



From Ideation to Value Generation

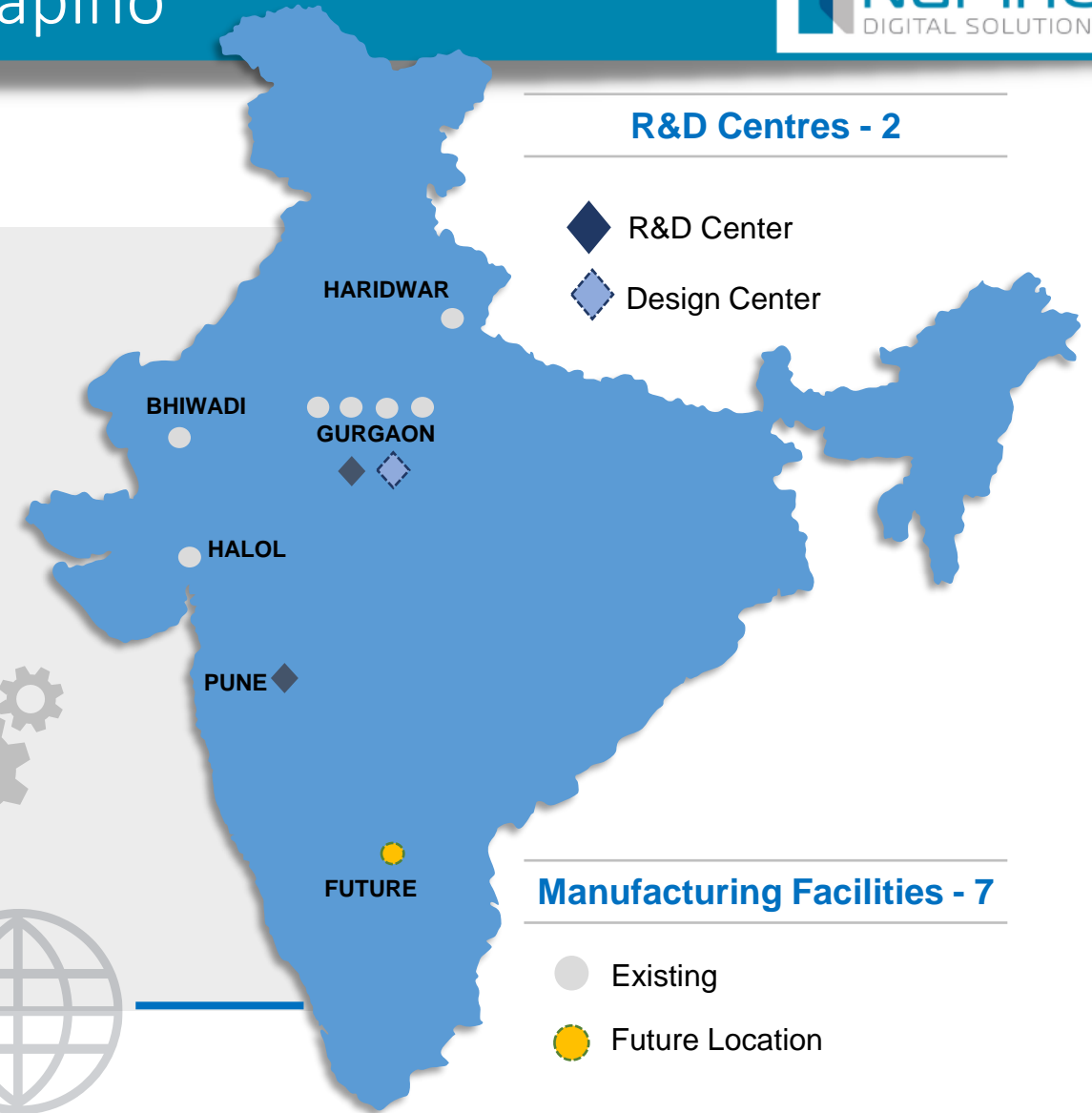
Private & Confidential

- India's leading electronics product design and manufacturer
- 25+ years of experience in the automotive and IoT industry
- 25+ Mn units manufactured annually
- 5000+ strong workforce spread across India
- Setup of 12 SMT lines and 14 Assembly Lines with new lines under progress
- Reliable supply chain partner to Tier-1 Global clients
- 150+ R&D engineers and best in class equipment's and tools enables to produce production grade devices ranging from asset trackers to complex camera-based products
- Partnerships with global leaders (Shindengen, Continental, Fallbrook, and Domino)



R&D Centres - 2

- ◆ R&D Center
- ◆ Design Center



Manufacturing Facilities - 7

- Existing
- Future Location

