

tangerr corporation

Trading. Consulting. Engineering Services.

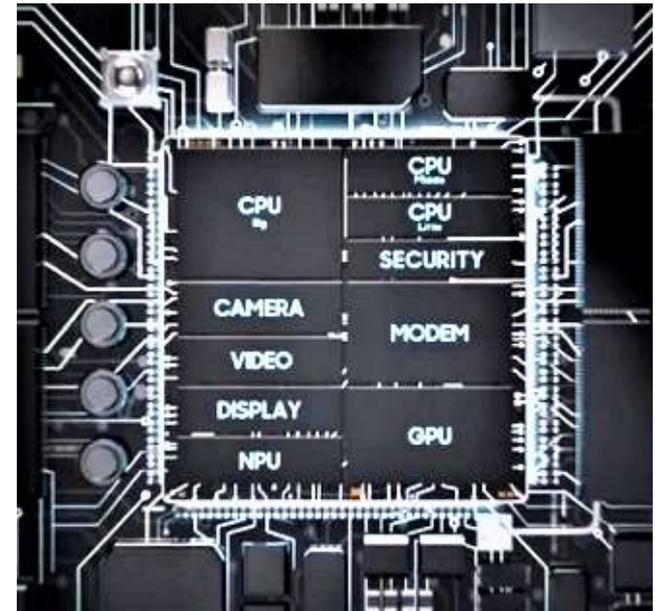
Concept & Market Intelligence

Why SoC Design Verification



What is SoC

A system on a chip (SoC or SOC) is an **integrated circuit** (also known as an "IC" or "chip") that integrates all components of a **computer** or other **electronic** systems. It may contain **digital**, **analog**, **mixed**, and often **radio-frequency** functions all on a single **chip**. SoCs are very common in the **mobile computing** market due to their low power consumption. The main applications are the area of **embedded systems**.





What is SoC Design Verification?

- Design Verification is the process of checking that a given design correctly implements the specification.
- The largest task in SoC development that has the biggest impact on the key business drivers: i.e. **Quality, Schedule, Design to market and Cost**.
- Verification team to Design team ratio ranges from 2:1 to 3:1.
- 70% (minimum) development cycle is dedicated to design verification.
- A diverse domain/field with endless strategies/techniques to sign-off (finalize) the chip.
- **Every design needs verification** - need for highly skilled design verification engineers to meet the challenges of the state-of-the-art technological innovations.



Market Opportunity

- The key trends indicate that there are many opportunities for semiconductor companies in India. OEMs are highly **dependent on international chip suppliers**. If Fabless companies are encouraged in the country, domestic OEMs can develop differentiated electronics products that can help them gain market share. Such a synergistic partnership can help **Fabless players and OEMs to grow** together by creating a strong value chain in the country that would help in the progress of indigenous products.
- Presently, most of the Indian fabless ecosystem caters to the international demand for semiconductors, with majority of products being in communication related ICs. However, there is a lot of domestic demand driven by both government initiatives such as *Digital India* and *Smart Cities* as well as a **huge unmet demand in the rural and agricultural sectors**.



Key Opportunities for Semiconductor Companies

Key Trends	Key Products	Driving Factors
Smart Home	Lighting Control	Consumer Concern Over Security Changing Life Style
	CCTV	
	TV	
	Sound System	
	Sensors	
Intelligent Transport System	Global Positioning System (GPS)	Govt Initiatives for Smart Cities and PPP working Model
	Ticketing System	
	Kiosk	
	Sensors	
Smart Industrial Automation	PLC	Need for More Efficient Arms, Armaments and military weapons
	DSC	
	Transmitters	
	Sensors	
Defense	Weapons	Encourage Telecommunication Spread in Rural Areas and increase literacy
	Munitions	



Key Opportunities for Semiconductor Companies

Key Trends	Key Products	Driving Factors
Advanced Driver Assistance System (ADAS)	Sensors	Growing Concerns and government regulations pertaining to Vehicle Safety
	Cameras	
	Infotainment Systems	
	Connectivity Modules	
5G Infrastructure	Transreceivers	Growing Demand for High speed and large network coverage
	Power Systems	
	Antennae	
	Cable Systems	
IOT	Sensors	Increasing need for real-time monitoring and connected solutions across industries
	Transmitters	
	Data Loggers	
	Connectivity Devices	

Thank You



tangerr corporation

delivering Ethereum...