

Astra Microwave Products



Precision in motion!

Teena Virmani - Research Analyst (Teena.Virmani@MotilalOswal.com)

Research Analyst: Prerit Jain (Prerit.Jain@MotilalOswal.com) | **Vatsal Magajwala** (Vatsal.Magajwala@MotilalOswal.com)

Investors are advised to refer through important disclosures made at the last page of the Research Report.

Motilal Oswal research is available on www.motilaloswal.com/Institutional-Equities, Bloomberg, Thomson Reuters, Factset and S&P Capital.

01

Page # 03
Summary

02

Page # 06
Story in charts

03

Page # 8
Industry overview

04

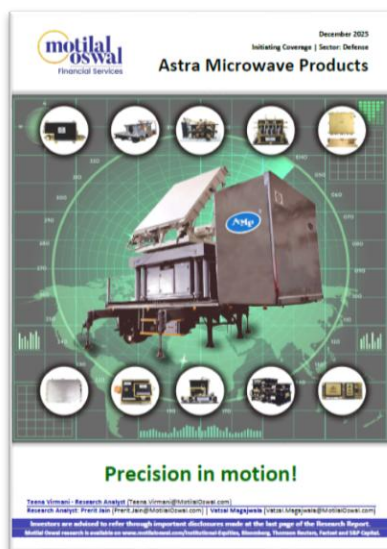
Page # 14
Investment thesis

05

Page # 21
Financial Outlook

06

Page # 23
Valuation and view



Precision in motion!

- ❖ Astra Microwave Products (AMPL) designs and manufactures high-quality radio frequency and microwave modules, subsystems, and systems in India. The company is moving from being a subsystem-level player to a complete system solutions provider and is eyeing opportunities from Active Electronically Scanned Array (AESA) radar, Uttam radar, meteorological orders, repeat orders from the Navy, and counter-drone orders over the next few years.
- ❖ The company's order book stood at INR22b as of 30th Sep'25. AMPL posted 13% revenue CAGR over FY21-25. Driven by a changing business mix, the company was able to improve its EBITDA margin notably to 25.6% in FY25 from 12.3% in FY21. We expect the company's revenue to post an 18% CAGR over FY25-28 and project its margin to improve 40bp over the same period to reach ~26% by FY28. This would lead to a PAT CAGR of 23% over the same period.
- ❖ We initiate coverage on AMPL with a BUY rating and a TP of INR1,100, based on 38x Dec'27 estimates. This valuation reflects a 15% discount compared to larger defense PSUs owing to its smaller size. We consider AMPL a long-term investment opportunity in defense electronics, anticipating its revenue growth to accelerate between FY27 and FY30 as larger orders are awarded by the Ministry of Defence (MoD) and defense PSUs.

09

Page # 23
Key risks and concerns

10

Page # 24
Company background

11

Page # 25
ESG initiatives

12

Page # 26
SWOT analysis

13

Page # 27
Management profile

14

Page # 28
Financials and valuations

Astra Microwave Products

BSE SENSEX
84,680

S&P CNX
25,860



Astra Microwave Products Ltd.

Bloomberg	ASTM IN
Equity Shares (m)	95
M.Cap.(INRb)/(USDb)	84.2 / 0.9
52-Week Range (INR)	1196 / 584
1, 6, 12 Rel. Per (%)	-11/-27/-1
12M Avg Val (INR M)	474
Free float (%)	93.5

Financials & Valuations (INR b)

Y/E MARCH	FY26E	FY27E	FY28E
Net Sales	11.2	13.7	17.3
EBITDA	2.8	3.6	4.5
Adj PAT	1.5	2.2	2.9
EPS (INR)	16.4	23.7	30.3
GR. (%)	0.8	44.4	27.7
BV/Sh (INR)	133.1	156.8	187.1

Ratios

ROE (%)	13.2	16.4	17.6
RoCE (%)	12.0	14.2	15.3

Valuations

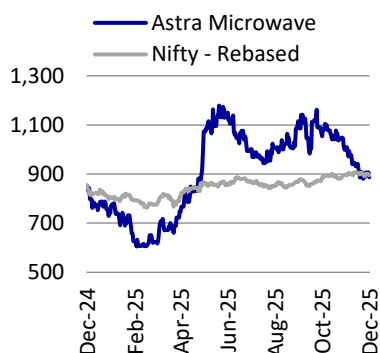
P/E (X)	54.1	37.4	29.3
P/BV (X)	6.7	5.7	4.7
EV/EBITDA (X)	30.0	24.1	19.3

Shareholding pattern (%)

As of	Sep-25	Jun-25	Sep-24
Promoter	6.5	6.5	6.5
DII	14.6	14.4	15.0
FII	6.5	6.5	5.7
Others	72.5	72.6	72.8

FII includes depository receipts

Stock Performance (1-year)



CMP: INR888

TP: INR1,100 (+24%)

Buy

Precision in motion!

Transitioning from a subsystems to a system-based player

Astra Microwave Products (AMPL) designs and manufactures high-quality radio frequency and microwave modules, subsystems, and systems in India. The company is moving from being a subsystem-level player to a complete system solutions provider and is eyeing opportunities from Active Electronically Scanned Array (AESA) radar, Uttam radar, meteorological orders, repeat orders from the Navy, and counter-drone orders over the next few years. The company's order book stood at INR22b as of 30th Sep'25. AMPL posted 13% revenue CAGR over FY21-25. Driven by a changing business mix, the company was able to improve its EBITDA margin notably to 25.6% in FY25 from 12.3% in FY21. We expect the company's revenue to post an 18% CAGR over FY25-28 and project its margin to improve 40bp over the same period to reach ~26% by FY28. This would lead to PAT CAGR of 23% over the same period. We initiate coverage on AMPL with a BUY rating and a TP of INR1,100, based on 38x Dec'27 estimates. This valuation reflects a 15% discount compared to target multiple of larger defense PSUs owing to its smaller size. We consider AMPL a long-term investment opportunity in defense electronics, anticipating its revenue growth to accelerate between FY27 and FY30 as larger orders are awarded by the Ministry of Defence (MoD) and defense PSUs.

Healthy addressable market across segments

The total addressable market for AMPL is ~INR240b-250b across all sectors through FY28. Within this addressable market, AMPL targets significant opportunities until FY28 in radar, missiles, telemetry, and turnkey projects, followed by other initiatives. The company's offerings range across AAAU hardware, AESA multi-functional radar, Electronic warfare (EW) subsystems, jammers, telemetry subsystems, et al. Further, AMPL is actively participating in multiple Make-II programs of the Indian Air Force and the Indian Army, focusing on various radar systems. We thus expect AMPL to benefit from upcoming orders related to QRSAM, the Uttam radar for Tejas Mk1A, the EW suite and Virupaksha AESA radar for the Su-30 MK1 upgrade, weapon locating radars, and other defense segment projects over the next 1-2 years. We also project emerging opportunities in space, meteorology, exports, and other projects for AMPL over the medium to long term.

Revenue growth profile to change over the next 4-5 years

AMPL is targeting potential orders worth INR14-15b from QRSAM, INR10b from Uttam radar, and INR15-16b from the EW suite related to the Su-30MK1 upgrade. These will be followed by orders for the Virupaksha AESA radar and an additional INR15-16b from weapon-locating radars. The company is already qualified as one of the suppliers for these orders. Once awarded, we expect project execution to scale up during FY27-30, supplementing AMPL's base orders. Additionally, AMPL is expected to benefit from meteorology-related orders through Mission Mausam and the launch of a satellite, which could increase revenues in meteorology and the space segment. Export opportunities are anticipated to take 1-2 years before contributing meaningfully to revenue.

Wide product portfolio

AMPL's range of products encompasses offerings in defense, space, and hydro/meteorology, along with expertise in antennas, MMIC, contract manufacturing, Homeland security, and environmental & EMI/EMC testing services. It supplies various kinds of EW subsystems and components to DPSUs and the programs of the Indian Air Force, Navy, and Army. It is also associated with Jammer's program for LCA Mk1A, Su-30 MKI, and other fighter platforms in India. It is also a critical partner of Bharat Electronics (BEL) for EW. It supplies various subsystems 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. Currently, 80% of the company's defense segment revenue originates from subsystems and 20% from systems. The company plans to alter the ratio to 50-50% in the future.

Strong order book, JVs, and alliances enhance revenue visibility

AMPL has a strong order book of INR22b, providing revenue visibility for three years. With this, we expect revenues to clock 18% CAGR over FY25-28.

AMPL has a strong order book of INR22b, providing revenue visibility for three years. With this, we expect revenues to clock 18% CAGR over FY25-28. Along with this, the company has also formed JVs and alliances with various players to enter new areas such as explosives (with Premier Explosives to get hard-kill capabilities for anti-drones), navigation systems (with Manjeera Digital to manufacture navigation chips), tactical radio communication systems, and electronic warfare (EW) with M/s Rafael Advanced Defense Systems. These JVs and alliances further enhance revenue visibility for the company via newer areas.

Strong client base

The company has a strong client profile. Its clientele includes RCI, BrahMos, Gaetec, Bharat Electronics, Bharat Dynamics Limited, Electronics Corporation of India Limited, HAL, BSF, IITM, GUVNL, Adani Defense and Aerospace, L&T, IAI ELTA, Rafael, Elbit Systems, Thales, Sematron Italia, Raytheon Technologies, ISTRAC, URSC, Antrix Corporation, NARL, SAE, CSIR-NAL, MGAM, the Government of Telangana, the Central Water Commission, and the India Meteorological Department.

Focusing on working capital reduction

Management targets a reduction in working capital, which would particularly be driven by a reduction in receivables. The receivables had moved up in the last 3-4 years, especially driven by certain orders related to radars, where payments are linked to acceptance of those radars by the client. These receivables, worth nearly INR1.7b, are likely to be received during FY26. Therefore, we expect AMPL's NWC days to come down for FY26. This will enhance operating cash flows for the company. However, we do not expect a sharp reduction in NWC days going forward.

Financial outlook

AMPL reported a revenue CAGR of 13% over FY21-25, mainly driven by the execution of defense and export orders over FY23-25

AMPL reported a revenue CAGR of 13% over FY21-25, mainly driven by the execution of defense and export orders over FY23-25. EBITDA margin improved to 25.6% in FY25 from 12.3% in FY21, fueled by the completion of low-margin export orders. AMPL raised INR2.25b at the beginning of FY24 to strengthen its balance sheet. However, gross borrowings rose from INR1b in FY21 to INR4.2b by FY25 due to an increase in the net working capital cycle. We expect the company's revenue/EBITDA/

PAT to record a CAGR of 18%/19%/23% over FY25-28, while its RoE and RoCE are expected to remain at comfortable levels of 13-17% in FY28.

Future growth strategy

The company expects to capitalize on the strong growth prospects in the defense sector by 1) moving up the value chain from manufacturing subsystems for OEM customers to manufacturing complete systems, 2) entering into collaborations and JVs for complex projects, 3) providing comprehensive solutions to clients, 4) diversifying revenue mix, 5) increasing the share of higher-margin domestic orders vs. exports, and 6) maintaining a strong balance sheet.

Valuation and recommendations

At the current price of INR888, the stock is trading at 37.4x/29.3x P/E on FY27E/ FY28E financials. **We initiate coverage on AMPL with a BUY rating and a TP of INR1,100 based on 38x Dec'27 estimates. Our target multiple at a 15% discount to the target multiple of larger PSU owing to its smaller size.** We view Astra Microwave to be a long-term play in defense electronics, with its revenue growth profile to improve more during FY27-30 as larger orders get awarded from MoD.

Key risks and concerns

Key risks include: delays in awarding of larger platforms, lower-than-expected spending from the government on the defense sector, and supply-chain issues.

At the current price of INR888, the stock is trading at 37.4x/29.3x P/E on FY27E/ FY28E financials. We initiate coverage on AMPL with a BUY rating and a TP of INR1,100 (based on 38x Dec'27 estimates)

ASTRA MICROWAVE PRODUCTS: GROWTH DRIVERS

Transition from subsystems to full-system integration

Strong presence across radar ecosystem

Large pipeline of high-value defence programs such as QRSAM, Uttam AESA radar, etc.

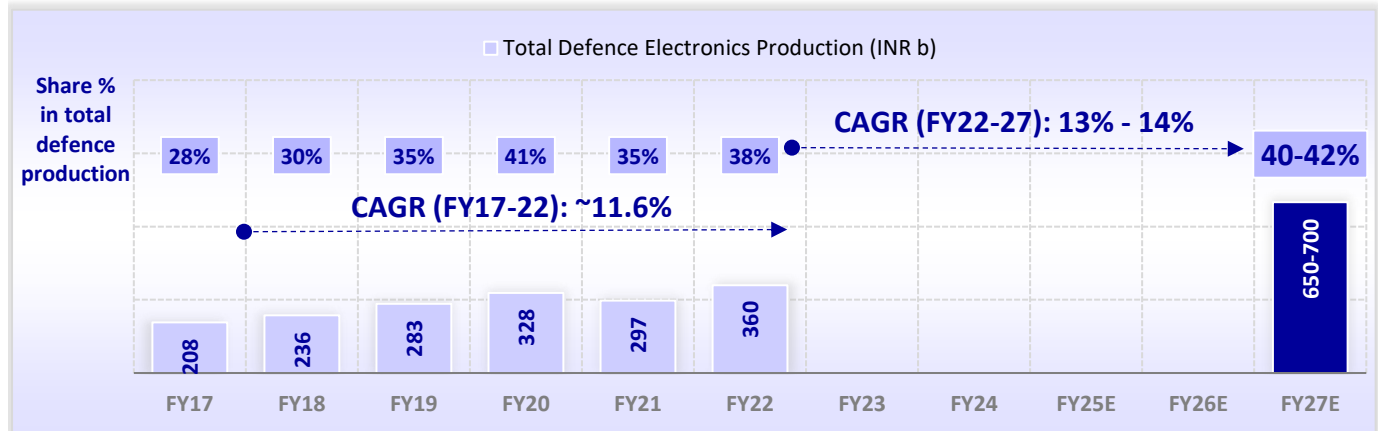
Diversification beyond defence with traction across meteorology and space

