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| --- | --- | --- | --- | --- |
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|  |  | | |  |
|  | HAVP  <<Logical Function>> | | |  |
|  |  | | |  |
| Document Type | Function Specification (FncS) | | |  |
| Template Version | **6.1a** | | |  |
| SysML Report Version | **6.1a.8** | | |  |
| Document ID | **FncS** | | |  |
| Document Location |  | | |  |
| Document Owner |  | | |  |
| Document Revision | **FncS0** | | |  |
| Document Status | **Draft** | | |  |
| Date Issued | **2022/12/01** | | |  |
| Date Revised | **2022/12/01** | | |  |
| Document Classification | GIS1 Item Number: | **27.60/35** | |  |
| GIS2 Classification: | **Confidential** | |
|  | | | | |
|  | | | | |
| Document Approval | | | | |
| Person | Role | | Email Confirmation | Date |
|  |  | |  |  |
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**Important Note**

You need to use the RE specification macros provided by the “RE\_SpecificationMacroTemplate.dotm” (refer to “Utilities” on [page “Specification Templates” in the RE Wiki](http://wiki.ford.com/display/RequirementsEngineering/Specification+templates)) to allow seamless VSEM import of the specification content. **Use only these RE specification macros to create requirements** in this specification. Refer to “[How to use the Specification Templates](http://wiki.ford.com/display/RequirementsEngineering/How+to+use+the+Specification+Templates?src=contextnavpagetreemode)” on how to enable and use the macros and the requirements templates in this specification.

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# Function Specification

## Function Overview

### Function Description

HAVP – Home-Zone Automated Valet Parking

HAVP is intended to automatically replay a previously recorded parking maneuver on private property. The maneuver will be performed at slow velocities. The user does not need to stay within line of sight in order to supervise the maneuver and can e.g. already walk into the house. During the whole maneuver, the user will be informed on the smart remote device about the vehicle’s status.

Sub-feature -- The user shall learn a park-in or park-out path by self driving, then a park-in or park-out path shall be generated for user to use. The path could be learned locally without 4G network communication. The path could be renamed or deleted.

Sub-feature -- User A could share the local path via mobile APP after uploading the local path to the Cloud.User B could use the path shared from user A by downloading the path from the Cloud.

## Function Scope

The -907929875.png **– “ HAVP”** function is called by the following functions:

* -907929875.png – “[I/O Block](#_3137adbb268d8910cbdabcca6b8443db)”

### I/O Block



Figure : Activity Diagram of -1938026353.png “I/O Block” calling -1938026353.png “ HAVP”

## Function Modeling

### Activity Diagrams

Refer to follow files for detail information.



### Sequence Diagrams

No sequence diagram associated to specified function.