R&D Centre - Approved by Department of Scientific and Industrial Research, Ministry of Science Government of India



Full stack ODM services

- Electronics/IoT product design
- Prototype to mass scale manufacturing
- Testing & certification
- Value Engineering / Value Analysis
- Supply chain and Inventory management

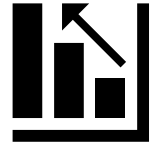


Products / Solutions

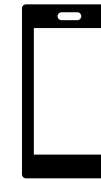
- Products (Telematics; BLE Tags; STEM; Gateways)
- Transportation and Logistics
- Industry 4.0
- Electric Vehicles
- Telecom Infra and devices



Cloud Integration



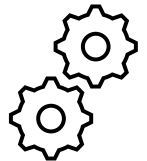
Analytics



App Dev



Support



DevOps

Services

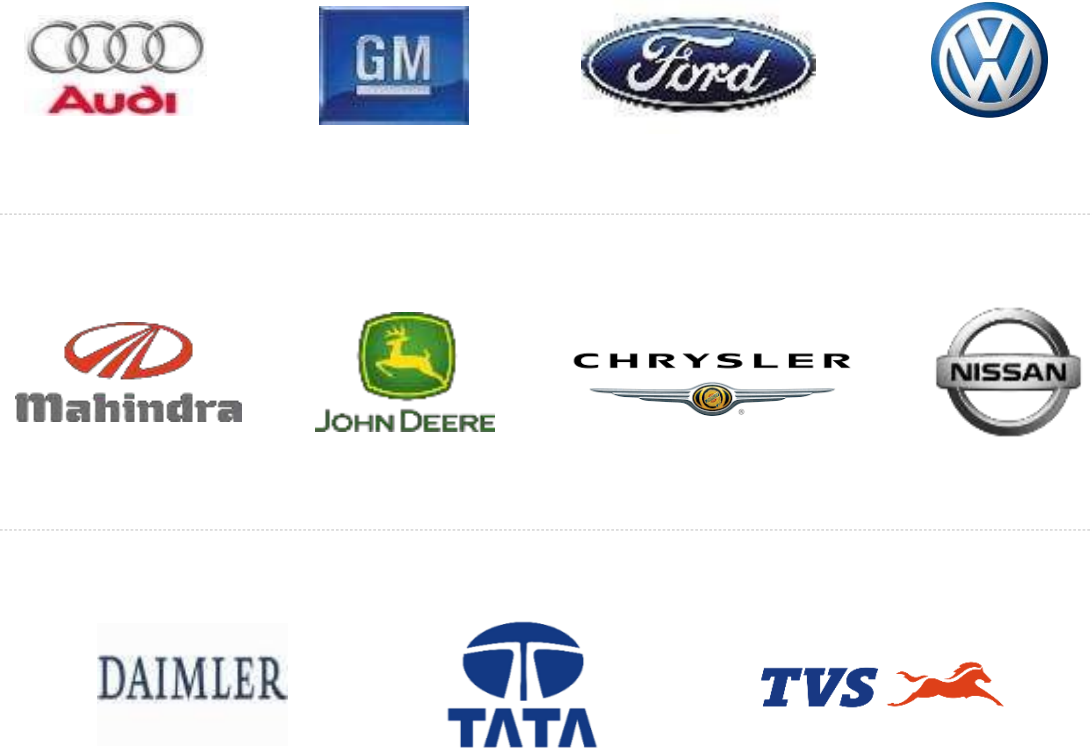
- Hardware Lifecycle Management
- Cloud Integration
- Application Development
- Managed Support & Services

