

December 07, 2022

To,

The Manager  
Listing Department  
National Stock Exchange of India Limited  
Exchange Plaza, Bandra Kurla Complex,  
Bandra (East), Mumbai– 400051

**Company Trading Symbol: FROG**

**RE: Disclosure under Regulation 30 of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015 (“SEBI Listing Regulations”).**

**Subject: Investor Presentation – December 2022**

Dear Sir(s)/ Madam,

With reference to the subject above, please find attached herewith Investor Presentation – December 2022.

The same will also be available on the website of the company at [www.frogcellsat.com](http://www.frogcellsat.com)

This is for your information and records.

Thanking You  
Yours Faithfully,  
For Frog Cellsat Limited

**MANISHA** Digitally signed by  
**MAKHIIJA** MANISHA MAKHIJA  
Date: 2022.12.07  
00:28:49 +05'30'

Manisha Makhija  
(Company Secretary & Compliance Officer)



# FROG CELLSAT LIMITED

Investor Presentation December 2022





## **SAFE HARBOUR**

Certain statements in this document may be forward-looking statements. Such forward-looking statements are subject to certain risks and uncertainties like government actions, local, political, or economic developments, technological risks, and many other factors that could cause our actual results to differ materially from those contemplated by the relevant forward-looking statements. Frog Cellsat Limited will not be in any way responsible for any action taken based on such statements and undertakes no obligation to publicly update these forward-looking statements to reflect subsequent events or circumstances.

Focusing on  
**PM's Vision of**  
**“Make in India”**

Program by manufacturing  
world-class telecommunication  
equipment to provide better  
connectivity across India  
and the world



# COMPANY AT A GLANCE



Leading manufacturers of telecom equipment's



18+ years of expertise in providing wireless coverage enhancement solutions



Highly experienced In house RF-planning, Implementation and Service Team



Expertise across the entire value chain of Designing, Manufacturing & Installation of Active DAS, RF Repeaters and Customized RF solutions



Constant R&D to develop new products to service evolving needs of telecom industries



State-of-the-art production and R&D facility in Noida and Dehradun

ISO-certified products that matches the quality of large companies



Reputed clientele comprises of top clients such as Airtel, Jio, Vodafone Idea, Adani, Motorola and others



Customer presence in India, Europe, SE Asia, Africa

Well-positioned in the industry for being price competitive, field-proven, future-ready, and dependability

# GROUP STRUCTURE



FROG CELLSAT LIMITED

FROG TELE  
PRIVATE LIMITED

The company is a **100%** subsidiary of FCL. It's an SPV company holding the Industrial land asset of the FCL.

FROG SERVICES  
PRIVATE LIMITED

The company is a **100%** subsidiary of FCL and houses the services division of the FCL group.

SHIVA PROFILES  
PRIVATE LIMITED

The company is a wholly owned subsidiary of Frog Cellsat. The company is currently in the process of amalgamation with Frog Cellsat Ltd.

# INFRASTRUCTURE



**Headquarters & Factory**



**Dehradun Factory**



**Noida: Service Office & Storage Facility**



**In-house Testing**



**In-house R&D**

# LEADERSHIP POOL



**Mr. Konark Trivedi**

Co-Founder & CEO

An engineer by qualification with over 25 years of experience in mobile and satellite communication

Holds a Bachelor's degree in Technology from Aligarh Muslim University (AMU), Aligarh and a Post-Graduation in Mobile and Satellite Communication from Westminster University, London.

Worked with leading companies including HCL and HFCL.



**Mrs. Sonal Trivedi**

Co-Founder & CPO

People's person with a rich experience of over 20 years in HR, Training, Admin & Culture Building

Has helped build a rich culture and healthy HR policies in Frog, helping company get "Great Place to Work", GPW – Women, Best in Telecom etc. recognitions.

Gold medallist in Master of Industrial Psychology from HNGBU and CELTA certified teacher (Certificate of English Language Teaching to Adults), from British Council, New Delhi (Cambridge Univ affiliated)

Has a passion for teaching English and has worked with British Council, Delhi and HACE, London.

Currently manages the People's departments of Frog Cellsat Ltd.



**Mr. Charan Jeet Kalra**

CFO

Company Secretary by profession

10+ years of experience in implementing strategic financial decisions and overlooking finance operations

Currently manages end-to-end operations such as Banking, Liquidity Management, Budgeting, Forecasting, Project funding, Auditing & Accounting, MIS & PL controls, others for Frog Cellsat



**Mr. Tarun Tularam Sharma**

CTO

Leads FCL's long-term technology vision, and is responsible for R&D in coverage enhancement solutions for next-generation networks with emphasis on technology standards, innovation, customization and industry collaboration

He also facilitates the technical community within FCL

Prior to joining FCL in 2009, Mr. Sharma served at Nortel India's Knowledge Services division as a specialist on CDMA and WiMAX technology. Served as a head of Marketing & Systems SBU at India Satcom he extensively designed and implemented Satcom networks

Headed the Voice Communications Group at Reliance and was responsible for managing Carrier class switches, technology incubation, interoperability and integration with national carrier

Mr. Sharma started his career at Indian Air Force in 1989 as a commissioned officer in the technical branch and commanded a mobile communications unit, fulfilling strategic air defence communication need

He holds a Post Graduate Diploma in Management and a Bachelor of Science in Electronics and Communications Engineering from National Institute of Technology, Kurukshetra (erstwhile REC, Kurukshetra) with a specialization in Reliability Engineering.

