Invitation for Expression of Interest for Transfer of Technology

EXPRESSION OF INTEREST for TRANSFER OF TECHNOLOGY

Pedestrian Safety Enhancement Controller (PeSCo) and Emergency Service Vehicle Priority System (EmSerV)

Issued by

CENTRE FOR DEVELOPMENT OF ADVANCED COMPUTING
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Website: www.cdac.in
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1. **Introduction**

Centre for Development of Advanced Computing (C-DAC) invites “**Expression of Interest**” (EOI) from Indian companies for transfer of technology (ToT) from C-DAC and to subscribe, acquire licenses, market, sell and implement two products Pedestrian Safety Enhancement Controller (PeSCo) and Emergency Service Vehicle Priority System (EmSerV).

Through this EOI, sealed financial H1 bid is invited on behalf of M/s Technology Promotion Centre, CDAC, Thiruvananthapuram from reputed firms / companies registered in India, having relevant experience / insights in the field of transportation for Transfer of Technology (ToT) and Licensing of two products Pedestrian Safety Enhancement Controller (PeSCo) and Emergency Service Vehicle Priority System (EmSerV).

This document gives details about
- The product
- The terms and conditions for companies to propose their Expression of Interest and
- How to enter into Transfer of Technology (ToT) agreement based on the terms given herein.

2. **Brief about C-DAC**

Centre for Development of Advanced Computing (C-DAC) is the premier R&D organization of the Ministry of Electronics and Information Technology (MeitY), Govt. of India for carrying out R&D in IT, Electronics and associated areas. It is a national Centre of Excellence, pioneering application oriented research, design and development in Electronics and Information Technology.

The Centre has contributed significantly to the growth of the industry in general and the electronics sector in particular through the indigenous development of commercially viable systems and products, foreign technology absorption, adaptation and upgrades, consultancy and training and turnkey implementation of contract projects. The Centre has several firsts to its credits and is the recipient of prestigious national level awards for excellence in application-oriented R & D.

The Mission mode programmes of C-DAC include High performance computing, grid and cloud computing, Multilingual computing & Heritage Computing, Professional Electronics, VLSI and Embedded systems, Software technologies, Cyber Security & Cyber Forensics, Health Informatics, Intelligent Transportation Systems and others.

3. **Brief description about the technology to be transferred**

**Pedestrian Safety Enhancement Controller (PeSCo)**

PeSCo is a Pelican traffic signal controller which provides variable walk time for the pedestrians based on the class of pedestrians like differently abled, visually challenged, elderly, child etc. This is achieved through different demand registration inputs such as push button, RF ID reader and ultrasonic sensors. It is a 32-bit microcontroller-based accessible controller having
distributed architecture. It consists of a Controller and Sensor Unit (CSU), and Sensor Unit (SU). The CSU-SU communication is based on Wired CAN (Controller Area Network) communication or Wireless 2.4 GHz unlicensed radio frequency. PeSCo was field implemented at two sites in Thiruvananthapuram Govt. School for Visually Impaired (GSVT) and Govt. Girls’ Higher Secondary School, Cotton Hill.

**Emergency Service Vehicle Priority System (EmSerV)**

EmSerV allows the smooth passage of priority enabled Emergency Service Vehicles (ESV) such as ambulances and fire engines through the signalised traffic junctions safely and quickly in emergency situations. EmSerV reduces the average travel time of ESVs there by it saves many lives. EmSerV has a Vehicle Mount Unit (VMU) kept on the dashboard of ESV and every junction which gives right of way to approaching emergency vehicle has a controller Unit (CU) residing inside the traffic signal controller cabinet. VMU has a GPS receiver and RF transmitter through which it broadcasts the Positional Information Data (PID) periodically. PID will be received by the CU when the priority enabled emergency service vehicle approaches the junction (around 500 meter in advance). Once the PID from the vehicle is received at the CU, it resolves the direction and entry arm of the vehicle by geo fencing. Then it activates the corresponding hurry call of the existing traffic signal controller through wired connection and activates the hooter installed at the junction to alert the commuters on the approaching ESV. Hurry call is a facility available with modern traffic signal controllers for invoking special signal groups on request. The signal sequence is resumed and hooter is switched OFF as soon as the ESV exits the junction. EmSerV was field trialled at Kumarapuram junction, Thiruvananthapuram and one of the ambulance of KIMS hospitals is enabled for ESV priority.