JVs enabling entry into high-value segments



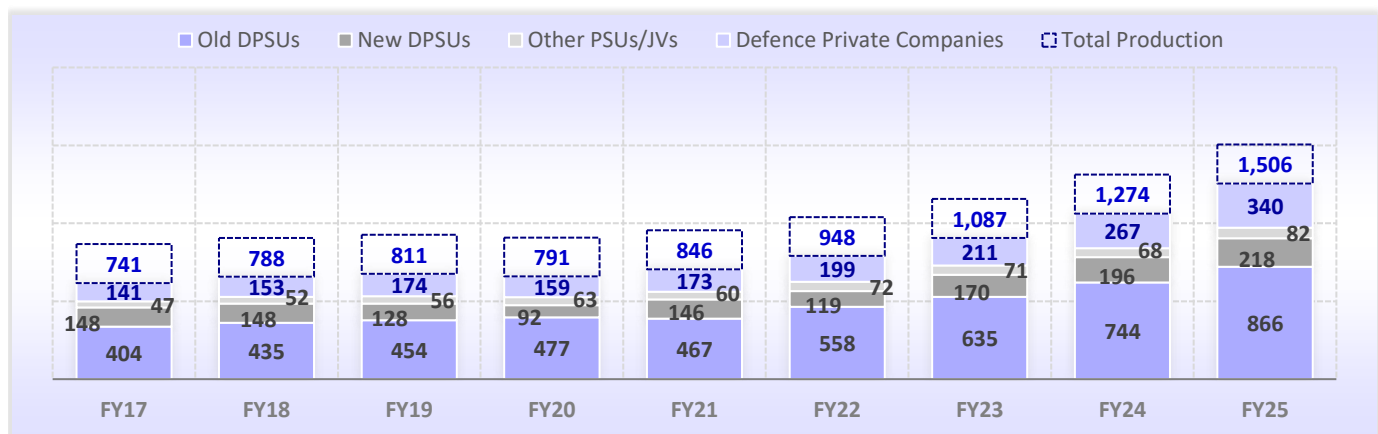
STORY IN CHARTS

An increase in the share of defense electronics to overall defense production will result in a better outlook for defense electronics production in India (INR b)



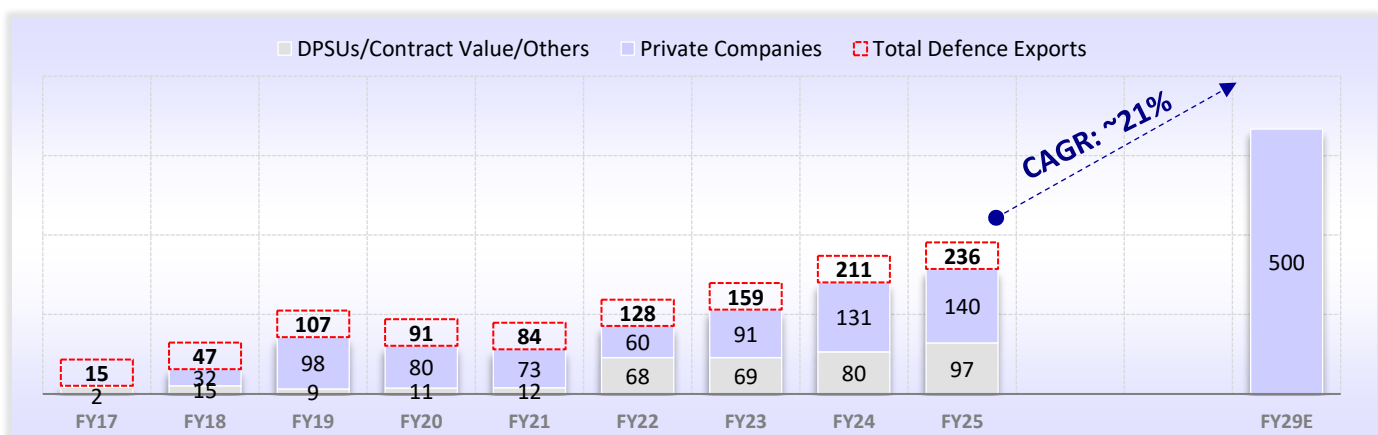
Source: Ministry of Electronics and Information Technology, MOFSL

Segment-wise share of total defense production in India; total production has doubled in the past eight years (INR b)



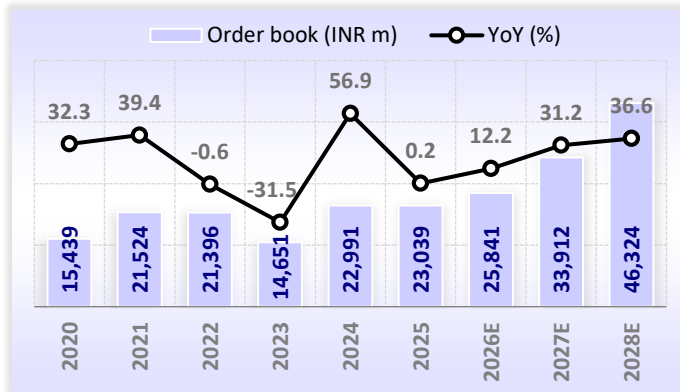
Source: MoD, MOFSL

Defense exports are also moving up, and a larger share is contributed by private companies (INR b)

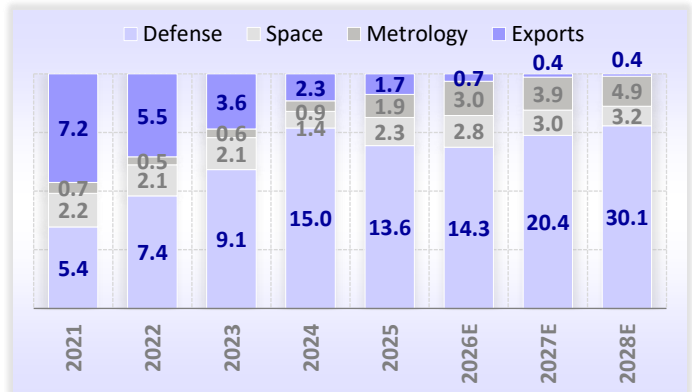


Source: MoD, MOFSL

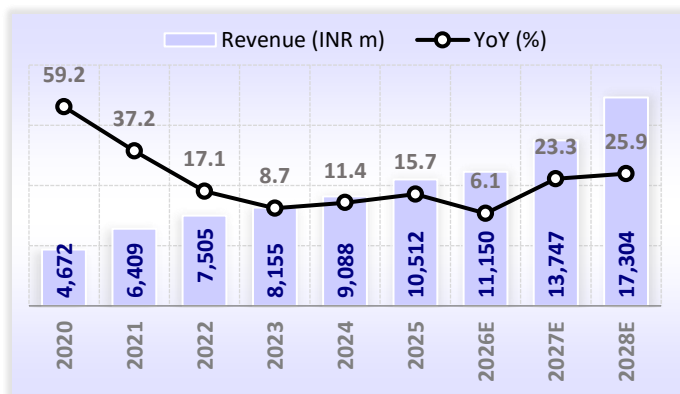
We expect AMPL's OB to post a 26% CAGR over FY25-28



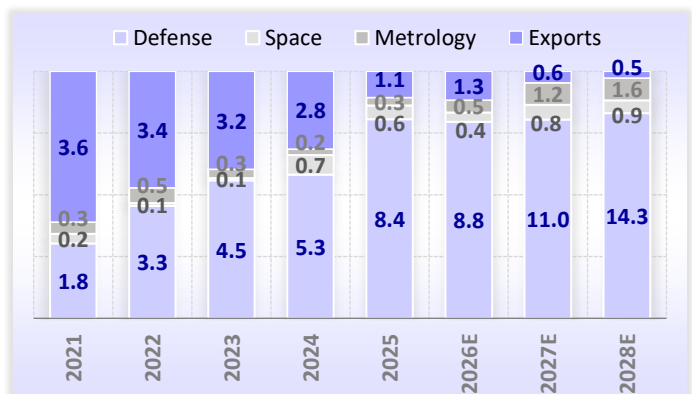
Growth in OB to be led by the defense segment (INR b)



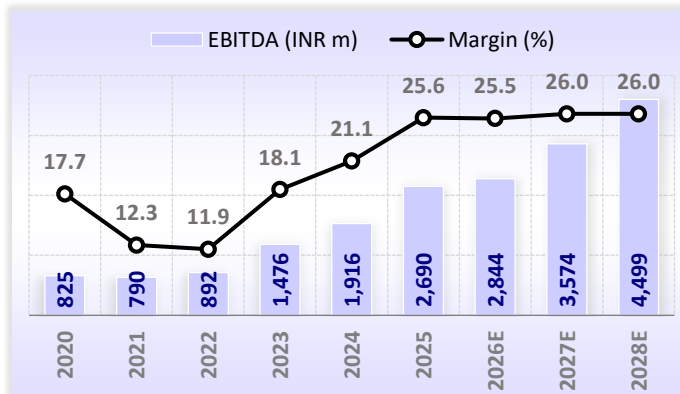
We expect 18% revenue CAGR over FY25-28 for AMPL, driven by execution ramp-up



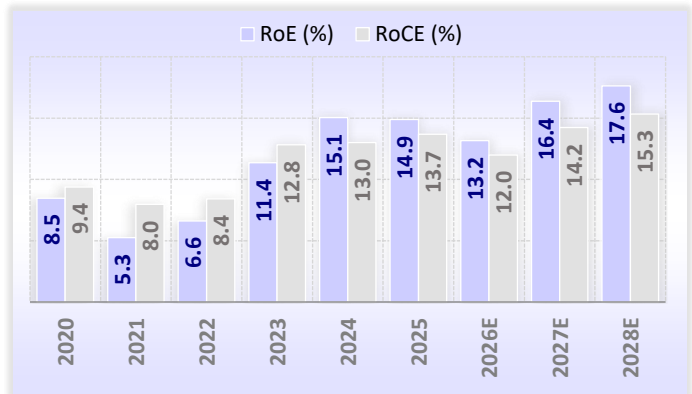
We expect this growth to be driven by the increased share of defense segment revenues (INR b)



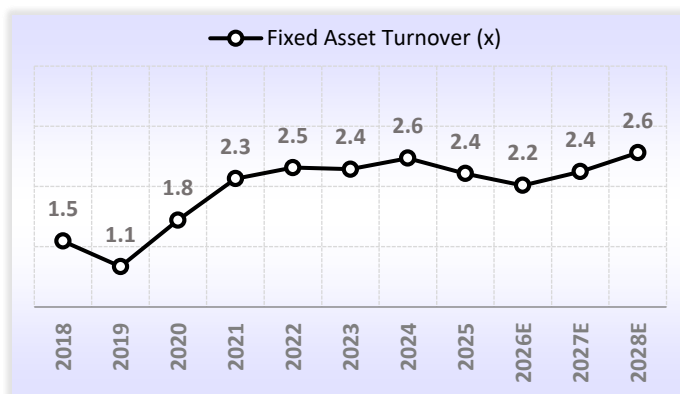
We expect margins to remain at comfortable levels (%)



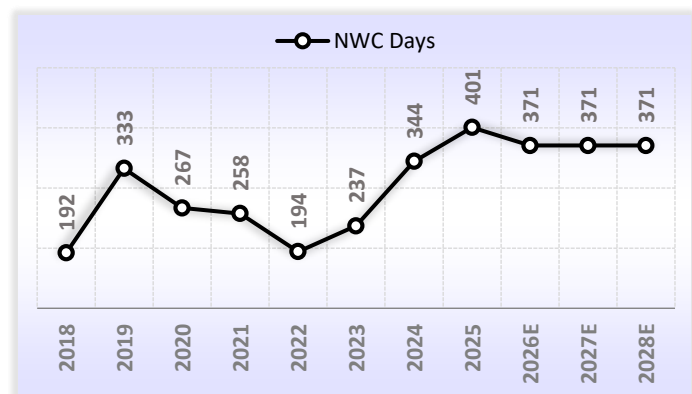
We expect RoE and RoCE to be in the range of 13-17%.



We expect fixed asset turnover to remain at current strong levels (x)



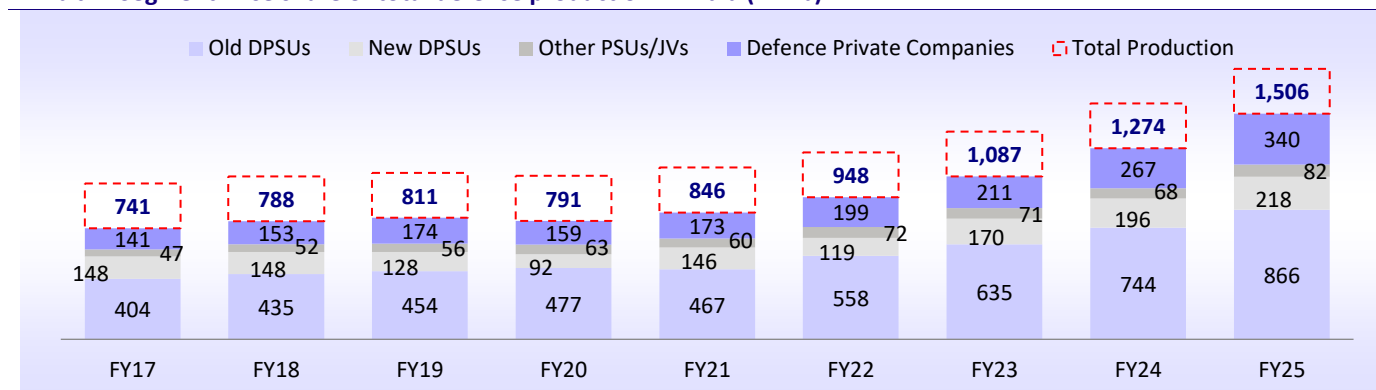
NWC spike to come down from FY26, but we expect it to remain high around 370 days going forward



Industry overview

Over the past few years, the government's key priority has been to indigenize defense production. Defense production in India clocked a 17% CAGR over FY20-FY25 to reach INR1.5t in FY25. As of FY25, DPSUs held the largest share in defense production at 57.5%, followed by private companies at 22.6%, the New DPSUs (Ordnance Factory Boar) at 14.5%, and other PSUs/JVs at 5.4%. Within this defense production, the share of defense electronics production is continuously increasing and is expected to grow at a rate of 13-14% going forward, given the growing demand for advanced technologies like AI, IoT, and secure communication systems in large platform orders.