# EVOLUTION OVER THE YEARS



**2004**

Incorporated Frog CellSat and became Indian Sales Representative of CDMA. First customer – RCOM

**2005**

Started with repair service offerings

**2006**

Switched to a new business model of buying imported products and selling (Trading). Added new product “GSM Repeaters”. Customer Addition: Nokia & Siemens

**2007**

Started I&C Services nationwide. Started R&D for in-house design of Repeaters. Customer Addition: Ericsson

**2008**

Set up the first manufacturing unit in Dehradun. Started the production of Repeaters based on in-house developed design

**2010**

Set up the Product Addition: WCDMA / 3G Repeater; IBS Accessories, Customer Addition: Uninor

**2011**

Crossed a plateau of ₹10 Crore in Revenue

**2012**

Product Addition: LTE / 4G Repeater

**2014**

Product Addition: Jumpers, Started BTS-related services, Customer addition: Vodafone,

**2015**

New Production Unit at Noida, Started Exporting products, Crossed a plateau ₹50 Crores in revenue

**2016**

R&D Got DSIR Approval, Product Addition: Duplexers/ Filters,

**2017**

Product Addition: Optical DAS

**2020**

Product Addition: Common Public Radio Interface (CPRI)

**2021**

Crossed a milestone of ₹100 Crore in Revenues, Product Addition: RET Cable, SFP, Small Cell Antenna

**2022**

Company listed on NSE – SME Platform, Application approved under Design led manufacturing PLI scheme worth over ~₹660 Mn

# CREATING CONSISTENT VALUE FOR INVESTORS



**Revenue**  
**23.9%**  
**CAGR**

**EBITDA**  
**77.3%**  
**CAGR**

**PAT**  
**225.6%**  
**CAGR**

**ROCE**  
**23.1%**

**ROE**  
**18.8%**






**Debt**  
**free**  
**company**

**No. of**  
**products:**  
**14+**

**40+ Cr.**  
**Order Book**  
**as on 30th**  
**Sep, 2022**

# PRODUCT OVERVIEW



Product	Product Description	Application	Product Image
Network Accessories -Includes Jumpers, CPRI, RET Cable, Multiplexers, Filters, SFP, Feeder Cable	Network accessories are used to combine, split, switch, boost, or direct packets of information along telecommunications network.	Products for integrating mobile cell site.	
Digital Repeaters	Enhances cellular coverage in dark zones for a single operator	Improving mobile signal indoors for small to mid size area like offices, residencies, etc - Providing mobile coverage in remote areas	
Optical DAS	Optical Distributed Antenna System supports multi-technologies and multi-operators for cellular coverage to medium and large facilities	Improving mobile coverage in large size venues like stadiums, airports, etc - Covers all cellular bands and public safety bands	
Antenna	Antennas radiate RF power and illuminate the dark zones	- Provides BTS coverage - Provides small cell coverage	
IBS Accessories	Provides indoor coverage using a series of hubs/Equipment's distributing the signal to number of antennas	- Products for integrating solution for inbuilding mobile coverage - Includes Yagi/panel/omni antenna, RF splitters/combiners, dummy load	

# SPECTRUM OF SERVICES PROVIDED TO TELECOM COMPANIES

## In-Building

### Installation and Roll-out Services: includes RF Survey.

Active /Passive DAS Design  
through IBwave / Manual,  
Deployment & Integration Passive  
DAS, Active DAS, Small Cell, Lamp  
site, Radio DOT, Femto Cell.  
Acceptance Testing and  
Optimization.  
NMS setup and configuration  
Femto Deployment & Project  
Management.

### Network Maintenance Services includes :

Operation and Maintenance,  
Modification and expansion  
Planning & Deployment  
Troubleshooting & Rectification.

## BTS, MW & Small Cell I&C

### Installation and Roll-out Services includes:

RFI Survey, BTS Installation and  
Integration, BTS De-installation  
(End to End Scope)  
MW Installation and  
Commissioning, E1 Testing,  
Link NMS Visibility.  
Acceptance Installation &  
Commissioning.  
RET installation, Indoor, Outdoor  
Small Cell & ULS I&C.

### Network Maintenance Services includes :

Link Alignment  
BTS Indoor to Outdoor Installations,  
BTS Swaps Microwave Upgrades 4th  
Sector Addition  
Traffic Shifting and Optimization  
ODU Upgradation, Site Relocation,  
GSM Antenna / RRU Hight  
adjustment.

## RF Planning & Optimization

### Installation and Roll-out Services includes: RF Survey,

LOS (MW) Survey,  
RF & TX Planning,  
Optimization (RF KPIs),  
Drive Test / SCFT,  
Network Benchmarking and  
Acceptance Testing,  
EMF Measurement and  
Reporting

