



SOHAMSAA SYSTEMS PVT LTD

Company Brochure

An Electronic System Design & Manufacturing house creating innovative, highly differentiated products — from industrial design and core software to certified, mass-produced hardware.

Delhi, India · www.sohamsaa.com

Who *We* Are

IDENTITY

An Electronic Product Design and Manufacturing house focused on developing innovative and highly differentiated products.

End-to-end capability — industrial design, mechanical & PCB design, core software, wireless technologies, certification and manufacturing.

VISION

To be an ESDM house globally respected for Innovation and Excellence in product quality.

MISSION

We will create superior products in an environment of Fairness, Honesty and Joy for all our stakeholders – Customers, Employees, Partners and the Society.

SERVICES BOUQUET

i

PRODUCT ENGINEERING

End-to-end design · Industrial design
Mechanical CAD · Hardware & PCB design
New Product Initiation (NPI)
Logistics & supply chain

ii

SOFTWARE ENGINEERING

BSP & device-driver integration
Android porting & app development
Custom software integration

iii

CONSULTING

Solution definition
Value engineering
System architecture

Dream . Design . Deploy

Core Expertise & *Engineering*

CORE SOFTWARE

Device drivers
Audio / video decoding
Stacks & protocols
Board Support Package (BSP)

WIRELESS

4G TD-LTE / 3G / 2G
Wi-Fi 802.11 a/b/g/n/ac
LoRa · BT · NFC · Zigbee
GPS / FM

ANDROID / LINUX

Kernel — modules & drivers
Board bring-up
Android framework
App development & integration

WIRELESS / OPTICAL

GPON ONU / Router
Segregator
IP OTT media gateways

CORE ENGINEERING CAPABILITIES

ELECTRICAL

System architecture, electrical CAD, electro-mechanical convergence

MECHANICAL & ID

Experience & industrial design, mechanical system design, mechanical CAD, component design

RF

Antenna design, RF layout & validation

CORE SOFTWARE & OS

System boot, firmware, system drivers, peripheral drivers

APPLICATION

Firmware, Android applications, custom integrations

VALUE ENGINEERING

BOM optimization, cost optimization

NPI

Manufacturing process setting, test jigs & test software

SOURCING

Component sourcing, BOM management, cost optimization strategy

CERTIFICATION & COMPLIANCE

Technology consulting, certification & compliances, system architecture & definition

One engineering organization spanning silicon to enclosure to cloud – so a product moves from *concept to certified mass production* without changing hands.

Unique *Proposition*

i Innovation & Design Excellence

Cutting-edge designs with future-ready technology. Scalable development driving multiple variants. Proven process with rapid time-to-market certainty.

iii IP Protection

Rigorous intellectual-property protection — ID, electrical & mechanical design, custom components, custom UI & UX. Strict non-disclosure regime.

ii Custom Design & Localization

Portfolio development aligned with business strategy & roadmap. Exclusivity in features, geography, industrial design. High localization enabling India-based mass production.

iv Control

Customer participation in design and productization processes. Greater clarity on design & production costs to the customer.

PARTNERSHIPS

CHIP & SUB-SYSTEMS

Global semiconductor majors — including a published ST Microelectronics partnership for IoT & smart devices.

3G & 4G LICENSING

Licensed cellular technology partnerships enabling 2G / 3G / 4G product lines.

COMPONENTS

Long-standing partnerships across India, US, EU and China for resilient sourcing.

DISTRIBUTION

Distribution partnerships taking Sohamsaa designs to customers across markets.

AWARDS, ACCOLADES & PRESS

BEST BOOTH AWARD

Innovative Products, Global ARM Technology Symposia, Bangalore — Nov 2013.

KEY ESDM PLAYER

Among 24 Indian companies to watch — “Semiconductor Market in India 2014–2020” report.

ST MICROELECTRONICS

Press release on its key partnership with Sohamsaa for IoT and smart devices.

NATIONAL PRESS

LeZgo! covered by The Hindu, NDTV, India Today, Financial Express & Business Standard.

*Representative customers — **Business Worldwide.***

The Metering *Range*

BIS-certified smart and static energy meters — designed, certified and in production.



THREE PHASE SMART METER

IS:16444 Part 1 · BIS certified · 4G / NB-IoT / RF Mesh · direct & CT-connected



SINGLE PHASE SMART METER

IS:16444 Part 1 · BIS certified · 4G / NB-IoT / RF Mesh · pre-paid & post-paid



SINGLE PHASE STATIC METER

IS:13779 (2020) · BIS certified · IRDA · utility-ready, in production

A common, future-ready metering platform — DLMS/COSEM protocol stack, *AES-GCM-128* security, AMI self-healing and remote firmware update — engineered end-to-end in India.

