

**ASTRA MICROWAVE PRODUCTS LIMITED**

Regd. Office: ASTRA Towers, Survey No. 12(P), Kothaguda Post
Kondapur, HITEC City, Hyderabad, Telangana, INDIA - 500084
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Email : mktg@astramp.com, website : www.astramp.com
CIN: L29309TG1991PLC013203

May 24, 2024

To
The General Manager
Department of Corporate Relations
BSE Limited
Sir Phiroze Jeejeebhoy Towers,
Dalal Street, Fort,
Mumbai -400 001

To
The Vice President,
Listing Department
**The National Stock Exchange of
India Limited**
Exchange Plaza
Bandra Kurla Complex, Bandra (East)
Mumbai 400 051

Scrip code: 532493

Scrip code: ASTRAMICRO

Dear sir,

Sub: – Intimation pursuant to Regulation 30 of the SEBI (LODR) Regulations, 2015 – Investor Presentation.

Please find enclosed herewith Investor Presentation for Q4 & FY 24 for your information and records.

We request you to take the above on record and the same be treated as compliance under the applicable regulations of the SEBI (LODR) Regulations, 2015.

Thanking you,

Yours faithfully,
For Astra Microwave Products Ltd

T.Anjaneyulu
G.M - Company Secretary

An ISO 9001, ISO 14001, ISO 45001 and ISO 27001 Certified Company

Works:

Unit 1: Plot No. 12, ANRICH Industrial Estate, Bollaram, Medak Dist., Telangana - 502325

Unit 2: Plot No. 56A, ANRICH Industrial Estate, Bollaram, Medak Dist., Telangana - 502325

Unit 3: Sy. No. 1/1, Imarath Kancha, Raviryala (V), Maheshwaram (Mdl) R.R.Dist., Telangana - 501510

Unit 4: Sy. No. 1/1, Plot No. 18 to 21, Imarath Kancha, Hardware Park, Raviryala (V), Maheshwaram (M), R.R.Dist, Telangana - 501510

Unit 7: Sy. No.114/1, Plot No. S-2/9 & 10, E-City, Raviryala & Srinagar (V), Maheshwaram (M), R.R.District, Telangana - 501359

R&D Centre: Plot No. 51(P), Bangalore Aerospace Park, Singanahalli Village, Budigere Post, Bangalore North Taluk, Karnataka - 562149



Astra Microwave Products Ltd.

On A Winning Wavelength



Investor Presentation – May 2024

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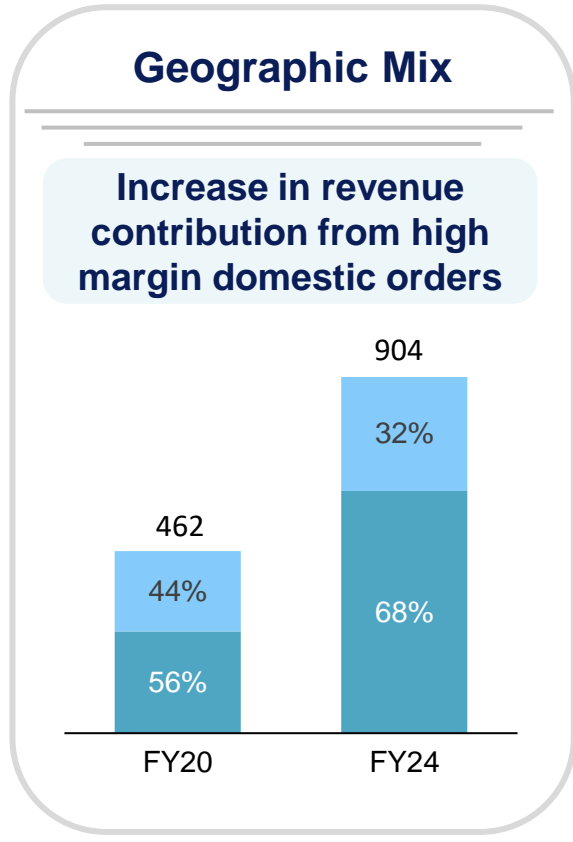
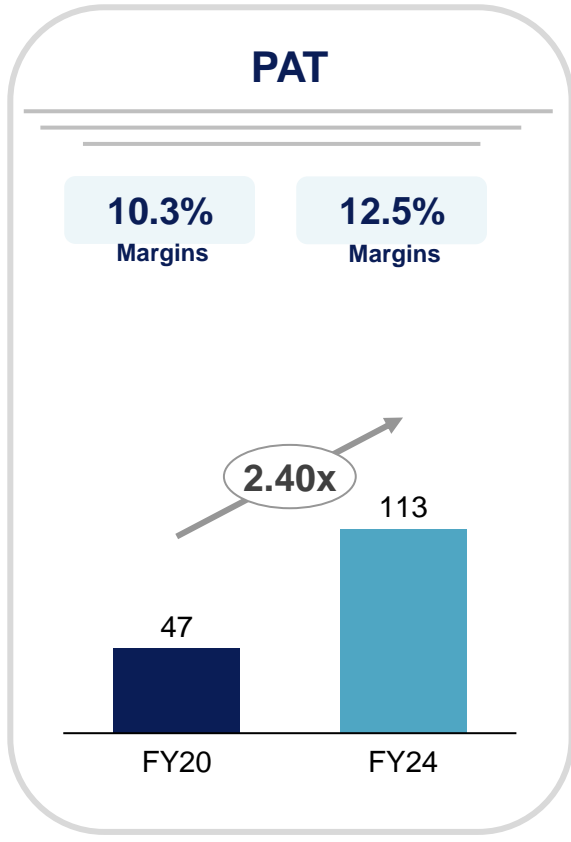
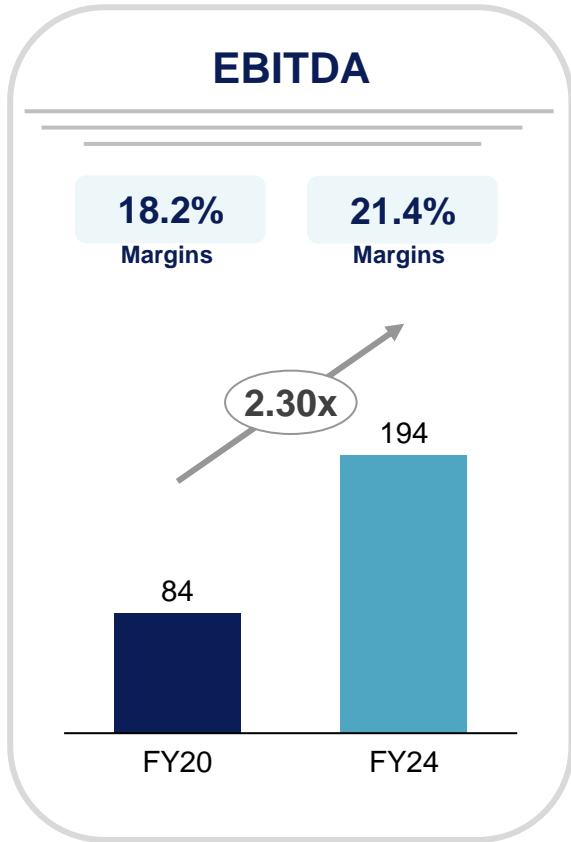
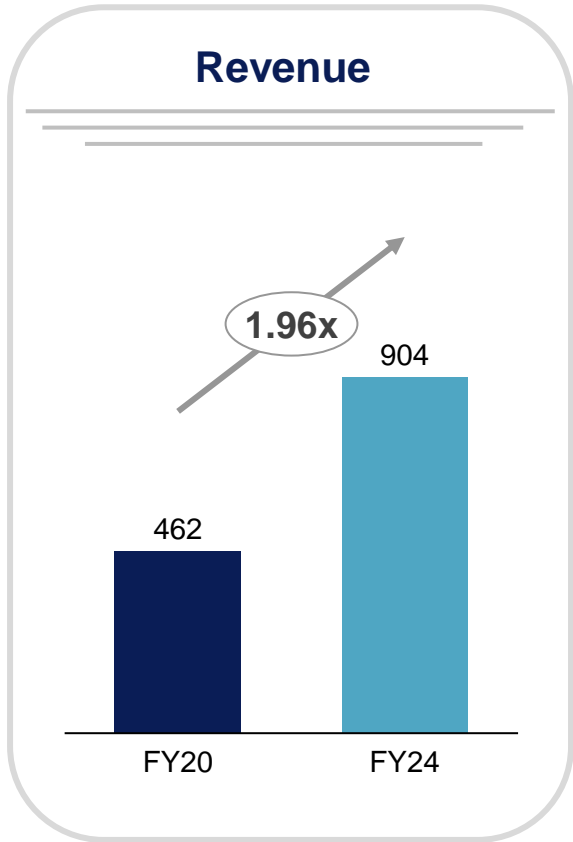
This presentation contains certain forward-looking statements concerning the Company’s future business prospects and business profitability, which are subject to a number of risks and uncertainties and the actual results could materially differ from those in such forward-looking statements. The risks and uncertainties relating to these statements include, but are not limited to, risks and uncertainties regarding fluctuations in earnings, our ability to manage growth, competition (both domestic and international), economic growth in India and abroad, ability to attract and retain highly skilled professionals, time and cost over runs on contracts, our ability to manage our international operations, government policies and actions regulations, interest and other fiscal costs generally prevailing in the economy. The Company does not undertake to make any announcement in case any of these forward-looking statements become materially incorrect in future or update any forward-looking statements made from time to time by or on behalf of the Company.

Robust Long-term Growth



Astra Microwave Products Ltd.

Rs. in Cr



*Represents standalone numbers

Performance Highlights

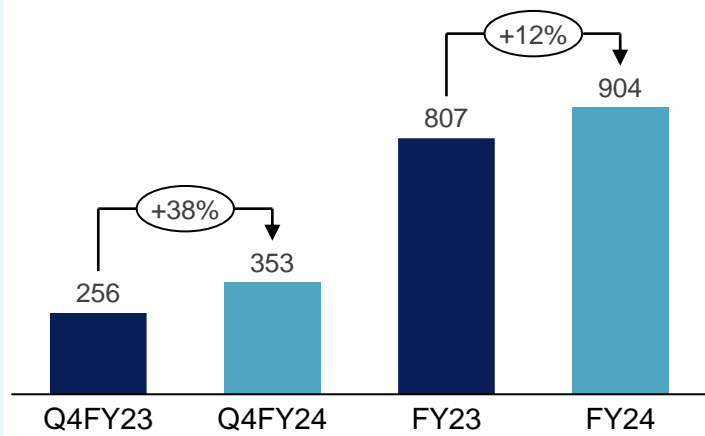


Astra Microwave Products Ltd.