### Network Maintenance Services: Network Complaint Rectification

# BROAD CUSTOMER BASE ACROSS INDUSTRIES



## Domestic Mobile Operators



## SI & Telecom Equipment Providers



## In-Building Coverage Infra Providers



## Large Project Developers



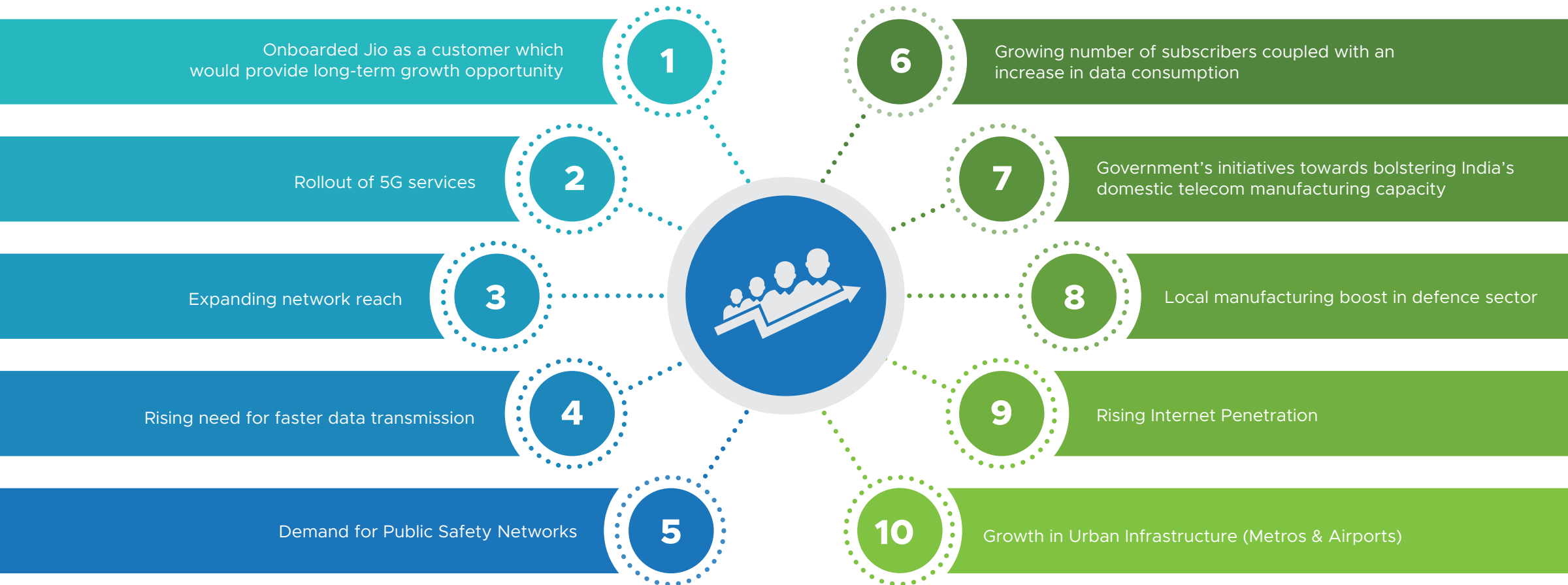
## Government & Defence



## International Mobile Operators & SI



# GROWTH DRIVERS



# OPPORTUNITIES FOR GROWTH



Infra Projects (Airports and Metro)

Power Cable

5G FWA Terminal

I&C Services Expansion

Each product has a

**50+Cr**  
opportunity  
/ year

Jio 5G Site Material

Tejas / BSNL 4G Site Material

Defense Innovation

Interference Mitigation System

Each product has a

**100+Cr**  
opportunity  
/ year

Manufacturing Services

Defense Offset Projects

Each product has a

**200+Cr**  
opportunity  
/ year

# FCL HAS A WIDE RANGE OF PRODUCTS TO CATER TO MULTIPLE INDUSTRIES



## TELECOMMUNICATION INDUSTRY

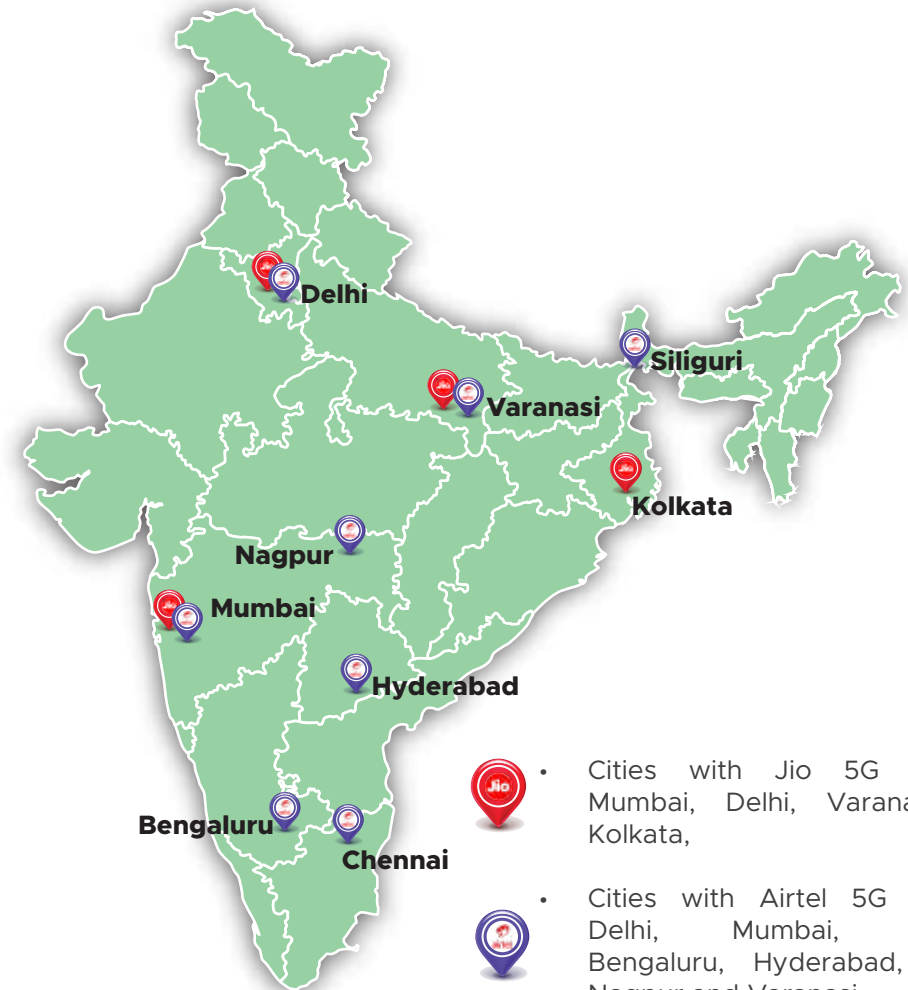
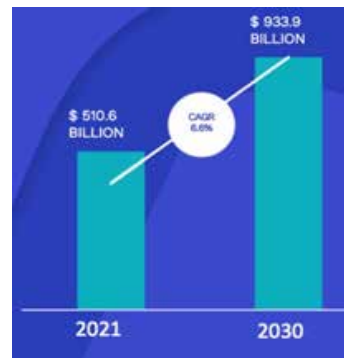
- The global telecom equipment market size is growing at a rapid pace, due to increasing numbers of cellular stations and the demand for next-generation-ready network equipment led by the advent of 5G networks
- With the faster deployment of 5G and wider coverage of existing technology, the total addressable market for telecom equipment industry is expected to reach **\$933.9 Bn by 2030**

