



**DALAL & BROACHA**  
STOCK BROKING PVT. LTD.

Analyst: Mayank Babla (022) 67141412

## Initiating Coverage @ Dalal & Broacha

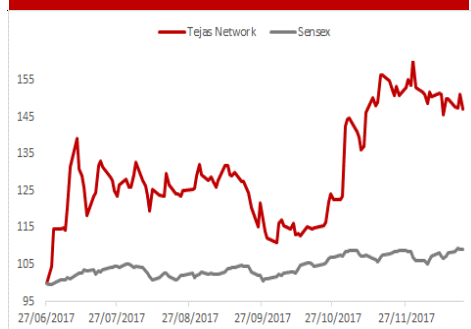
### BUY

Current Price	388.50
Target Price	519
Upside/Downside	34%
52 Week Range	434.20/257

### Key Share Data

Market Cap (Rs.bn)	35.002
Market Cap (US\$ mn)	546.56
No of o/s shares (mn)	27.381
Face Value	10
Monthly Avg. vol(BSE+NSE) Nos'000	205.847
BSE Code	540595
NSE Code	TEJASNET
Bloomberg	TEJASNET IN

### Price Performance



% Shareholding	Sep-16	Jun-16
Promoters	-	-
Institutions	30.5	29.6
Others	69.5	70.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>

Tejas Networks (TJNL) is an Optical and Data Networking products company which designs, develops and sells high performance products to Telecom Service Providers. TJNL's revenue mix consists of Optical Networking Products which contribute ~90% to its topline whereas Services contribute ~10% to topline as of Q2FY18. As far as Geographical mix is concerned TJNL derives 67% of its revenues domestically and 33% from foreign markets with a large chunk from US and Middle East.

### Expect TJNL to deliver >20% revenue CAGR between FY17-20E on the back of robust growth in Telecom Ecosystem products industry

Entrance of Reliance Jio in the telecom space was the largest trigger for the domestic digital revolution. Factors such as domestic Digital revolution and Government initiatives such as Digital India, BharatNet have driven demand for data usage exponentially in the last decade (no. of 3G subscribers have grown at 144% CAGR between 2009-14). However, the Infrastructure required for this data boom has lagged tremendously. We expect that the Telecom Network Infrastructure will play a catch-up game with private telcos and Govt. undertakings investing in 'fiberizing' more towers apart from more independent 4G towers. The Govt. alone has spent INR 11,200 Cr in BharatNet and is expected to spend another INR 34,000 Cr over Phase II. Domestic Optical Networking Market stood at \$653 Mn in FY17 and the Global Optical Networking stood at \$15.7 Bn, which is estimated to grow at 10% and 5% CAGR to \$869 Mn and \$17.9 Bn by FY20E respectively.

### Impeccable R&D discipline to ensure continuous portfolio enrichment through innovations and high domestic market share

TJNL is an R&D focused player with over 50% of its workforce allocated towards research activities and 40% of the pool having Masters/PHDs. An average R&D expense to Revenue percentage of 10.3% over the last 3 years gives TJNL the ability to keep pace with technology cycles and anticipate changing technologies. R&D discipline has enabled the company to garner 15% market share domestically and own over 300 IPs. Lastly, TJNL is a debt free company as of Q2FY18 with cash on books of INR 3800 Mn. We believe that this research focused approach and discipline is what differentiates TJNL as it ensures constant innovation and continuity of richness in the product portfolio.

### Lack of peers and infrastructure indicate huge opportunity

TJNL is one of the key beneficiaries of the Preferential Market Access Policy (PMA) issued by DOT in October 2012. The policy provides preference to domestically manufactured products that can have security implications for India. TJNL does not have any comparable peer in the domestic space and therefore is a key beneficiary. Additionally, <25% of towers in India are fiber connected and <25% and <1% of towers have 3G and 4G base stations, respectively. Upgradation of domestic telecom infrastructure is a huge opportunity for TJNL.

### Outlook and Valuations:

TJNL is currently trading at PE multiple of 22.2x and 16.4x FY19E and FY20E EPS. We believe that the company will deliver high growth given that it holds ~15% market share domestically and is present in a high growth industry, we apply a P/E of 22x to its est. FY20E EPS of INR 23.6 have a BUY rating on the stock with a TP of INR 519.

### Key Parameters (INR Mn)

	Net Sales	% Growth	EBITDA	% Growth	PAT	% Growth	EPS	PE (x)	ROE (%)	ROCE (%)
FY16	6275	62%	1130	65.0%	290	N.A.	3.2	120.0	8.0%	12.0%
FY17	8782	40%	1438	27.2%	632	118.1%	7.0	55.0	12.6%	11.3%
FY18E	10697	22%	1742	21.2%	1136	79.7%	12.7	30.6	10.8%	9.2%
FY19E	13025	22%	2217	27.3%	1566	37.9%	17.5	22.2	13.0%	10.9%
FY20E	15806	21%	2803	26.4%	2117	35.1%	23.6	16.4	14.9%	12.4%



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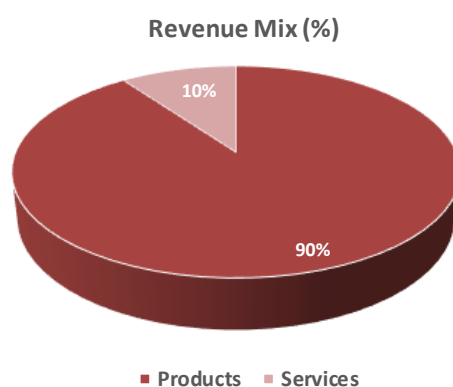
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### BACKGROUND

Tejas Networks (TJNL) is an Optical and Data Networking products company which designs, develops and sells high performance products to Telecom Service Providers, Internet Service Providers, Utility companies, defense companies and Government entities. Its products are used to build high speed communication products that carry voice, data and video traffic from fixed line, mobile, and broadband networks over optical fibre. The company's customer presence is across 60 countries. TJNL's manufacturing is mainly outsourced to 3<sup>rd</sup> party Electronics Manufacturing Services Companies while final integration, quality assurance and testing is conducted internally.

### BUSINESS SEGMENTS

TJNL's revenue mix consists of Optical Networking Products which contribute ~90% to its topline whereas Services contribute ~10% to topline as of Q2FY18.