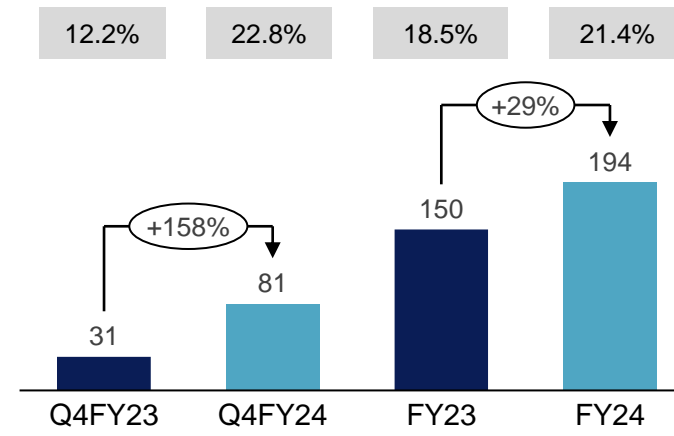
Margins

Standalone

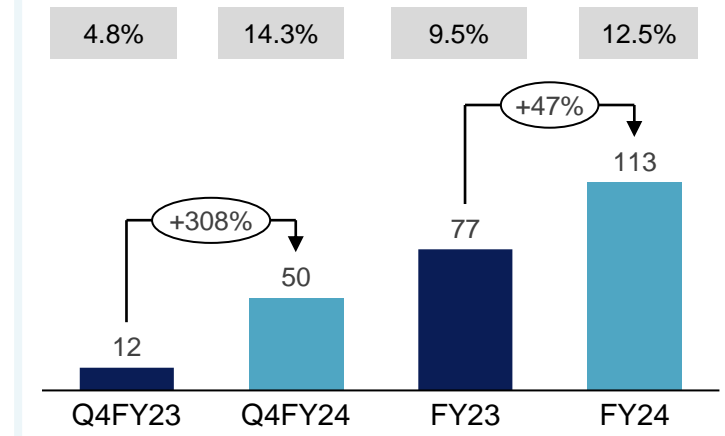
Revenue (Rs. Cr)



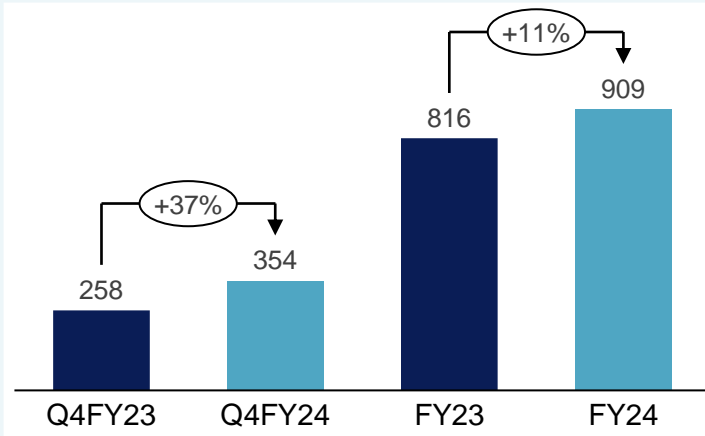
EBITDA (Rs. Cr)



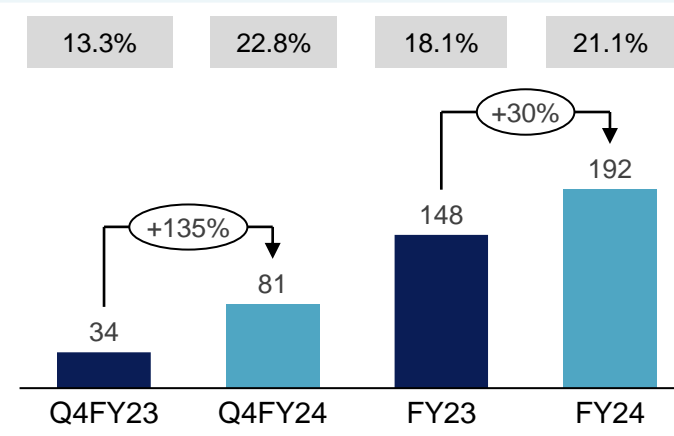
PAT (Rs. Cr)



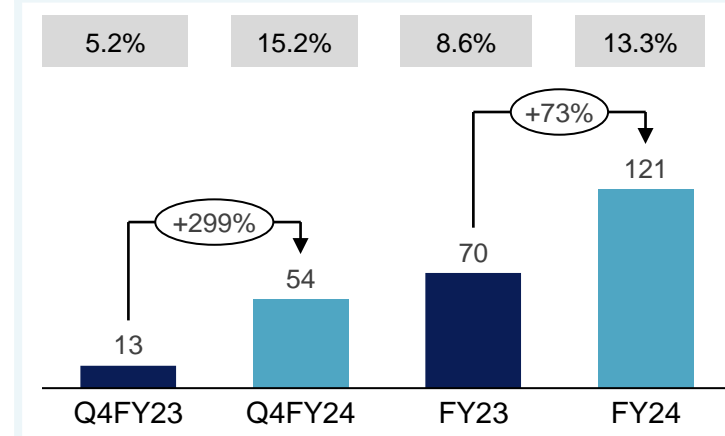
Revenue (Rs. Cr)



EBITDA (Rs. Cr)



PAT (Rs. Cr)



Robust Order Book



Astra Microwave Products Ltd.

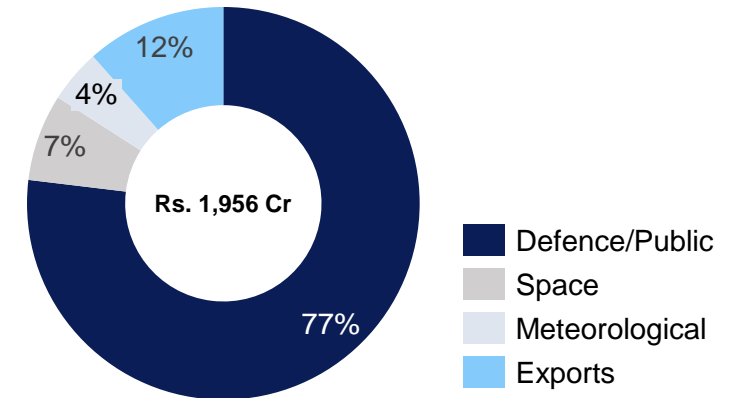
Diversified Orderbook

Total orders received during the quarter

Sno	Segment Name	Amount (Rs. Cr)
1	Defence	445.99
2	Exports	2.25
3	Space	0.74
4	Meteorological	22.83
TOTAL		471.81

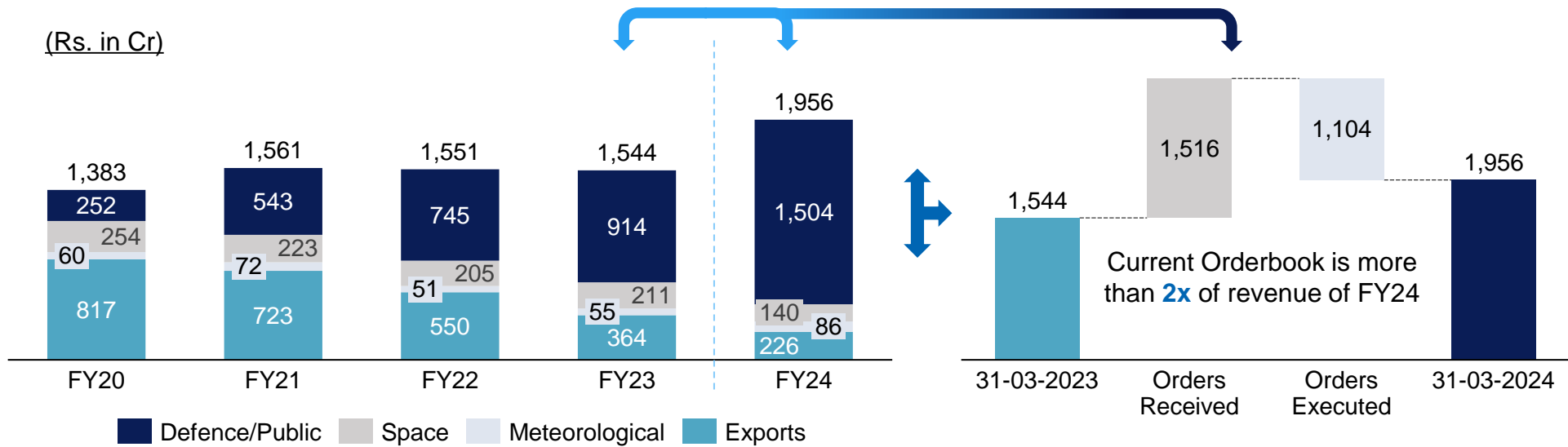
Segment Wise Order book

Rs. 329 Cr worth of orders executed in Q4FY24



Historical Orderbook

(Rs. in Cr)

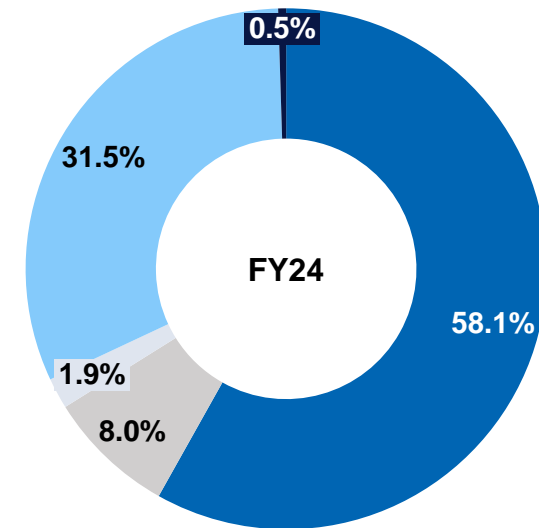
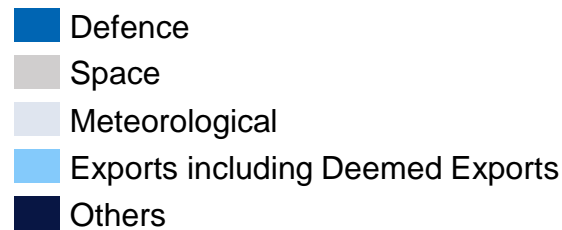
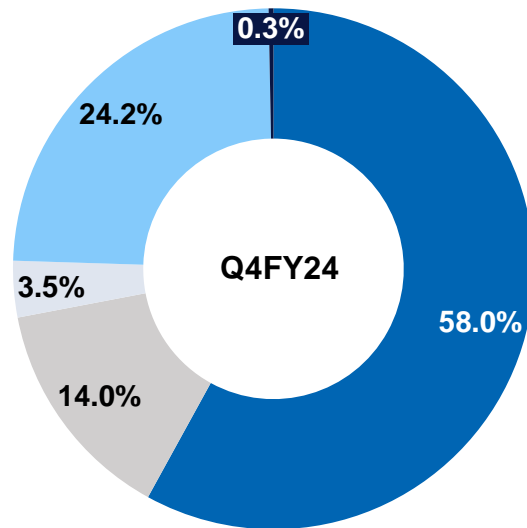


Segmental Revenue Break-up



Astra Microwave Products Ltd.

Revenue Break-up in %	Q4FY24	Q3FY24	Q2FY24	Q1FY24	Q4FY23
Defence	58.0%	72.2%	56.1%	37.0%	39.8%
Space	14.0%	6.1%	3.1%	2.0%	2.1%
Exports including Deemed Exports	24.2%	20.3%	38.8%	59.8%	54.6%
Meteorological	3.5%	0.7%	1.2%	0.8%	3.0%
Others	0.3%	0.7%	0.7%	0.4%	0.5%



Standalone Profit & Loss



Astra Microwave Products Ltd.

(Rs. In Cr)	Q4FY24	Q4FY23	YOY	Q3FY24	QoQ	FY24	FY23	YOY
Revenue from Operations	353	256	37.5%	230	53.4%	904	807	12.0%
Raw Material Consumption	221	183		123		551	519	
Gross Profit	132	73	80.3%	107	22.8%	353	289	22.4%
Gross Profit Margin	37.3%	28.5%	8.8%	46.6%	-9.3%	39.1%	35.7%	3.3%
Employees Expenses	33	25		29		104	87	
Other Expenses	18	17		12		55	52	
EBITDA	81	31	158.1%	67	20.5%	194	150	29.4%
EBITDA Margin	22.8%	12.2%	10.7%	29.1%	-6.2%	21.4%	18.5%	2.9%
Other Income	3	1		4		12	6	
Depreciation	6	6		7		25	23	
EBIT	77	26	196.5%	64	20.4%	181	132	37.4%
EBIT Margin	21.9%	10.1%	11.7%	27.9%	-6.0%	20.0%	16.3%	3.7%
Finance Cost	9	9		8		30	29	
Profit before Tax	68	17	304.3%	56	20.8%	152	103	47.4%
Profit before Tax Margin	19.3%	6.5%	12.7%	24.5%		16.8%	12.7%	4.0%
Tax	17	4		14		39	26	
PAT	50	12	308.4%	42	20.0%	113	77	47.4%
PAT Margin %	14.3%	4.8%	9.5%	18.3%	-4.0%	12.5%	9.5%	3.0%
EPS (in Rs.)	5.31	1.43		4.43		12.00	8.85	

Highest Ever Revenue, EBITDA and PAT for the **Quarter** as well as for the **Full year**

Margin Expansion on a **YoY** basis mainly due to change in **Product Mix**.