Exhibit 1: Segment-wise share of total defense production in India (INR b)



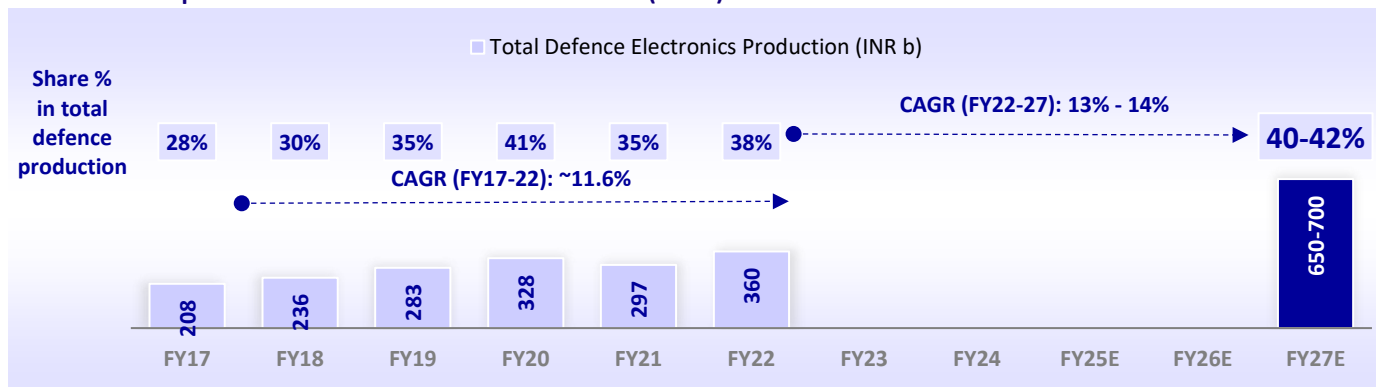
Source: MoD, MOFSL

Defense electronics market outlook

The defense electronics segment consists of military communication systems, radars & sonars, network-centric systems, EW systems, weapon systems, Satellite-based communication, navigational aids, underwater electronics systems, infrared (IR)-based detection and ranging systems, disaster management systems, internal security systems, et al.

The industry is expected to record a CAGR of 13-14% during FY22-27 and reach INR650-700b by FY27, following a CAGR of 11.6% over FY17-22. The share of the industry within overall defense production has increased persistently, barring the pandemic-hit year of FY21. The share of defense electronics is projected at 40-42% of the total defense production by FY27, driven by sophisticated technology.

Exhibit 2: Total production of defense electronics in India (INR b)



Source: Ministry of Electronics and Information Technology, MOFSL

Exhibit 3: Positioning of key players in the defense electronics market

Key Players	Radars	Missile & telemetry	EW	Avionics	Counter-drone systems	Satellite and space	Hydro/meteorology	Others*
Astra Microwave Product	✓	✓	✓		✓	✓	✓	✓
Data Patterns (India)	✓	✓	✓	✓		✓	✓	✓
Bharat Electronics	✓	✓	✓	✓	✓	✓	✓	✓
Centum Electronics	✓	✓	✓	✓		✓		✓
Alpha Design Technologies	✓		✓	✓		✓		✓
Tata Advanced Systems	✓	✓	✓	✓		✓		✓
DCX Systems	✓	✓	✓					✓
Paras Defense and Space Technologies		✓	✓	✓				✓

Source: Industry, Company, MOFSL

Key applications of defense electronics across different platforms include:

Exhibit 4: Defense electronics products across different platforms

Airborne	❖	Radar systems, communication systems, and robotic warfare equipment
Land	❖	Command & control, communication, intelligence, surveillance, and reconnaissance (C4ISR) systems
Marine	❖	Navigation and sonar systems
Space	❖	Satellite communications and space warfare technologies

Source: Industry, MOFSL

Radar systems and subsystems

Within defense electronics, radar systems and subsystems are the most important sub-segment. The size of the radar systems market was cumulatively estimated at INR255-265b over FY18-22. The estimated market size of radar systems in India was estimated to be INR34-36b in FY17, which clocked a CAGR of 14-15% over FY17-22 to reach INR68-70b. By FY33, the market size is anticipated to touch INR120-125b.

Growth in radar systems and subsystems is driven by:

- Large-scale modernization and upgradation programs for the armed forces
- Shift towards technologically advanced AESA radar
- Multiple end-use industries beyond defense, such as aerospace, automotive, and infrastructure

AMPL has also recently signed an MoU with L&T to jointly cooperate in the development, manufacturing, and integration of radar systems for both defense and industrial applications. It is also associated with most of the key radar programs in India.

Exhibit 5: AMPL has worked across most of the key radar programs in India

Radar Programs	Description
MPR - Arudhra	<ul style="list-style-type: none"> ❖ The 4D multi-beam multifunction phased array radar ❖ Instrumented range: 400km; Detection range: 300km ❖ Accepted for induction into the Indian Air Force ❖ In March'24, Astra received its single largest order to supply advanced MPR subsystems to BEL, valued at INR3.9b
AESAR-UTTAM	<ul style="list-style-type: none"> ❖ Scalable architecture that can adapt to different types of fighter classes of airborne platforms. ❖ Core components – Active Aperture Array Unit (AAAU), primary power system, and exciter receiver processor. ❖ Flight test completed on the LCA platform for different modes ❖ AESA radars are also expected to be used in AWACS and the Su-30MKI fighter aircraft, INS Vikramaditya, and other warships, INS Vikrant. ❖ The Gallium Nitride (GaN) based AESA radar will be integrated with upcoming fighter jets of the Indian Air Force, which are LCA Mark2, AMCA & TEDBF fighter jets. ❖ AMPL developed and supplied AAAUs for UTTAM AESA Radar for LCA Mk1A fighter aircraft. The company expects ~INR11-12b worth of business from Uttam radars in the next 3-4 years.
Primary radar for airborne early warning and control system (PR for AEW&C)	<ul style="list-style-type: none"> ❖ An active phased array radar ❖ Detection range: 200km; Extended range: 300km ❖ A multi-mode early warning radar with an electronically scanned active array antenna ❖ Mounted on an executive jet-class (Embraer) aircraft for carrying out airborne surveillance ❖ AMPL is involved in developing and manufacturing key subsystems and components for AEW&C systems.
Radars for quick reaction surface-to-air missile (QRSAM)	<ul style="list-style-type: none"> ❖ The QRSAM system is required to provide air defense cover to mechanized columns on the move. ❖ Requires a battery surveillance radar (BSR) for surveillance and a battery multifunction radar (BMFR) for fire control, and has an onboard power source and cooling system. ❖ On-the-move surveillance and tracking performance established. ❖ AMPL expects to gain on the radar and TR module-based orders from the upcoming QRSAM tender in FY26.

Source: Industry, Company, MOFSL

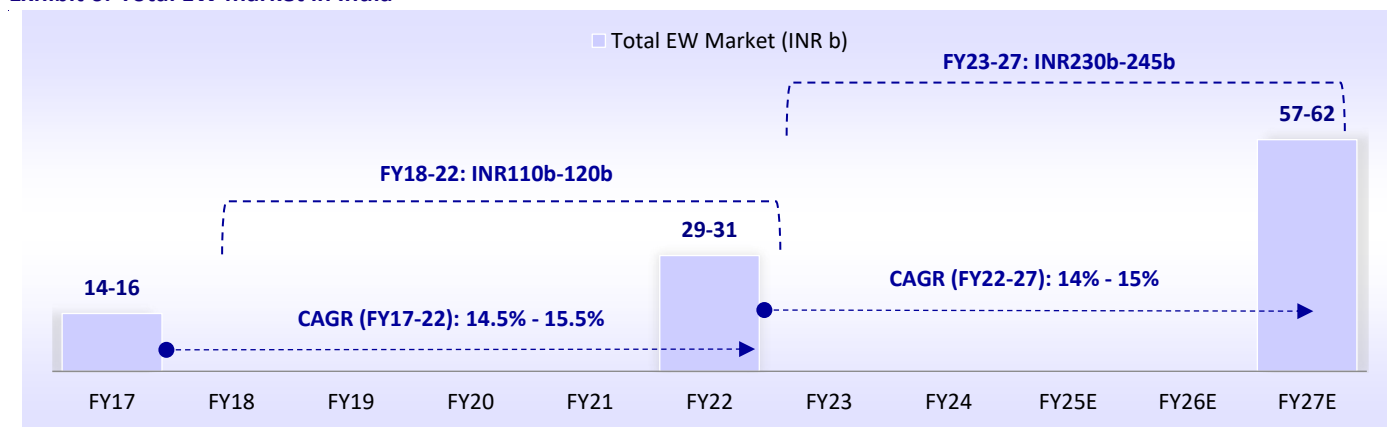
Electronic warfare (EW)

The Indian EW market is projected to grow to USD1b by FY33. The key player in this space is BEL, while private players' access is still limited, given the criticality of the EW systems in defense infrastructure. Apart from the currently employed EW systems, there is a developing use of satellite-based GPS systems, remotely controlled UAVs, and cyber tools for disrupting enemy activities and infrastructure. In the future, EW systems will be fully integrated with cyber warfare elements in wars.

Key EW products in the industry

- **Electronic support measures (ESM) system:** Provide military intelligence through surveillance in the electromagnetic spectrum.
- **Communications intelligence (COMINT) and communication jamming system:** A communication EW system is capable of carrying out ESM and ECM.
- **Mobile ground-based electronic intelligence (ELINT) system:** Includes a digital receiver and DF technology to search, intercept, measure, monitor, analyze, identify, and locate detectable radar emitters within the required frequency spectrum to provide information necessary for strategic and tactical operations.
- **Integrated EW system:** Covers the frequency band consisting of both communication and non-communication EW segments, linked with an intra-communication network.

Exhibit 6: Total EW market in India



Source: MoD, MOFSL

Missile and telemetry systems

Defense electronics has a crucial role to play in missile systems, enabling advanced capabilities such as detection, tracking, targeting, and guidance, and the scope of work includes advanced electronic guidance and navigation systems in the Brahmos missile, advanced radar and guidance systems in the Akash missile, advanced navigation and guidance systems in the Pinaka rocket system, etc. For all the key missile systems in India, we believe AMPL will benefit from these upcoming projects.

Exhibit 7: Key missile systems in India

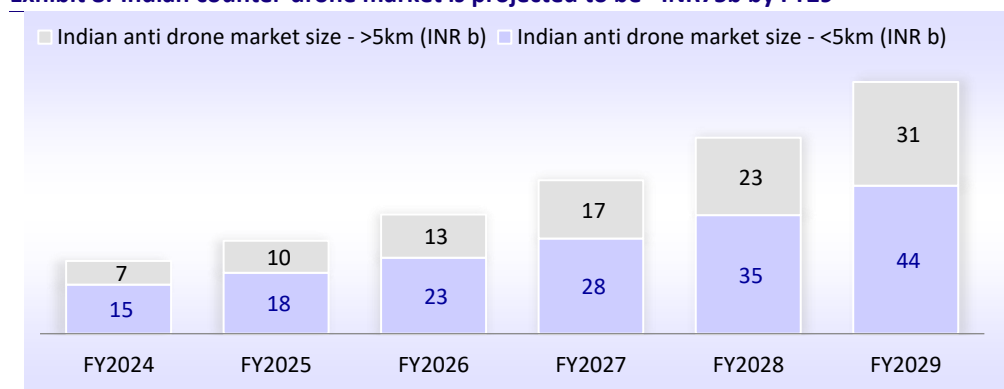
Missile Systems	Description
Agni	❖ Agni-1 to 5 missiles, designed and developed by DRDO and have been inducted into service.
Akash	❖ Short-range surface-to-air missile system. ❖ Simultaneously engages multiple targets in the group or autonomous modes. ❖ Inducted and operational with the Indian Air Force, as well as the Indian Army.
Astra	❖ An air-to-air missile system designed to be mounted on a fighter aircraft ❖ Designed to engage and destroy highly maneuvering supersonic aircraft ❖ All-weather day and night capability ❖ Developed with multiple variants to meet specific requirements ❖ The Astra Mk-I weapon system integrated with the Su-30 Mk-I aircraft is being inducted into the Indian Air Force
NGRAM	❖ The new generation anti-radiation missile (NGRAM) is used to target and destroy enemy-based radars on the ground. ❖ Range of 100-250 km ❖ Uses Sukhoi-30 as its launch platform
QRSAM	❖ Short-range surface-to-air missile system designed to protect moving armored columns from aerial attacks ❖ Configured on highly mobile platforms and provides air defense on the move ❖ Inducted into the Indian Army
MRSAM	❖ High-response, quick-reaction, vertically launched supersonic missile, designed to neutralize enemy aerial threats - missiles, aircraft, guided bombs, and helicopters. ❖ Used by the Army, Navy, and Air Force in different variants
BrahMos	❖ Supersonic and hypersonic (in development) cruise missiles ❖ Travels at a speed of 2-3 Mach and 5 Mach ❖ Flight range of 290 km, with a cruising altitude of up to 15km and a terminal altitude of 10m ❖ The missile is in service in ship-based, land-based, and air-launched versions.
Helina	❖ Third-generation fire-and-forget class anti-tank guided missile (ATGM) system mounted on the advanced light helicopter (ALH)

Source: Company, MOFSL

Counter-drone system market in India

According to industry estimates, the Indian counter-drone market is likely to record a much faster CAGR of 28% over the next five years and would be driven by increased requirements for counter-drone systems to counter aerial attacks. Conservatively, the addressable market for counter-drone systems is estimated at INR120b over the next five years based on a requirement of nearly 1,200 counter-drone systems, each costing about INR80-150m. This will result in a yearly opportunity of ~INR24b over the next five years. Within this market, the TAM for anti-drones for more than 5km range is growing faster than that of anti-drones for less than 5km. The technology is continuously evolving in this space to improve the range. The lifespan of a counter-drone system is nearly 10 years, and it requires software upgrades frequently.

Exhibit 8: Indian counter-drone market is projected to be ~INR75b by FY29



Source: MoD, MOFSL

Positioning of players in the counter-drone market

Indian companies such as BEL, Adani A&D, GreneRobotics, Gurutvaa, ZEN, Big Bang Boom Solutions, and M2K Technologies could give strong competition to AMPL in the domestic market. Players like Thales, too, with their manufacturing and R&D capabilities in India, can be a potential competitor in the domestic market. Along with this, international players are partnering with Indian companies to meet India's indigenous component requirement for defense procurements. For instance, DroneShield has partnered with M2K Technologies to bring advanced counter-drone systems to the Indian market.