The product brochure of PeSCo and EmSerV are attached as Annexure – III and Annexure IV.

4. **Invitation for Expression of Interest**

4.1. C-DAC invites “Expression of Interest” (EOI) in the format given in Annexure-1 (Part A & Part B). Companies can become TOT partner of C-DAC based on the information furnished in Annexure – I, subject to the assessment by the C-DAC. Interested companies may submit the expression of interest (see section 5.0 and section 6.0).

4.2. Expression of Interest (EOI) also seeks from interested industry vendors to offer the best price for the Transfer of Technology (TOT) of PeSCo and EmSerV. However, C-DAC reserves the right to finalise the ToT cost and Terms and conditions for the TOT of PeSCo and EmSerV hardware products, based on the bids received and C-DAC’s internal policy.

4.3. This invitation of EOI will be open till **15th October 2021, 5 p.m.** The financial bids received for the ToT cost of PeSCo and EmSerV till the last date of EOI shall only be evaluated to arrive at the final cost of TOT license.

4.4. The EOI bids received from the vendors shall be verified with the base rates fixed by the ToT committee of C-DAC to discover the H1 bid. The rates proposed by the vendors shall be
considered only when it is greater than or equal to the base price fixed by the ToT committee of CDAC.

4.5. After the evaluation, the cost finalised by C-DAC for the ToT of PeSCo and EmSerV will be informed to all the bidders who have participated in the EOI. Once an Expression of Interest and H1bid are received at C-DAC, the same will be evaluated within 7 days of receipt of the EOI at C-DAC.

4.6. The draft ToT agreement will be shared with the eligible companies. If the company agree to the terms and conditions of the agreement, the agreement can be signed after payment of 60% of the TOT fee (First Instalment). 40% of the remaining payment (Second Instalment) shall be done during handover of the TOT documents.

4.7. Participation in this EOI does not guarantee any association with C-DAC, unless the agreement is signed.

4.8. CDAC reserves the rights to transfer the license to any number of partners at its discretion.

4.9. The submission of the EOI shall include all such documents that are specified herein to prove the authenticity of their offer and any claim made therein. All cost and expenses associated with submission of EOI shall be borne by the bidder while submitting the EOI and C-DAC shall have no liability, in any manner in this regard, or if it decides to terminate the process of short listing for any reason whatsoever.

4.10. C-DAC reserves the right of rejecting any offer without assigning reasons.

4.11. There is neither a business guarantee nor any commitment for funding support from C-DAC to the selected TOT partner.

5. Who can Apply

Any Indian Company or Start Ups willing to acquire licenses, market, sell and implement ITMS solution can apply.

6. How to Apply

Interested companies may send expression of interest by filling the template as per Annexure – 1 and Annexure-II along with supporting documents to

**Head, Technology Promotion Centre**
Centre for Development of Advanced Computing (CDAC)
Vellayambalam, Thiruvananthapuram, Kerala, India, 695033
Phone: 0471 2727508 Fax: 0471 2723456
Email: tpc@cdac.in Website: www.cdac.in

7. TOT Agreement (How to Subscribe to PeSCo and EmSerV)

7.1. The TOT partner is selected based on the expression of interest submitted by interested companies.

7.2. If selected, the company shall pay 60% of the Technology Transfer fee and sign the TOT agreement to become TOT partner of C-DAC for PeSCo/EmSerV or both.

7.3. CDAC shall sign the technology transfer license agreement with the companies on receiving the first instalment of Technology Transfer fee.

7.4. The license will be granted on Non-Exclusive basis.
7.5. **TOT partner is not allowed to quote for PeSCo and EmSerV hardware unless he pays the first instalment of Technology Transfer fee and enter into an agreement with C-DAC. The Technology Transfer fee is non-refundable. In case any party offer /quote the rates without an agreement with CDAC, CDAC will not honour the rates/ will not give the ToT to such party. The decision of C-DAC in this matter shall be final.**

8. **Hardware licenses for Site Implementation**

The hardware licenses of PeSCo and EmSerV can be purchased by TOT partner only if the partner has a valid TOT license agreement with C-DAC and the royalty fee is paid upfront. These hardware licenses are required for the partner to activate the firmware to work for unlimited period when implemented at various cities. The demo hardware licenses shall be provided as part of the TOT deliverable and shall activate the firmware for 15 days period for lab testing and any demonstration to customer. So a valid license should be obtained upfront and activated from CDAC before deploying PeSCo and EmSerV hardware at client locations.