## GLOBAL TELECOM EQUIPMENT MARKET

- India is witnessing tremendous growth in domestic manufacturing of telecom equipments which find multifaceted application across sectors like mobile telephony, defence, compact infrastructure on back of the government's mission to make India "Atmanirbhar"
- The telecom industry in India is the second-largest in the world and it will mostly likely add 500 Mn internet users over the next five years led by rise in mobile-phone penetration and a decline in data costs
- Government of India (GoI) aims to make India a new telecom equipment manufacturing hub and nurture home companies and is expected to boost export of Telecom and Networking Products under "Make in India" initiative.

## HIGHLIGHTS ON TELECOM COMPANIES

- Telecom companies like Jio, Airtel, Vodafone have already rolled out their 5G services
- The top two operators "Jio" and "Airtel" will spend on network equipment and laying fibre as they target launching ultrafast 5G networks in the coming months
- Jio: India's top telecom mobile operator, has earmarked a spending of \$25 bn on the rollout of its 5G services that it plans to debut in key cities this Diwali in October (source: <https://techcrunch.com/2022/08/29/reliance-jio-to-debut-5g-in-october-reach-all-by-2023-end/>).



- Cities with Jio 5G services: Mumbai, Delhi, Varanasi, and Kolkata,



- Cities with Airtel 5G services: Delhi, Mumbai, Chennai, Bengaluru, Hyderabad, Siliguri, Nagpur and Varanasi.

## DEFENCE INDUSTRY

- FCL is engaged in various projects of national importance and has forayed into repair and maintenance of electronics parts used in old tanks and aircrafts; in developing and manufacturing parts locally which so far was only imported for example Avalanche Victim Detector (AVD), Power Amplifiers for Radar Applications, etc.
- With the current Indian defence budget, there is a renewed focus on AtmaNirbhar theme which focuses on optimizing usage of Indian products. FCL has capatilised on this opportunity which would further aid the company's top-line.