Exhibit 9: Domestic players in the counter-drone market

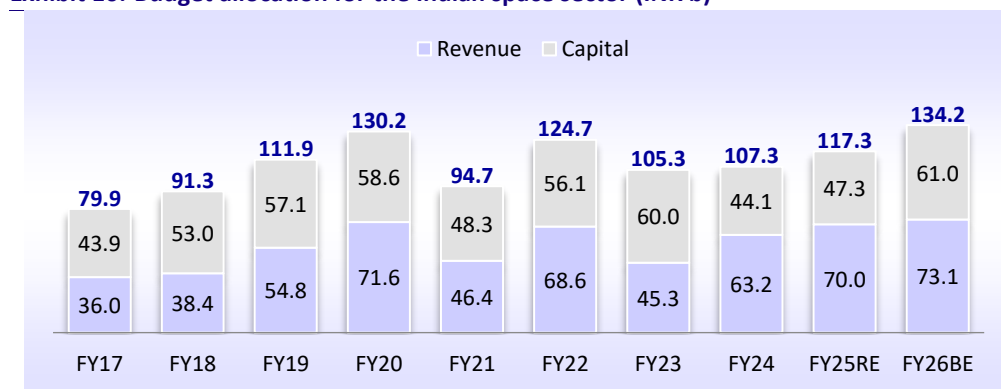
Company	R&D	Manufacturing	System integration	Marketing & Sales	After-sales support	Product upgrade
Astra Microwave		✓	✓			
ZEN	✓	✓	✓	✓	✓	✓
Adani A&D			✓	✓	✓	✓
BEL		✓	✓	✓	✓	✓
Gurutvaa Systems	✓		✓	✓	✓	
M2K				✓	✓	
Thales	✓	✓	✓	✓	✓	✓

Source: Industry, Company, MOFSL

Space

The Indian space ecosystem is largely managed by the government. The Indian Space Research Organisation (ISRO), under the Department of Space, acts as the nodal agency for space activities in India. The Indian space budget is likely to post a CAGR of 6% between FY17 and FY26BE, and it is estimated to grow to USD8b by FY33.

Exhibit 10: Budget allocation for the Indian space sector (INR b)



Source: Industry, Company, MOFSL

Meteorology

Government support to aid growth in the meteorological equipment market

The Government of India has planned to install DWRs throughout India to increase accuracy and reduce errors in weather forecasting. The number of Doppler radars in the country has increased to 39 in 2023 from 15 in 2014. Additional 25 radars will be added in the next 2-3 years, of which 11 will be in the eastern Himalayas.

Moreover, the government has introduced the Atmosphere and Climate Research-Modelling Observing Systems & Services (ACROSS) scheme that envisions upgrading the current weather system through its eight sub-schemes.

Mission Mausam

Mission Mausam is the government's new INR20b national program aimed at rapidly upgrading India's weather- and climate-monitoring infrastructure through a large expansion of Doppler Weather Radars (DWRs), wind profilers, atmospheric sensors, and advanced forecasting systems. As the initiative seeks to deploy 50-80 new weather radars across the country and modernize observational networks, it meaningfully expands the addressable market for domestic radar and microwave manufacturers. AMPL stands to benefit directly, given its proven capabilities in radar subsystems, weather-monitoring equipment, and microwave front-end technologies. Out of the 14 Doppler weather radars already installed in India, 13 were supplied by AMPL. The company has consistently highlighted meteorology as an emerging growth vertical, and Mission Mausam materially increases the scale and frequency of such opportunities. Successful participation in these radar procurements can help Astra diversify beyond defense, strengthen its order book, and secure a more stable, long-cycle revenue stream aligned with national infrastructure priorities.

Investment thesis

AMPL designs and manufactures high-quality radio frequency and microwave modules, subsystems, and systems in India. The company is moving from being a subsystem-level player to a complete system solutions provider and has added capabilities across ground-penetrating radars, synthetic aperture radars, specific passive radars, and MMIC chips. It is eyeing opportunities from AESA radar, Uttam radar, meteorological orders, repeat orders from the Navy, and counter-drone orders over the next few years. It has a consolidated order book of INR22.1b as of 30th Sep'25. AMPL posted a 13% revenue CAGR over FY21-25. With a changing business mix, the company was able to improve its EBITDA margin to 25.6% in FY25 (vs. 12.3% in FY21). We expect the company's revenue to post an 18% CAGR over FY25-28 and margin to remain around ~26%.

Wide product portfolio

AMPL's range of products encompasses offerings in defense, space, and hydro/meteorology, along with expertise in antennas, MMIC, contract manufacturing, Homeland security, and environmental & EMI/EMC testing services. It supplies various kinds of EW subsystems and components to DPSUs and the programs of the Indian Air Force, Navy, and Army. It is also associated with Jammer's program for LCA Mk1A, Su-30 MKI, and other fighter platforms in India. It supplies various subsystems 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, et al.

The company designs, develops, and manufactures components and subsystems used in ground-based modules and S-level (onboard) modules. AMPL has been among the key players in the development of subsystems for India's Radar Satellite & Geosynchronous Satellite program, Resource Sat, Megatropics, and Carto Sat for ISRO's space programs. Currently, 80% of the company's defense segment revenue originates from subsystems and 20% from systems. The company plans to alter the ratio to 50-50% in the future.

Exhibit 11: Key business segment details of AMPL

Defense	Space	Hydro/Meteorology	Other areas of work
Radars	Flight Model Application	Water Level Measurement (Bubbler/ Radar Sensor)	Antennas
EW	Satellite Bus	Automatic Weather Stations (AWS)	MMIC
Missile Electronics	Ground-Based Application	Agromet Met Stations (AMS)	Contract Manufacturing
Telemetry	INSAT MSS Terminals	Automatic Rain Gauge (ARG) X Band Doppler Weather Radar	Homeland Security
Counter-Drones			Environmental & EMI/EMC Testing Services

Source: Company, MOFSL

Growing addressable market for AMPL

The total addressable market for AMPL is ~INR240b-250b across all sectors until FY28. From this addressable market, AMPL targets a strong opportunity until FY28 from radar, missiles, and telemetry, turnkey projects, followed by other projects. The company has its offerings across AAAU hardware, AESA multi-functional radar, EW subsystems, jammers, telemetry subsystems, etc. The company is also participating

in multiple Make-II programs of the Indian Air Force and Indian Army for various radar systems.

Exhibit 12: AMPL's addressable market across segments

Particular	Total Addressable Market (INR b)
Meteorology/Hydrology	9-10
Special Projects	20-30
Radar Programs	100-110
Space (FM)	5-6
Missiles and Telemetry	18-20
Turnkey Projects	50-60
Exports	15-20
EW	7-7.5
Total	240-250

Source: Company, MOFSL

Revenue visibility led by a healthy order book

AMPL's order book stood at INR22b as of Sep'25. This order book is largely dominated by domestic orders (~90% of the order book) as the company is strategically focusing on domestic markets. Order inflows of AMPL grew at 3% over FY21-24, and going forward, we expect it to grow at a faster pace of 34% CAGR over FY25-28. This would be driven by strong demand in the defense segment.

AMPL is targeting potential orders worth INR14-15b from QRSAM, INR10b from Uttam radar, and INR15-16b from the EW suite related to the Su-30MK1 upgrade. These will be followed by orders for the Virupaksha AESA radar and an additional INR15-16b from weapon-locating radars. Driven by this expected order pipeline, we project the company's long-term revenue growth trajectory from FY27-30 to improve meaningfully.

Near term (FY26)

AMPL's near-term growth is supported by strong order inflows (including >INR10b expected in 2HFY26) and traction in seekers, tactical communication systems, and metrology/weather radars. Key catalysts include the Manpack SDR opportunity (bids by Mar'26), ARC-JV orders of INR8b-8.5b by FY26-end, repeat seeker and GPR/counter-drone tenders, and improved execution from better working capital. These collectively back the FY26 revenue guidance of INR11.5-12b.

Medium term (FY27-30)

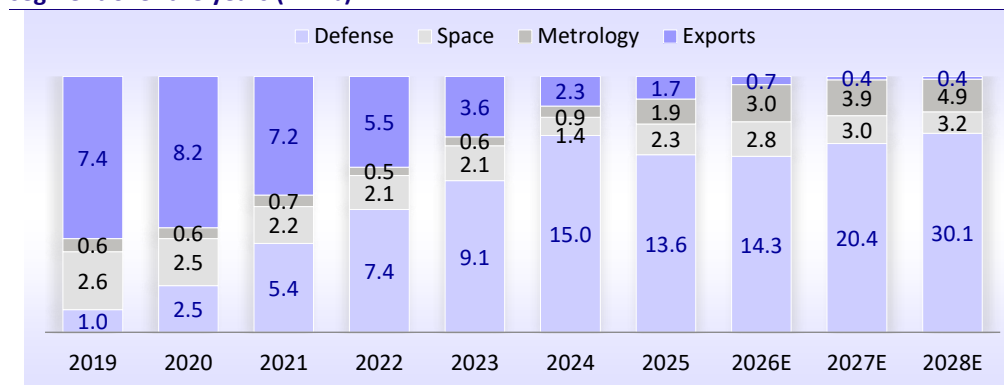
Growth in FY27-30 will be driven by major platforms entering production: QRSAM from FY27, Uttam AESA from FY28, and Su-30 EW from FY29. Management expects revenues to be INR14-15b in FY27, ~INR16.5b in FY28, ~INR20b in FY29, and INR22.5-25.0b by FY30. Additional drivers include Virupaksha radar deployment, naval ESM/ECM orders, sustained meteorology demand, and expanding systems integration, supporting AMPL's goal of doubling revenues in 3-4 years.

Long term (beyond FY30)

Long-term growth will be led by exports across radars, EW, communication, and space electronics, aided by ongoing efforts to establish a strategic partner for

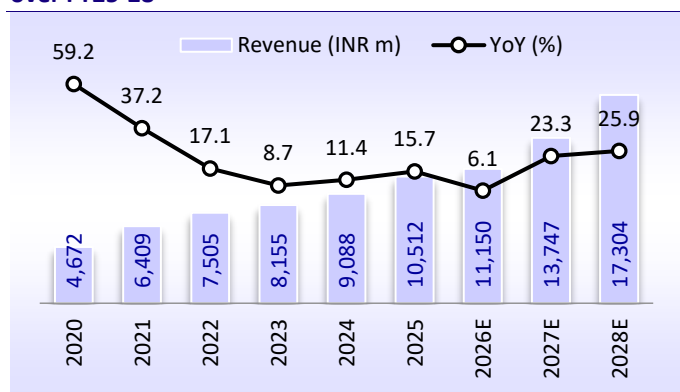
Europe/NATO markets. AMPL's increasing role in space, including the Astra SAT-1 launch and small-satellite capabilities, opens multi-decade opportunities in LEO constellations. Expansion of Astra-branded systems, multi-platform integrations, and demand for electronic and precision-warfare systems underpin its aspiration to scale toward USD1b revenue over time.

Exhibit 13: AMPL's order book breakup – a major portion is contributed by the defense segment over the years (INR b)



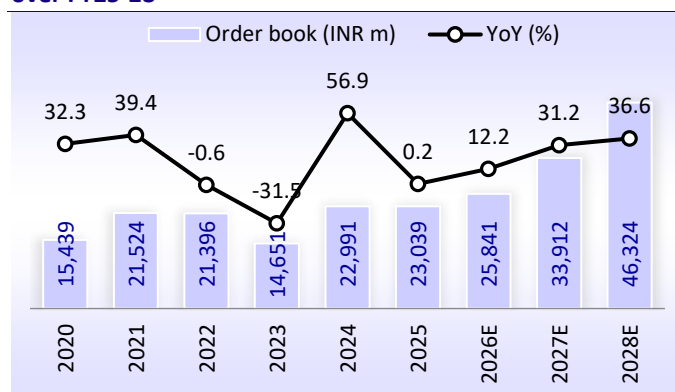
Source: Company, MOFSL

Exhibit 14: We expect AMPL's revenue to post a 18% CAGR over FY25-28



Source: Company, MOFSL

Exhibit 15: We expect order book to clock a CAGR of 26% over FY25-28



Source: Company, MOFSL

JVs and alliances – to boost future revenue

AMPL had signed an MoU with Premier Explosives (PEL), an India-based explosives company specializing in the manufacture of high-energy materials and allied products for a diverse range of applications. The company aims to develop and sell multiple products jointly through this strategic alliance. This will also help AMPL expand its capabilities towards hard kill in anti-drone offerings.

AMPL also signed a 50:50 JV agreement with Manjeera Digital Systems, Hyderabad, for the manufacturing of NavIC chip and GNSS products using the NavIC Chip. Through this, AMPL will target both defense and civilian projects wherever GPS chips are being used. Along with this, Astra Rafael JV is expected to have an order book of USD100m-120m by FY26-end with revenue guided to be ~USD42m during the year.

Competitive advantage through niche products

AMPL has a competitive advantage over other players in the industry through its niche products, such as Active Aperture Array Unit (AAAU), Active Array Transmitter Receiver Unit ("AATRU"), MMIC products, TR modules, and subsystems for satellite programs. We expect these to provide a competitive edge to AMPL over others.

AAAU

AMPL is currently the only private sector company in India that is developing AAAU, one of the core components required for AESAR of the fighter aircraft LCA Mk2. Further, it is the only private sector company in India that has a Near Field Test Range ("NFTR") facility, which is required to test radar subsystems and systems. The company is currently designing and developing the Active Array Transmitter Receiver Unit ("AATRU") with EW application for the Combat Aircraft Systems Development and Integration Centre ("CASDIC") of the Defense Research and Development Organization ("DRDO"). AMPL has also recently delivered a 32x32 element S-band phased array telemetry system ("PATM11") and a high-and-medium power radiation mode testing and evaluation facility for radar EW systems to DRDO.

MMIC

AMPL is one of the few private sector players in India that can develop and supply Monolithic Microwave Integrated Circuits (MMIC) products. With the capability of designing and developing Gallium Nitride ("GaN") TRMs, AMPL is currently working with defense agencies to incorporate such TRMs in modernizing existing radars of Su-30 Mk 1, LCA Mk 2, and AMCA fighter aircraft.

Head start on space projects

AMPL is among the key players in developing subsystems for India's Radar Satellite & Geosynchronous Satellite program, Resource Sat, Mega Tropics, and Carto Sat for ISRO's Indian space program. The company has also supplied wind profile radars, Doppler radars, and automatic weather stations to the Indian Meteorological Department. Moreover, it is one of the few companies in India that can design and develop these radars.

AMPL works on both BTS and BTP, and targets varied customers

AMPL, with its advanced manufacturing and R&D facilities, has strong in-house capabilities to execute orders through build-to-specifications (BTS) and build-to-print (BTP) routes. In BTS, the company receives orders via tenders from customers such as government research organizations (domestic & foreign) and private entities. In BTP, AMPL undertakes orders from foreign OEMs to manufacture products in India, based on the designs provided by OEMs.