STANDARDS

IS 16444 · IS 13779 · IS 15959 · IS 15884 · CBIP 325 · IEC 62052 / 62053 / 62056

SECURITY

AES-GCM-128 encryption · AES-128 key wrap · tamper detection suite

COMMUNICATIONS

4G / 2G · NB-IoT · RF Mesh · plug-in NIC architecture

IS 16444

SMART METER
STANDARD

IS 13779

STATIC METER
STANDARD

AES-128

GCM ENCRYPTION

IP 54

ULTRASONIC-
WELDED

Three Phase Smart *Energy* Meter

IS:16444 Part 1 · BIS Certified · 4G / NB-IoT / RF Mesh



KEY FEATURES

Ratings	10(60)A, 10(100)A — Direct & CT-connected
Communication	4G/2G, NB-IoT, RF Mesh (plug-in NIC)
Protocol	DLMS/COSEM · Plug & Play · Self-register
Security	AES-GCM-128 + AES-128 Key Wrap
Tamper Detection	Magnet · AC/DC chopping · Connection tamper
Load Control	Latching relay >10,000 cycles · Remote switch
Metering Modes	Pre-paid & post-paid · TOU up to 8 rates
AMI	Self-healing · Remote FW update · Auto-register
Enclosure	Ultrasonic welded · 35kV immune · IP54

TECHNICAL SPECIFICATIONS

Parameter	Value / Range
Reference Standards	IS 16444, IS 13779, IS 15959, IS 15884, CBIP 325, IEC 62052-11, IEC 62053-21/22, IEC 62056 (DLMS)
Voltage	Direct: 3×220/380V – 3×240/415V CT: 3×57.5/100V – 3×240/415V
Current	Direct: 10(60)A, 10(100)A CT: 1(5)A, 5(6)A, 5(10)A, 1(10)A
Starting Current / Frequency	0.2% Ib (Direct), 0.1% Ib (CT) · 50 / 60 Hz
Accuracy Class	Active: Class 1 (Direct) / 0.5S (CT) Reactive: Class 2
Environment	IP 54 · -25°C to +70°C op. · -40°C to +80°C storage · ≤ 95% RH
Local Interfaces	Optical port (sealable) · Optional: RS485, RS232, BLE
Remote Communication	RF Mesh / GPRS / 3G / 4G / NB-IoT
Dimensions	232 mm × 164 mm × 73.5 mm

Single Phase Smart *Energy* Meter

IS:16444 Part 1 · BIS Certified · 4G / NB-IoT / RF Mesh



KEY FEATURES

Ratings	5(30)A, 5(40)A, 5(60)A, 10(60)A
Communication	4G/2G, NB-IoT, RF Mesh (plug-in NIC)
Protocol	DLMS/COSEM · Plug & Play · Self-register
Security	AES-GCM-128 + AES-128 Key Wrap
Tamper Detection	Magnet · AC/DC chopping · Connection tampers
Load Control	Latching relay >10,000 cycles · Remote switch
Metering Modes	Pre-paid & post-paid · TOU up to 8 rates
AMI	Self-healing · Remote FW update · Auto-register
Enclosure	Ultrasonic welded · 35kV immune · IP54

TECHNICAL SPECIFICATIONS

Parameter	Value / Range
Reference Standards	IS 16444, IS 13779, IS 15959, IS 15884, CBIP 325, IEC 62052-11, IEC 62053-21, IEC 62056 (DLMS)
Voltage	Operating range 110V – 240V
Current	5(30)A, 5(40)A, 5(60)A, 10(60)A (other combinations on request)
Starting Current / Frequency	0.2% Ib · 50 / 60 Hz
Accuracy Class	Active: Class 1 Reactive: Class 2 (optional)
Environment	IP 54 · -25°C to +70°C op. · -40°C to +80°C storage · ≤ 95% RH
Local Interfaces	Optical port (sealable) · Optional: RS485, RS232, BLE
Remote Communication	RF Mesh / GPRS / 3G / 4G / NB-IoT
Dimensions	232 mm × 164 mm × 73.5 mm

Single Phase *Static* Energy Meter

IS:13779 (2020) · BIS Certified · IRDA Communication



Utility-ready static metering — proven, certified, in production.

Standard	IS:13779 (2020) — BIS Certified
Ratings	5–30A direct connected
Communication	IRDA optical interface
Billing	Monthly billing — utility ready
Tamper Detection	Magnet · AC/DC chopping · Connection & utility-specific tamperers
Accuracy	Active: Class 1
Enclosure	Ultrasonic welded · 35kV surge immune · IP54
Dimensions	163 mm × 133 mm × 68 mm

Built on the same ultrasonic-welded, tamper-resistant platform as the smart range — a *low-cost, utility-proven* path to accurate residential metering.