Standalone Balance Sheet



Astra Microwave Products Ltd.

ASSETS (Rs. In Cr)	Mar-24	Mar-23
Non-Current Assets	249	228
Property, plant and equipment	169	165
Capital WIP	13	2
Investment in Associates	2	2
Investments in joint ventures	20	20
Investments in subsidiaries	16	15
Financial Assets		
ii. Other Financial Assets	9	6
Deferred tax assets	9	8
Non Current Tax Assets	0	5
Other non-current assets	11	5
Current assets	1217	818
Inventories	505	396
Financial assets		
i. Trade receivables	503	282
ii. Cash and cash equivalents	61	49
iii. Bank balances other than (iii) above	65	55
Current tax assets (net)	1	0
Other current assets	82	36
Total assets	1,466	1,047

EQUITY AND LIABILITIES (Rs. In Cr)	Mar-24	Mar-23
Equity and Liabilities	968	653
Equity share capital	19	17
Equity attributable to owners of the Company	949	636
Non-current liabilities	73	77
Financial liabilities		
Borrowings	15	3
Provisions	10	6
Contract liabilities	48	68
Current liabilities	425	316
Financial liabilities		
i. Borrowings	211	166
ii. Trade payables	88	44
iii. Other financial liabilities	22	18
Current tax liabilities (net)	1	4
Provisions	4	4
Contract liabilities	75	79
Other current liabilities	24	3
Total equity and liabilities	1,466	1,047

Standalone Cashflow Statement



Astra Microwave Products Ltd.

www.ampmicrowave.com

Cash Flow Statement (Rs. in Cr)	Mar-24	Mar-23
Profit Before Taxes	152	103
Changes in working capital	-301	-99
Cash generated from operations	-150	4
Direct taxes paid (net of refund)	-38	-26
Net Cash from Operating Activities	-187	-22
Net Cash from Investing Activities	-43	-28
Net Cash from Financing Activities	234	76
Net Increase in cash and cash equivalents	3	26
Add: Cash & Cash equivalents at the beginning of the period	48	21
Cash & Cash equivalents at the end of the period	51	48

Consolidated Profit & Loss



Astra Microwave Products Ltd.

PARTICULARS (Rs. In Cr)	Q4FY24	Q4FY23	YoY	Q3FY24	QoQ	FY24	FY23	YOY
Revenue from Operations	354	258	37.0%	231	53.2%	909	816	11.4%
Raw Material Consumption	219	179		122		546	518	
Gross Profit	135	79	70.4%	109	23.6%	363	297	22.1%
Gross Profit Margin	38.1%	30.6%		47.3%		39.9%	36.4%	
Employee Expenses	36	27		31		114	95	
Other Expenses	18	17		12		58	54	
EBITDA	81	34	135.5%	66	22.1%	192	148	29.8%
EBITDA Margin	22.8%	13.3%		28.6%		21.1%	18.1%	
Other Income	3	1		4		12	5	
Depreciation	6	6		7		25	24	
EBIT	77	29	166.3%	63	22.0%	178	129	37.8%
EBIT Margin	21.8%	11.2%		27.3%		19.6%	15.9%	
Finance Cost	9	10		8		31	31	
Profit before share of profit/loss from JVs	68	19	250.0%	55	22.7%	147	99	48.6%
Share of profits from JVs	4	-1		3		12	-3	
Profit before Tax	71	18	297.8%	58	24.0%	159	96	65.7%
Profit before tax margin	20.1%	6.9%		24.9%		17.5%	11.8%	
Tax	17	4		14		39	26	
PAT	54	13	299.3%	43	24.1%	121	70	72.6%
PAT Margin %	15.2%	5.2%		18.8%		13.3%	8.6%	
EPS (in Rs.)	5.67	1.56		4.57		12.80	8.06	

Highest Ever Revenue, EBITDA and PAT for the **Quarter** as well as for the **Full year**

Margin Expansion on a **YoY** basis mainly due to change in **Product Mix**.

JV turns **profitable** in FY24

Consolidated Balance Sheet



Astra Microwave Products Ltd.

ASSETS (Rs. In Cr)	Mar-24	Mar-23
Non-Current Assets	239	206
Property, plant and equipment	167	166
Capital WIP	13	2
Investment in Associates	2	2
Investments in joint ventures	22	9
Intangible assets	3	1
Financial Assets		
ii. Other Financial Assets	10	7
Deferred tax assets	11	9
Non-Current Tax Assets	-	6
Other non-current assets	11	5
Current assets	1,235	851
Inventories	514	419
Financial assets		
i. Trade receivables	505	284
ii. Cash and cash equivalents	66	56
iii. Bank balances other than (iii) above	65	55
Other financial assets	-	0
Current tax assets (net)	1	-
Other current assets	78	37
Assets classified as held for sale	5	-
Total assets	1,473	1,057

EQUITY AND LIABILITIES (Rs. In Cr)	Mar-24	Mar-23
Equity and Liabilities	966	643
Equity share capital	19	17
Equity attributable to owners of the Company	947	625
Non-controlling interest	0	0
Non-current liabilities	74	78
Financial liabilities		
i. Borrowings	15	3
Provisions	10	7
Contract liabilities	48	68
Current liabilities	434	337
Financial liabilities		
i. Borrowings	221	182
ii. Trade payables	84	46
iii. Other financial liabilities	23	19
Current tax liabilities (net)	1	4
Provisions	4	4
Contract liabilities	76	79
Other current liabilities	25	3
Total equity and liabilities	1,473	1,057

Consolidated Cashflow Statement



Astra Microwave Products Ltd.

www.amp.co.in

Cash Flow Statement (Rs. in Cr)	Mar-24	Mar-23
Profit Before Taxes	159	96
Changes in working capital	-303	-96
Cash generated from operations	-144	0
Direct taxes paid (net of refund)	-38	-26
Net Cash from Operating Activities	-182	-25
Net Cash from Investing Activities	-44	-28
Net Cash from Financing Activities	232	75
Net Increase in cash and cash equivalents	7	21
Add: Cash & Cash equivalents at the beginning of the period	38	17
Cash & Cash equivalents at the end of the period	45	38

Company Overview



Astra is engaged in the business of designing, developing and manufacturing of Defence, Aerospace & Space Electronics systems, sub-systems and components

- Astra Microwave incorporated in 1991 is one of the few private sector companies in India that:
 - Design & Develop Radar, EW, Strategic & Space Electronics Systems & sub-systems
 - Has in-house capabilities of design, engineering, simulation, manufacturing, functional testing, environmental qualification of Defence, critical microwave and radio frequency-based equipment
- 30+ years of experience in Radar, EW & Strategic Electronics domain
- Astra has moved up the value chain from modules & sub-systems to Systems & System of Systems

Sectors

- Defence
- Aerospace
- Space
- Metrology
- Telecom

Projects with

- Various DRDO Labs
- Defense PSUs
- Various ISRO Centers
- MoD & MHA
- Many foreign OEM's

Facilities

- Five facilities in Hyderabad & one in Bengaluru
- Continuous investment in World Class Infrastructure for manufacturing, Assembly & testing
- Functional and Environment testing

Key Financials

- Revenue Rs. 904 Cr.
- Gross Margins 39.1%
- EBITDA Rs. 194 Cr.
- PAT Rs. 113 Cr.

FY24



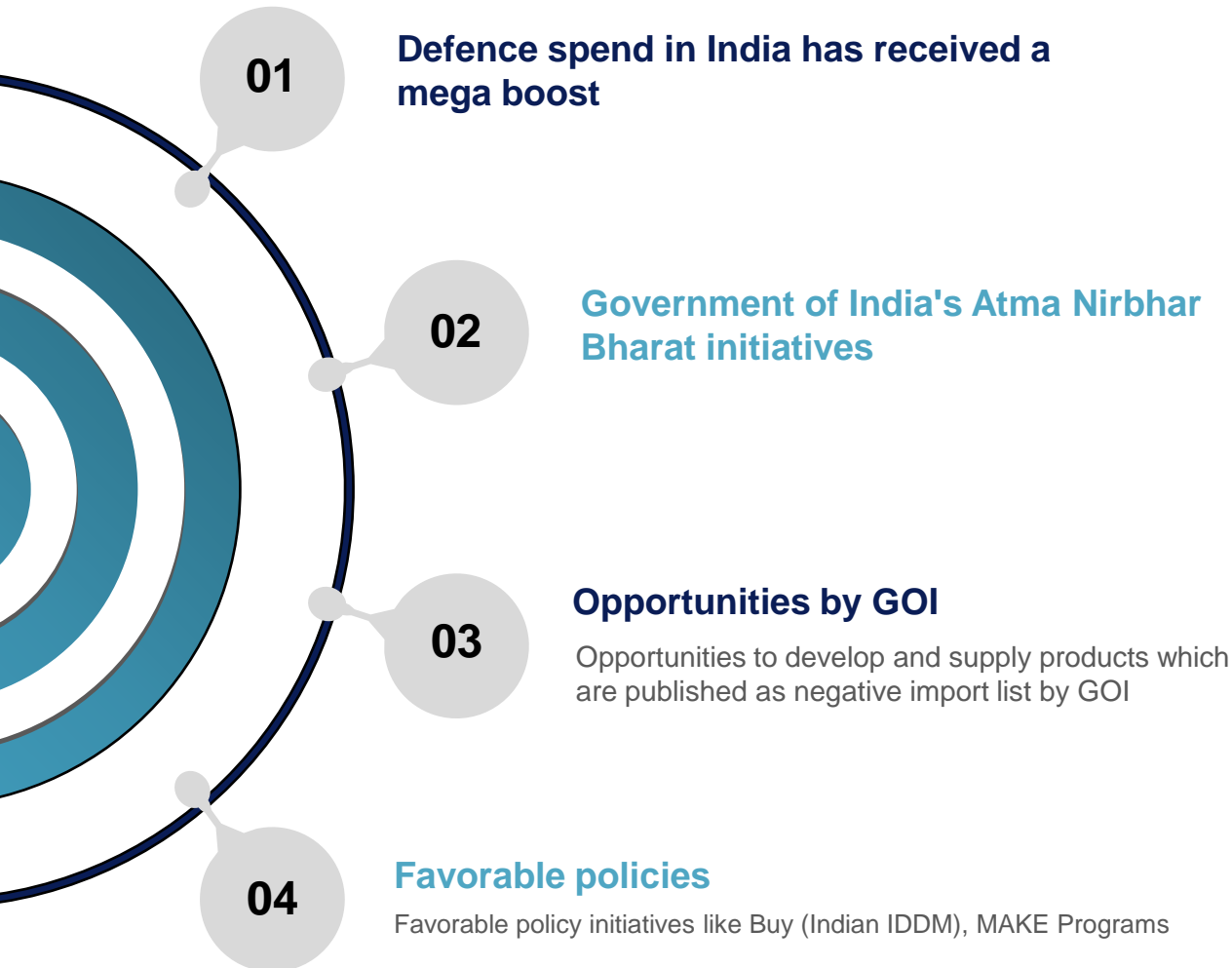
Key projects participated over time

- ✓ LRUs supplied to 3D-CAR Ashlesha & Arudhra Radars
- ✓ Developed & supplied Radar & EW Systems Test & Evaluation Facility (50 MHz – 40 GHz) to DLRL to carry out T&E of EW systems in Radiation mode.
- ✓ Supplied TR Modules & Control Units for LRDE's Long Range Radar (LRR)
- ✓ Developed & supplied a Land-based 7.3m Ground Telemetry Station which is designed to acquire and track airborne targets using five different carriers simultaneously
- ✓ Proto Development & Production of Digital Transmit Receive Units (DTRUs) and Digital Receive Units (DRUs) for Digital Active Phased Array (DAPA) Technology Demonstrator Project
- ✓ Shakti Project Sub-modules & Nayan Project Sub-modules
- ✓ Developed, Supplied & Commissioned 14 DWRs
- ✓ Developed & Supplied Active Array Antenna Unit (AAAU) For Uttam AESA Radar for LCA Mk1A fighter aircraft
- ✓ Developed & Supplied X-band AESA Seeker Head
- ✓ Developed & Supplied complete AAAU for Ship-borne Radar

Strong Sectoral Tailwinds



Astra Microwave Products Ltd.