Build-to-specifications (BTS)

For BTS, the company receives orders via the tender route, i.e., it receives orders from customers, such as domestic/foreign government research organizations, private entities, etc. Subsequently, these customers provide the electrical and mechanical specifications of the modules or subsystems as per their system requirements. The R&D team then works with the customer team to identify the target specifications of the required module or subsystem, presenting the various

options and latest technologies involved. Then the team carries out the realization of the product through its engineering expertise and delivers a fully qualified product (airborne, naval, or ground application). Once the system is qualified and approved by the customer, production orders are released. It works with system integrators such as DPSUs and others for the commercialization of the products.

Build-to-print (BTP)

For BTP, AMPL undertakes orders from foreign OEMs to manufacture products in India based on the OEM-provided designs. The company has produced over USD150m worth of high-end modules under the BTP route. The company works with several foreign OEMs to produce their products in India to meet their offset requirements. AMPL's key customers include Elta Systems Ltd., ELBIT, Rafael, and Thales. Once the prototype is approved by the OEM, production commences, which is based on designs shared by the OEMs.

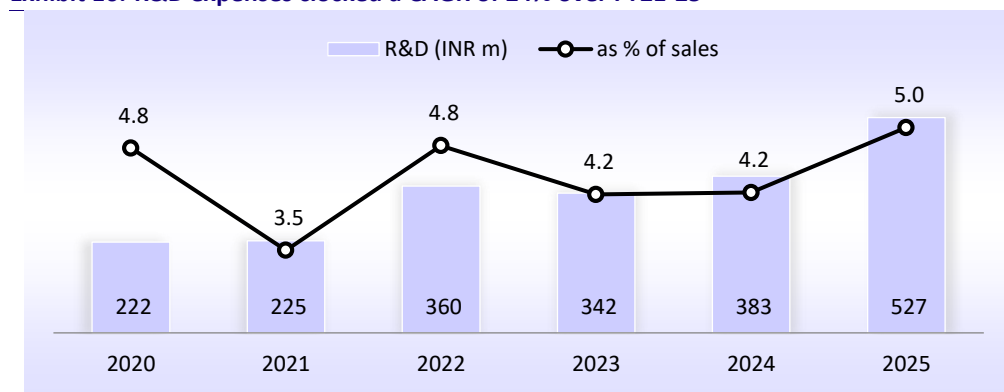
Strong client profile

The company has a strong client profile. Its clientele includes RCI, BrahMos, Gaetec, Bharat Electronics, Bharat Dynamics Limited, Electronics Corporation of India Limited, HAL, BSF, IITM, GUVNL, Adani Defence and Aerospace, L&T, IAI ELTA, Rafael, Elbit Systems, Thales, Sematron Italia, Raytheon Technologies, ISTRAC, URSC, Antrix Corporation Limited, NARL, SAE, CSIR-NAL, MGAM, Government of Telangana, the Central Water Commission, and the India Meteorological Department.

R&D presence

AMPL currently has five manufacturing units and two R&D facilities, including one dedicated R&D center in Bengaluru, for products in defense, security, and civilian applications. This unit was created for the company's system integration and testing, especially in the radar and EW domains. This specific unit in Bangalore was recognized by the Department of Scientific and Industrial Research, Ministry of Science and Technology, and the Govt. of India in 1994. AMPL established NFTR and assembly hanger divisions in this unit to handle and address the radar systems.

AMPL's R&D team, combined with its in-house capabilities, has enabled the company to create a strong track record of new product development and R&D of the subsystems for various defense, space, and meteorological programs. The company continues to invest notably in R&D every year to focus on sustained improvement and remain at the forefront of technological advancements. The objective is to create innovative products that meet the evolving needs of the customers. It is among the few private sector companies in India that can develop and supply MMIC products.

Exhibit 16: R&D expenses clocked a CAGR of 24% over FY21-25


Source: Company, MOFSL

Focusing on working capital reduction

AMPL is targeting a reduction in working capital, particularly through a decrease in receivables. Inventory days are higher at 214 in FY25, as either the inventory is customized based on the client's specification or it is imported. Hence, the inventory days continue to remain high. Receivables had moved up in the last 3-4 years, particularly driven by certain orders related to radars, where payments are linked to acceptance of those radars from the client. Higher receivables are also due to certain weather-related projects where payments are staggered over 4-5 years. Thirdly, higher NWC is also due to certain investments made in the JV, which are linked to product acceptance. Hence, the receivables linked to radar worth INR1.7b are expected to be received during FY26. This can bring down the overall working capital cycle. We bake in NWC days of ~371 for FY26/FY27/FY28.

Exhibit 17: NWC days – peer comparison

Peers	AMPL			Zen Tech			BEL			HAL			BDL			Data Pattern		
	FY24	FY25	1H26	FY24	FY25	1H26	FY24	FY25	1H26	FY24	FY25	1H26	FY24	FY25	1H26	FY24	FY25	1H26
Inventory	207	214	272	113	20	51	134	140	182	162	255	453	305	289	419	187	164	120
Trade rec.	203	273	269	143	148	221	133	140	189	202	242	319	48	90	156	280	307	300
Loans	-	-	-	133	108	353	0	0	0	0	0	0	1	1	1	-	-	-
Oth. Curr. assets	43	28	37	1	1	1	152	112	143	118	150	267	439	312	422	141	124	115
Trade payables	34	27	33	217	51	90	373	271	314	42	60	96	123	164	267	35	43	30
Provisions	69	80	102	3	1	3	30	25	29	112	121	158	62	55	71	10	9	9
Oth. Curr. Liab.	6	7	8	-	-	-	13	22	36	445	658	1,117	848	624	820	213	107	47
Net W/C days	344	401	434	171	224	534	3	74	135	-117	-192	-331	-240	-152	-160	350	437	449

Source: Company, MOFSL

Note: The NWC of private defense players is not comparable with defense PSUs, as the latter have the advantage of large customer advances and timely payment from the MoD.

Future growth strategies

AMPL expects to capitalize on the strong growth prospects in the defense sector by 1) moving up the value chain from manufacturing subsystems for OEM customers to manufacturing complete systems, 2) entering into collaborations and JVs for complex projects, 3) providing comprehensive solutions to clients, 4) diversifying revenue mix, 5) increasing the share of higher-margin domestic orders vs. exports, and 6) maintaining a strong balance sheet.

Subsidiaries and JVs

Subsidiaries

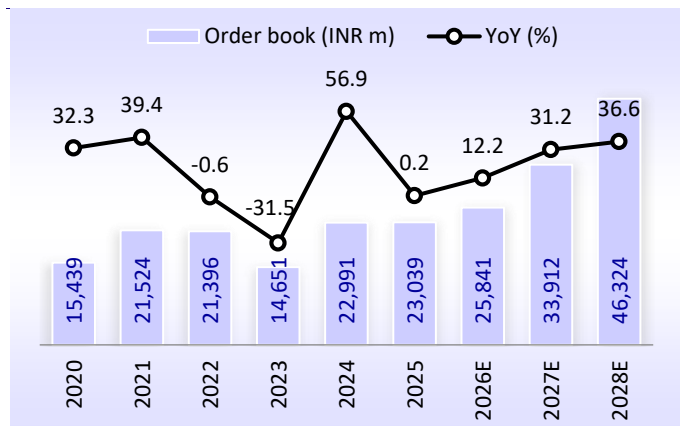
- **Astra Defence Technologies Pvt Ltd (earlier, Bhavyabhanu Electronics Pvt Ltd)**
 - ❖ Astra Defence Technologies is a wholly owned subsidiary of AMPL.
 - ❖ A dependable player with excellent technological capabilities and a long-term commitment to the defense, aerospace, medical, and industrial electronic industries.
- **Aelius Semiconductors Pte. Ltd**
 - ❖ 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 according to the customer's requirements by utilizing state-of-the-art facilities.
 - ❖ Aelius's unique and wide range of MMIC products is focused primarily on the defense and space industries, with competitive timelines and prices. The company offers the flexibility to custom-package products to the customer's chosen configuration of package or module.
- **Astra Space Technologies Pvt Ltd (ASTPL)**
 - ❖ ASTPL was incorporated as a wholly owned subsidiary of AMPL in FY24.
 - ❖ The subsidiary operates in Bangalore, focusing on the development of satellite payloads and systems.

Joint Ventures

- **Astra Rafael Comsys Pvt Ltd (ARC) (50:50)**
 - ❖ AMPL and M/s Rafael Advanced Defense Systems, Israel, came together to form a JV company known as Astra Rafael Comsys (ARC) in Aug'19.
 - ❖ Focuses on Indigenous technology and Atma Nirbhar Bharat programs.
 - ❖ Engages in carrying out production, integration, customization, marketing, sales, life cycle support, and additional activities as required in the fields of tactical radio communication systems, EW systems, and signal intelligence systems.
- **Navictronics Private Limited (50:50)**
 - ❖ AMPL has invested 50% in Navictronics Private Limited, a JV with Manjeera Digital Systems Private Limited in FY25. Focus on design, manufacture of NavIC Chip-Set, receivers, and associated electronics, and GNSS products.

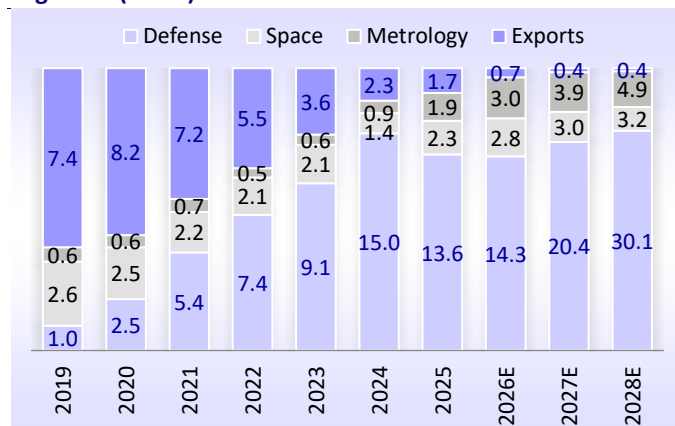
Financial Outlook

Exhibit 18: We expect AMPL's OB to post a 26% CAGR over FY25-28



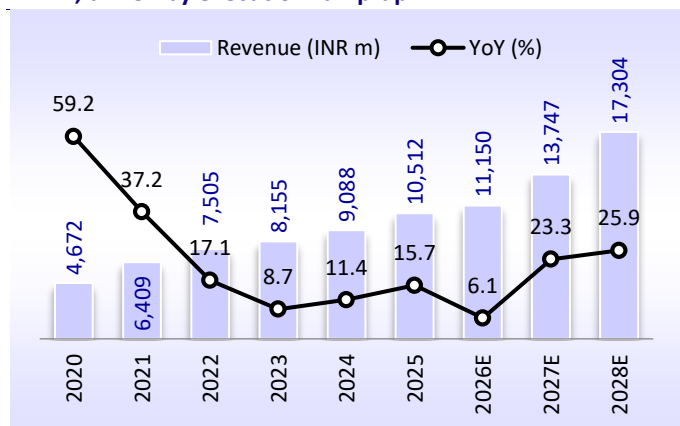
Source: Company, MOFSL

Exhibit 19: Growth in OB to be fueled by the defense segment (INR b)



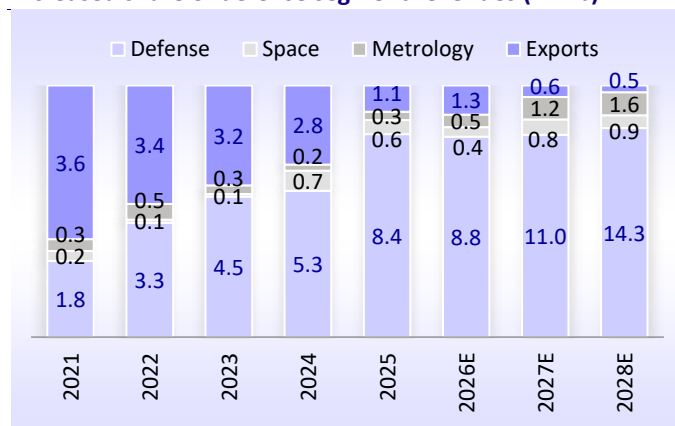
Source: Company, MOFSL

Exhibit 20: We expect 18% revenue CAGR over FY25-28 for AMPL, driven by execution ramp-up



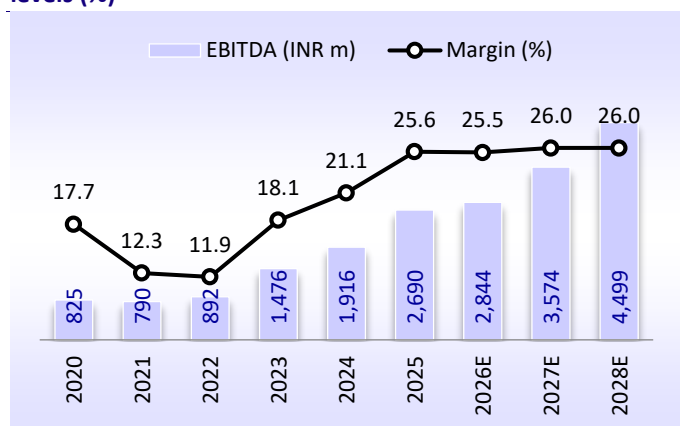
Source: Company, MOFSL

Exhibit 21: We expect this growth to be driven by the increased share of defense segment revenues (INR b)



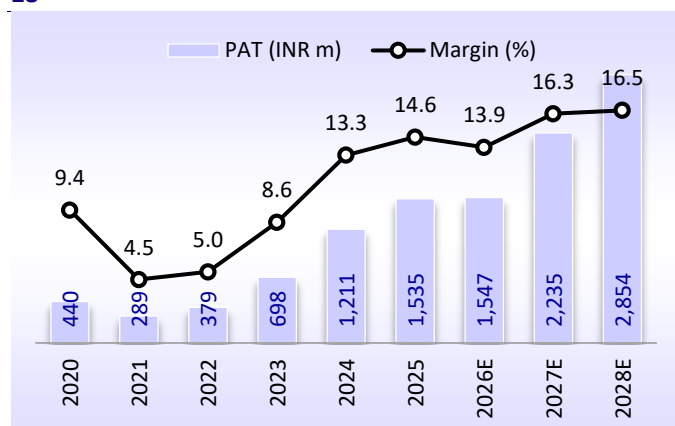
Source: Company, MOFSL

Exhibit 22: We expect margins to remain at comfortable levels (%)