Customers - Automotive

Tier 1 Supplier



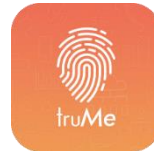
Tier 2 Supplier



Approved for Supplies to



Customers



PATHPARTNER



netradyne



Hero
Electronix



Partners



TCS CUBO



Products – Designed and/or Manufactured



ADAS Camera



Telematics

Automotive



Asset Tracker



Environment Tracker

Logistics



Personal Tracker



Smart Watch



Smart Tag

Smart Wearables



Router



Outdoor Access point



Edge Gateway

Telecom



Smart Energy Gateway



Industrial Tracker

Industry 4.0



Wi-Fi Door Bell



Smart Speaker



Smart Wi-Fi Plug



Smart BLE Lock



Surveillance Camera

Smart Home

Key features:

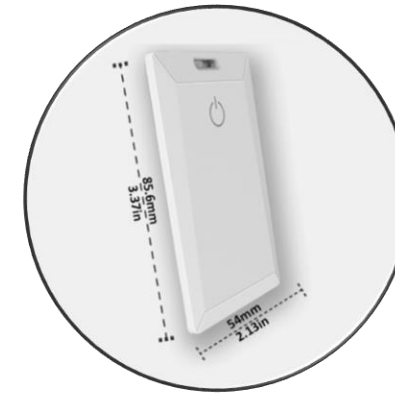
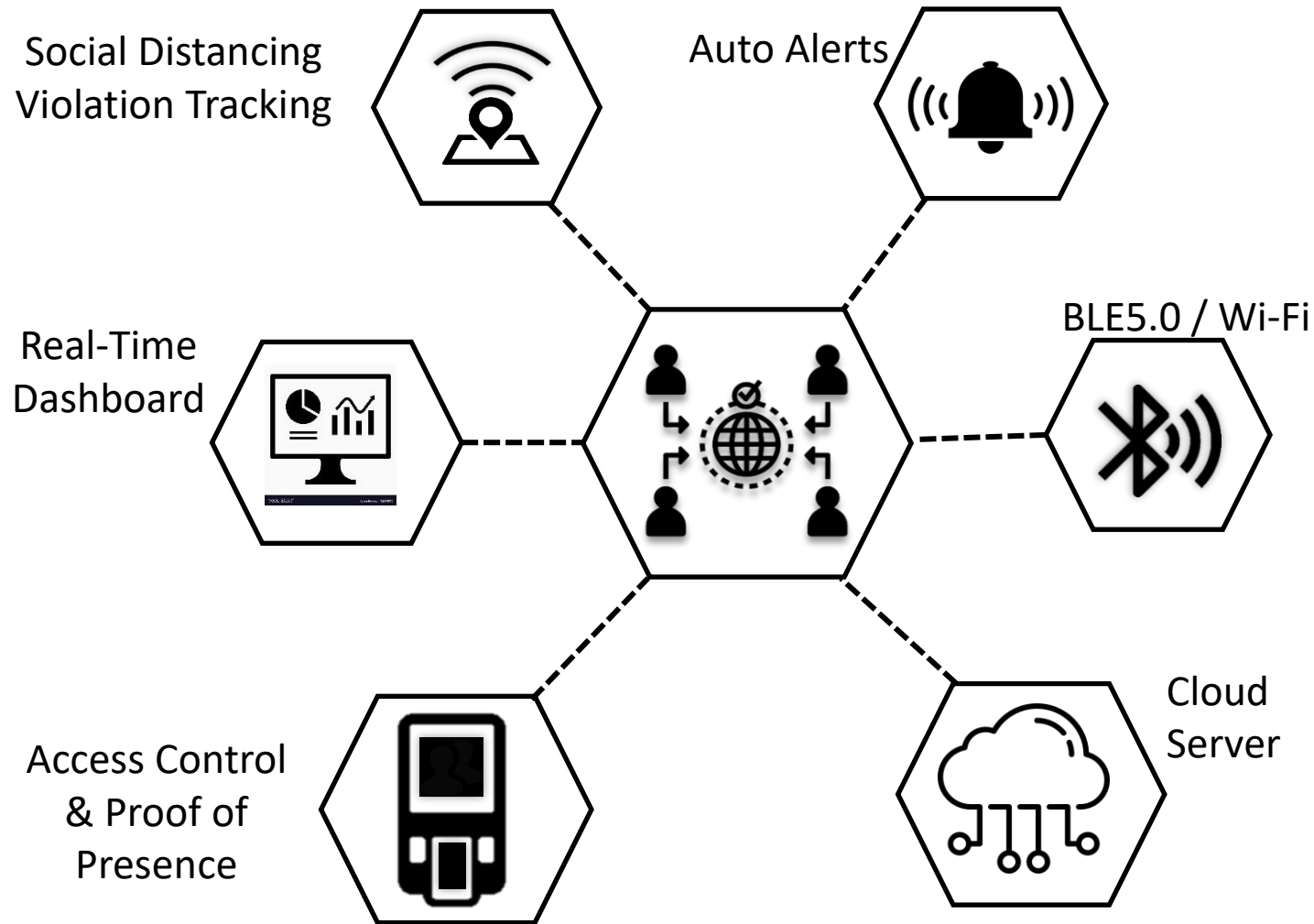
- Live Remote Monitoring
- 2-Way Talk
- Person Detection
- Face Recognition
- Baby Cry Alert
- Alexa built-in Entertainment
- Smart Hub
- Night Vision