9. **Validity of onetime Technology Transfer fee & Renewal of TOT agreement**

9.1. Payment of one time Technology Transfer fee (full payment) grants the partner to subscribe the hardware license of PeSCo and EmSerV hardware for a period of **03 years** from the date of signing of the agreement.

9.2. For the period beyond 3 years the partner should renew the ToT license agreement before expiry of one time Technology Transfer license period by paying the TOT support charges as decided by C-DAC at that point of time. A TOT partner having a valid TOT license agreement can procure the PeSCo and EmSerV hardware license for site deployment at client locations.

9.3. If the renewal is initiated after the stipulated period, a fresh TOT agreement need to be signed by the company based on the EOI conditions prevailing at that time.

10. **C-DAC Deliverables**

10.1. On payment of one-time Technology Transfer license fee and signing of ToT agreement, the following items shall be provided by C-DAC to the TOT partner for product marketing support and installations

A. TOT Partnership certificate
B. Product data sheet file in psd/cdr format
C. User Manual
D. Production Documents
   I. Schematic Diagram
   II. Bill of Materials
III. Sourcing Details
IV. Wiring Diagrams
V. Assembly Details
VI. PCB Gerber files
E. firmware Bin file (Executable) (Demo License for 15 days)
F. Test plan & procedures
G. Installation manual

11. Training for TOT Partners
   11.1. C-DAC shall arrange 3 days product level marketing & production and implementation level training on the requested technology to the ToT partner at C-DAC(T) after signing of TOT agreement.
   11.2. The training will be conducted at C-DAC(T) premises.
   11.3. The travel and boarding and lodging expenses of the trainee(s) during the period of training shall be borne by the ToT partner.
   11.4. For training requested outside C-DAC (T) premises air travel, boarding and lodging charges of C-DAC (T) officials shall be borne by the ToT partner. C-DAC shall also charge manpower as per C-DAC rules prevailing at the time of training for outstation training. Nomination of the C-DAC trainers and period of stay for outstation training will be decided by C-DAC on mutual consultation, depending on the type of training requested.
   11.5. Additional training may also be given by C-DAC either at the premises of C-DAC (T) or at the location identified by the ToT partner on payment basis as per C-DAC rules.

12. Field implementation support
   12.1. C-DAC(T) shall provide remote support to the ToT partner for the production & installation of the technology transferred during the TOT license period.
   12.2. If any onsite support is requested by the ToT partner, C-DAC shall support on mutually agreed terms and conditions.
   12.3. For onsite support outside C-DAC premises travel, boarding and lodging charges of C-DAC (T) officials shall be borne by the ToT partner. C-DAC shall also charge manpower as per C-DAC rules prevailing at the time of support request for outstation support. Size of the C-DAC team and period of stay for outstation support shall be decided by C-DAC on mutual consultation, depending on the type of support requested.

13. Direct implementation by C-DAC
   13.1. C-DAC reserves the right to implement PeSCo and EmSerV hardware directly at client locations where C-DAC is awarded ATMS orders for implementation directly by the end user.
13.2. If CDAC is implementing PeSCo and EmSerV directly, then the cost at which C-DAC will be offering the hardware to the end user will be decided by CDAC at the time of implementation.

14. Licensing policy for One Time Technology Transfer License fee & Hardware License and License renewal

One time TOT policy
First Instalment of 60% plus applicable taxes should be paid on signing of TOT agreement. Second Instalment of 40% plus applicable taxes at the time of TOT document handing over or receiving the first commercial order, whichever is earlier. The 2nd instalment is to be paid within a period of one year from the date of 1st instalment. If the partner fails to pay the 2nd instalment fee within the stipulated period, then the already paid amount shall be forfeited. No refund shall be applicable and will not be considered as a C-DAC TOT partner for this product.