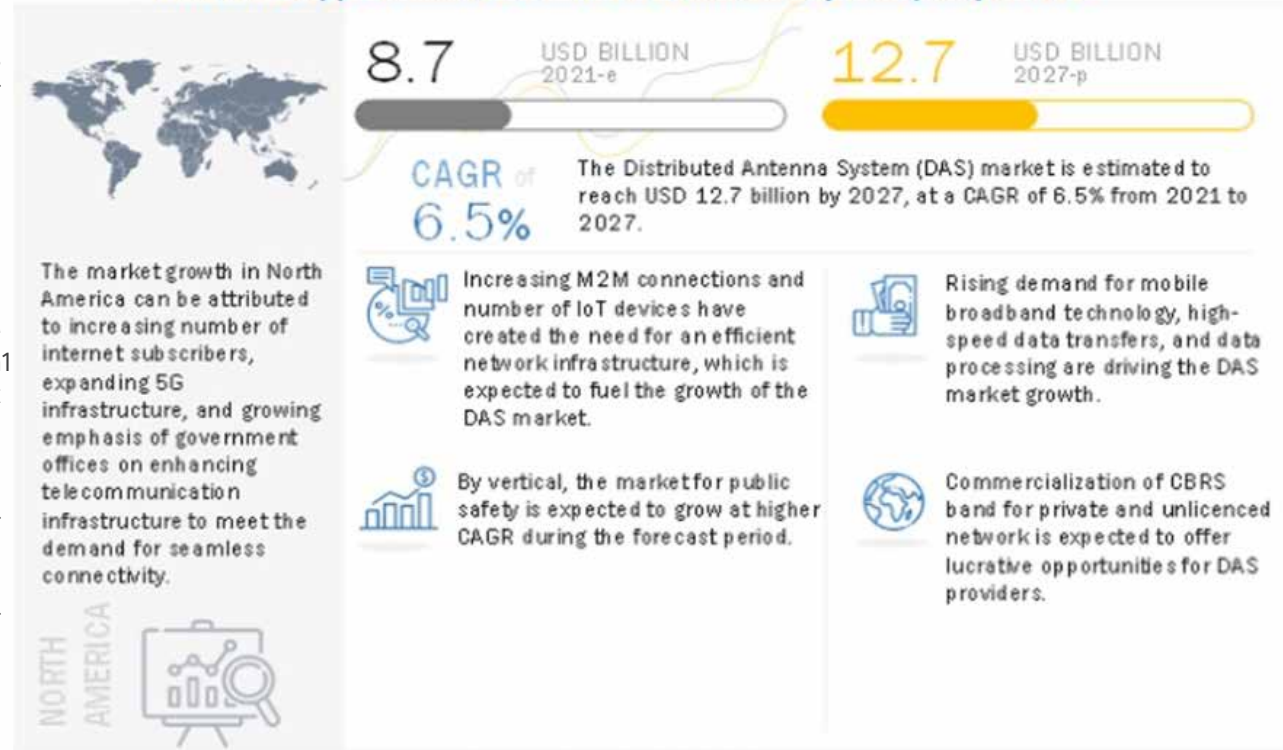
## INFRASTRUCTURE INDUSTRY

- Infrastructure sector is key driver of the Indian economy, currently the government has taken infrastructure and industrial projects worth ~\$1.3 tn1.
- To build and improve the nation's telecom infrastructure, the government has assigned the Department of Telecommunications a budget of \$11.11 bn4.
- 5G rollout, increase in number of mobile users and rising demand for data access across the globe has amplified the demand better cellular coverage and public safety networks
- To capatilize on the opportunity, FCL has been focusing on upgrading/adding products to serve the growing demand of cellular service providers.

## DISTRIBUTED ANTENNA SYSTEM (DAS)2 (TAKE INPUT FROM THE MANAGEMENT)

- DAS are used to improve mobile coverage in large size venues like metros, airports, etc and areas like high-rise buildings, tunnels, shopping malls.
- The DAS market is projected to grow from **\$8.7 Bn in 2021 to \$12.7Bn by 2027.**
- Mobile data traffic, growing number of connected devices due to Internet of Things, rising demand for extended network coverage and uninterrupted connectivity, increasing construction of buildings based on modern and sustainable concepts and public safety connectivity.

### Attractive Opportunities in Distributed Antenna System (DAS) Market



e-estimated, p-projected

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# STEP AHEAD R&D INVESTMENT IN ORDER TO CAPTURE GROWTH OPPORTUNITIES



## YEARLY INVESTMENT, INCREMENTAL REVENUE AND INCENTIVE RECEIVABLE UNDER THE PLI SCHEME

FY (₹ in Crores)	Minimum Incremental Investment over the Baseline (i.e. after 31-Mar-2022) (Cumulative)	Minimum Eligible Incremental Net Sales of Manufactured Products over the Base Year (A)	Minimum Eligible Incremental Net Sales of Manufactured Products over the Base Year (B)	Sales Forecast as submitted by the applicant (C)	Eligible Net Sales for Incentive (Lower of B & C) (D)	Eligible Net Sales i.r.o. Products complying with Design-led Criteria (out of D)	Maximum Incentive Payable
FY23	3.20	9.60	64.00	65.00	64.00	64.00	5.12 <b>(8%)</b>
FY24	6.40	19.20	128.00	130.00	128.00	128.00	10.24 <b>(8%)</b>
FY25	11.20	33.60	224.00	225.00	224.00	224.00	15.68 <b>(7%)</b>
FY26	16.00	48.00	320.00	325.00	320.00	320.00	19.20 <b>(6%)</b>
FY27	-	48.00	320.00	350.00	320.00	320.00	16.00 <b>(5%)</b>
<b>Total</b>	<b>16.00</b>	<b>158.40</b>	<b>1,056.00</b>	<b>1,095.00</b>	<b>1,056.00</b>	<b>1,056.00</b>	<b>66.24</b>

## PRODUCT UNDER PLI SCHEME

Index No	Name of Product	Production Status
P01	Cavity Multiplexer /Filter / Coupler and Splitter /Combiner /Termination	Production Started
P02	Digital Repeater	Production Started
P03	IBS Antennas	Production Started
P04	Optical DAS	Production Started
P05	Microwave Antenna and Base Station Antennas	Production Started
P06	Interference Mitigation System (IMS)	Production Started
P07	Digital DAS	Yet to Start
P08	Jammer	Yet to Start
P09	4G/5G CPE	Yet to Start
P10	4G/5G Small Cells	Yet to Start
P11	GPON OLT	Yet to Start
P12	GPON ONT/ONU	Yet to Start
P13	Unlicensed Band Radio	Yet to Start
P14	Open RAN Radio Unit	Yet to Start
P15	IOT /M2M Devices including End-point Devices, EDGE Devices, Routers & Gateway and NMS System	Yet to Start
P16	Microwave Radio	Yet to Start