Source: Company, Dalal & Broacha Research

Products are largely classified into 3 broad categories:

<b>Converged Packet Optical (CPO)</b>	CPO products can simultaneously support transport, processing and switching of both circuit and data traffic. CPO products are designed to support multiple circuit and data technologies such as Ethernet, OTN, MPLS, SDH/SONET and ROADM carried on a single optical wavelength or on multiple wavelengths. CPO products include <b>TJ1600 and TJ1400</b> that are deployed in access, metro and long-haul networks.
<b>Packet Transport Network (PTN)</b>	PTN products are used by telecommunications operators when the proportion of circuit traffic (which may be predominantly voice) in their networks is low compared to data traffic. PTN products are optical networking products that primarily transport data traffic and can also transport voice traffic by emulating it as packets of data.
<b>Dense Wavelength Division Multiplexing (DWDM)</b>	An optical fibre carries traffic in the form of light pulses. Through multiplexing, DWDM technology enables the transportation of multiple wavelengths of light of different colour simultaneously over the same fibre, thereby allowing large volumes of data to be transported over a single optic fibre.

Source: DRHP, Company, Dalal & Broacha Research

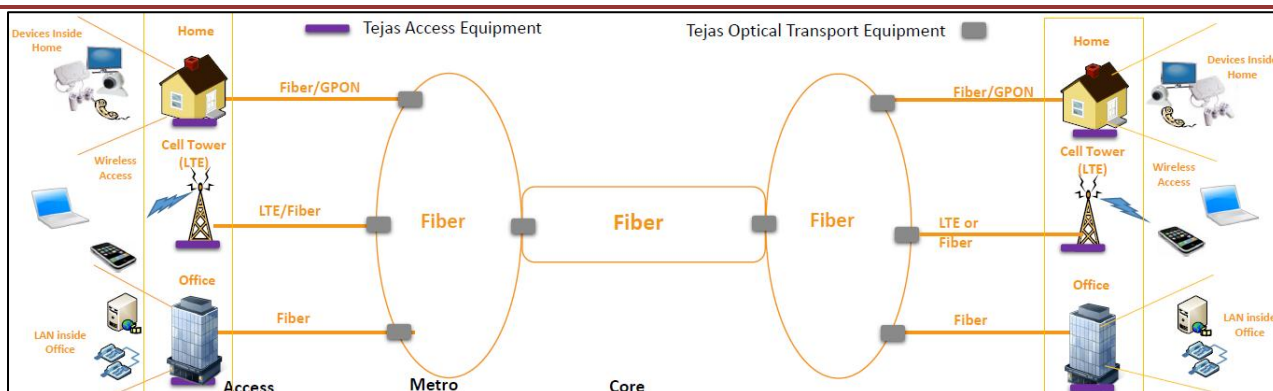
The above mentioned products are applicable across the **Longhaul**, **Access** and **Metro** segments of the network. Additionally, since the hardware is modular and architecture is software defined, upgrades can be remotely deployed.



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TJNL's key optical networking products include the TJ1400 and TJ1600, which can be flexibly configured as CPO, PTN and DWDM products. The company also sells TJ2911, TJ1400P-M, TJ1270 and TJ2100 products which involve Ethernet Switches, Multi-Service aggregation and ONT products (on customer premises).

### PRODUCT PORTFOLIO



**TJ1600**



**TJ1400**



**TJ6003W EPC**



**TJ1602 eNodeB**

### Enterprise Ethernet Switches



**TJ1400P-M4**



**TJ1400P-M1**



**TJ1400P-M2**



**TJ1400P-M3**

The main target for the Enterprise Ethernet Products are PSUs including defense sector which are constructing campus data networks.

Company's products are installed at 4 main locations:

- Cell Towers
- Telephone Exchange Locations
- Gram Panchayat in villages (mainly for BharatNet and Digital India)
- Corporate Buildings

As far as Geographical mix is concerned TJNL derives 67% of its revenues domestically and 33% from foreign markets with a large chunk from US and Middle East.



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### INDUSTRY

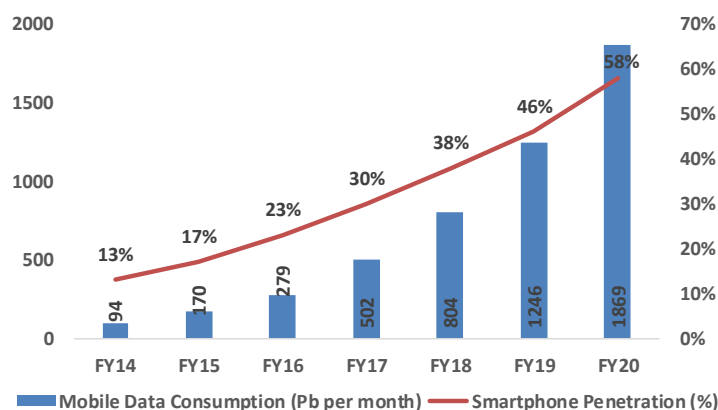
#### Presence in a high-growth Telecom Ecosystem Products industry coupled with a large market share

We believe that Telecom Ecosystem Products and Services industry is currently in a high-growth phase and will thrive for the next decade. Factors such as domestic Digital revolution and Government initiatives such as Digital India, BharatNet have driven demand for data usage exponentially. However, the Infrastructure required for this data boom is lagging and needs to catch up, which is precisely the reason why Telecom Products & Services players are facing a period of heightened demand.

#### Digital Revolution

Entrance of Reliance Jio in the telecom space was the largest trigger for the domestic digital revolution. Over the last decade, the Global economy has seen advancement of Telecom technology from 2G to 3G to 4G, which will eventually move on to 5G and so on and so forth. While developed economies have systematically developed telecom networks in conjunction with telecom technology, India has witnessed a technology boom while infrastructure still needs to catch up. Just to draw a rough picture, the number of 3G subscribers have grown at a CAGR of 144% between 2009 and 2014 (Deloitte Report).