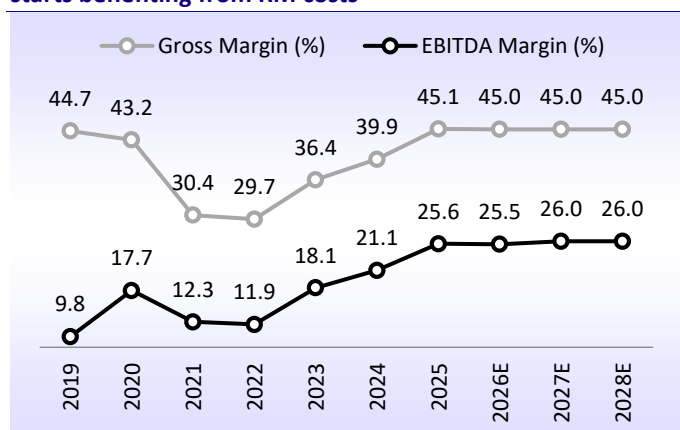
Source: Company, MOFSL

Exhibit 23: We expect PAT to post a CAGR of 23% over FY25-28



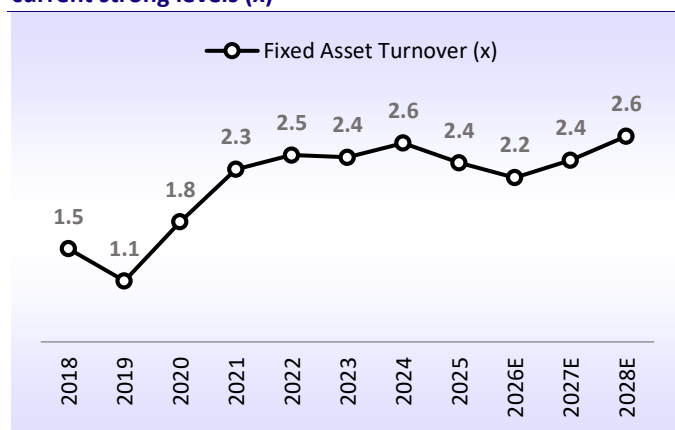
Source: Company, MOFSL

Exhibit 24: We expect gross margin to expand as AMPL starts benefiting from RM costs



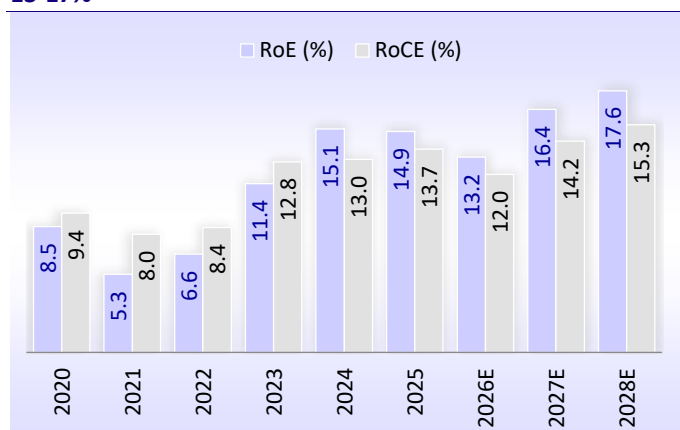
Source: Company, MOFSL

Exhibit 25: We expect fixed asset turnover to remain at current strong levels (x)



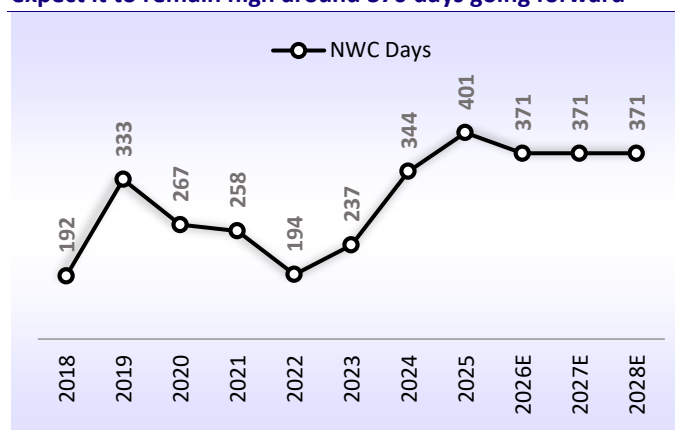
Source: Company, MOFSL

Exhibit 26: We expect RoE and RoCE to be in the range of 13-17%



Source: Company, MOFSL

Exhibit 27: NWC spike to come down from FY26, but we expect it to remain high around 370 days going forward



Source: Company, MOFSL

Valuation and view

We initiate coverage on AMPL with a BUY rating and a TP of INR1,100 (based on 38x Dec'27 estimates).

At the current price of INR888, the stock is trading at 37.4x/29.3x P/E on FY27E/FY28E financials. **We initiate coverage on AMPL with a BUY rating and a TP of INR1,100 (premised on 38x Dec'27 estimates).** The target multiple is at a discount of 15% to larger player like BEL owing to its smaller size. We view Astra Microwave to be a long-term play in defense electronics, with its revenue growth profile to improve more during FY27-30 as larger orders get awarded from the MoD and defense PSUs.

Exhibit 28: Relative size comparison of defense-focused companies

Companies	Revenue (INR m)			EBITDA margin (%)			PAT (INR m)			PAT CAGR (%)
	FY26E	FY27E	FY28E	FY26E	FY27E	FY28E	FY26E	FY27E	FY28E	
AMPL	11,150	13,747	17,304	25.5	26.0	26.0	1,547	2,235	2,854	23
Zen	5,794	11,107	15,424	35.0	37.0	37.0	1,947	3,653	4,814	22
Data Patterns	9,457	11,754	14,753	34.8	38.5	39.1	2,586	3,602	4,623	28
MTAR	8,876	12,468	16,484	21.3	23.8	24.5	1,024	1,818	2,630	71

Exhibit 29: Relative valuation of defense-focused companies

Companies	MCap (INR b)	EPS (INR)			P/E (X)			RoE (%)			RoCE (%)		
		FY26E	FY27E	FY28E	FY26E	FY27E	FY28E	FY26E	FY27E	FY28E	FY26E	FY27E	FY28E
AMPL	85	16.4	23.7	30.3	54.1	37.4	29.3	13.2	16.4	17.6	12.0	14.2	15.3
BEL	2,954	8.3	9.9	11.5	46.6	39.3	33.8	24.2	23.0	21.6	27.2	25.6	23.9
HAL	2,967	142.9	161.0	197.8	29.8	26.5	21.5	22.8	21.7	22.1	23.6	22.3	22.6
BDL	544	28.3	37.9	52.0	47.9	35.8	26.1	21.5	23.3	25.2	22.1	23.8	25.6
Zen	125	21.6	40.5	53.3	63.3	33.7	25.6	10.9	17.7	19.3	10.8	17.7	19.3
Data	162	46.2	64.3	82.6	55.8	40.1	31.2	15.8	18.6	19.7	16.3	18.9	20.0
MTAR	77	33.3	59.1	85.5	71.4	40.2	27.8	13.1	19.7	23.0	12.1	17.2	20.4

Source: Company, MOFSL

Exhibit 30: Sensitivity analysis – Bear, Base, and Bull case valuations

	Bear case	Base case	Bull case	Rationale
PAT (INR m)	2,429	2,699	2,969	10% sensitivity to earnings on lower or better-than-expected order inflows
Valuation multiple (x)	30	38	45	20% sensitivity to valuation multiples
Core business valuation (INR b)	73,840	1,02,555	1,34,244	
Price per share (INR)	800	1,100	1,430	

Source: MOFSL

Key risks and concerns

- **Customer concentration:** The company depends on and derives a substantial portion of its revenue from the MoD or related entities for defense. Therefore, any delays in awarding or loss of business from these customers may adversely affect AMPL's cash flows, results of operations, and financial conditions.
- **Business depends on scaling up of its manufacturing facilities:** The loss, shutdown, or slowdown of operations at any of its manufacturing facilities or underutilization of its manufacturing capacities may have a material adverse impact on the results of operations.
- **Substantial capex and high working capital requirements:** AMPL's inability to meet high capex requirements, if needed, can have a material adverse impact on its business, results of operations, and financial conditions.
- **Delays in payments from customers:** This can materially impact the cash flows of the company in the future.

Company background

- AMPL is in the business of designing and manufacturing high-quality radio frequency & microwave modules, subsystems, and systems in India. The company was founded by Bhumi Reddy Malla Reddy, Chenna Reddy Prameelamma, and Prakash Anand Chitrakar on 13th Sep'91, and it is headquartered in Hyderabad. Since its incorporation, the company has grown significantly in the past 30+ years, expanding its business from helping companies set up their telecom base stations to manufacturing components and subsystems for defense and space satellites.
- It was one of the first companies to receive offset contracts after the 'Offset Obligations' were introduced under the Defense Procurement Policy in 2006. AMPL has three manufacturing plants and two units solely dedicated to R&D, which even includes an exclusive space-qualified facility. In the coming years, AMPL is going to introduce its Medium Range Tracking Radar (MRTR) and D4 – Drishti, a counter-drone radar.
- We believe AMPL's investments in its R&D units have resulted in a rapid expansion of its business in various segments and generated a revenue/EBITDA/PAT CAGR of 24%/45%/58% during FY19-FY25.

Exhibit 31: AMPL's journey

Year	Milestones
1991	❖ Incorporated with an interest in working in Defence, but due to the telecom revolution, the company extended its services to the telco sector.
1993	❖ Found its way into components/subsystems for radars, and built products for telemetry/missile applications.
1995	❖ Went Public due to the immediate need to invest in infrastructure and manpower to meet its increasing demands.
2000	❖ Expanded its product range by manufacturing wide-band products for EW applications.
2003	❖ ISRO invited private companies to enter into the space business, and AMPL grabbed the opportunity by getting into the business of components and subsystems for satellites.
2005	❖ AMPL's in-house team designed and developed MMICs to miniaturize modules.
2007	❖ Due to the offset rule by DPP, foreign OEMs wanted to partner with AMPL to discharge their offset requirements.
2013	❖ Surpassed the annual turnover of INR9b+ in a year (domestic & offset in the ratio of 50%-50%).
2018	❖ Set up its R&D center in Bengaluru.
2020	❖ Delivered 10 nos. Ground Surveillance Radars to BSF.
2021	❖ Delivered 10 nos. X-Band Doppler Weather Radars to India Meteorology Department (IMD).
2022	❖ Delivered AAAU for Air-borne AESA Radar to LRD, DRDO. ❖ Delivered Land-Based 7.3m Ground Telemetry System to ITR, DRDO.
2023	❖ Delivered Phased Array Auto Track Telemetry System (PATM-II) to ITR, DRDO. ❖ Delivered Radiation Mode T&E Facility for Radar EW Systems to DLRL, DRDO.
2024	❖ Delivered Multi-Function Radar EW System Pulsed Phased Array Tracking Radar (PPTR) to PXE, DRDO ❖ Delivered C-Band DWRs for IMD.
2025	❖ Delivered Short Range Tracking Radar System (SRTR) to ITR, Multi-Channel Radar Emulator Simulator (MRES) to CASDIC, and Compact Microwave Receiver System (0.5-40 GHz) to DLRL.

Source: Company, MOFSL

Exhibit 32: Manufacturing units

Mfg Units	Hyderabad Unit I	Hyderabad Unit II	Hyderabad Unit III	Hyderabad Unit IV	Bengaluru Unit	Hyderabad Unit V
Land (acres)	2.0	1.1	9.9	19.0	5.0	0.6
Building (sq. ft.)	20,000	18,000	77,000	1,80,000	1,00,000	23,000
Year	2000	1999	2003	2009	2012	2019

Source: Company, MOFSL

ESG initiatives



Environment

■ Zero Liquid Discharge (ZLD)

AMPL has implemented a mechanism for ZLD. This advanced water treatment enables the company to recover and recycle nearly all of its wastewater, eliminating liquid waste and significantly reducing its environmental impact. AMPL discharged 420 kiloliters of wastewater in FY25, all of which went through secondary treatment before being released.

■ Steps taken to reduce Green House Gas (GHG) emission

The company has taken several steps to strengthen its environmental sustainability profile. It has installed nearly 1 MW of solar capacity across offices and manufacturing sites, reducing reliance on non-renewable energy. It also supports large-scale plantation efforts, including Telangana's Haritha Haram program. Additionally, AMPL provides a common bus facility for employees to reduce individual vehicle use and lower overall carbon emissions.

■ Other key initiatives taken by AMPL

- ❖ Installation of motion sensor lighting
- ❖ Implementation of Sewage Treatment Plant
- ❖ Regular Maintenance of electrical equipment for improved energy efficiency and effective fuel utilisation.
- ❖ Replacement of tissue paper with hand dryers
- ❖ Plastic-free cafeteria initiative

Social

■ Social responsibilities for consumers

AMPL prioritizes open communication and addressing community concerns. The company has established multiple channels for receiving and effectively resolving grievances. There have been no complaints from its consumers in FY25.

■ Social responsibilities for employees

AMPL has a strict set of rules and policies to uphold all ethical conduct standards, including a commitment to gender equality, zero tolerance for sexual harassment, intolerance for unethical behavior, unbiased recruitment, respect for human dignity, and compliance with environmental standards.

Governance

- AMPL strictly adheres to an anti-corruption and anti-bribery policy. The company prioritizes ethical business practices and firmly opposes any form of abusive, corrupt, or anti-competitive behavior. The company's governance policies uphold its dedication to integrity, promoting transparency and preventing unlawful actions in its operations and transactions. AMPL maintains a zero-tolerance approach to corruption, enforces rigorous controls, and conducts regular audits to ensure compliance.

SWOT analysis

- 30+ years of domain expertise in microwave and radio frequency applications place it ahead of other players
- Diverse product portfolio
- Continued focus on strengthening R&D capabilities
- Backlog exceeding two years of revenue due to consistent order book growth

S

STRENGTH



- Largely dependent on government contracts
- High working capital requirements
- Substantial capex and high working capital requirements
- Tender-driven revenue volatility
- Longer project gestation

W

WEAKNESS



- Rising defense spending
- Government schemes and policies for indigenization
- Improving export opportunities post NATO announcements to increase defence spending
- Access to new technology through JVs
- Orders from non-government entities

O

OPPORTUNITY



- Heightened competition
- A slowdown in defense spending
- Fluctuations in exchange rates and raw material prices can impact the supply chain.
- Delay in government clearances for orders

T

THREATS



Management profile



Mr. PA Chitrakar (Founder)

P.A. Chitrakar had been with the Defence Electronics Laboratory, Hyderabad, as a scientist for over 20 years before co-founding Astra Microwave. P.A. Chitrakar had been with the Defence Electronics Laboratory, Hyderabad, as a scientist for over 20 years before co-founding AMPL. An MSc (Physics) from Mysore University and an MTech (Advanced Electronics) from JNTU, Hyderabad, Mr. Chitrakar is an expert in, among others, the design of microwave components.