# FINANCIALS PROFIT & LOSS STATEMENT



Particulars (₹ in Mn)	H1 FY23	FY22	FY21	YoY%
Revenue from Operations	657.97	1329.44	1209.22	9.94%
Other Income	4.43	29.36	84.76	
<b>Total Revenue</b>	<b>662.40</b>	<b>1358.80</b>	<b>1293.99</b>	<b>5.01%</b>
Total Expenses excluding Depreciation, Amortization & Finance Cost	550.41	1130.40	1107.94	
<b>EBITDA</b>	<b>107.56</b>	<b>199.04</b>	<b>101.29</b>	<b>96.51%</b>
<b>EBITDA Margin (%)</b>	<b>16.35%</b>	<b>14.97%</b>	<b>8.38%</b>	<b>659bps</b>
Depreciation & Amortization	7.03	13.57	17.69	
Finance Cost	4.22	5.98	12.26	
<b>PBT</b>	<b>100.74</b>	<b>208.85</b>	<b>156.10</b>	<b>33.79%</b>
Tax	29.05	61.39	28.86	
<b>PAT</b>	<b>71.68</b>	<b>147.46</b>	<b>127.23</b>	<b>15.90%</b>
<b>PAT Margin %</b>	<b>10.89%</b>	<b>11.09%</b>	<b>10.52%</b>	<b>57bps</b>
<b>Diluted EPS</b>	<b>6.34</b>	<b>13.05</b>		

**Note :** Other income in FY21, includes extraordinary income from sale of property under a subsidiary  
Expenses in H1 FY23, includes IPO expenses of ₹25.1 Mn

# FINANCIALS BALANCE SHEET



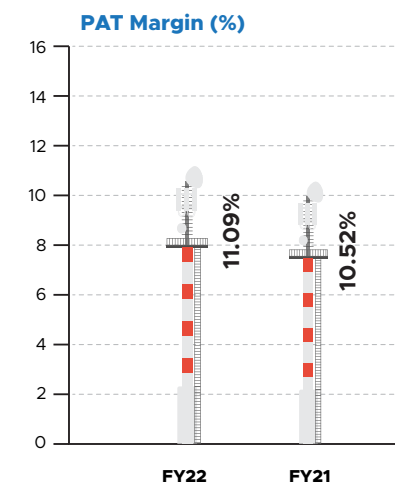
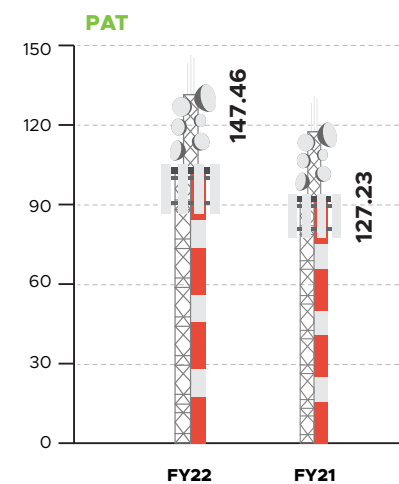
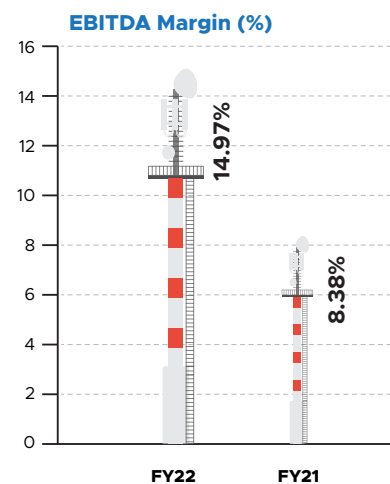
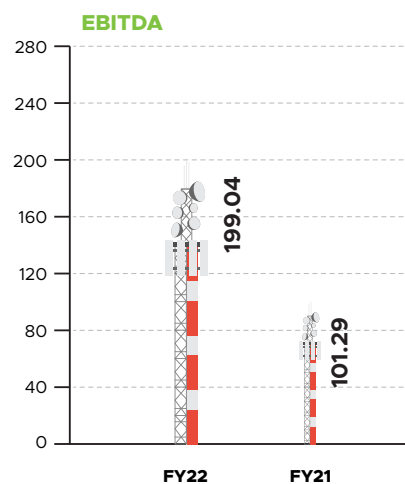
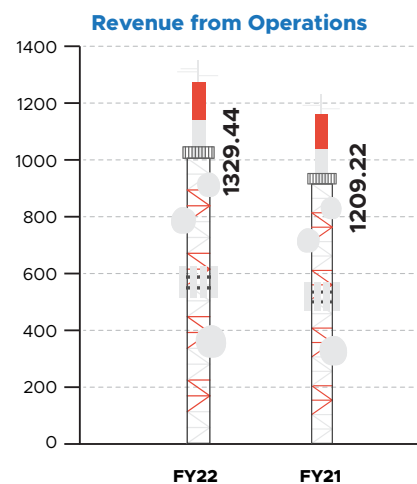
Particulars (₹ in Mn)	As on 31.03.21	As on 31.03.22	As on 30.09.22
<b>Assets</b>			
<b>Non-Current Assets</b>			
PP&E	51.70	61.67	57.54
Capital WIP	-	70.51	158.93
Intangible Assets	1.11	0.41	0.29
Goodwill on consolidation	93.56	93.56	90.59
Investments	39.74	48.14	51.99
Deferred tax assets	11.63	26.13	37.04
Long term loans and advances	65.90	16.40	16.44
Other Non-Current Assets	27.58	31.61	6.99
<b>Total Non-Current Assets</b>	<b>291.21</b>	<b>348.42</b>	<b>419.81</b>
<b>Current Assets</b>			
Inventories	163.94	238.14	349.11
Trade Receivables	267.15	196.74	299.03
Cash & Cash Equivalents	162.86	127.05	114.28
Investments	17.28	0.52	0.52
Short term loans and advances	20.76	45.72	28.02
Other Current Assets	4.04	5.59	11.23
Deferred government grant receivables	0.90	10.30	-
<b>Total Current Assets</b>	<b>636.93</b>	<b>624.05</b>	<b>802.18</b>
<b>Total Assets</b>	<b>928.14</b>	<b>972.46</b>	<b>1,221.99</b>