Key Benefits:

- 24x7 live remote monitoring with Two Way Talk
- Store known faces & create custom auto alerts on your phone
- Advanced AI, notify whenever a person or a motion is detected
- Instantly notifies whenever it detects baby crying, ensuring any critical moment is not missed
- Keeps the home connected and safe



Parameters	Specs
RAM	2GB
ROM	16GB
External Storage	128GB
ZIGBEE Support	Yes
Wi-Fi	2.4GHz 802.11 b/g/n
Bluetooth	BT 4.1
Weight	600 grams
Dimensions	101.2 x 104 x 184.1 mm
Screen	2.8inch touch screen IPS Display
Operating System (OS)	Qualcomm® Vision Intelligence Platform
Camera & Field of View	3.2MP, 1080p HD videos with a 140 degree ultra-wide
Audio	2 Far Field mic array with Noise cancellation <ul style="list-style-type: none">• Six-meter range voice activation for Alexa• Two-way calling• Hi-Fidelity 5W dual-speaker• Tap or hold + or - for volume up/down



BLE Tag



GATEWAY
(BLE, Wi-Fi, Ethernet)

Features:

- Attendance Tracking
- Geo-fencing
- Asset Tracking
- Social Distance Violations
- Notifications & Alerts



Key features:

- Engine ON Detection
- Battery Status
- Real Time Location
- FOTA
- Accelerometer & Gyro meter
- CAN Transceiver
- Panic Detection
- Accident Detection
- Tow Detection etc.
- AIS140 automotive standards compliant


Key Benefits:

- Reduced warranty expenditure
- Early detection of epidemic failures
- Usage based business models for Vehicle Insurance & AMC
- Analysis of the driving pattern of the drivers