Class 1

ACTIVE ACCURACY

35 kV

SURGE IMMUNITY

IP 54

INGRESS
PROTECTION

IRDA

OPTICAL INTERFACE

Identity & *Fintech* Devices



bioTAB

Biometric-enabled tablet

7" Android tablet · STQC / UID-certified optical finger sensor · 3G, Wi-Fi, BT, GPS



TRITON

Handheld terminal

Android POS · integrated 2" thermal printer · NFC, smart cards, Aadhaar identification



EFFICA

Modular thermal printer

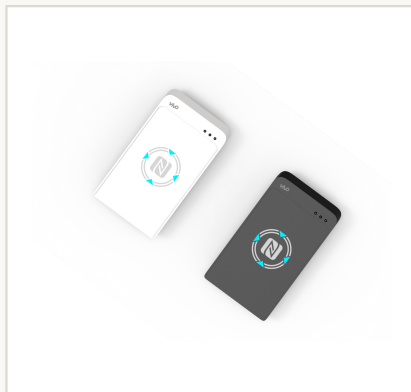
2" thermal printer · BLE, NFC, USB · optional biometric sensor & MSR



bioBT

Bluetooth biometric sensor

Portable OTT device · STQC-certified sensor · last-mile eKYC & DBT



VIVO

NFC card reader

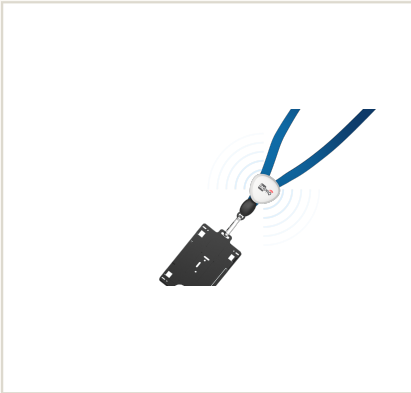
NFCIP-1/2 · ISO 14443 A/B, 15693, FeliCa™ · BLE & USB · 3 operating modes

STQC & UID-certified biometrics, integrated printing and contactless payment acquisition – a complete identity & fintech hardware stack.

DEPLOYED ACROSS

PDS & fair-price-shop automation · Aadhaar-based candidate validation · attendance systems · last-mile banking · DBT disbursements · contactless payment acquisition · access control · data-collection terminals for bank account opening, Aadhaar seeding and census validation.

IoT & *Sensing* Devices



TAGPRO

BLE attendance tag

Coin-cell BLE proximity tag · ARM Cortex-M0 · attendance, safety & tracking



BEACON

Proximity sensing

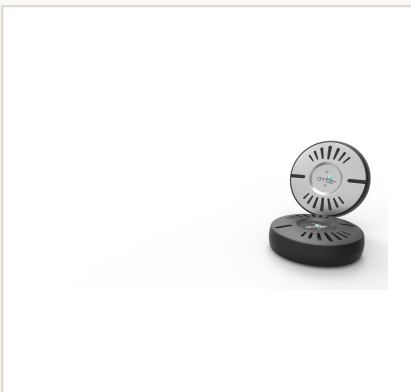
BLE beacon · immediate / near / far zones · retail, tourism & indoor navigation



BRET

Temp & humidity sensor

BLE 4.0 + LoRa to 10 km · cloud via LoRaWAN · data centers, hospitals, cold chain



AMBER

Motion sensor

BLE 4.0 + LoRa · rechargeable · security, asset & aquaculture monitoring



THE HUB

Home automation hub

Connects sensors up to 10 km · Wi-Fi, LoRa, 2G/3G · Ethernet & SLIC

Sensor to cloud – every device ships with Android apps and cloud dashboards for real-time monitoring and alerts.

IOT MODULES IN PRODUCTION

SSBT series — classic, dual-mode (SPP + GATT) and low-energy Bluetooth modules, 10–17 mm form factors, optional on-board microcontroller · SSLR series — LoRa 868 MHz transceiver modules, with power-amplifier variant.

Connectivity & *Media* Devices



MIFI ROUTER

Pocket 4G router

CAT4 150/50 Mbps LTE · 2×2 MIMO Wi-Fi · 6+ users · 6+ hrs battery



GPON ONT

Single-port fiber terminal

Gigabit fiber input · 1 GigE output · BOSA & transceiver options · low-cost CPE



MEDIA GATEWAY

Home media gateway

Fiber input · 3× GigE · 3×3 MIMO Wi-Fi · USB storage · optional LTE & DECT



CUBECAST

HD streaming

Android dual-core · 1080p over HDMI · app-controlled streaming & shared media



GPS TRACKER

Tracker & distress device

GSM/GPRS + GPS · SMS/GPRS distress alerts · power bank & LED flashlight

Designed for telecom operators, ISPs and consumer brands – BOSA-based cost engineering, India-localized manufacturing.

ENGINEERING NOTES

Full wireless stack in-house (LTE, Wi-Fi MIMO, GPON optics) · antenna design & RF validation · value-engineered BOMs for operator-scale deployments · certification & compliance managed end-to-end.

Solutions that *complete* the hardware

i

LeZgo!

Incredible experience, lasting memories

Android travel solution reshaping the tourist experience — integrated with Sohamsaa beacons for immersive, location-aware content. Pre-travel, on-travel & post-travel tools; national media coverage at Rajasthan launch.

ii

Authintik

KYC and validation solutions

Aadhaar-based KYC and validation suite on Windows and Android, using the Sohamsaa AUA for real-time access. Works with all major fingerprint modules — hotel, contract-worker and retail KYC.

iii

Pigmy

Automating small savings

Fully automates pigmy small-savings collection, integrated with co-operative core banking and the EFFICA printer. Cloud dashboards reduce fraud; covers micro-finance, NBFC & chit-fund collections.

Let's *talk*

For further information and discussions, please contact



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