Healthy Order Book Order Book worth
Rs. 1,956 (Mar-24)

Sound visibility of revenues: Order book as on Mar-24 is
more than 2x of revenue of FY24

AMPL has a proven track record of making high value-added SYSTEMS, RF and microwave super components and sub-systems which are becoming more relevant due to various government initiatives like IDDM, MAKE-II.

AMPL has been able to create a diversified and healthy order book on the back of its strong capabilities.

AMPL is very well placed to capture a bigger pie of the growing Indian defence sector with deep domain expertise, seasoned promoters, high focus on R&D and robust strategy in place.

Managing Director



Mr. S. Gurunatha Reddy

- Graduate in Science and Mathematics and Fellow Chartered Accountant.
- Worked in private sector industry and gained over 33 years of experience in accounting, finance, taxation, secretarial etc

Executive Director Strategy & Business Development



Mr. Atim Kabra

- Founder and Managing Director of Frontline Strategy Funds Pte. Ltd., a Singapore registered & licenced VCFM
- Over 25 years of well rounded "equities exposure" including Portfolio Management, Equity Sales and Equity Research with global institutions like ABN AMRO Bank, ANZ Grindlays Bank

Chairman & Independent Director



Dr. Avinash Chander

- Doctorate from JNTU Hyderabad
- Retired Secretary, Defence R&D and Director General DRDO

Non-Executive Director



Mr. Suresh Somani

- Businessman, investor and philanthropist with a substantial experience of over 40 years in equity markets
- He is the director of M/s. Ratnabali Investment Private Limited

Joint Managing Director



Dr. Maram Venkateshwar Reddy

- Graduate in Engineering (Electronics) and a Postgraduate in Business Administration.
- 28 years of experience in handling Marketing and Business operations in the domain of Defense, Space and Telecom segment in India and Overseas Market

Non-Executive Director Head of R&D



Mr. P. A. Chitrakar

- Associated with the Defence Electronics Laboratory, Hyderabad, as a scientist for over 20 years before co-founding Astra Microwave
- An MSc (Physics) from Mysore University and an MTech (Advanced Electronics) from JNTU, Hyderabad.

Independent Director



Mrs. Kiran Dhingra

- 38 years of experience in governance and have held senior positions in decision making capacities in practically all sectors-the developmental, agricultural, social, industrial, infrastructural, transportation, economic and regulatory
- Joined Government in 1975, after standing first in the combined merit list for IFS / IAS and opting to serve in the IAS

Independent Director



Mr. S. Varadarajan

- Retired Director of the Electronics & Radar Development Establishment (LRDE), Bengaluru
- B.E (Hons) in ECE from Madras University in 1972
- M.E with Distinction in ECE from Indian Institute of Science in 1974

Key Team Members



Astra Microwave Products Ltd.

www.ampmicrowave.com



LGM Prakasam
VP - Radar Systems

M Pravin
VP - Design (EW)

V Sudhakar
Associate VP -
Design

BM Chandrakanth
Sr. GM – Marketing
& Sales

GR Shinde
Sr. GM – Design

Balachary
GM - Antenna
Design

T.N. Ramesh
GM – Production

Dr. P Srinivasulu
Sr. GM - Design

L Sudhakar
GM – Test Facility

V Venkatesh
GM - Quality

CV Rao
GM - Mech.
Systems

S Naveen Kumar
GM - Digital &
Software

R Narasimhan
GM - Production
(Special Products)

Vikram
GM - Production

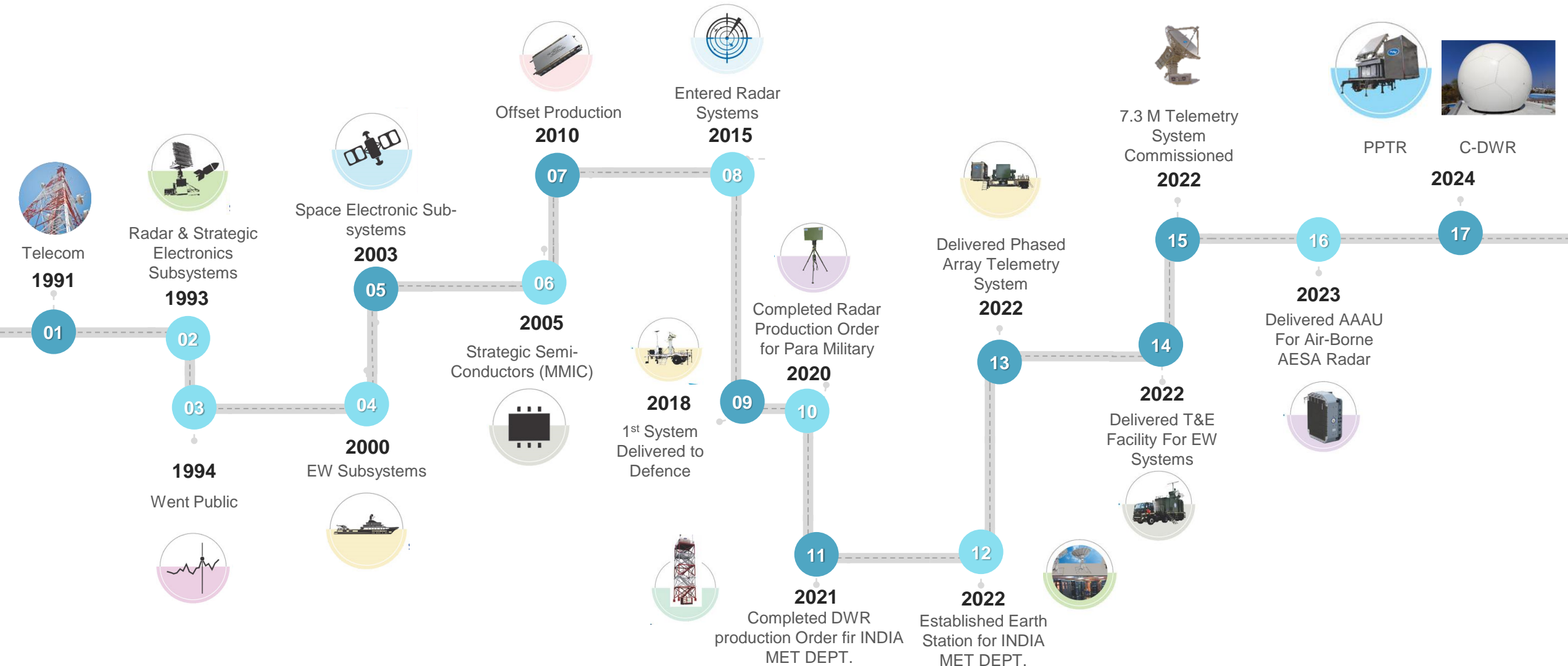
C Vinod Kumar
GM - Marketing &
Sales (Weather &
Telemetry)

Journey so far



Astra Microwave Products Ltd.

30+ Years of Astra Microwave Products Ltd.



Strong research and development capabilities

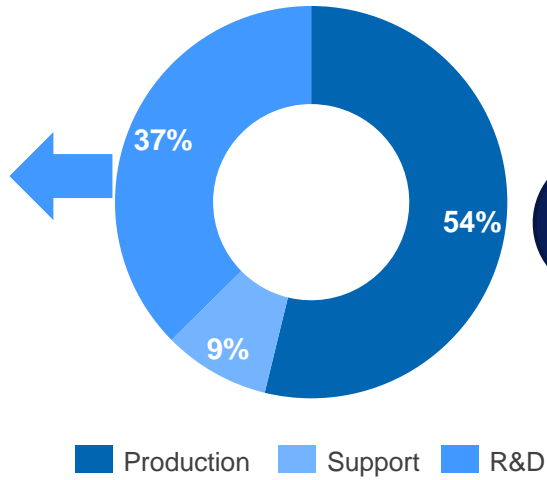


Astra Microwave Products Ltd.

Dedicated research and development facility in **Bengaluru with modern equipment** and in **Hyderabad at Unit-III & Unit-IV**

Total workforce (as of March 31st, 2024) – 1,466

549 R&D professionals, out of which over 102 have a masters degree, 3 hold doctorate degrees and over 100 have decade-plus experience



- Participating in multiple **MAKE-II programs of IAF & IA** for various **Radar Systems**
- Working on multiple **proactive development products** & preparing for building future systems

R&D Expenditure (Rs in Crores):

FY24	38.33
FY23	34.19
FY22	35.96
FY21	22.50
FY20	22.25

Astra is one of the few private sector players in India that has the capability to develop and supply **GaN & GaAs MMIC products upto 40 GHz**

State of the Art Infrastructure



Astra Microwave Products Ltd.

Astra has advanced in-house facilities for lower turnaround time for product realization appreciated by domestic and foreign customers.

Hyderabad

Bengaluru

Unit I



Land : 1.13 Acres
 Building : 18,000 Sq. Ft
 Status : Own
 Year : 1999

Facility Offering

Automatic weather
 Station AWS and other
 Hyderology &
 Meteorology

Unit II



Land : 2.0 Acres
 Building : 20,000 Sq. Ft
 Status : Own
 Year : 1995

Facility Offering

Near Field Test Range
 Out-Door Test Range
 Multi-Layer Antenna
 Fabrication

Unit III



Land : 9.9 Acres
 Building : 77,000 Sq. Ft
 Status : Own
 Year : 2003

Facility Offering

Clean Room Laser
 Welding
 Vibration
 Table

Unit IV



Land : 19.0 Acres
 Building : 1,80,000 Sq. Ft
 Status : Own
 Year : 2009

Facility Offering

EMI/EMC Halt/Hass
 Chamber
 ESS Chamber

Unit V



Land : 0.59 Acres
 Building : 23,000 Sq. Ft
 Status : Own
 Year : 2019

Facility Offering

MIC Facility CNC
 Drilling Copper Plating
 Gold Plating
 Etching developing

Bengaluru Unit



Land : 5.0 Acres
 Building : 1,00,000 Sq. Ft
 Status : Own
 Year : 2012

Facility Offering

Near Field Test Range
 (NFTR)
 Satellite Integration
 Facility

Equipped with

Clean room
 compatible oven
 for curing epoxy

Temperature controlled
 hot plate with nitrogen
 purging facility for
 eutectic attachment

High-precision
 bonding
 machines

ESD measurement
 equipment

DC probing station
 for on-chip
 measurement of
 DC parameters

01

Fully automated Assembly facility consisting of 3 Automatic SMT assembly lines with high end testing capabilities that include AOI, 3D X Ray, and functional test using Flying probe tester.