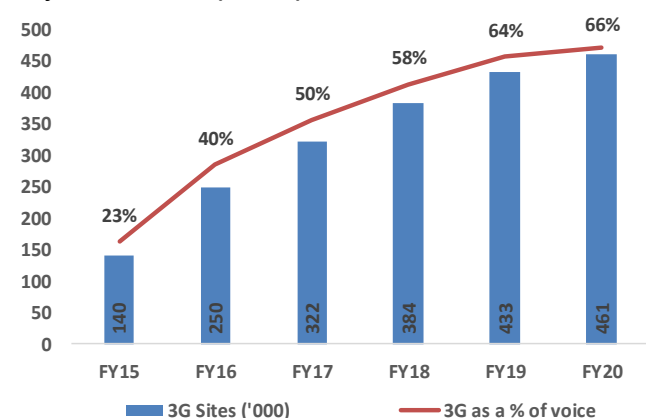
#### Smartphone Penetration and Mobile Data Consumption Trends



Source: Indian Tower Industry – June 2015 - Deloitte

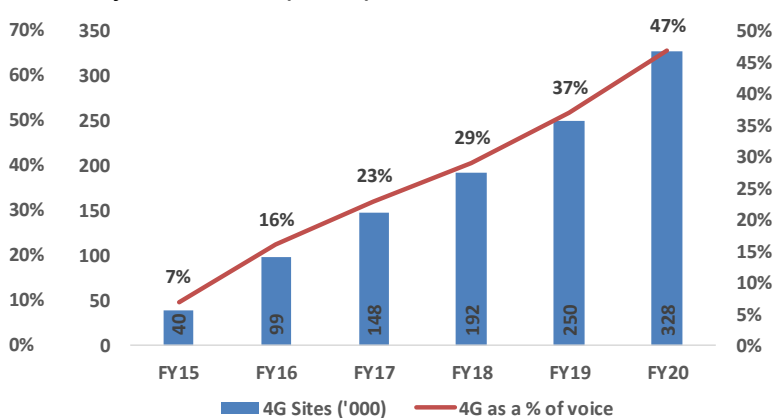
However, only 25% of the towers have 3G base stations (expected to increase to 66%. From 1,39,000 to 4,60,000). Additionally, 4G sites were recorded at <1% of total sites and are expected to grow to 14% of total sites by 2020. Currently, the number of standalone 3G and 4G (data towers) telecom towers across India are only ~700 and are estimated to grow at ~125% CAGR till FY20.

#### Projected 3G Sites (nodeB)



Source: Indian Tower Industry – June 2015 - Deloitte

#### Projected 4G Sites (nodeB)



Source: Indian Tower Industry – June 2015 - Deloitte

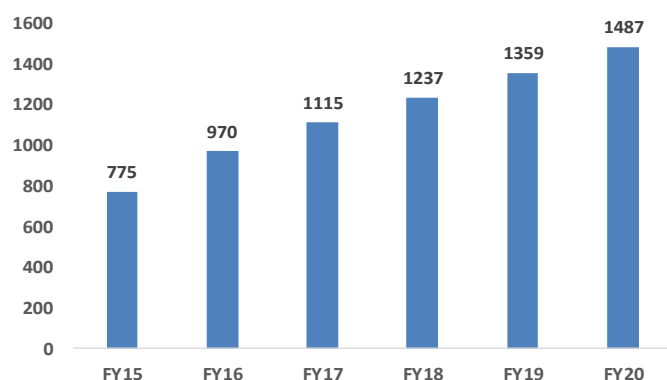


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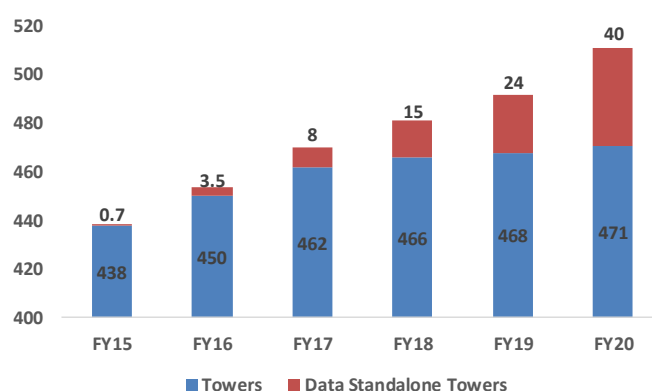
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**No. of Sites (BTS, nodeB, eNodeB) ('000)**



Source: Indian Tower Industry – June 2015 – Deloitte

**Projected Number of Towers**



Source: Indian Tower Industry – June 2015 - Deloitte

Moreover, 'rapidly increasing mobile data and voice usage have led to the need of a strong backhaul network for the telecom companies to provide seamless services to their customers. A large majority of Indian telecom sites use microwave radio technology for backhauling their data to the core network. They have been in place since 2G was the main technology in use.' (Deloitte Report) Notably, even copper cables are limited in terms of speed and capacity that they can carry and Optic Fiber Cables are a necessity for higher technologies. With 3G services thoroughly set in (322 Mn wireless broadband subscribers as of October 2017), increasing penetration of 4G subscribers (86.7 Mn users as of 2016) and 5G knocking at the doors, the microwave backhaul has become congested and overloaded with data being backhauled. Moreover, once smartphone penetration exceeds 25%, data explosion takes a new dimension. This is mostly driven by data hungry applications and on-demand services. We expect this trend to further increase pressure on the current infrastructure which in turn should make upgrades mandatory for private telcos. Deployment of fiber backhaul networks can provide the tower sites with the required capabilities to backhaul large amount of data to the core network. **Currently, <25% of the towers are "fiberized" or connected with fiber compared to 70-80% in developed countries. We believe that Optic Fiber Cables, Cell Towers and Aggregation Products will be under an extremely high demand over the next decade.**

### Government Initiatives

We believe that the current government has not left a single stone unturned in planning and executing its digital initiatives such as 'Digital India' and 'BharatNet'. BharatNet Phase I is set to complete by 2017 end and expected to connect 1 Lakh Gram Panchayats with an investment of INR 11,200 Cr and fiber layout of 10 lakh km. On the other hand, BharatNet phase II has already been initiated as of November 2017 and is expected to connect another 1.5 lakh Gram Panchayats and add another 10 Lakh Km of fiber to the existing network. Overall, the Govt. is expected to spend more than INR 45,000 Cr on the network infrastructure for BharatNet Program.