Royalty policy
The royalty shall be paid upfront on every PeSCo/EmSerV-CU/EmSerV-VMU controller sold for of ten years from the date of receipt of first commercial order. The royalty fee shall be paid in advance by the Partner to authenticate hardware license activation before site implementation.

License renewal Policy
The onetime license renewal fees shall be paid by the licensee before the end of term of the original one time license agreement, based on which this agreement validity will be extended for a further period of two years.

For any queries please contact:
Section Head (Technology Promotion Centre)
Vellayambalam, C-DAC, Thiruvananthapuram
Contact: 0471 2727508, 0471 2723333 (extn: 220/450),
email: tpc@cdac.in
### Annexure –I (Part-A)

#### Company Profile of the bidder

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<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>A.</td>
<td>Company Profile</td>
</tr>
</tbody>
</table>
| 1. | Name of the Organization:  
Website: |
| 2. | Name of the Contact Person:  
Address:  
Mobile:  
Landline:  
Fax:  
E-Mail: |
| 3. | Year of Incorporation: |
| 4. | Type of Organization  
a. Public Sector/ Limited/Private Limited/ Partnership/Proprietary/ Society/ Anyother  
b. Whether ‘Foreign Equity Participation (Please give name of foreign equity participant and percentage thereof)  
c. Names of Directors of the Board/ Proprietors  
d. Name and address of NRI(s), if any |
| 5. | Category of the firm: Large/Medium/Small scale unit / Others |
| 6. | Address of the Registered Office:  
(Include Certificate of Registration) |
| 7. | Number of Offices with addresses (Excluding Registered Office): India,  
..........................  
Abroad:.................. |
| 8. | Certificate of registration as a manufacturing unit |
| 9. | Permanent Account Number |
| 10. | GST Reg. No. |
| 11. | ISO or any equivalent Certification |
Annexure – I (Part B)
Technical Collaborations of the bidder

B. ESSENTIAL REQUIREMENTS

1. The organization must be a reputed firm/company/SME/startup/R&D company incorporated in India.

2. The turnover is to be supported by financial statements of accounts/ Annual reports duly certified by a Chartered accountant/ Balance sheets of last 3 years/ Income tax returns for the last 3 years period.

3. Company profile, giving details of current activities and management/ personnel structure including evidence of incorporation. The company should be registered and ISO or equivalent certified.

4. Details of absorption of technology for a product/knowhow that has been taken up on production scale in the past may also be given.

5. The manpower strength (Technical: Mechanical, Electrical, Electronics, Software & Non-Technical etc.) at various levels to be furnished
   Technical:
   a. B.E./ B.TECH/PhD
   b. DIPLOMA
   c. SKILLED TECHNICIANS
   d. UNSKILLED

6. The list of machine tools /equipment/software/facilities available related with work to be furnished.

7. The in-house technological expertise available to be furnished

8. The list of equipment available for inspection and quality control to be furnished.

9. The industry should have adequate space for undertaking this work. Available space - Covered & Open and location details to be furnished.

10. List of products/technologies worked with as regular activity in last three years. Give the list of products/technologies with general specifications and the customers.

11. List of PSUs/Govt. customers – with contact details (Address, Telephone no., Contact Person)

12. The details of sales, marketing and maintenance network to be furnished

13. The list of technical collaborators for various ongoing products may be furnished

14. The bidder shall provide details of the sub-vendors in case they propose to employ for Part- work

C. Expression of Interest: Spell out the extent of interest and envisaged market potential

I hereby declare that the above information is true to the best of my knowledge.