Mr. Atim Kabra (Director – Strategy and Business Development)

Mr. Atim Kabra has majored in Economics (Honors) from Delhi University and has a Master's in Management Studies from NMIMS (Bombay University). He is the Founding Partner of Frontline Strategy Limited, the investment manager/advisor for two Mauritius-based, India-centric Private Equity funds, namely – India Industrial Growth Fund Limited and Strategic Ventures Fund (Mauritius) Limited. He is also the founder and Managing Director of Frontline Strategy Funds Pte. Ltd., a Singapore-registered & licensed VCFM, which acts as the investment manager/advisor to Singapore-based Venture Capital Funds – Prestellar Ventures Fund I Pte Ltd and Strategic Ventures Fund. He has over 25 years of well-rounded “equities exposure”, including portfolio management, equity sales, and equity research with global institutions.



Mr. S Gurnatha Reddy (Managing Director)

A graduate in Science and Mathematics and a Fellow Chartered Accountant, Mr. S Gurnatha Reddy has worked in the private sector industry and gained over 33 years of experience in accounting, finance, taxation, secretarial, etc.



Dr. Maram Venkateshwar Reddy (Joint Managing Director)

A graduate in Engineering (Electronics) and a postgraduate in Business Administration, Mr. M.V. Reddy has 28 years of experience in handling marketing and business operations in the domain of Defense, Space, and Telecom segments in India and overseas markets. As most of his experience has been working for the Indian private industry, meeting the needs of the strategic electronics sector in India and abroad, he has a good understanding of the requirements and knows the challenges and opportunities for the private companies in this business segment.



Dr. Avinash Chander (Chairman & Independent Director)

Dr. Avinash Chander is the former Secretary of Defence R&D and Director General of DRDO. An eminent scientist in the field of missiles, he has been a pioneer in strapdown inertial navigation & guidance. In addition, he has contributed to the development of several critical technologies in the fields of radars, simulation, propulsion, control, and system engineering.



Mr. Suresh Kumar Somani (Non-Executive Director)

Mr. Suresh Kumar Somani is a businessman, investor, and philanthropist with substantial experience of over 40 years in equity markets. Driven by passion and versatility, he motivates, trains, and coaches the members of Ratnabali Group to drive progress and reach the company's milestones. A high-energy individual who is passionate about making a difference in society, he is committed to building, guiding, and uplifting the 'India Autism Centre' – an inclusive community for those on the autism spectrum.

Financials and valuations

Consolidated - Income Statement

(INR m)

Y/E Mar	FY21	FY22	FY23	FY24	FY25	FY26E	FY27E	FY28E
Total Income from Operations	6,409	7,505	8,155	9,088	10,512	11,150	13,747	17,304
Change (%)	37.2	17.1	8.7	11.4	15.7	6.1	23.3	25.9
Total Expenditure	5,619	6,612	6,679	7,172	7,822	8,306	10,173	12,805
% of Sales	87.7	88.1	81.9	78.9	74.4	74.5	74.0	74.0
EBITDA	790	892	1,476	1,916	2,690	2,844	3,574	4,499
Margin (%)	12.3	11.9	18.1	21.1	25.6	25.5	26.0	26.0
Depreciation	235	220	237	250	350	399	453	516
EBIT	554	672	1,240	1,666	2,340	2,445	3,121	3,983
Int. and Finance Charges	249	211	305	313	571	647	647	647
Other Income	109	64	55	117	175	148	325	251
PBT bef. EO Exp.	414	525	989	1,470	1,944	1,946	2,799	3,587
EO Items	0	0	0	0	0	0	0	0
PBT after EO Exp.	414	525	989	1,470	1,944	1,946	2,799	3,587
Total Tax	97	123	261	379	502	506	731	934
Tax Rate (%)	23.4	23.5	26.4	25.8	25.8	26.0	26.1	26.0
Minority Interest	0	0	0	0	0	0	0	0
Reported PAT	289	379	698	1,211	1,535	1,547	2,235	2,854
Adjusted PAT	289	379	698	1,211	1,535	1,547	2,235	2,854
Change (%)	-34.5	31.3	84.4	73.4	26.8	0.8	44.4	27.7
Margin (%)	4.5	5.0	8.6	13.3	14.6	13.9	16.3	16.5

Consolidated - Balance Sheet

(INR m)

Y/E Mar	FY21	FY22	FY23	FY24	FY25	FY26E	FY27E	FY28E
Equity Share Capital	173	173	173	190	190	190	190	190
Total Reserves	5,414	5,683	6,253	9,472	10,795	12,342	14,577	17,430
Net Worth	5,587	5,856	6,426	9,662	10,985	12,532	14,767	17,620
Minority Interest	0	0	0	0	0	0	0	0
Total Loans	1,216	704	1,863	2,376	4,235	4,235	4,235	4,235
Deferred Tax Liabilities	-28	-69	-91	-111	-114	-114	-114	-114
Capital Employed	6,775	6,491	8,199	11,927	15,105	16,653	18,887	21,741
Gross Block	2,781	3,060	3,357	3,526	4,431	5,031	5,731	6,531
Less: Accum. Deprn.	1,257	1,474	1,696	1,852	2,202	2,601	3,054	3,570
Net Fixed Assets	1,524	1,586	1,661	1,674	2,229	2,430	2,677	2,962
Capital WIP	0	1	22	130	31	31	31	31
Total Investments	302	138	110	238	322	322	322	322
Curr. Assets, Loans&Adv.	7,599	7,890	8,687	12,588	15,816	17,362	20,163	23,847
Inventory	3,296	4,193	4,191	5,146	6,159	6,534	8,055	10,140
Account Receivables	2,668	2,051	2,836	5,052	7,861	7,422	9,151	11,519
Cash and Bank Balance	425	775	1,109	1,309	982	2,543	1,893	848
Loans and Advances	0	0	0	0	0	0	0	0
Other Current Asset	1,209	871	551	1,081	814	863	1,064	1,340
Curr. Liability & Prov.	2,650	3,125	2,281	2,703	3,292	3,492	4,306	5,420
Account Payables	377	554	458	838	767	813	1,003	1,262
Other Current Liabilities	2,213	2,493	1,715	1,722	2,312	2,453	3,024	3,807
Provisions	60	78	108	143	213	226	279	351
Net Current Assets	4,948	4,765	6,406	9,885	12,524	13,870	15,857	18,427
Appl. of Funds	6,775	6,491	8,199	11,927	15,105	16,653	18,887	21,741

Financials and valuations

Ratios								
Y/E Mar	FY21	FY22	FY23	FY24	FY25	FY26E	FY27E	FY28E
Basic (INR)								
EPS	3.3	4.4	8.1	12.9	16.3	16.4	23.7	30.3
Cash EPS	6.0	6.9	10.8	15.5	20.0	20.7	28.5	35.8
BV/Share	64.5	67.6	74.2	102.6	116.6	133.1	156.8	187.1
DPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Payout (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Valuation (x)								
P/E	266.7	203.2	110.2	69.1	54.5	54.1	37.4	29.3
Cash P/E	146.8	128.4	82.3	57.3	44.4	43.0	31.1	24.8
P/BV	13.8	13.1	12.0	8.7	7.6	6.7	5.7	4.7
EV/Sales	12.1	10.2	9.5	9.3	8.3	7.7	6.3	5.0
EV/EBITDA	98.4	86.2	52.6	44.2	32.3	30.0	24.1	19.3
Dividend Yield (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FCF per share	-3.3	10.0	-6.8	-23.3	-17.4	23.5	-0.0	-4.2
Return Ratios (%)								
RoE	5.3	6.6	11.4	15.1	14.9	13.2	16.4	17.6
RoCE	8.0	8.4	12.8	13.0	13.7	12.0	14.2	15.3
Working Capital Ratios								
Fixed Asset Turnover (x)	2.3	2.5	2.4	2.6	2.4	2.2	2.4	2.6
Asset Turnover (x)	0.9	1.2	1.0	0.8	0.7	0.7	0.7	0.8
Inventory (Days)	188	204	188	207	214	214	214	214
Debtor (Days)	152	100	127	203	273	243	243	243
Creditor (Days)	21	27	21	34	27	27	27	27
Leverage Ratio (x)								
Current Ratio	2.9	2.5	3.8	4.7	4.8	5.0	4.7	4.4
Interest Cover Ratio	2.2	3.2	4.1	5.3	4.1	3.8	4.8	6.2
Net Debt/Equity	0.1	-0.0	0.1	0.1	0.3	0.1	0.1	0.2

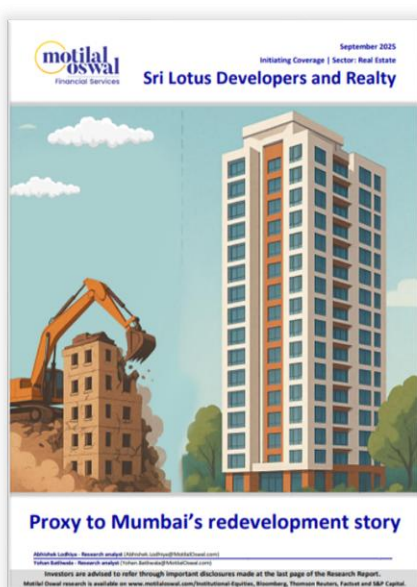
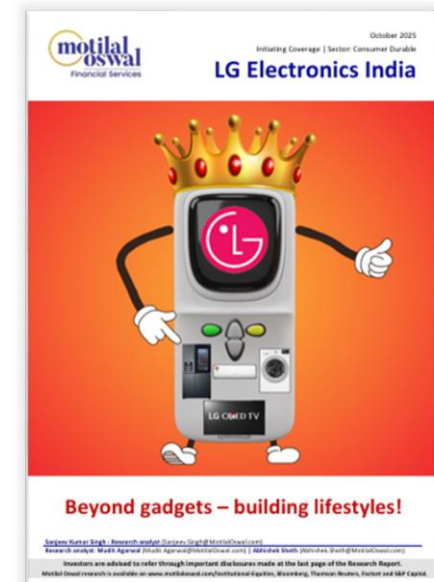
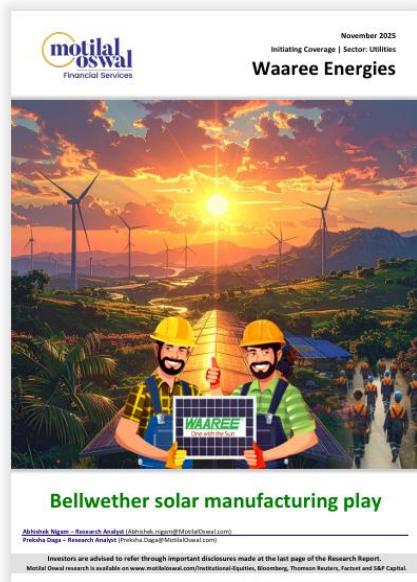
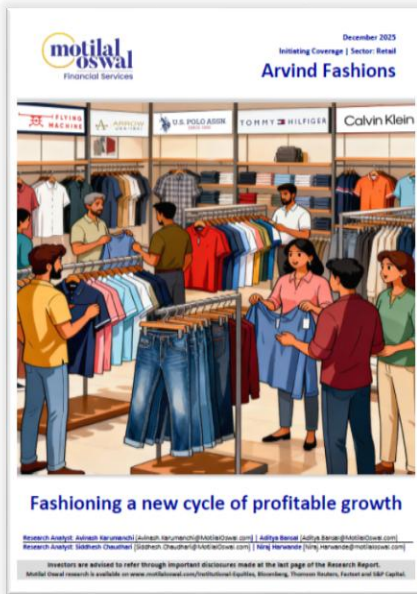
Consolidated - Cashflow Statement

(INR m)

Y/E Mar	FY21	FY22	FY23	FY24	FY25	FY26E	FY27E	FY28E
OP/(Loss) before Tax	385	502	959	1,590	2,037	2,054	2,966	3,787
Depreciation	235	220	237	250	350	399	453	516
Interest & Finance Charges	249	211	305	313	571	647	647	647
Direct Taxes Paid	-78	-208	-256	-378	-410	-506	-731	-934
(Inc)/Dec in WC	-1,012	383	-1,526	-3,401	-3,114	215	-2,638	-3,613
CF from Operations	-219	1,108	-281	-1,626	-564	2,809	697	403
Others	-27	39	26	-189	-337	0	0	0
CF from Operating incl EO	-246	1,147	-255	-1,815	-901	2,809	697	403
(Inc)/Dec in FA	-37	-279	-337	-380	-741	-600	-700	-800
Free Cash Flow	-283	868	-591	-2,195	-1,643	2,209	-3	-397
(Pur)/Sale of Investments	-58	146	0	0	0	0	0	0
Others	87	-127	55	-56	-22	0	0	0
CF from Investments	-8	-260	-282	-436	-763	-600	-700	-800
Issue of Shares	0	0	0	2,182	0	0	0	0
Inc/(Dec) in Debt	619	-512	1,076	487	2,016	0	0	0
Interest Paid	-178	-172	-206	-192	-412	-647	-647	-647
Dividend Paid	-104	-104	-122	-153	-191	0	0	0
Others	0	0	0	0	0	-0	0	0
CF from Fin. Activity	338	-787	748	2,324	1,413	-647	-647	-647
Inc/Dec of Cash	84	100	211	73	-252	1,561	-651	-1,044
Opening Balance	91	69	168	379	452	982	2,543	1,893
Other Bank Balances	250	607	729	857	781	0	0	0
Closing Balance	425	775	1,109	1,309	982	2,543	1,893	848

Investment in securities market are subject to market risks. Read all the related documents carefully before investing

RECENT INITIATING COVERAGE REPORTS



Explanation of Investment Rating	
Investment Rating	Expected return (over 12-month)
BUY	>=15%
SELL	< - 10%
NEUTRAL	< - 10 % to 15%
UNDER REVIEW	Rating may undergo a change
NOT RATED	We have forward looking estimates for the stock but we refrain from assigning recommendation

In case the recommendation given by the Research Analyst is inconsistent with the investment rating legend for a continuous period of 30 days, the Research Analyst shall be within following 30 days take appropriate measures to make the recommendation consistent with the investment rating legend.