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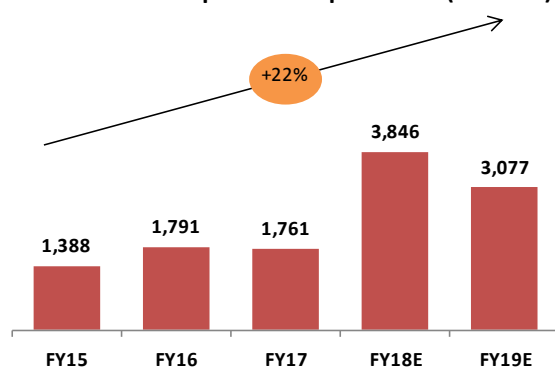
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### Private Telecoms to step up Non-Spectrum Capex to enhance network infrastructure

Though the Indian telecom sector is investing billions of dollars in upgrading the infrastructure, they are still grappling with rising instances of poor network and weak signal strength across different parts of the country. This is primarily due to the fact that Telecoms have rolled out 4G services despite giving a miss on investment in a complete and wholistic 3G infrastructure.

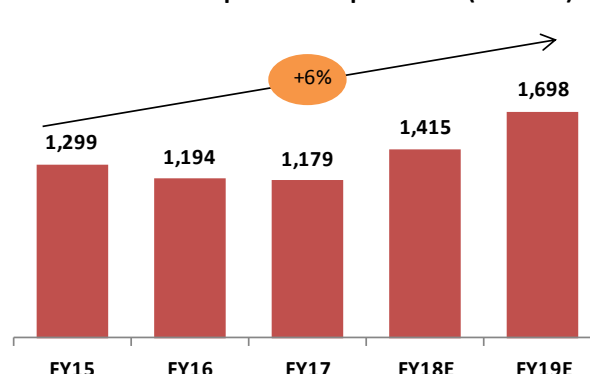
Therefore, Telecom companies have no choice but to increase capex and enhance their network. One way to combat network congestion is through 'small cell deployment' which has been the focus of private telecoms to expand reach and reduce congestion. Telecoms are also expected to increase investment in standalone data towers. As of FY15, only 700 towers of the 400,000 towers are estimated to be dedicated data (4G) towers and this is estimated to grow at a CAGR of 125% till FY20.

#### Bharti Airtel Non-Spectrum Capex Trend (USD Mn)



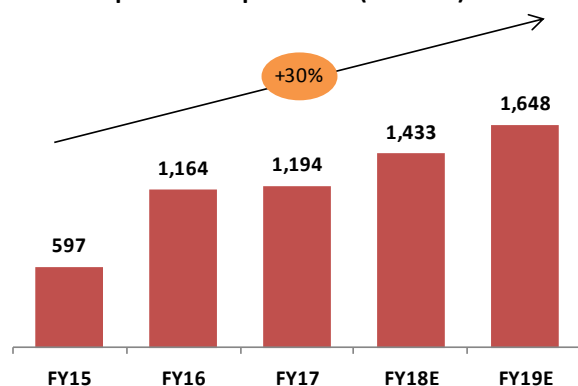
Source: Company Annual Report, Dalal & Broacha Research

#### Vodafone Non-Spectrum Capex Trend (USD Mn)



Source: Company Annual Report, Dalal & Broacha Research

#### Idea Non-Spectrum Capex Trend (USD Mn)



Source: Company Annual Report, Dalal & Broacha Research

In FY18E alone, it is estimated that Private Telecoms will spend INR 43,500 Cr on non-spectrum capex, i.e. expanding telecommunications infrastructure (2G, 3G and 4G tech) and Optical Fiber Cable transmission cable network. We believe that a move towards 5G technology will necessitate a similar capex level in FY19E as well. Given that Private Telecoms will spend approximately INR 90,000 crores over the next two years coupled with Government investment of INR 34,000 Cr, the total opportunity for Telecom ecosystem players stands upwards of INR 18,600 Crores (optical networking products industry is roughly 15% of overall non-spectrum capex spend)

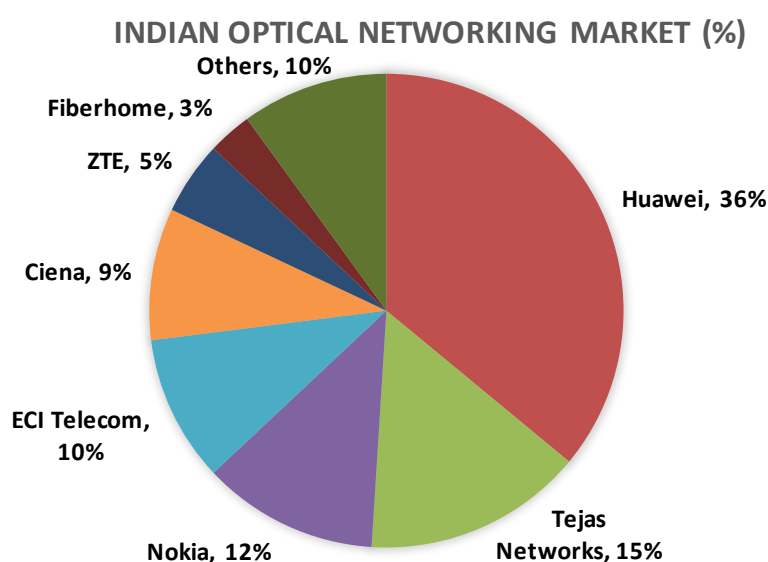


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### INVESTMENT RATIONALE

#### TJNL to be a key beneficiary of Preferential Market Access Policy

TJNL is one of the key beneficiaries of the Preferential Market Access Policy (PMA) issued by DOT in October 2012. The policy provides preference to domestically manufactured products that can have security implications for India. Furthermore, TJNL is a beneficiary of Modified Special Incentive Package Scheme (M-SIPS) and Defense Procurement Policy (DPP). M-SIPS provides capital subsidies of 20% in special economic zones and 25% in non-special economic zones. It also provides for reimbursements of countervailing duties and excise duties for capital equipment for the non-special economic zone units. DPP, on the other hand, promotes domestic procurement of goods used for Defence projects and is entitled as Indigenously Designed, Developed and Manufactured (IDDM) category. In order for products from Indian vendors to qualify as an IDDM product, 40% of the product must comprise indigenous content. We believe that Government Policies promoting indigenously manufactured goods/products have gone a long way to benefit TJNL. TJNL commands a domestic market share of 15%, which is the 2<sup>nd</sup> largest after Huawei at 36%.