02

450,000 sq.ft. of research, design, development and manufacturing across 6 units

03

Class 10K & Class 100K Clean Rooms

04

Laser Welding, Seam Sealing

05

Bare Die assembly using Gold wire bonding and parallel gap welding

06

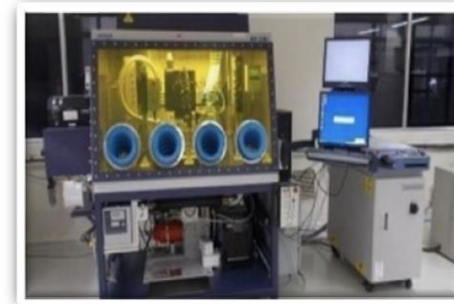
Multilayer Microstrip Antenna Assembly Facility



Clean Rooms - Class 10K



SMT Lines



Laser Welding



Automated Optical Inspection

Functional Testing



01

Near Field Test Range (NFTR)

02

Digital Signaling

03

Function and pulse generators

04

Open air antenna test range

05

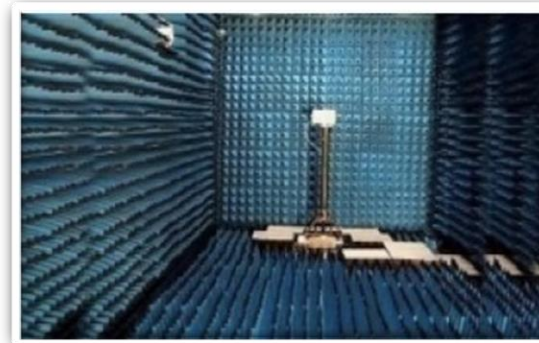
Spectrum Analyzers, Vector Network Analyzer,
Signal generator, RF power meter

06

Distortion Analyzer

07

ATE-ATS facility



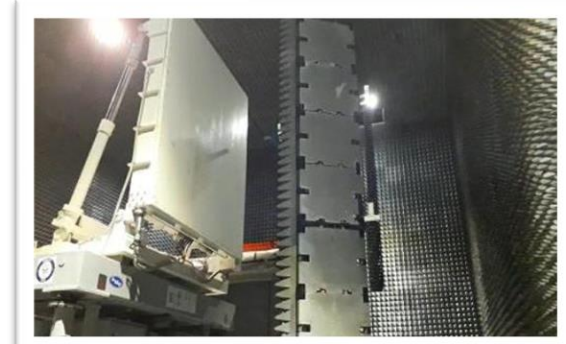
FFTR



ATE ATS - Facility



Open Air Antenna - Test Range



NFTR

01

EMI/EMC Test Facility as per MIL STD 461C/D/E/F (NABL)



EMI-EMC Test

02

HASS/HALT Chambers



Environmental Chamber

03

Environment Chambers (-65degC to +175degC; 98% RH)



Vibration

04

Vibration/ Shock Testing tables, Bump Test M/c's



HASS Chamber

05

Weiss Chamber

06

Power Quality Tests as per MIL STD 704 D/E

Astra has designed, developed and produced critical sub systems and systems for its customers for building various airborne, naval and ground based platforms

Radar, Missile Electronics, Electronic Warfare, Satellites, MMIC and Communication

Defence

- Radars
- Electronic Warfare
- Missile Electronics
- Telemetry
- Counter-Drones

Space

- Flight Model Application
- Satellite Bus
- Ground based Application
- INSAT MSS Terminals

Hydro/Meteorology

- Water Level Measurement (Bubbler/ Radar Sensor)
- Automatic Weather Stations (AWS)
- Agromet Met Stations (AMS)
- Automatic Rain Gauge (ARG) X Band Doppler Weather Radar

Other areas of work

- Antennas
- MMIC
- Contract Manufacturing
- Homeland Security
- Environmental & EMI/ EMC Testing Services

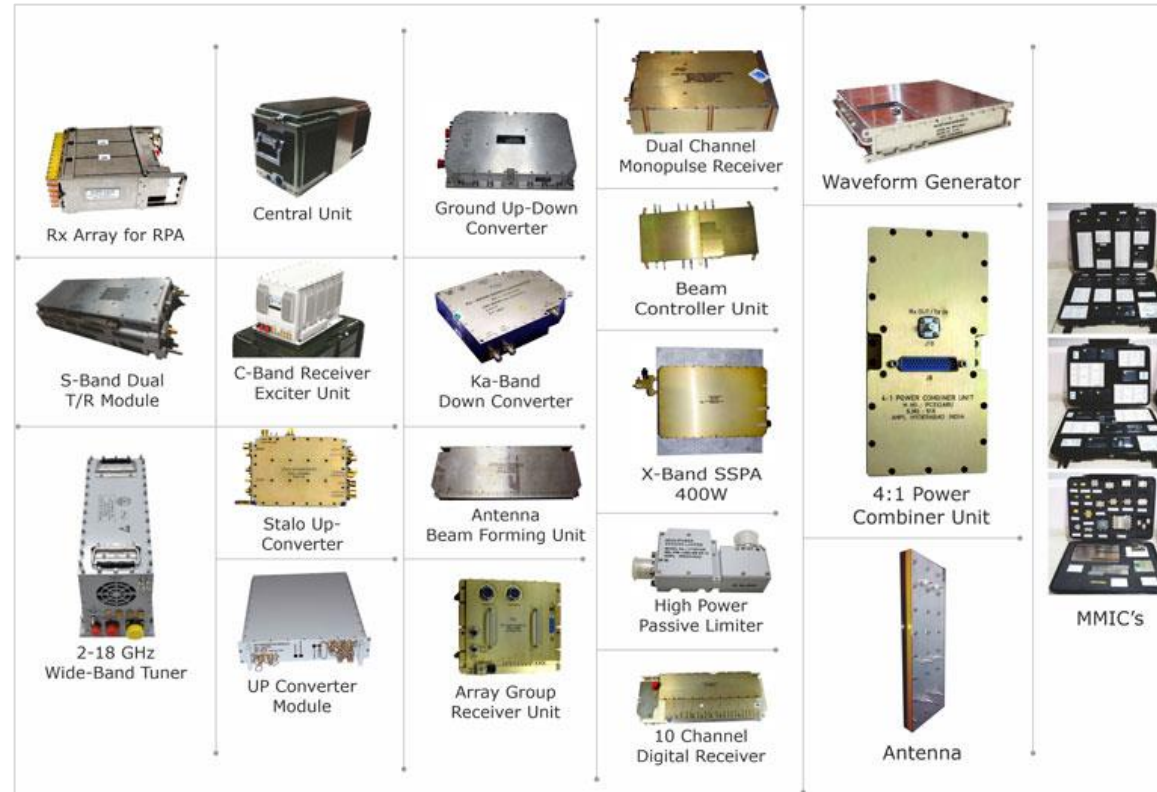
Radar Electronics: Up to Ka band



Astra Microwave Products Ltd.

Homeland security

- Counter UAV Radar – Drishti
- Perimeter Intrusion Detection Radar
- C-UAS System



Design & Development of complete Active Array Antenna Unit (AAAU) hardware, Signal Processing & Radar Data Processing for AESA Multi-Function Radar

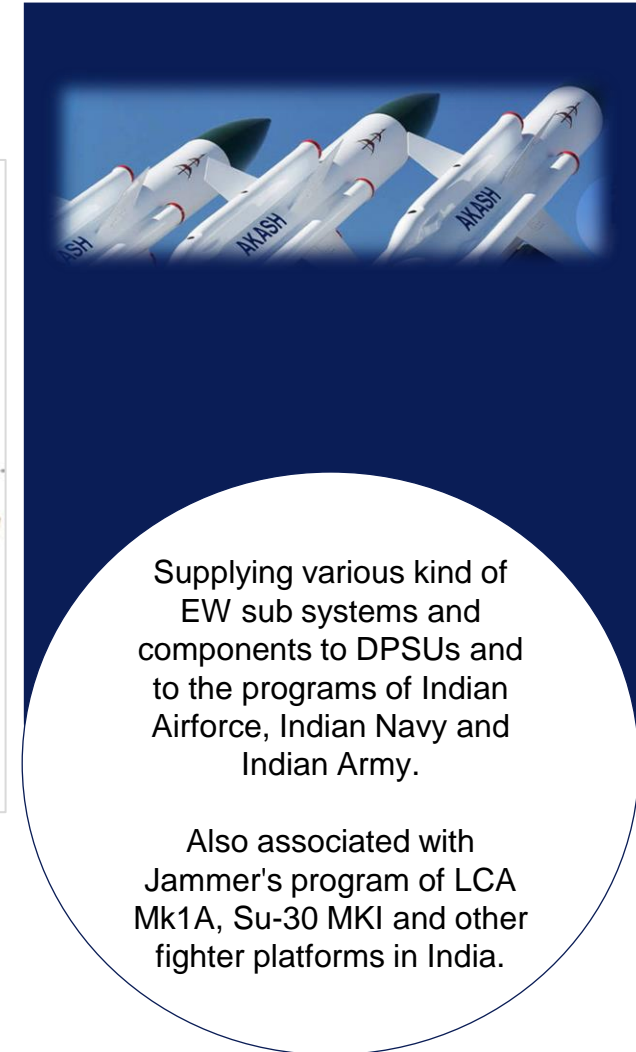
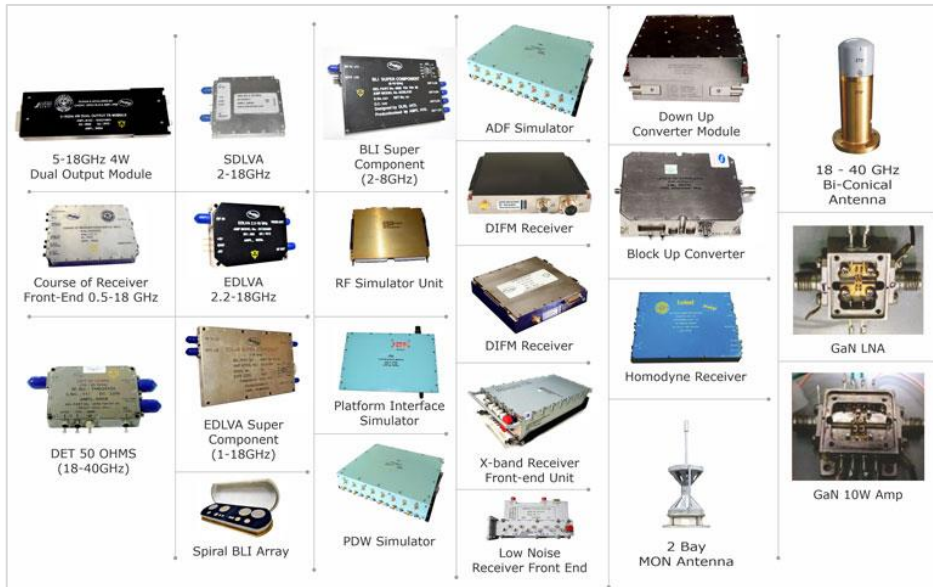
The Ka-band electromagnetic frequency spectrum ranges from 26.5GHz to 40GHz.

Electronic Warfare: Up to Ka band



Astra Microwave Products Ltd.