Parameters	Specs
Microcontroller	16 bit
GSM	2G /GPRS
GPS	GNSS
Flash	128M
Accelerometer	3D
Gyroscope	3D
Bluetooth	BT/BLE
Firmware on the air (FOTA)	Yes
IP	IP 67
Internal battery backup	Yes
Operating Temperature	-20 to 60 °C
Communication	CAN 2.0
AIS 140	Yes


Research & Development Capabilities




150+ R&D Engineers




**Best in class Testing,
Manufacturing
Infrastructure**




**Cloud & Application
Development**



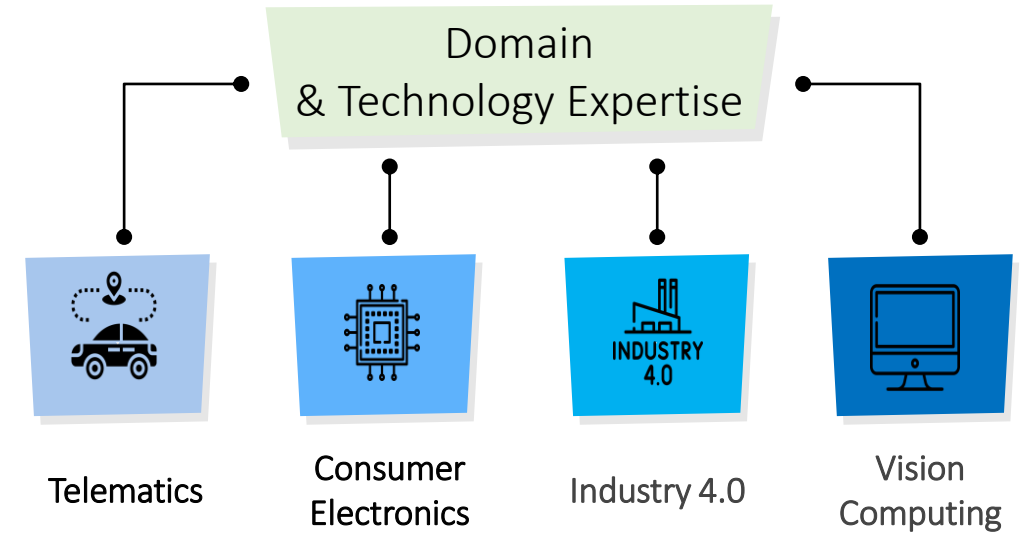
**Ideation to Value
Generation**




Embedded Firmware




**Scripting (Tests,
Automation,
Quality Control, etc.)**



Ideation




Definition




Designing



Prototyping



**Sample
Validation**



Production

Hardware

- Conversion of customer/project requirements into hardware specifications for circuit design
- Hardware verification as per the specifications and standard
- Mechanical architecture design (3D, 2D, stack-up analysis)

Software

- Conversion of project requirements into complete software architecture, software modules and their interactions
- Design of customized dashboard / GUI
- iOS/Android Application Development
- Agile software development process

Radio Technologies



Tools



Motor Industry Software Reliability Association C (MISRA C)



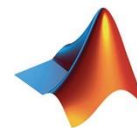
ETAS- INCA for calibration



ETAS- LABCAR for Hardware in loop simulation



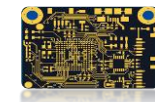
ANSYS software and Thermal imager for thermal analysis