# FINANCIALS BALANCE SHEET

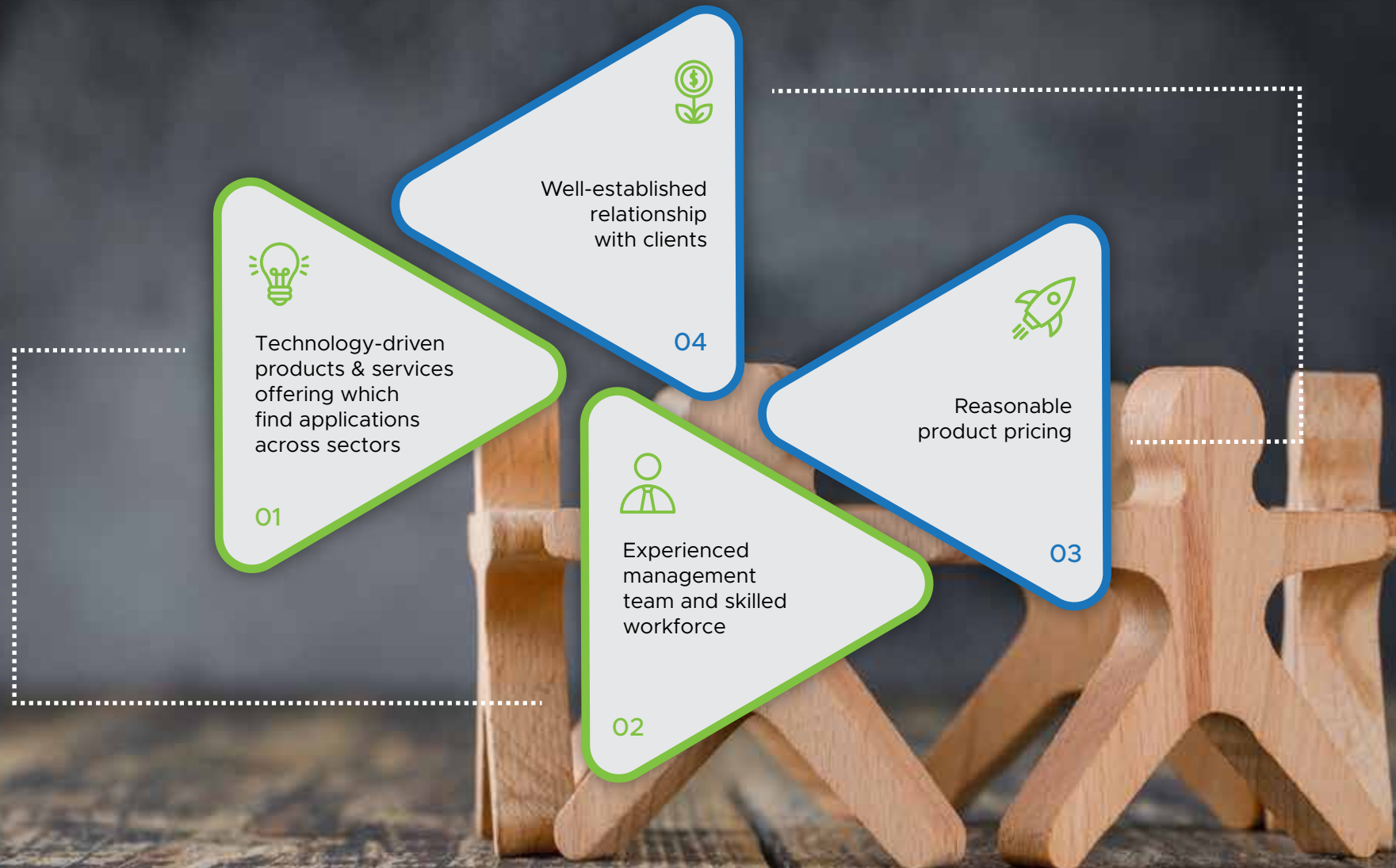


Particulars (₹ in Mn)	As on 31.03.21	As on 31.03.22	As on 30.09.22
<b>Equity and Liabilities</b>			
<b>Shareholders Fund</b>			
Equity Share Capital	0.50	0.50	113.00
Reserves & Surplus	591.16	689.12	647.75
Total Shareholders Fund	591.66	689.62	760.75
<b>Non-Current Liabilities</b>			
Long Term Borrowings	46.59	27.27	21.92
Long Term Provisions	15.10	9.43	11.45
Other Current liabilities	-	-	6.41
Total Non-Current Liabilities	61.68	36.71	39.78
<b>Current Liabilities</b>			
Borrowings	10.71	34.52	86.83
Trade Payables			
- O/S dues of micros & small enterprises	11.94	53.53	75.84
- O/S dues of creditors other than above	230.31	99.96	192.67
Other Current liabilities	20.75	53.18	51.41
Provisions	1.07	4.96	14.73
Total Current Liabilities	274.79	246.14	421.47
Total Equity and Liabilities	928.14	972.46	1,221.99

# FINANCIALS GRAPHS



# KEY BUSINESS STRENGTHS



# STRATEGIC OVERVIEW



Investments in R&D to be in track with the upcoming technology.



Expanding global presence.



Strong pipeline of products having very specific applications catering to multiple industries.



Providing special products to Airtel to mitigate interference in their networks.