Electronic Warfare

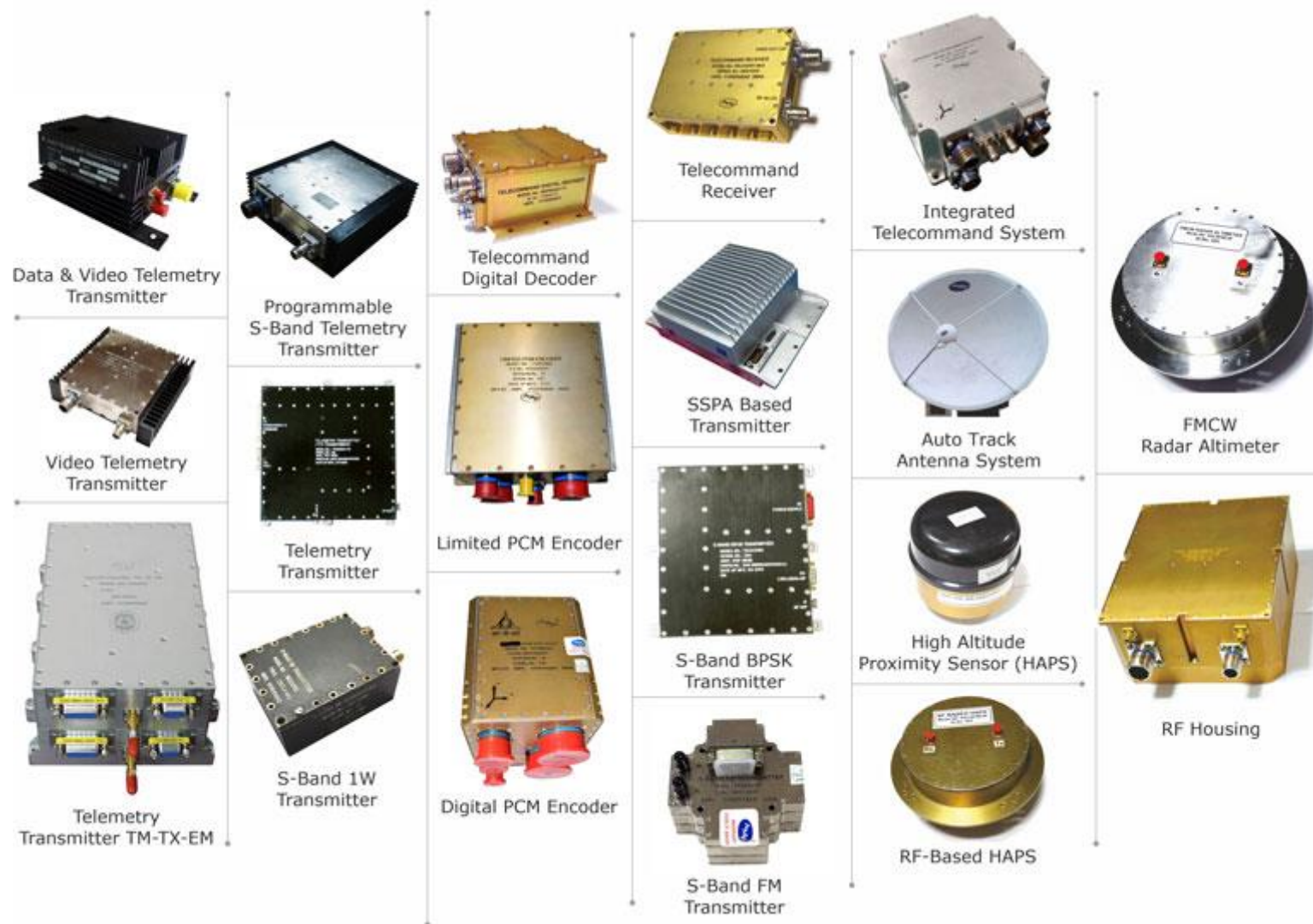


Supplying various kind of EW sub systems and components to DPSUs and to the programs of Indian Airforce, Indian Navy and Indian Army.

Also associated with Jammer's program of LCA Mk1A, Su-30 MKI and other fighter platforms in India.

Strategic Electronics

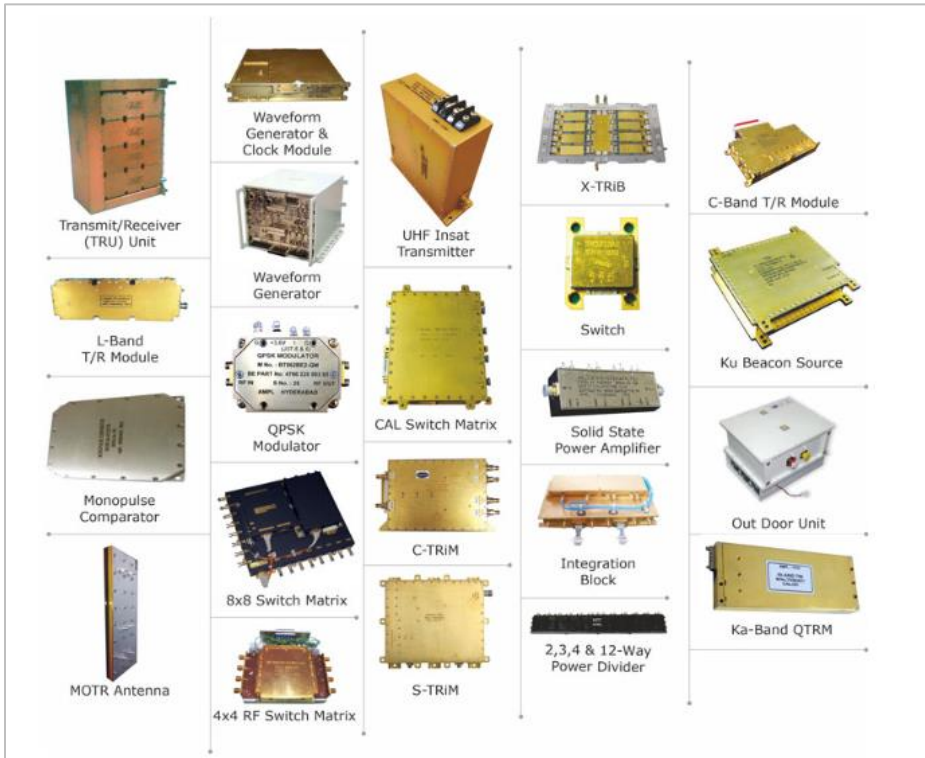




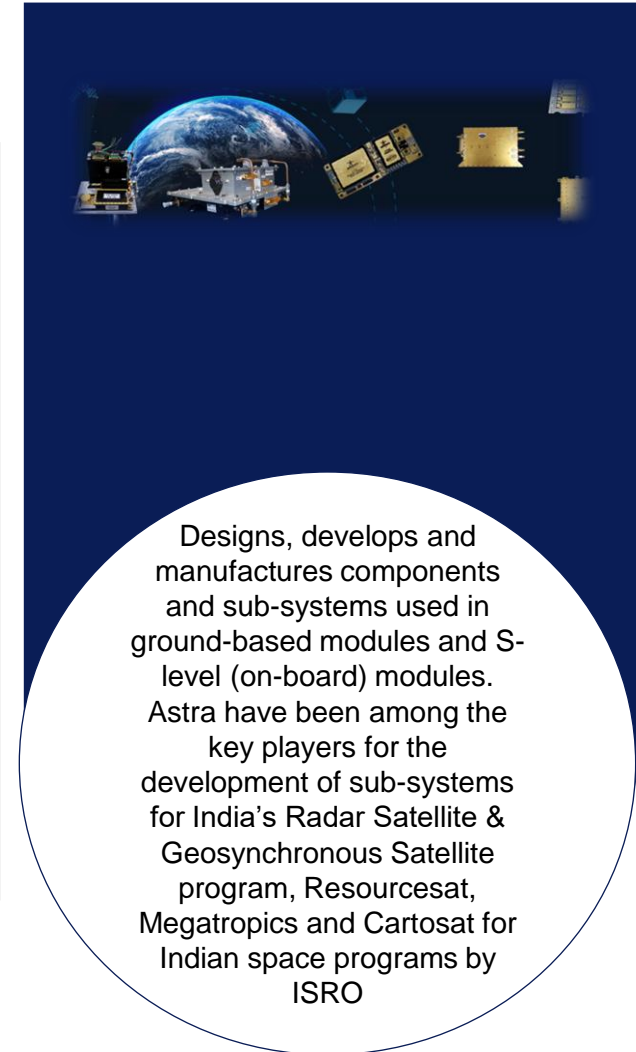
Supplying various sub-systems for Telemetry applications such as S-Band FM Transmitter Airborne RF Trans receiver, Ground Up Down Converters, C & S band switch antenna systems, Telemetry Tracking Systems etc.

Supplying telemetry sub-systems to LCA and Intermediate Jet Trainer (IJT) aircraft.

Ground Application



Flight model

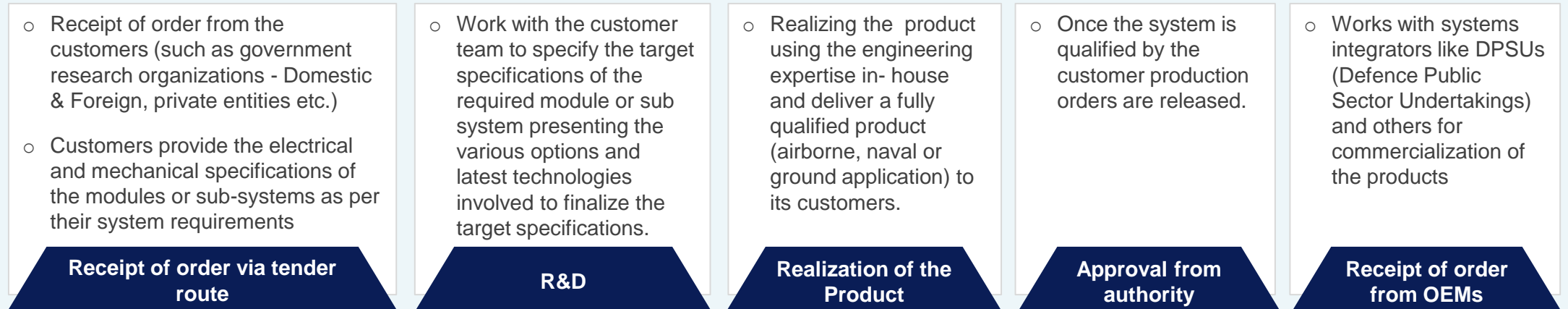


Designs, develops and manufactures components and sub-systems used in ground-based modules and S-level (on-board) modules. Astra have been among the key players for the development of sub-systems for India's Radar Satellite & Geosynchronous Satellite program, Resourcesat, Megatropics and Cartosat for Indian space programs by ISRO



Build To Specifications

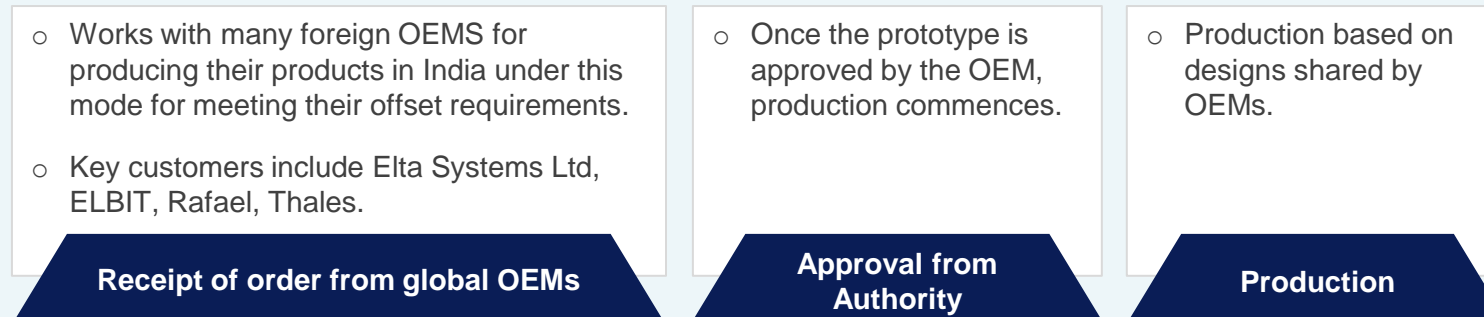
The company's strong relationship with large corporations builds its brand equity and helps it in establishing itself as a prime contractor for large and longer-term programs in the marketplace. AMPL works on high-value complex projects awarded by companies.



High value addition leads to better margins

Build To Print

Astra Microwave has produced more than USD 150 million worth of high-end modules under BTP route.



Marginal value addition -Acts as a capacity filler

New product development To accelerate growth



- Develop products in close association with government research organizations for defence and space.
- Govt has introduced policy measures promoting Indigenous shipbuilding.
- Grow business by producing new and innovative products.
- Enter commercial end user markets for radars.

Focus on Research & Development



- Invest in modern technology and equipment's to address changing industry trends and customer requirements.
- Leverage strong R&D base to broad base domestic offerings.
- Developing digital expertise by spending more on R&D.

Joint Ventures and Strategic alliances



- Through JV or strategic alliances, offer improved technology and products.
- Target the offset requirement in large defence procurement programmes of Govt.
- [Exploring the areas in the anti drone, EW, satellites, SDRs and electro-optics through JVs.](#)
- In discussion with our JV partners to expand the origin 21.30 like in the SDR product portfolio to develop EO (electro-optics) product line.

Reap benefits of sectoral tailwinds



- By doing extensive investments to strengthen our position as a systems vendor.
- [Bidding for the whole system - the complete radar system - for both DRDO and for future MoD requirements.](#)
- Atmanirbhar Bharat initiative is To encouraging the industry develop the system either through in-house development or through foreign technology tie-up.