Source: Company, DRHP and Dalal & Broacha Research

#### Impeccable R&D discipline to ensure continuous portfolio enrichment through innovations

TJNL is an R&D focused player with over 50% of its workforce allocated towards research activities and 40% of the pool having Masters/PHDs. We believe that this research focused approach and discipline is what differentiates TJNL as it ensures constant innovation and continuity of richness in the product portfolio. TJNL has spent INR 490 Mn, INR 523 Mn and INR 730 Mn on R&D, which constitutes 13%, 10% and 8% of overall revenues in FY15, FY16 and FY17, respectively. An average R&D expense to Revenue percentage of 10.3% over the last 3 years gives TJNL the ability to keep pace with technology cycles and anticipate changing technologies. R&D discipline has enabled the company to garner 15% market share domestically and own over 300 IPs.

**Initiating Coverage @ Dalal & Broacha****Programmable and Field replaceable hardware allow for flexibility for upgrades at lower costs**

Components such as silicon chips and PCBs used in TJNL's products are programmable through proprietary software. This means that any upgrades or changes required by the customer can be done remotely coupled with lower costs. For example, customers can transition from legacy voice centric networks to new data driven networks flexibly.

**Expect demand for eNodeB cards to increase dramatically post 4G rollout**

Post the initial roll out of 3G networks, majority of the operators loaded existing 2G Base Transceiver Stations (BTS) with 3G equipment. However, increased demand for data will necessitate installation of additional Node B/eNodeB for 3G and 4G. TJNL is currently developing eNodeB cards which can be used within the single TJ1600 product or as a separate product. Additionally, installation of specialized 3G and 4G towers should drive further demand for eNodeB cards.

**Robust historical financial performance and strong Balance Sheet set stage for a strong outlook**

TJNL has delivered robust financial performance with revenues growing from INR 3,868 Mn in FY15 to INR 8,782 Mn in FY17 at a CAGR of 51%. Additionally, EBITDA performance was also robust with a 45% CAGR between FY15-17. In this line, EBITDA margins have remained steady in the range of 16-18% between FY15 and FY17. NPM were largely beaten down with (4.5)% in FY15 which turned to positive 4.6% in FY16 and 7.2% in FY17. Net Margins were largely suppressed due to combination of Short & Long term debt on the books (INR 2,505 Mn, INR 2,590 Mn and INR 2,549 Mn in FY15, FY16 and FY17 respectively). TJNL's ROE and ROCE stood at 12.6% and 11.3% respectively in FY17.

However, as of Q2FY18, TJNL has cleared its entire debt except an INR 30 Mn Government grant which is estimated to be paid off in equal annual installments till FY20E. In that regard, we estimate Net Margins to jump from 7.2% FY17 to 10.6% in FY18E and eventually 12% and 13.4% in FY19E and FY20E, respectively. The company has a healthy cash balance of INR 3,800 and generated an FCF of INR 1,199 Mn as of FY17.

**Outsourcing Model and Software defined upgrades & customization ensure an asset-light model and cost efficiency**

TJNL outsources all its manufacturing to Cyient and Sanmina Corporation whereas final integration, testing and quality control are done internally. Secondly, products' architecture are largely software defined, which means that customization, updates and upgrades are easier and efficient.

**Patents are a major contributing factor to uniqueness of TJNL's offerings**

As of FY17, TJNL has 44 international patents, (6 in Europe and 38 in US) 12 patents in India and 51 patent applications pending in the US and 191 patent applications pending in India. To a huge extent, patents are key differentiating factors for TJNL. We believe that TJNL's R&D capabilities and discipline will ensure consistent patent application and uniqueness of the product.

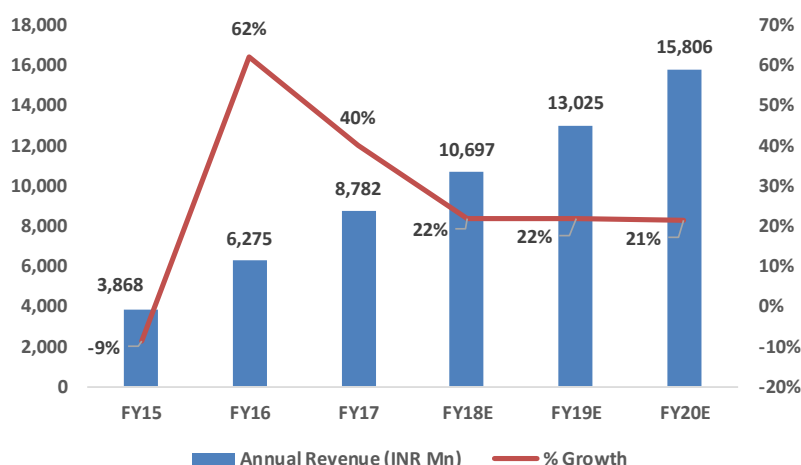




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### FINANCIALS

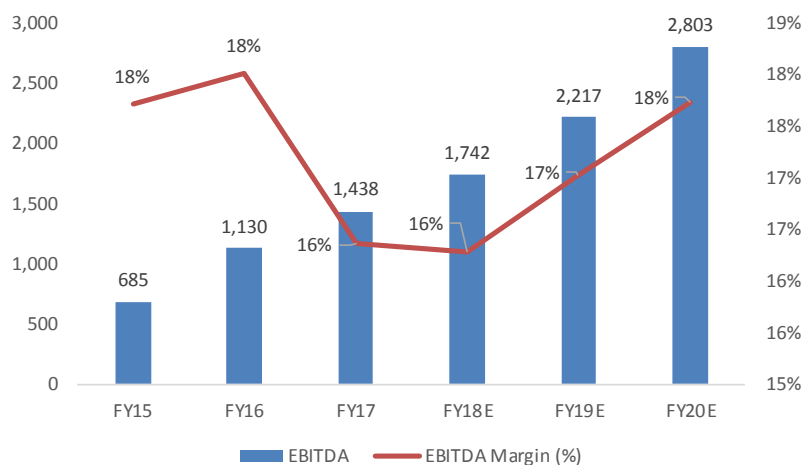
**Revenue (INR Mn) and Revenue Growth (%)**



Source: Company, DRHP and Dalal & Broacha Research

TJNL's revenue has grown at a CAGR of 51% between FY15 and FY17 mainly on the back of huge spending by Govt. and Telecoms on non-spectrum capex, i.e. infrastructure spending to support evolution from 2G to 3G to 4G. Going ahead, we believe that the company can clock a 22% CAGR between FY17 and FY20E on a conservative basis given that telecom technology is still evolving and India's network infrastructure has lagged severely. We can safely assume that TJNL can hold on to the 15% market share domestically and expect that the company can expand this position to 16% by FY20 given its innovative nature and Govt.'s drive for increasing domestic procurement.