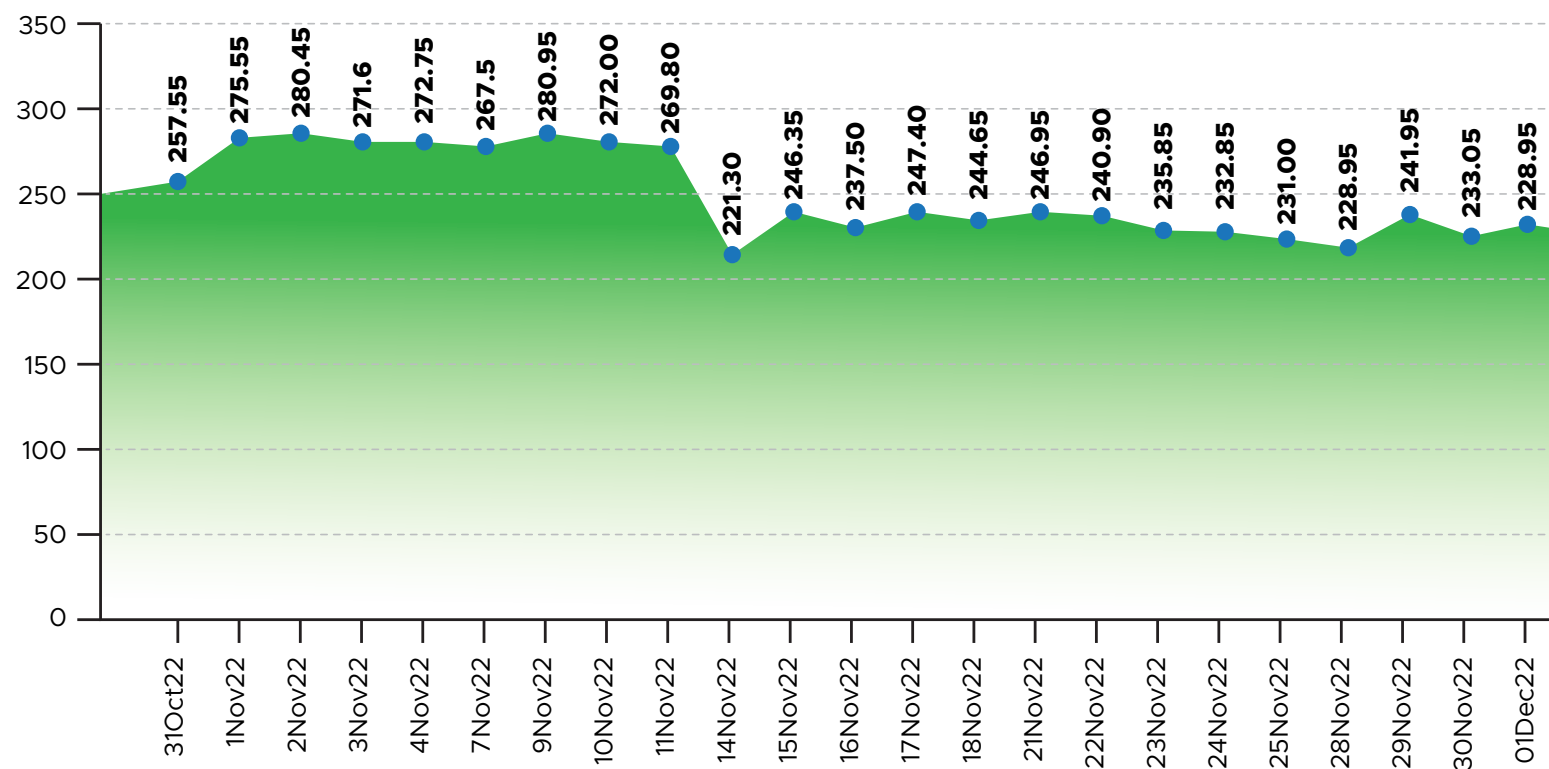


Our continuous efforts to develop new products have been also backed by the GOI's Design-Led manufacturing PLI scheme which showcases our product development strength and our contribution to digitally advanced India.

# CAPITAL MARKET INFORMATION



## Share Price Movement



## Market Indicators

Issued Shares	40,75,200
Share Price (06-12-2022)	₹245.00
Market Cap (₹ MN)	₹3,780.00
52 Weeks High/Low	₹297.00/₹215.85

# ABBREVIATIONS / DESCRIPTION



Term	Description
BTS	Base Transceiver Station
CPRI	Common Public Radio Interface
DAS	Distributed Antenna System
GPS	Global Positioning System
GSMA	Global System for Mobile Communications
IBS	In-Building Solution
IoT	Internet of Things
MIMO	Multiple Input Multiple Output
MVAS	Mobile Value-Added Services
RAN	Radio Access Network
RF	Radio Frequency
RRHs	Remote Radio Heads
RRUs	Remote Radio Units
SISO	Single Input Single Output
TRAI	Telecom Regulatory Authority of India
WANI	Wifi Access Network Interface



For further information on the Company,  
please visit: [www.frogcellsat.com](http://www.frogcellsat.com)

# Thank You

For further information contact:

**Manisha Makhija**

**Frogcellsat Limited**

Contact: 120-4859650

Email: [CS@frogcellsat.com](mailto:CS@frogcellsat.com)

**Krunal Shah / Naman Maheshwari**

**Captive IR Strategic Advisors Pvt. Ltd**

Contact: +91 93724 67194

Email: [IR@frogcellsat.com](mailto:IR@frogcellsat.com)