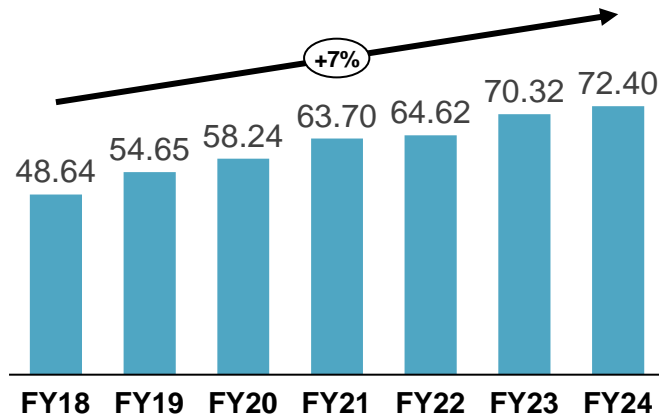
Growing defence products opportunity



Astra Microwave Products Ltd.

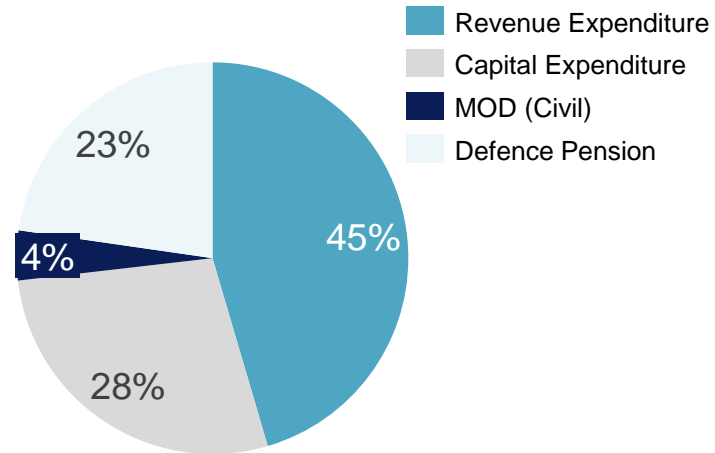
India's extensive modernisation plans, an increased focus on homeland security to increase government allocation for defence expenditure along with Make in India focus are expected to drive healthy growth in the sector

Growing Defence Budget (in Bn \$)



India is the 3rd largest military spender

Defence Budget Components - FY24



Source: Ministry of Defence - Budget

Business Potential till 2028

Rs. 4,000 Cr.
Defense & Aerospace

Rs. 500 Cr.
Space

Rs. 1,500 Cr.
Turnkey Projects,
Metrology & System

Rs. 1,000 Cr.
Export

Rs. 7,000 Cr.
Total

The Indian government has taken various initiatives to promote on indigenization in this space:

Atma Nirbhar Bharat

Imports Embargo

The Indian government has set the defence production target at USD 25 bn by 2025 (including US\$5 bn from exports by 2025)

ISRO has planned multiple deep space and experimental missions to strengthen India's position in global space industry through new technology development

Indigenous shipbuilding with a remarkable increase in capability and programme fulfillment

Defence Acquisition Procedure, 2020

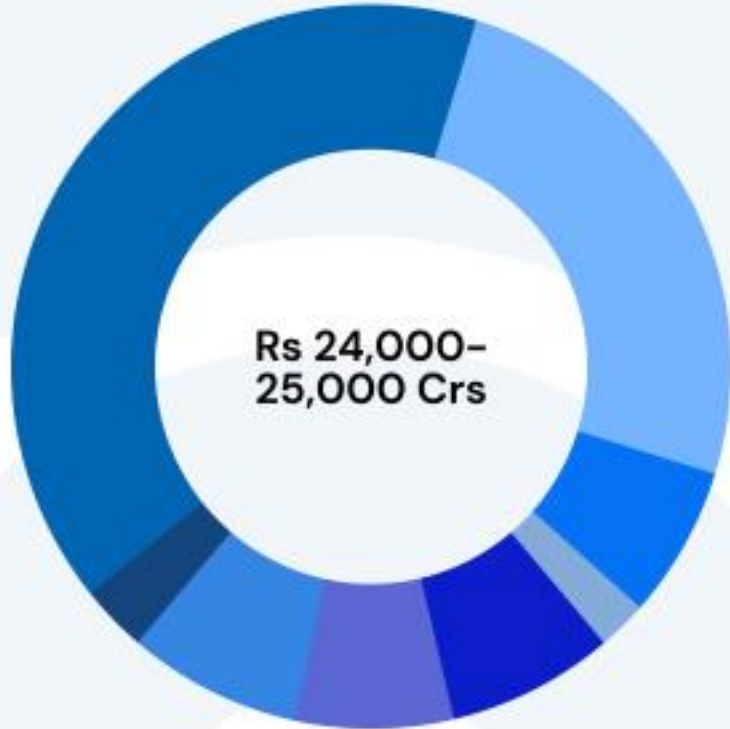
Category	Indigenous Content (IC)
Buy (Indian-IDDM)	Indigenous design and ≥ 50%
Buy (Indian)	In case of indigenous design ≥ 50% otherwise ≥ 60%
Buy and Make (Indian)	≥ 50% of the 'Make' portion
Buy and Make	not present
Buy (Global - Manufacture in India)	50% or more
Foreign Vendor	Foreign Vendor - Nil/ Indian Vendor ≥ 30%

Total Addressable Market



Astra Microwave Products Ltd.

Major opportunities for AMPL of around Rs 24,000-25,000 Crs across all sectors till FY28.



Meteorology/ Hydrology

Rs 900 - 1,000 Crs

Special Projects

Rs 2,000 - 3,000 Crs

Radar Programs

Rs 10,000 - 11,000 Crs

Space (FM)

Rs 500 - 600 Crs

Missiles & Telemetry

Rs 1,800 - 2,000 Crs

Turnkey Projects

Rs 5,000 - 6,000 Crs

Exports

Rs 1,500 - 2,000 Crs

EW

Rs 700 - 750 Crs

Wide Array of Opportunities due to Government Initiatives

Various government initiatives are encouraging the industry to develop the system either through in-house development or through foreign technology tie-up.

Astra in alliance with System Knowledge of its partners aims to deliver the product that meets Government thrust on Atma Nirbhar Bharat.

Getting opportunity from the Services to build for the intersystems.

Indian industries are getting opportunities to develop and supply products which are published as negative import list by GOI.

Astra will utilise its skill on design and production of high-end defense equipment in India and would also cater to the after-sale support.

Indigenous integrated and strategic defence and aerospace electronics solutions provider which is well positioned to benefit from the Atma Nirbhar Bharat initiative.

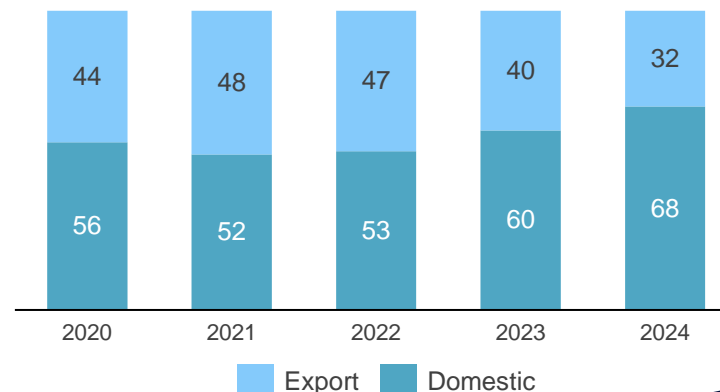
We aim to achieve 70% Domestic 30% Export Revenue distribution over next 2-3 years. Domestic business on an average carries 40 to 45% of gross margin as against 8 to 10% gross margin in exports.

Defence Offset

The defence offset policy mandates a foreign vendor to source at least 30% of the value of an order (when the order is worth Rs.2,000 crore or more) from Indian manufacturers.

Astra has been active in tapping this opportunity and its export business is driven by these offset provisions.

Astra Revenue Break-up %



Ready for Electronic Warfare

- Antennas
- EDLVA and BLI Super Components
- EW Simulators
- DIFM Receivers
- Front End Receivers
- Up/Down convertors
- Homodyne Receivers




Strategic Electronic Telemetry Sub-systems

- Command guidance units
- Radio Proximity Fuze
- L, S, C & X-Band Transponders
- Phased Array based Telemetry Tracking System
- Sub-system for gimbal based and AESA Seeker
- Ground and Airborne data link systems
- Data and video Telemetry transmitters, Transponders, Encoders & decoders
- Telemetry Receivers

Subsidiaries

JV

Overview

 <p>Bhavyabhanu Electronics Pvt. Ltd.</p>	<ul style="list-style-type: none"> • BEPL is a fully owned subsidiary of Astra Microwave • Established with State-of-the-Art manufacturing & test facilities to meet Global Standards. This combined with experienced manpower & stabilized processes ensure that the needs of various Industry Segments can be met easily • A dependable player with excellent technological capabilities and a long-term commitment to the defense, aerospace, medical and industrial electronics industry • Products are known for ruggedness and reliability and conform to the latest quality standards. BEPL can handle both high-mix, low/medium volume products as well as high volume production for our customers
	<ul style="list-style-type: none"> • A fabless MMIC Design House, based in Singapore. Aelius Semiconductors develops GaAs and GaN MMIC products based on a robust and reliable design philosophy. These designs are fabricated at leading foundries across the world • The products are tested and packaged as per customer's requirement utilizing state-of-the-art facilities • Aelius's unique and wide range of MMIC products are focused primarily on the Defense and Space industries, with competitive time lines and prices. We offer the flexibility to custom-package our products to customer's chosen configuration of die, package, or module
	<ul style="list-style-type: none"> • Astra Microwave Products Ltd and M/s RAFAEL ADVANCED DEFENSE SYSTEMS LTD., Israel (RAFAEL) came together to form a Joint Venture Company called Astra Rafael Comsys Private Ltd. (ARC) in Aug-19 • Focuses on indigenous technology and Atma Nirbhar Bharat programs • Engages in carrying out production, integration, customization, marketing, sale, life cycle support and additional activities as required in the fields of Tactical Radio Communication systems, Electronic Warfare Systems and Signal Intelligence Systems

Esteemed Clientele



Astra Microwave Products Ltd.

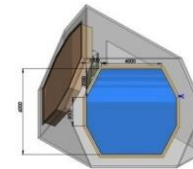
Major stake in upcoming Defence Programs



Light
Combat
Aircraft

AATRU
FOR ASPJ

AAAU for
Uttam
AESA
Radar



AAAU for LRMFR



AAAU for
AEW&CS



Long Range Radar TRMs, BSNs, PS



Medium
Power Radar
DTRMs



Industry Leading Certifications

Certificate of Registration

nqa

This is to certify that the Quality Management System of:

Astra Microwave Products Limited
 SP-1, Unit-4, 100% EOU, Plot no.18 to 21, Survey No 1/1, Hardware Park, Imarah Kanch, Raviryala(V), Maheshwaram (M) Ranga Reddy Dist., Hyderabad, Telangana, 500005, INDIA

is applicable to:

Manufacturer of RF/Microwave & Digital Sub Systems for aerospace and defence applications

has been assessed and registered by NQA against the provisions of:

AS9100D & BS EN ISO 9001:2015

In accordance with the requirements of EN 9104-001:2013. This registration is subject to the company maintaining a quality management system, to the above standard, which will be monitored by NQA.

Managing Director

Certificate No: 60007
 ISO Approval Date: 23 June 2011
 ASCS Approval Date: 23 June 2011
 Issue Date: 17 June 2020
 Expiry Date: 15 June 2023
 EAC Code: 19, 21
 Site Structure: Single Site

The use of the UKAS Accreditation Mark indicates accreditation in respect of those activities covered by the registration certificate number 015 held by NQA. NQA is a trading name of NQA Certification Limited, Registration No. 0202178, Registered Office: Watney House, Houghton Hall Park, Houghton Regis, Cambridgeshire LU10 2EX, United Kingdom. This certificate is the property of NQA and must be returned in request.