**EBITDA (INR Mn) and EBITDA Margins (%)**



Source: Company and Dalal & Broacha Research

We expect EBITDA to grow at 25% CAGR between FY17 and FY20E whereas marginal improvement in margins from 16.3% to 17.7%. While we expect raw material cost as a % of sales to reduce marginally as manufacturing increases and economies of scale kick-in, we expect higher realizations in foreign markets to be the driving factor for margins.

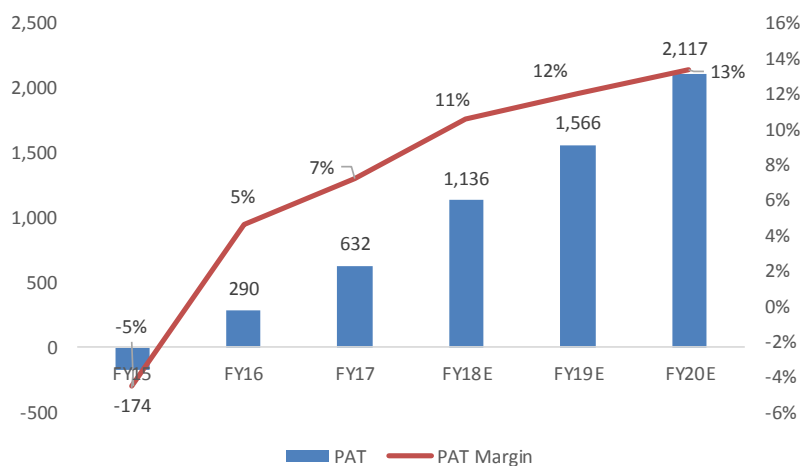


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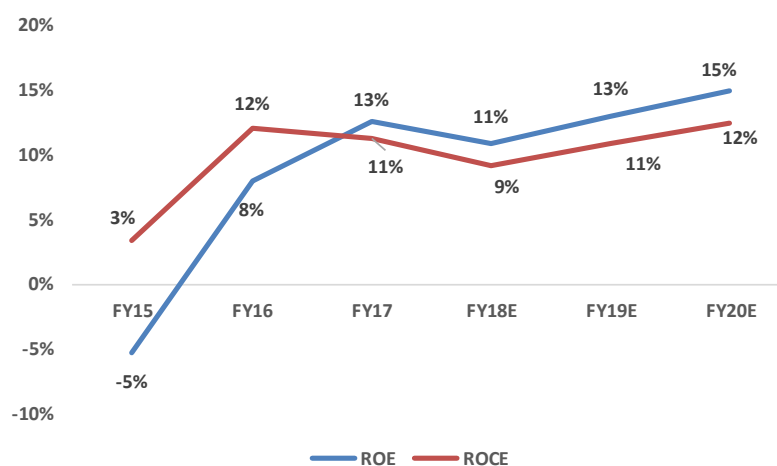
**PAT (INR Mn) and PAT Margins**



Source: Company and Dalal & Broacha Research

TJNL turned from loss-making in FY15 (INR 174 Mn of losses) to profit of INR 290 Mn in FY16. We expect TJNL's PAT to grow at a CAGR of 50% between FY17 and FY20E mainly because the company has become debt free after repaying INR 2520 Mn of short term borrowings in H1FY18. We believe that interest costs will come down from INR 315 Mn in FY17 to INR 29 Mn in FY18E and eventually INR 2 Mn in FY20 while PAT margins will parallelly increase from 7.2% to 13.4%. We expect EPS to increase from INR 7 in FY17 to INR 23.6 in FY20E.

**Profitability Ratios (%)**



Source: Company and Dalal & Broacha Research



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### VALUATION & OUTLOOK

We believe that a couple of factors are driving growth in telecom networking products and the incumbents therein:

- India's Digital boom – Rjio's entry has necessitated other Private Telecoms to upgrade network coverage, quality and technology
- Global evolution of telecommunications technology from 2G to 3G to 4G and beyond
- Domestic telecoms spending shifting from spectrum based to non-spectrum capex (which has become non-discretionary)
- Necessity to upgrade domestic telecom infrastructure to support transformation from 2G to 3G to 4G as currently <30% of towers are 'fiberized' or capable to support 3G and 4G and higher technologies. We believe that higher 'fiberization' will translate into higher demand for telecom networking products
- 3% CAGR growth in towers between FY16 and FY20E
- Completion of BharatNet Phase I in 2017 and initiation of Phase II in December 2017
- Digital India and Smart City Initiatives

TJNL is well placed to ride the growth in Telecom Networking Products Industry and an impeccable R&D practice will ensure continuous enrichment of product portfolio. Moreover, expansion of Export revenues from current 35% share (by penetrating geographies like the US) will translate into higher realizations and higher margins and those lines we expect margins to expand from 16% in FY17 to 18% in FY20E. TJNL has become a debt free company and has paid off its entire short term borrowing by H2FY18 (in-line with its IPO objects). In this regard, we expect Net Margins to improve from 7% in FY17 to 13% in FY20E.

TJNL is currently trading at PE multiple of 22.2x and 16.4x FY19E and FY20E EPS. We believe that the company will deliver high growth given that it holds ~15% market share domestically and is present in a high growth industry, we apply a P/E of 22x to its est. FY20E EPS of INR 23.6 have a BUY rating on the stock with a TP of INR 519.