Disclosures

The following Disclosures are being made in compliance with the SEBI Research Analyst Regulations 2014 (herein after referred to as the Regulations).

Motilal Oswal Financial Services Ltd. (MOFSL) is a SEBI Registered Research Analyst having registration no. INH000000412. MOFSL, the Research Entity (RE) as defined in the Regulations, is engaged in the business of providing Stock broking services, Depository participant services & distribution of various financial products. MOFSL is a listed public company, the details in respect of which are available on www.motilaloswal.com. MOFSL (erstwhile Motilal Oswal Securities Limited - MOSL) is registered with the Securities & Exchange Board of India (SEBI) and is a registered Trading Member with National Stock Exchange of India Ltd. (NSE) and Bombay Stock Exchange Limited (BSE), Multi Commodity Exchange of India Limited (MCX) and National Commodity & Derivatives Exchange Limited (NCDEX) for its stock broking activities & is Depository participant with Central Depository Services Limited (CDSL) National Securities Depository Limited (NSDL), NERL, COMRIS and CCRL and is member of Association of Mutual Funds of India (AMFI) for distribution of financial products and Insurance Regulatory & Development Authority of India (IRDA) as Corporate Agent for insurance products. Details of associate entities of Motilal Oswal Financial Services Limited are available on the website at <http://online.reports.motilaloswal.com/Dormant/documents/List%20of%20Associate%20companies.pdf>. MOFSL and its associate company(ies), their directors and Research Analyst and their relatives may; (a) from time to time, have a long or short position in, act as principal in, and buy or sell the securities or derivatives thereof of companies mentioned herein. (b) be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the company(ies) discussed herein or act as an advisor or lender/borrower to such company(ies) or may have any other potential conflict of interests with respect to any recommendation and other related information and opinions.; however the same shall have no bearing whatsoever on the specific recommendations made by the analyst(s), as the recommendations made by the analyst(s) are completely independent of the views of the associates of MOFSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report.

MOFSL and / or its affiliates do and seek to do business including investment banking with companies covered in its research reports. As a result, the recipients of this report should be aware that MOFSL may have a potential conflict of interest that may affect the objectivity of this report. Compensation of Research Analysts is not based on any specific merchant banking, investment banking or brokerage service transactions. Details of pending Enquiry Proceedings of Motilal Oswal Financial Services Limited are available on the website at

<https://galaxy.motilaloswal.com/ResearchAnalyst/PublishViewLitigation.aspx>

A graph of daily closing prices of securities is available at www.nseindia.com, www.bseindia.com. Research Analyst views on Subject Company may vary based on Fundamental research and Technical Research. Proprietary trading desk of MOFSL or its associates maintains arm's length distance with Research Team as all the activities are segregated from MOFSL research activity and therefore it can have an independent view with regards to Subject Company for which Research Team have expressed their views.

Regional Disclosures (outside India)

This report is not directed or intended for distribution to or use by any person or entity resident in a state, country or any jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL & its group companies to registration or licensing requirements within such jurisdictions.

For Hong Kong:

This report is distributed in Hong Kong by Motilal Oswal capital Markets (Hong Kong) Private Limited, a licensed corporation (CE AYY-301) licensed and regulated by the Hong Kong Securities and Futures Commission (SFC) pursuant to the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong) "SFO". As per SEBI (Research Analyst Regulations) 2014 Motilal Oswal Securities (SEBI Reg. No. INH000000412) has an agreement with Motilal Oswal capital Markets (Hong Kong) Private Limited for distribution of research report in Hong Kong. This report is intended for distribution only to "Professional Investors" as defined in Part I of Schedule 1 to SFO. Any investment or investment activity to which this document relates is only available to professional investor and will be engaged only with professional investors." Nothing here is an offer or solicitation of these securities, products and services in any jurisdiction where their offer or sale is not qualified or exempt from registration. The Indian Analyst(s) who compile this report is/are not located in Hong Kong & are not conducting Research Analysis in Hong Kong.

For U.S.

Motilal Oswal Financial Services Limited (MOFSL) is not a registered broker - dealer under the U.S. Securities Exchange Act of 1934, as amended (the "1934 act") and under applicable state laws in the United States. In addition MOFSL is not a registered investment adviser under the U.S. Investment Advisers Act of 1940, as amended (the "Advisers Act" and together with the 1934 Act, the "Acts"), and under applicable state laws in the United States. Accordingly, in the absence of specific exemption under the Acts, any brokerage and investment services provided by MOFSL, including the products and services described herein are not available to or intended for U.S. persons. This report is intended for distribution only to "Major Institutional Investors" as defined by Rule 15a-6(b)(4) of the Exchange Act and interpretations thereof by SEC (henceforth referred to as "major institutional investors"). This document must not be acted on or relied on by persons who are not major institutional investors. Any investment or investment activity to which this document relates is only available to major institutional investors and will be engaged in only with major institutional investors. In reliance on the exemption from registration provided by Rule 15a-6 of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act") and interpretations thereof by the U.S. Securities and Exchange Commission ("SEC") in order to conduct business with Institutional Investors based in the U.S., MOFSL has entered into a chaperoning agreement with a U.S. registered broker-dealer, Motilal Oswal Securities International Private Limited. ("MOSIPL"). Any business interaction pursuant to this report will have to be executed within the provisions of this chaperoning agreement.

The Research Analysts contributing to the report may not be registered /qualified as research analyst with FINRA. Such research analyst may not be associated persons of the U.S. registered broker-dealer, MOSIPL, and therefore, may not be subject to NASD rule 2711 and NYSE Rule 472 restrictions on communication with a subject company, public appearances and trading securities held by a research analyst account.

For Singapore

In Singapore, this report is being distributed by Motilal Oswal Capital Markets (Singapore) Pte. Ltd. ("MOCMSPL") (UEN 201129401Z), which is a holder of a capital markets services license and an exempt financial adviser in Singapore. This report is distributed solely to persons who (a) qualify as "institutional investors" as defined in section 4A(1)(c) of the Securities and Futures Act of Singapore ("SFA") or (b) are considered "accredited investors" as defined in section 2(1) of the Financial Advisers Regulations of Singapore read with section 4A(1)(a) of the SFA. Accordingly, if a recipient is neither an "institutional investor" nor an "accredited investor", they must immediately discontinue any use of this Report and inform MOCMSPL.

In respect of any matter arising from or in connection with the research you could contact the following representatives of MOCMSPL. In case of grievances for any of the services rendered by MOCMSPL write to grievances@motilaloswal.com.

Nainesh Rajani

Email: nainesh.rajani@motilaloswal.com

Contact: (+65) 8328 0276

Specific Disclosures

- 1 MOFSL, Research Analyst and/or his relatives does not have financial interest in the subject company, as they do not have equity holdings in the subject company.
- 2 MOFSL, Research Analyst and/or his relatives do not have actual/beneficial ownership of 1% or more securities in the subject company
- 3 MOFSL, Research Analyst and/or his relatives have not received compensation/other benefits from the subject company in the past 12 months
- 4 MOFSL, Research Analyst and/or his relatives do not have material conflict of interest in the subject company at the time of publication of research report
- 5 Research Analyst has not served as director/officer/employee in the subject company
- 6 MOFSL has not acted as a manager or co-manager of public offering of securities of the subject company in past 12 months
- 7 MOFSL has not received compensation for investment banking/ merchant banking/brokerage services from the subject company in the past 12 months
- 8 MOFSL has not received compensation for other than investment banking/merchant banking/brokerage services from the subject company in the past 12 months
- 9 MOFSL has not received any compensation or other benefits from third party in connection with the research report
- 10 MOFSL has not engaged in market making activity for the subject company

The associates of MOFSL may have:

- financial interest in the subject company
- actual/beneficial ownership of 1% or more securities in the subject company at the end of the month immediately preceding the date of publication of the Research Report or date of the public appearance.
- received compensation/other benefits from the subject company in the past 12 months
- any other potential conflict of interests with respect to any recommendation and other related information and opinions.; however the same shall have no bearing whatsoever on the specific recommendations made by the analyst(s), as the recommendations made by the analyst(s) are completely independent of the views of the associates of MOFSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report.
- acted as a manager or co-manager of public offering of securities of the subject company in past 12 months
- be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the company(ies) discussed herein or act as an advisor or lender/borrower to such company(ies)

- received compensation from the subject company in the past 12 months for investment banking / merchant banking / brokerage services or from other than said services.
- Served subject company as its clients during twelve months preceding the date of distribution of the research report.

The associates of MOFSL has not received any compensation or other benefits from third party in connection with the research report

Above disclosures include beneficial holdings lying in demat account of MOFSL which are opened for proprietary investments only. While calculating beneficial holdings, it does not consider demat accounts which are opened in name of MOFSL for other purposes (i.e. holding client securities, collaterals, error trades etc.). MOFSL also earns DP income from clients which are not considered in above disclosures.

Analyst Certification

The views expressed in this research report accurately reflect the personal views of the analyst(s) about the subject securities or issues, and no part of the compensation of the research analyst(s) was, is, or will be directly or indirectly related to the specific recommendations and views expressed by research analyst(s) in this report.

Terms & Conditions:

This report has been prepared by MOFSL and is meant for sole use by the recipient and not for circulation. The report and information contained herein is strictly confidential and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent of MOFSL. The report is based on the facts, figures and information that are considered true, correct, reliable and accurate. The intent of this report is not recommendatory in nature. The information is obtained from publicly available media or other sources believed to be reliable. Such information has not been independently verified and no guaranty, representation of warranty, express or implied, is made as to its accuracy, completeness or correctness. All such information and opinions are subject to change without notice. The report is prepared solely for informational purpose and does not constitute an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments for the clients. Though disseminated to all the customers simultaneously, not all customers may receive this report at the same time. MOFSL will not treat recipients as customers by virtue of their receiving this report.

Disclaimer:

The report and information contained herein is strictly confidential and meant solely for the selected recipient and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent. This report and information herein is solely for informational purpose and may not be used or considered as an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments. Nothing in this report constitutes investment, legal, accounting and tax advice or a representation that any investment or strategy is suitable or appropriate to your specific circumstances. The securities discussed and opinions expressed in this report may not be suitable for all investors, who must make their own investment decisions, based on their own investment objectives, financial positions and needs of specific recipient. This may not be taken in substitution for the exercise of independent judgment by any recipient. Each recipient of this document should make such investigations as it deems necessary to arrive at an independent evaluation of an investment in the securities of companies referred to in this document (including the merits and risks involved), and should consult its own advisors to determine the merits and risks of such an investment. The investment discussed or views expressed may not be suitable for all investors. Certain transactions - including those involving futures, options, another derivative products as well as non-investment grade securities - involve substantial risk and are not suitable for all investors. No representation or warranty, express or implied, is made as to the accuracy, completeness or fairness of the information and opinions contained in this document. The Disclosures of Interest Statement incorporated in this document is provided solely to enhance the transparency and should not be treated as endorsement of the views expressed in the report. This information is subject to change without any prior notice. The Company reserves the right to make modifications and alternations to this statement as may be required from time to time without any prior approval. MOFSL, its associates, their directors and the employees may from time to time, effect or have effected an own account transaction in, or deal as principal or agent in or for the securities mentioned in this document. They may perform or seek to perform investment banking or other services for, or solicit investment banking or other business from, any company referred to in this report. Each of these entities functions as a separate, distinct and independent of each other. The recipient should take this into account before interpreting the document. This report has been prepared on the basis of information that is already available in publicly accessible media or developed through analysis of MOFSL. The views expressed are those of the analyst, and the Company may or may not subscribe to all the views expressed therein. This document is being supplied to you solely for your information and may not be reproduced, redistributed or passed on, directly or indirectly, to any other person or published, copied, in whole or in part, for any purpose. This report is not directed or intended for distribution to, or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL to any registration or licensing requirement within such jurisdiction. The securities described herein may or may not be eligible for sale in all jurisdictions or to certain category of investors. Persons in whose possession this document may come are required to inform themselves of and to observe such restriction. Neither the Firm, not its directors, employees, agents or representatives shall be liable for any damages whether direct or indirect, incidental, special or consequential including lost revenue or lost profits that may arise from or in connection with the use of the information. The person accessing this information specifically agrees to exempt MOFSL or any of its affiliates or employees from, any and all responsibility/liability arising from such misuse and agrees not to hold MOFSL or any of its affiliates or employees responsible for any such misuse and further agrees to hold MOFSL or any of its affiliates or employees free and harmless from all losses, costs, damages, expenses that may be suffered by the person accessing this information due to any errors and delays.

This report is meant for the clients of Motilal Oswal only.

Investment in securities market are subject to market risks. Read all the related documents carefully before investing.

Registration granted by SEBI and certification from NISM in no way guarantee performance of the intermediary or provide any assurance of returns to investors.

Registered Office Address: Motilal Oswal Tower, Rahimtullah Sayani Road, Opposite Parel ST Depot, Prabhadevi, Mumbai-400025; Tel No.: 022 - 71934200 / 71934263; www.motilaloswal.com.

Correspondence Address: Palm Spring Centre, 2nd Floor, Palm Court Complex, New Link Road, Malad (West), Mumbai- 400 064. Tel No: 022 71881000. Details of Compliance Officer: Neeraj Agarwal, Email Id: na@motilaloswal.com, Contact No.:022-40548085.

Grievance Redressal Cell:

Contact Person	Contact No.	Email ID
Ms. Hemangi Date	022 40548000 / 022 67490600	query@motilaloswal.com
Ms. Kumud Upadhyay	022 40548082	servicehead@motilaloswal.com
Mr. Ajay Menon	022 40548083	am@motilaloswal.com

Registration details of group entities.: Motilal Oswal Financial Services Ltd. (MOFSL): INZ000158836 (BSE/NSE/MCX/NCDEX); CDSL and NSDL: IN-DP-16-2015; Research Analyst: INH000000412 . AMFI: ARN : 146822. IRDA Corporate Agent – CA0579. Motilal Oswal Financial Services Ltd. is a distributor of Mutual Funds, PMS, Fixed Deposit, Insurance, Bond, NCDs and IPO products.

Customer having any query/feedback/ clarification may write to query@motilaloswal.com. In case of grievances for any of the services rendered by Motilal Oswal Financial Services Limited (MOFSL) write to grievances@motilaloswal.com, for DP to dpgrievances@motilaloswal.com.