b>86,483</b>
Accumulated other Comprehensive Income	(647)	2,295	4,990	7,675	6,385	5,795	11,898	20,381	30,223
Warrant	0	0	0	0	0	0	0	0	0
Minority Interests in Subsidiaries	-	(2)	10	26	51	87	87	87	87
<b>Total Stockholders' Equity</b>	<b>46,819</b>	<b>64,534</b>	<b>74,896</b>	<b>78,666</b>	<b>75,861</b>	<b>76,485</b>	<b>84,026</b>	<b>98,438</b>	<b>116,792</b>
<b>Total</b>	<b>111,287</b>	<b>115,089</b>	<b>127,149</b>	<b>126,893</b>	<b>124,622</b>	<b>125,054</b>	<b>133,394</b>	<b>150,649</b>	<b>173,041</b>