### PEER COMPARISON

Company Name	Revenue (USD Bn)			EBITDA (USD Mn)			Net Profit (USD Mn)			EPS			ROE	ROCE	Price*
	CY16	CY17E	CY18E	CY16	CY17E	CY18E	CY16	CY17E	CY18E	CY16	CY17E	CY18E	CY16	CY16	
Nokia	26.1	27.1	26.3	4168.3	3411.6	3022.9	1585.4	1791.1	1820.0	0.28	0.35	0.33	9.4	8.1%	4.7
Ciena Corp	2.8	2.8	2.9	361.6	415.0	420.4	149.9	267.8	204.9	1.06	1.74	1.35	10.3	8.6%	21.1
ZTE Corp	15.2	16.6	17.9	-33.5	1206.4	1364.6	-540.5	685.4	778.6	-0.13	0.16	0.19	-11.0	4.1%	5.4
Fiberhome Telecom Tech	2.6	3.3	4.1	140.2	236.5	307.5	114.7	135.5	180.7	0.11	0.13	0.17	10.8	12.6%	4.6
Company Name	Revenue Growth (%)			EBITDA Margin (%)			Net Profit Margin (%)			*Closing Price as of 22/12/2017					
	CY16	CY17E	CY18E	CY16	CY17E	CY18E	CY16	CY17E	CY18E						
Nokia	88%	4%	-3%	16%	13%	11%	6%	7%	7%						
Ciena Corp	15%	0%	5%	13%	15%	14%	5%	10%	7%						
ZTE Corp	-3%	9%	8%	0%	7%	8%	-4%	4%	4%						
Fiberhome Telecom Tech	22%	27%	23%	5%	7%	8%	4%	4%	4%						



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### SHAREHOLDING PATTERN

Category	Shareholding %
<b>Mutual Funds</b>	<b>6.78%</b>
<b>Alternate Investment Funds</b>	<b>3.27%</b>
<b>Foreign Portfolio Investors</b>	<b>20.02%</b>
East Bridge Capital	4.01%
Amansa Holdings	3.07%
Columbia Emerging Markets	2.16%
Abu Dhabi Investment Auth	2.08%
Fidelity Investment Trust	1.38%
Columbia Variable Portfolio	1.20%
Rams India Equity Potfolio	1.04%
<b>Financial Institutions</b>	<b>0.45%</b>
<b>Individual Share (&lt;2 Lacs)</b>	<b>3.93%</b>
<b>Individual Share (&gt;2 Lacs)</b>	<b>9.58%</b>
<b>Trusts</b>	<b>0.24%</b>
<b>HUF</b>	<b>0.08%</b>
<b>NRI</b>	<b>0.01%</b>
<b>NRI Repat</b>	<b>0.04%</b>
<b>Clearing Members</b>	<b>0.19%</b>
<b>Bodies Corporate</b>	<b>2.68%</b>
SBI Life Insurance	1.41%
<b>Overseas Body Corporate</b>	<b>15.58%</b>
Samena Spectrum	15.58%
<b>Foreign Companies</b>	<b>34.30%</b>
Cascade Capital Mgmt	18.41%
Mayfield XII	7.92%
Sandstone Pvt. Investments	4.00%
Intel Capital Caymen	3.47%
<b>Directors &amp; Relatives</b>	<b>2.84%</b>
Sanjay Nayak	2.58%
<b>Total</b>	<b>100%</b>

### SHAREHOLDING PATTERN POST OFS

Selling Shareholder	Number of Shares Pre-IPO	Number of Shares in OFS	% of holding exited	% of pre-offer fully paid up capital	% holding post offer
Cascade Capital Mgmt	2,18,43,184	53,30,000	24%	30.32%	18.4%
Sandstone Private Investments	44,87,250	8,97,450	20%	6.23%	4.0%
Intel Capital (Cayman) Corporation	41,81,400	10,66,361	26%	5.80%	3.5%
Sanjay Nayak	32,61,991	7,90,000	24%	4.53%	2.6%
India Industrial Growth Fund	25,14,147	25,14,147	100%	3.49%	N.A.
Kumar Sivarajan	19,71,543	5,93,000	30%	2.74%	-



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Analyst: Mayank Babla (022) 67141412

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### MANAGEMENT PROFILE

Name	Designation
Sanjay Nayak	MD and CEO
Jumar N. Sivarajan	Chief Technical Officer
Arnob Roy	President - Optical Products
Venkatesh Gaidyar	CFO
Sukhvinder Kumar	President - Global Manufacturing Operations
Krishnakant G V	Company Secretary & Compliance Officer

Source: Company Website

### RISKS AND CONCERNES

- **High Account Receivable days:** AR days stand at 149 days as of FY17 which is a huge risk as it indicates that cash conversion is delayed and that working capital requirement might increase. However, Account Receivable days have reduced from 196 days in FY15 to 149 days in FY17 which is an indication of positive cash management but a long conversion period nonetheless.
- As of FY17, approximately 45% of TJNL's top-line was attributable to PSUs which is a huge concentration of revenues from Government sources. Revenue from Government sources is generally considered risky business due to problems of delayed payments and inability to charge higher realizations. Going ahead, we believe that share of revenue from private telcos and foreign companies will increase compared to Government sources and this risk will reduce.
- **Changes in Technology:** Since TJNL is in a field where technology is changing at a very high pace, redundancy is a key risk for the company's products. However, we believe that the company is managing the risk effectively due to its R&D discipline.



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### Profit & Loss Statement (INR Mn)

YE March (INR Mn)	FY16	FY17	FY18E	FY19E	FY20E
<b>Net Sales</b>	<b>6,275</b>	<b>8,782</b>	<b>10,697</b>	<b>13,025</b>	<b>15,806</b>
<b>Operating Expenses</b>					
Raw Materials	3,557	5,141	6,204	7,489	9,010
Power & Fuel Cost	34	36	43	52	63
Employee Cost	1,003	1,155	1,328	1,586	1,892
Other Manufacturing Expenses	170	61	267	326	395
Selling and Administration Expenses	500	743	909	1,107	1,344
Miscellaneous Expenses	363	610	738	899	1,091
Less: Pre-operative Expenses Capitalised	483	401	535	651	790
<b>Total Operating Expenses</b>	<b>5,144</b>	<b>7,344</b>	<b>8,955</b>	<b>10,808</b>	<b>13,003</b>
<b>EBITDA</b>	<b>1,130</b>	<b>1,438</b>	<b>1,742</b>	<b>2,217</b>	<b>2,803</b>
Depreciation	382	564	516	540	564
<b>EBIT</b>	<b>748</b>	<b>873</b>	<b>1,225</b>	<b>1,677</b>	<b>2,238</b>
Other Income	35	87	218	309	442
Extraordinary Income	0	0	0	0	0
Finance Expense	493	315	5	3	2
<b>PBT</b>	<b>290</b>	<b>645</b>	<b>1,438</b>	<b>1,983</b>	<b>2,679</b>
<b>Adj. PBT</b>	<b>290</b>	<b>645</b>	<b>1,438</b>	<b>1,983</b>	<b>2,679</b>
Current	0	13	302	416	563
Deferred	0	0	0	0	0
Fringe benefit tax	0	0	0	0	0
<b>Profit After Tax</b>	<b>290</b>	<b>632</b>	<b>1,136</b>	<b>1,566</b>	<b>2,117</b>
<b>Adj. PAT</b>	<b>290</b>	<b>632</b>	<b>1,136</b>	<b>1,566</b>	<b>2,117</b>
<b>Profitability Margins</b>					
EBITDA Margin (%)	18.0%	16.4%	16.3%	17.0%	17.7%
NPM (%)	4.6%	7.2%	10.6%	12.0%	13.4%