Signature with Name & Seal:

Place: Date:
### Annexure-II  Financial Bid Format
(To be submitted in sealed envelope / by mail)

**One Time Technology Transfer License fee and Hardware License activation & Royalty Fee**
(To be filled by the company as appropriate to the partner type they belong)

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Product Name</th>
<th>Sub module</th>
<th>One time Technology Transfer (TOT) licence fee (Rs.)</th>
<th>Royalty Fee for hardware license activation (Rs)</th>
<th>One time TOT license renewal fee for further 2 years (after the initial 3 years period)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PeSCo</td>
<td>Controller and Sensor Unit &amp; Sensor Unit Combo</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>EmSerV</td>
<td>Controller Unit(CU)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Vehicle Mount Unit(VMU)</td>
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Annexure III

C-DAC Pedestrian Safety Enhancement Controller

Presently available pedestrian signal controllers, in general, are designed for the walking speed of normal pedestrians. But, these days, a considerable number of ‘divyang’ (persons with disability) also use the motorway. The C-DAC developed Pedestrian Safety Enhancement Controller, PeSCo, is capable of identifying pedestrian demands through various input devices such as Pushbutton Switch, RFID and Ultrasonic Sensor for providing them sufficient crossing time based on the input device detected. PeSCo also guides the pedestrians through different tones to (1) locate the pedestrian crossing (2) wait for green signal (3) walk through green signal and (4) do not enter the motorway when the green signal is about to terminate. Crossing time available for normal pedestrians and divyang with different degree of disability will be different. The pedestrian safety enhancement controller is most useful at mid-block crossings in front of hospitals, markets, schools etc.

SALIENT FEATURES

- CPU : 32 bit ARM® Cortex-A8 Processor
- Memory : RAM DDR3-(512MB)
  Flash (4GB)
  External Memory: SD Card 2GB
- Operating System : Linux
- Real Time Clock (RTC) : On-board RTC with 10Year Battery Backup
- RTC Update : Through GPS
- Categories of pedestrian supported : Visually challenged – with smart cane
  Visually challenged – with RF ID Tag
  Physically challenged – with RF ID Tag
  Children– with RF ID Tag
  Any Pedestrian – Push Button Press
- Pedestrian Detection Inputs : Push Button Switch, RFID Reader and Ultrasonic Sensor
- RF ID card Supported : 125 KHz with EM4102 protocol
- Smart cane supported : Any smart cane with 40 KHz ultrasonic pulse
- Pedestrian Tone Types : Locator, Wait, Safe Cross and Alert
- Tone Base frequency : 2 kHz
- Tone Volume Level : Variable from 0 to 5 dB
- Tone output device : Horn Speaker (8 Ohms 30W power)
- Labelling for visually challenged implementation scenarios : By Braille Labels
- : Midblock -2 Pedestrian Sensor Box (PSB)
  : Staggered crossing -4 PSB
Invitation for Expression of Interest for Transfer of Technology – PeSCo-EmSerV

PSB to PSB communication: Wireless 2.4GHz / CAN interface
Central Server Connectivity: 10/100Mbps RJ45 Ethernet port
Programming Facility: Using Website
Firmware update: RJ45 Ethernet port and JTAG
Data logging: Local controller as file
Programmable Parameters:
- Pedestrian categories Vs Walk time
- RF ID card No Vs Pedestrian categories
- Pedestrian Safe walk time
- Start Amber, All Red and Amber time
- Phase, Cycle Plan, Day plan and Week Plan

OPERATING ENVIRONMENT

Operating Voltage: 24 V DC +/- 10%
Controller Mounting: Pedestal / Pole
Temperature: 0°C to +55°C
Relative Humidity: 95% RH Non-condensing at +40 degree C

19.5 inch x 11.6 inch PeSCo Controller

Web Interface for PeSCo
Emergency Service Vehicle Priority System

The C-DAC Emergency Service Vehicle Priority System, EmSerV, has two modules (1) a controller unit installed inside the traffic signal controller and (2) the Vehicle Mount Unit (VMU) kept near the windshield of the Emergency Service Vehicle (ESV). EmSerV is implemented on geo-fencing technique using GPS coordinates. During an emergency trip the VMU broadcasts GPS coordinates (latitude and longitude) of the vehicle and its headway in every 500mSec using the 433MHz transmitter. The EmSerV controller is always in the listening mode waiting for signal from the VMU. Once it receives the coordinates of the Emergency Service Vehicle the EmSerV controller identifies the direction and location of the ESV. It then gives a command to the traffic signal controller for priority green signal for the direction of the approaching ESV. On detection of the ESV the Hooter installed at the traffic junction will generate audio alarm to alert the drivers, pedestrians and the police officer at the traffic junction about the arrival of the emergency service vehicle. The traffic signal will now terminate the currently running signal phase and opens right-of-way for the ESV. The signal sequence is resumed once the ESV clears the junction; also the Hooter is switched off. All approaches to the traffic junction are geo-coded in the EmSerV controller.