Page 1 of 1

CERTIFICATE OF REGISTRATION

This is to certify that the management system of:

Astra Microwave Products Limited
 Main Site: Registered Office: Astra Towers, Survey No. 12/1P, Kothaguda Post, Opp. CI Green Building, Hitech City, Kondapur, Hyderabad - 500084, Telangana, India

See attached appendix for lists of other sites covered by certification. Has been registered by Intertek as conforming to the requirements of:

ISO 9001:2015

The management system is applicable to:

Supply of Microwave Components, Equipment, Accessories and Modules; Microwave Integrated Circuits (MICs) for Defence, Space and Telecommunication Applications.

Certificate Number: 041212 22
 Initial Certification Date: 22 November 2006
 Date of Certification Decision: 16 November 2005
 Issuing Date: 16 November 2005
 Valid Until: 15 November 2024

CERTIFICATE OF REGISTRATION

This is to certify that the management system of:

Astra Microwave Products Limited
 Main Site: Registered Office: Astra Towers, Survey No. 12/1P, Kothaguda Post, Opp. CI Green Building, Hitech City, Kondapur, Hyderabad - 500084, Telangana, India

See appendix for additional sites and additional site scope. Has been registered by Intertek as conforming to the requirements of:

ISO/IEC 27001:2013

The management system is applicable to:

The Information Security Management System in Design, Development, Production, Marketing and Supply of RF and Microwave Components, Sub Systems and Systems, Modules; Microwave Integrated Circuits (MICs), Antennas, Automatic Weather System, Repetitive Parts, Manufacturing and supply of Microwave Printed Circuit Boards used in Defence, Space, Meteorology and Telecommunication, In-Place Green EM-EMC testing, SMT for PCB/MC Assembly.

This is in accordance with the Statement of Applicability version 1.3 dated 30/03/2013.

Certificate Number: 030914
 Initial Certification Date: 21 November 2013
 Date of Certification Decision: 13 November 2011
 Issuing Date: 13 November 2011
 Valid Until: 13 November 2024

CERTIFICATE OF REGISTRATION

This is to certify that the management system of:

Astra Microwave Products Limited
 Main Site: Registered Office: Astra Towers, Survey No. 12/1P, Kothaguda Post, Opp. CI Green Building, Hitech City, Kondapur, Hyderabad - 500084, Telangana, India

See appendix for additional sites and additional site scope. Has been registered by Intertek as conforming to the requirements of:

ISO 14001:2015

The management system is applicable to:

Design, Development, Manufacture and Supply of RF and Microwave Components, Sub Systems and Systems, Antenna Systems, Modules; Microwave Integrated Circuits (MICs), Antenna Weather Systems, Hydrology and other Weather Related Systems for Defence, Space, Weather Applications, Telecommunication, Meteorology and Hydrology Sectors.

Certificate Number: 004179
 Initial Certification Date: 03 October 2016
 Date of Certification Decision: 17 October 2012
 Issuing Date: 17 October 2012
 Valid Until: 15 October 2023

CERTIFICATE OF REGISTRATION

This is to certify that the management system of:

Astra Microwave Products Limited
 Main Site: Registered Office: Astra Towers, Survey No. 12/1P, Kothaguda Post, Opp. CI Green Building, Hitech City, Kondapur, Hyderabad - 500084, Telangana, India

See appendix for additional sites and additional site scope. Has been registered by Intertek as conforming to the requirements of:

ISO 45001:2018

The management system is applicable to:

Design, Development, Manufacture and Supply of RF and Microwave Components, Sub Systems and Systems, Antenna Systems, Modules; Microwave Integrated Circuits (MICs), Automatic Weather Systems, Hydrology and other Weather Related Systems for Defence, Space, Weather Applications, Telecommunication, Meteorology and Hydrology Sectors.

Certificate Number: 004180
 Initial Certification Date: 03 October 2016
 Date of Certification Decision: 17 October 2012
 Issuing Date: 17 October 2012
 Valid Until: 15 October 2023

National Accreditation Board for Testing and Calibration Laboratories

NABL

CERTIFICATE OF ACCREDITATION

EMC TEST SERVICES, ASTRA MICROWAVE PRODUCTS LIMITED

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2017

"General Requirements for the Competence of Testing & Calibration Laboratories"

for its facilities at

PLOT NO 18-21, IMARATH KANCHA, HARDWARE PARK, RAVIRYALA VILLAGE, MAHESHWARAM MANDAL, HYDERABAD, RANGA REDDY, TELANGANA, INDIA

in the field of

TESTING

Certificate Number: TC-6264

Valid Until: 10/09/2024

Issue Date: 11/09/2022

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL. (To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Name of Legal Identity : Astra Microwave Products Limited

Signed for and on behalf of NABL

N. Venkateswaran
Chief Executive Officer

Awards & Accolades



Astra Microwave Products Ltd.



LATOt Ceremony for Counter Drone System



Tripartite MoU for Uttam AESA AAU for LCA Mk1A



G20 Space Economy Leadership Meet



Aero India 2023

Our Contribution towards the Society

- Eradicating hunger, poverty and malnutrition
- Promoting education
- Promoting gender equality
- Ensuring environmental sustainability
- Protection of national heritage
- Benefit of armed forces veterans
- Training to promote rural sports
- Contribution to the PM's National Relief Fund
- Funds provided to technology incubators
- Rural development projects



Historical Financials



Standalone Profit & Loss



Astra Microwave Products Ltd.

PARTICULARS (Rs. In Cr)	FY24	FY23	FY22	FY21	FY20
Revenue from Operations	904	807	735	589	462
Total Raw Material	551	519	524	418	267
Gross Profit	353	289	211	171	195
Gross Profit Margin	39.1%	35.7%	28.7%	29.0%	42.2%
Employee Expenses	104	87	73	64	66
Other Expenses	55	52	51	42	45
EBITDA	194	150	87	64	84
EBITDA Margin	21.4%	18.5%	11.8%	10.9%	18.2%
Other Income	12	6	7	12	12
Depreciation	25	23	22	23	25
EBIT	181	132	73	53	71
EBIT Margin	20.0%	16.3%	9.9%	9.0%	15.3%
Finance Cost	30	29	20	21	8
Profit before Tax	152	103	53	31	63
Profit before tax margin	16.8%	12.7%	7.2%	5.3%	13.6%
Tax	39	26	12	7	15
PAT	113	77	40	24	47
PAT Margin %	12.5%	9.5%	5.5%	4.1%	10.3%
EPS (Rs.)	12.00	8.85	4.65	2.76	5.47

Standalone Balance Sheet



Astra Microwave Products Ltd.

ASSETS (Rs. In Cr)	Mar-24	Mar-23	Mar-22	Mar-21	Mar-20
Non-Current Assets	249	228	215	202	213
Property, plant and equipment	169	165	158	150	158
Capital WIP	13	2	-	-	12
Investment in Associates	2	2	2	2	-
Investments in joint ventures	20	20	20	20	16
Investments in subsidiaries	16	15	15	13	8
Financial Assets					
i. Other Financial Assets	9	6	9	10	11
Deferred tax assets	9	8	6	2	-
Non-Current Tax Assets	-	5	3	-	5
Other non-current assets	11	5	3	3	2
Current assets	1,217	818	743	714	644
Inventories	505	396	402	291	226
Financial assets					
i. Investments	-	-	-	14	13
ii. Trade receivables	503	282	202	254	247
iii. Cash and cash equivalents	61	49	21	14	7
iv. Bank balances other than (iii) above	65	55	49	24	43
Other financial assets	-	-	4	13	-
Current tax assets (net)	1	-	1	1	-
Other current assets	82	36	62	103	107
Total assets	1,466	1,047	958	915	857

EQUITY AND LIABILITIES (Rs. In Cr)	Mar-24	Mar-23	Mar-22	Mar-21	Mar-20
Equity and Liabilities	968	653	590	561	547
Equity share capital	19	17	17	17	17
Equity attributable to owners of the Company	949	636	572	543	530
Non-current liabilities	73	77	47	4	3
Financial liabilities					
i. Borrowings	15	3	3	-	-
Provisions	10	6	4	4	3
Contract liabilities	48	68	40	-	-
Current liabilities	425	316	321	351	307
Financial liabilities					
i. Borrowings	211	166	56	100	47
ii. Trade payables	88	44	53	35	38
iii. Other financial liabilities	22	18	15	11	16
Current tax liabilities (net)	1	4	-	1	2
Provisions	4	4	3	2	2
Contract liabilities	75	79	192	201	201
Other current liabilities	24	3	2	2	1
Total equity and liabilities	1,466	1,047	958	915	857

Consolidated Profit & Loss



Astra Microwave Products Ltd.

PARTICULARS (Rs. In Cr)	FY24	FY23	FY22	FY21	FY20
Revenue from Operations	909	816	750	641	467
Raw Material Consumption	546	518	527	446	265
Gross Profit	363	297	223	195	202
Gross Profit Margin	39.9%	36.4%	29.7%	30.4%	43.2%
Employee Expenses	114	95	81	71	71
Other Expenses	58	54	53	45	48
EBITDA	192	148	89	79	82
EBITDA Margin	21.1%	18.1%	11.9%	12.3%	17.7%
Other Income	12	5	6	11	12
Depreciation	25	24	22	24	26
EBIT	178	129	74	66	69
EBIT Margin	19.6%	15.9%	9.8%	10.3%	14.7%
Finance Cost	31	31	21	25	8
Profit before share of profit/loss from JVs	147	99	52	41	60
Share of profits from JVs	12	-3	-2	-3	-1
Profit before Tax	159	96	50	39	59
Profit before tax margin	17.5%	11.8%	6.7%	6.0%	12.7%
Tax	39	26	12	10	15
PAT	121	70	38	29	44
PAT Margin %	13.3%	8.6%	5.0%	4.5%	9.4%
EPS (in Rs.)	12.80	8.06	4.37	3.33	5.08

Consolidated Balance Sheet



Astra Microwave Products Ltd.

ASSETS (Rs. In Cr)	Mar-24	Mar-23	Mar-22	Mar-21	Mar-20
Non-Current Assets	239	206	197	186	207
Property, plant and equipment	167	166	159	153	161
Capital WIP	13	2	0		12
Investment in Associates	2	2	2	2	
Investments in joint ventures	22	9	12	14	13
Intangible assets	3	1	1	-	-
Financial Assets					
ii. Other Financial Assets	10	7	11	11	11
Deferred tax assets	11	9	7	3	1
Non Current Tax Assets	-	6	3		6
Other non-current assets	11	5	3	3	2
Current assets	1,235	851	771	759	689
Inventories	514	419	419	330	284
Financial assets					
i. Investments	-	-	-	14	13
ii. Trade receivables	505	284	205	267	249
iii. Cash and cash equivalents	66	56	27	18	9
iv. Bank balances other than (iii) above	65	55	50	25	44
Other financial assets		0	3	13	0
Current tax assets (net)	1		1	1	
Other current assets	78	37	65	92	89
Assets classified as held for sale	5	-	-	-	-
Total assets	1,473	1,057	969	945	895

EQUITY AND LIABILITIES (Rs. In Cr)	Mar-24	Mar-23	Mar-22	Mar-21	Mar-20
Equity and Liabilities	966	643	586	559	540
Equity share capital	19	17	17	17	17
Equity attributable to owners of the Company	947	625	568	541	523
Non-controlling interest	0	0	0	0	0
Non-current liabilities	74	78	47	4	4
Financial liabilities					
i. Borrowings	15	3	3	-	-
Provisions	10	7	4	4	4
Contract liabilities	48	68	40		
Current liabilities	434	337	336	383	352
Financial liabilities					
i. Borrowings	221	182	67	122	55
ii. Trade payables	84	46	55	38	61
iii. Other financial liabilities	23	19	16	12	16
Current tax liabilities (net)	1	4	0	2	2
Provisions	4	4	4	2	2
Contract liabilities	76	79	192	203	210
Other current liabilities	25	3	2	5	5
Total equity and liabilities	1,473	1,057	969	945	895

Thank You

For more information please contact:

Company:



Astra Microwave Products Ltd.

Astra Microwave Products Limited

CIN No: L293091G1991PLC013203

Mr. T. Anjaneyulu, GM – Company Secretary

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Investor Relations Advisors:

SGA Strategic Growth Advisors

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