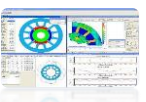
MATLAB for modeling and simulation



Cadence for circuit design and simulation



Allegro for PCB designing

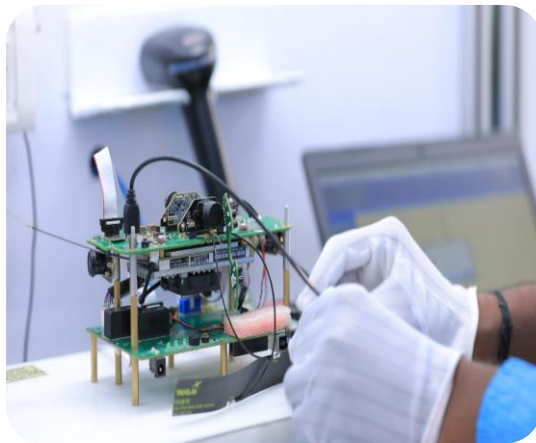


SPEED software for electric motor design



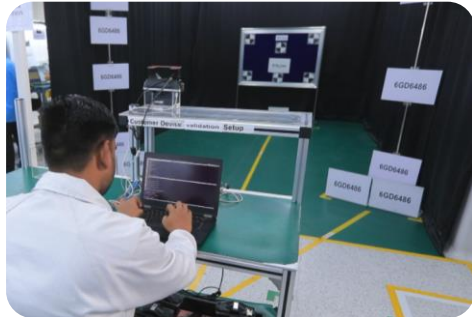
Key Features (SMT section)

- Component mounting
 - Min : 0402mm/ 01005 inch
 - Max : 120*90*T 30mm
 - Accuracy : 30 Micron
- Component Verification and Traceability
- In line Solder Paste Inspection (Make: Kohyoung)
- 3D Automatic Optical Inspection (Make: Omron)
- Continuous profile monitoring of reflow oven (Make: KIC)
- PCB Cleaning (Make: Unitech)
- ESD (Electrostatic) Control work station
- Clean room with class 100,000
- Nitrogen and lead free compatible soldering
- In line X Ray Machine (Make: Viscom)
- Pin insertion machine (Make: TE P350)
- Selective Soldering (Make: ERSA)
- SAP/ iTAC MES Suite for control & Traceability



Capabilities: Testing / Validation Facilities

Network, Dark Room, EMI, EMC & ESD



- Digital Call Box
- Analog Call Box
- Air Showers
- ESD checker system
- 100x Microscope
- Profile Tuning Suite
- ESD protected production floors
- Chassis Dynamometer
- Vehicle Cold Chamber
- Electro Magnetic Interference
- Electro Magnetic Compatibility
- Electro-Static Discharge
- Dark Room for camera lens calibration
- RF Testing
- Temperature & Humidity Test
- Bench Top Environmental Chamber
- Salt Spray Chamber
- Dust Chamber
- Water Spray
- Thermal Shock
- Vibration Test
- Transient Voltage
- ESD Simulator
- Oscilloscope
- Resistance Meter
- Power Analyzer
- Thermal Imager
- Function Generator
- Insulation Test
- Electronic Lead Test
- LCR Meter
- Salt Spray Chamber 2
- Laboratory Oven
- Highly Accelerated Stress Test
- ACG Rig Test Bench (Vehicle Simulation)
- Switch Endurance



Certifications for Electronics product is required as regulatory clearance in various countries for:

- **Emissions**
- **Safety**
- **Environmental impact**

Certifications facilitated:

- FCC/CISPR 22 Certification.
- CE Marking
- UL Certification
- ROHS or WEEE Certification
- CSA (Canadian Standard Association)
- BIS (Bureau of India standards)
- And many more



All our Plants are certified for **ISO 9001, IATF 16949, ISO 45001 & ISO 18001** Standards

DQS India
Deutsch Quality Systems (India) Private Limited

Date: 24th Feb, 2021

TO WHOMSOEVER IT

Congratulations!

On behalf of DQS India, we would like to congratulate your entire team on this momentous occasion! This is to certify that the facility located at:

NAPINO AUTO AND ELECTRONICS LTD.
Plot No. 131, Sector 8
IMT Manesar
Gurugram -122 050
Haryana
INDIA

has been assessed to **ANSI ESD 520.20: 2014** requirement India from 22nd to 23rd Feb 2021. The Registrar completed the audit and the audit team has recommended this recommendation is subject to the satisfactory completion within 30 days from the completion of the audit, as the assessment report is presently under review after successful completion of the review process.