EMSERV CONTROLLER SPECIFICATION

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU</td>
<td>32 bit ARM® Cortex-A8 Processor</td>
</tr>
<tr>
<td>Memory</td>
<td>RAM DDR3-(512MB)</td>
</tr>
<tr>
<td></td>
<td>Flash (4GB)</td>
</tr>
<tr>
<td></td>
<td>External Memory: SD Card 2GB</td>
</tr>
<tr>
<td>Operating System</td>
<td>Linux</td>
</tr>
<tr>
<td>Real Time Clock (RTC)</td>
<td>On-board RTC with 10Year Battery Backup</td>
</tr>
<tr>
<td>RTC Update</td>
<td>Through GPS</td>
</tr>
<tr>
<td>Police Panel Interface</td>
<td>Optically isolated 8 inputs and 8outputs</td>
</tr>
<tr>
<td>Hooter Interface</td>
<td>IP66 hooter with 90 to 105cb sound level</td>
</tr>
<tr>
<td>Central Server Connectivity</td>
<td>10/100Mbps RJ45 Ethernet port</td>
</tr>
<tr>
<td>Programming Facility</td>
<td>Using webserver</td>
</tr>
<tr>
<td>Firmware update</td>
<td>RJ45 Ethernet port</td>
</tr>
<tr>
<td>Data logging</td>
<td>Local controller as file</td>
</tr>
<tr>
<td>Communication with VMU</td>
<td>433MHz Radio transceiver ~ 400m range</td>
</tr>
<tr>
<td>Compatibility Requirement</td>
<td>Any signal traffic controller having Hurry Call Feature</td>
</tr>
<tr>
<td>Programmable Parameters</td>
<td>Junction ID &amp; Junction Name</td>
</tr>
<tr>
<td></td>
<td>Number of Arms of the Junction</td>
</tr>
<tr>
<td></td>
<td>Associated Hurry call number</td>
</tr>
<tr>
<td></td>
<td>Geo-Fencing Coordinates for each arm</td>
</tr>
<tr>
<td></td>
<td>Minimum And Maximum Heading angles</td>
</tr>
<tr>
<td></td>
<td>Vehicle Authentication Details</td>
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**EMSERV VMU SPECIFICATION**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
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<tbody>
<tr>
<td>CPU</td>
<td>32 bit PIC32MX Processor</td>
</tr>
<tr>
<td>Memory</td>
<td>128 K Flash and 32K RAM</td>
</tr>
<tr>
<td>Operating System</td>
<td>Free RTOS</td>
</tr>
<tr>
<td>SNSS</td>
<td>GPS</td>
</tr>
<tr>
<td>Positional Accuracy</td>
<td>2.5 m</td>
</tr>
<tr>
<td>Controller Unit Communication</td>
<td>433MHz Radio transceiver ~ 400m range</td>
</tr>
<tr>
<td>Status Indication LEDs</td>
<td>ON/OFF, Radio TX, GPS active</td>
</tr>
<tr>
<td>Programmable parameter</td>
<td>Vehicle ID</td>
</tr>
<tr>
<td>Supply Voltage</td>
<td>+5V DC +10% or +12V DC +10%</td>
</tr>
<tr>
<td>Temperature</td>
<td>0°C to +55°C</td>
</tr>
<tr>
<td>Relative Humidity</td>
<td>95% RH Non-condensing at +40 degree C</td>
</tr>
<tr>
<td>Mounting</td>
<td>In-Vehicle</td>
</tr>
</tbody>
</table>

**ELECTRICAL & MECHANICAL**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Voltage</td>
<td>24 V DC +/- 10%</td>
</tr>
<tr>
<td>Controller Mounting</td>
<td>Inside the Traffic controller Cabinet</td>
</tr>
<tr>
<td>Temperature</td>
<td>0°C to +55°C</td>
</tr>
<tr>
<td>Relative Humidity</td>
<td>95% RH Non-condensing at +40 degree C</td>
</tr>
</tbody>
</table>