### Balance Sheet (INR Mn)

YE March (INR Mn)	FY16	FY17	FY18E	FY19E	FY20E
<b>Liabilities</b>					
Equity Capital	665	740	897	897	897
Reserves & Surplus	2,940	4,267	9,601	11,167	13,283
<b>Equity</b>	<b>3,605</b>	<b>5,007</b>	<b>10,498</b>	<b>12,064</b>	<b>14,181</b>
Total Loans	2,590	2,549	29	19	9
Net Deferred Tax	20	36	36	36	36
<b>Capital Employed</b>	<b>6,215</b>	<b>7,592</b>	<b>10,563</b>	<b>12,119</b>	<b>14,226</b>
<b>Assets</b>					
Gross Block	3,561	4,103	4,303	4,503	4,703
Less: Depreciation	2,618	3,183	3,699	4,239	4,804
<b>Net Block</b>	<b>943</b>	<b>921</b>	<b>604</b>	<b>264</b>	<b>-100</b>
Capital WIP	518	186	186	186	186
<b>Investments</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Current Assets</b>					
Inventories	2,317	1,817	2,156	2,486	2,851
Sundry Debtors	2,542	3,580	4,103	4,817	5,630
Cash and Balance	694	709	3,704	5,339	7,706
Loans and Advances	492	487	349	565	806
Other Current Assets	877	1,461	1,461	1,461	1,461
<b>Total Current Assets</b>	<b>6,922</b>	<b>8,055</b>	<b>11,773</b>	<b>14,668</b>	<b>18,453</b>
<b>Current Liabilities</b>					
Sundry Creditors	2,139	1,532	1,963	2,961	4,275
Provisions	29	38	38	38	38
<b>Total Current Liabilities</b>	<b>2,168</b>	<b>1,570</b>	<b>2,001</b>	<b>2,999</b>	<b>4,313</b>
<b>Capital Applied</b>	<b>6,215</b>	<b>7,592</b>	<b>10,563</b>	<b>12,119</b>	<b>14,226</b>

### Cash Flow Statement

YE March (INR Mn)	FY16	FY17	FY18E	FY19E	FY20E
PAT	290	632	1,136	1,566	2,117
Less: Non Operating Income	-35	-87	-218	-309	-442
Add: Depreciation	382	564	516	540	564
Add: Interest Paid	493	315	5	3	2
<b>Operating Profit before WC Changes</b>	<b>1,130</b>	<b>1,425</b>	<b>1,440</b>	<b>1,801</b>	<b>2,240</b>
(Inc)/Dec in Current Assets	-726	-1,617	-385	-930	-1,054
Inc/(Dec) in Current Liabilities	718	-598	431	998	1,314
Changes in Inventory	-108	500	-339	-330	-365
Changes in Working Capital	-116	-1,715	-293	-262	-104
<b>Cash Flow From Operations</b>	<b>1,015</b>	<b>-290</b>	<b>1,147</b>	<b>1,539</b>	<b>2,136</b>
<b>Cash Flow from Investing Activities</b>					
(Inc)/Dec in Fixed Assets	-817	-542	-200	-200	-200
Add: Non Operating Income	35	87	218	309	442
<b>Cash Flows from Investing Activities</b>	<b>-422</b>	<b>-124</b>	<b>18</b>	<b>109</b>	<b>242</b>
<b>Cash Flow from Financing Activities</b>					
Inc/(Dec) in Total Loans	85	-41	-2,520	-10	-10
Inc/(Dec) in Reserves & Surplus			4198	0	0
Less: Interest Paid	-493	-315	-5	-3	-2
<b>Net Cash Flow from Financing Activities</b>	<b>-399</b>	<b>429</b>	<b>1,830</b>	<b>-13</b>	<b>-12</b>
<b>Net Inc/(Dec) in cash equivalents</b>	<b>194</b>	<b>16</b>	<b>2,995</b>	<b>1,635</b>	<b>2,367</b>
Opening Balance	500	694	709	3,704	5,339
<b>Closing Cash and Cash Equivalents</b>	<b>694</b>	<b>709</b>	<b>3,704</b>	<b>5,339</b>	<b>7,706</b>

### FCFF Statement

YE March (INR Mn)	FY16	FY17	FY18E	FY19E	FY20E
EBITDA	1,130	1,438	1,742	2,217	2,803
Add: Depreciation Tax Shield	0	11	108	113	119
Working Capital Changes	-116	-1,715	-293	-262	-104
Less: Inc in FC Investment	-817	-542	-200	-200	-200
Taxes Paid	0	-13	-302	-416	-563
<b>Total Free Cash Flows</b>	<b>198</b>	<b>-821</b>	<b>1055</b>	<b>1452</b>	<b>2054</b>

Valuation Ratios	FY16	FY17	FY18E	FY19E	FY20E
P/E (x)	120.0	55.0	30.6	22.2	16.4
PEG Ratio		0.5	0.4	0.6	0.5
P/S (x)	0.06	0.04	0.04	0.03	0.02
Market Cap/Sales (x)	5.5	4.0	3.3	2.7	2.2
EV/EBITDA (x)	49.1	42.0	25.4	17.6	12.1
EV/Sales (x)	5.8	4.2	2.9	2.3	1.7



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