Business Relation: 50255811



ASR
American Systems REGISTRAR
5211 Clyde Park Ave. Suite 1
Warren, MI 48093 USA
www.asrinc.com
616-942-6273

NAPINO
Napino
SITE 1 – NAPINO
PLOT No.7, SECTOR 3,
DISTT. GURGAON – 122050

with a scope of:
**DESIGN AND MANUFACTURE OF
ELECTRONIC MODULES, POWER
(WIRE HARNESS)**

has established an
Occupational Health and Safety Management System

ISO 45001:2018

ASR Certificate Number:
Date of Certification:
Date of Certification Expiration:
Date of Initial Registration:
Revision:
Re-issue Date:

CERTIFICATE OF REGISTRATION



ASR
American Systems REGISTRAR
5211 Clyde Park Ave. Suite 1
Warren, MI 48093 USA
www.asrinc.com
616-942-6273

NAPINO AUTO
Napino
MANESAR PLANT 1 -
PLOT No.7, SEC 3, I
GURGAON – 122050

with a scope of:
**DESIGN AND MANUFACTURE OF
DISCHARGE IGNITION
CONTROL UNITS (ECU) AND
CONNECTING HARNESS**

has established an Occupational Health and Safety Management System

OHSAS 18001:2007

ASR Certificate Number:
Date of Certification:
Date of Certification Expiration:
Date of Initial Registration:
Revision:
Re-issue Date:

CERTIFICATE OF REGISTRATION



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616-942-6273

NAPINO
Napino
PLOT No.7, SECTOR 3,
HARYANA, INDIA

with a scope of:
**DESIGN AND MANUFACTURE OF
CDI, REGULATOR
(WIRING HARNESS)**

American Systems Registrar, LLC, Certificate Number: IA0B-1021

with a scope of:
**DESIGN AND MANUFACTURE OF
CDI, REGULATOR
(WIRING HARNESS)**

American Systems Registrar, LLC, Certificate Number: IA0B-1021

IATF Certificate Number:
ASR Certificate Number:
Exclusions:
Date of Certification:
Date of Certification Expiration:
Revision:
Re-issue Date:

CERTIFICATE OF REGISTRATION



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Warren, MI 48093 USA
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616-942-6273

NAPINO AUTO & ELECTRONICS LTD
UNIT 1
PLOT No.7, SECTOR-3, IMT MANESAR
DISTT. GURGAON 122050 (HARYANA) INDIA

with a scope of:
**DESIGN AND MANUFACTURE OF AUTO ELECTRONIC MODULES SUCH
AS CDI, REGULATOR RECTIFIERS AND CONNECTING SYSTEMS
(WIRING HARNESSES)**

has established a quality management system that is in conformance with the International Quality System Standard

ISO 9001:2015

ASR Certificate Number:
Date of Certification:
Date of Certification Expiration:
Date of Initial Registration:
Revision:
Re-issue Date:

6517
April 19, 2018
April 18, 2021
July 21, 2004

Richard K. Kiser
President

Page 1 of 2

CERTIFICATE OF REGISTRATION

Private & Confidential

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Awards and Recognitions



Best Vendor
Hero Honda Motors Ltd



TPM Excellence Award 2018 (A) by Japan Institute
of Plant Management-Napino Haridwar Plant



Direct-On-Line
Supplier To Hero MotoCorp



Silver Award For
On Time Delivery by Yamaha



First Prize in Business Excellence by
ELCINA Electronic Industries Association Of India



Award for Consistent Quality
Suzuki Motorcycles India Pvt Ltd



Consecutive QCDDM Best
Supplier Awards by
HMSI



Super Achiever's Award by Economic Times
IMEA in Partnership with Frost & Sullivan



From Ideation to Value Generation

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@NapinoGroup