### Decision Tables

*No Decision Tables found in the Magicdraw model.*

## Function Requirements

### Functional Requirements

#### Normal Operation

1 ACU\_Tx\_(Input\_Signal)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Signal\_Name** | **Detail** | **Size(bits)** | **Min.** | **Max.** | **Default(hex)** | **Invalid(hex)** | **Unit** | **Res.** | **Offset** |
| Park\_Slot\_No\_Req |  | 1 | 0 | 1 | 0 | - | - | 1 | 0 |
|  | 0x0: No Display |  |  |  |  |  |  |  |  |
|  | 0x1: Display |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| APA\_Driver\_Park\_Slot\_Res | 0x0: No\_Req | 4 | 0 | 15 | 0 | - | - | 1 | 0 |
|  | 0x1: Slot\_L1 |  |  |  |  |  |  |  |  |
|  | 0x2: Slot\_L2 |  |  |  |  |  |  |  |  |
|  | 0x3: Slot\_L3 |  |  |  |  |  |  |  |  |
|  | 0x4: Slot\_L4 |  |  |  |  |  |  |  |  |
|  | 0x5: Slot\_L5 |  |  |  |  |  |  |  |  |
|  | 0x6: Slot\_R1 |  |  |  |  |  |  |  |  |
|  | 0x7: Slot\_R2 |  |  |  |  |  |  |  |  |
|  | 0x8: Slot\_R3 |  |  |  |  |  |  |  |  |
|  | 0x9: Slot\_R4 |  |  |  |  |  |  |  |  |
|  | 0xA: Slot\_R5 |  |  |  |  |  |  |  |  |
|  | 0xB~0xF: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| APA\_Driver\_Resume\_Req |  | 1 | 0 | 1 | 0 | - | - | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Valid |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPCtrlSigSrc |  | 2 | 0 | 3 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: IHU control mode |  |  |  |  |  |  |  |  |
|  | 0x2: APP control mode |  |  |  |  |  |  |  |  |
|  | 0x3: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HAVP\_Page\_Display |  | 4 | 0 | 15 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Home Page |  |  |  |  |  |  |  |  |
|  | 0x2: Select Path Type |  |  |  |  |  |  |  |  |
|  | 0x3: Learn Path |  |  |  |  |  |  |  |  |
|  | 0x4: Set Path Name |  |  |  |  |  |  |  |  |
|  | 0x5: Save Path |  |  |  |  |  |  |  |  |
|  | 0x6: Use Path |  |  |  |  |  |  |  |  |
|  | 0x7: Match Path |  |  |  |  |  |  |  |  |
|  | 0x8: Use Path Complete |  |  |  |  |  |  |  |  |
|  | 0x9: Request Park In |  |  |  |  |  |  |  |  |
|  | 0xA: Park In |  |  |  |  |  |  |  |  |
|  | 0xB: Park In Complete |  |  |  |  |  |  |  |  |
|  | 0xC: Matters Need Attention |  |  |  |  |  |  |  |  |
|  | 0xD: Remote Control Via APP |  |  |  |  |  |  |  |  |
|  | 0xE: Reserved |  |  |  |  |  |  |  |  |
|  | 0xF: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HAVP\_Activation\_Popup |  | 6 | 0 | 63 | 0 | - | - | 1 | 0 |
|  | 0x0: No Popup |  |  |  |  |  |  |  |  |
|  | 0x1: Functional Conflict |  |  |  |  |  |  |  |  |
|  | 0x2: Speed Too High |  |  |  |  |  |  |  |  |
|  | 0x3: Not Normal Mode |  |  |  |  |  |  |  |  |
|  | 0x4: No Dynamics |  |  |  |  |  |  |  |  |
|  | 0x5: eCALL |  |  |  |  |  |  |  |  |
|  | 0x6: Mobile Control |  |  |  |  |  |  |  |  |
|  | 0x7: Under Developing |  |  |  |  |  |  |  |  |
|  | 0x8: Log In |  |  |  |  |  |  |  |  |
|  | 0x9: Authorization |  |  |  |  |  |  |  |  |
|  | 0xA: Require Exam |  |  |  |  |  |  |  |  |
|  | 0xB: Wake Up |  |  |  |  |  |  |  |  |
|  | 0xC: HAVP Failure |  |  |  |  |  |  |  |  |
|  | ….......... |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HAVP\_Learn\_Path\_Popup |  | 6 | 0 | 63 | 0 | - | - | 1 | 0 |
|  | 0x0: No text |  |  |  |  |  |  |  |  |
|  | 0x1: Front Fisheye Camera Blockage |  |  |  |  |  |  |  |  |
|  | 0x2: Rear Fisheye Camera Blockage |  |  |  |  |  |  |  |  |
|  | 0x3: Left Fisheye Camera Blockage |  |  |  |  |  |  |  |  |
|  | 0x4: Right Fisheye Camera Blockage |  |  |  |  |  |  |  |  |
|  | 0x5: Front view Camera Blockage |  |  |  |  |  |  |  |  |
|  | 0x6: Functional Conflict |  |  |  |  |  |  |  |  |
|  | 0x7: Speed Too High |  |  |  |  |  |  |  |  |
|  | 0x8: Not Normal Mode |  |  |  |  |  |  |  |  |
|  | 0x9: No Dynamics |  |  |  |  |  |  |  |  |
|  | 0xA: eCALL |  |  |  |  |  |  |  |  |
|  | 0xB: Mobile Control |  |  |  |  |  |  |  |  |
|  | 0xC: Slope Too Large |  |  |  |  |  |  |  |  |
|  | 0xD: Front USS Blockage |  |  |  |  |  |  |  |  |
|  | 0xE: Rear USS Blockage |  |  |  |  |  |  |  |  |
|  | 0xF: Wheel Stuck |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HAVP\_Learn\_Path\_Info |  | 6 | 0 | 63 | 0 | - | - | 1 | 0 |
|  | 0x0: No text |  |  |  |  |  |  |  |  |
|  | 0x1: Set path starting point |  |  |  |  |  |  |  |  |
|  | 0x2: Stop vehicle and set path starting point |  |  |  |  |  |  |  |  |
|  | 0x3: Stop vehicle and select slot |  |  |  |  |  |  |  |  |
|  | 0x4: Continue driving and search slot |  |  |  |  |  |  |  |  |
|  | 0x5=Distance limit |  |  |  |  |  |  |  |  |
|  | 0x6=Exceed learning distance limit |  |  |  |  |  |  |  |  |
|  | 0x7=Automatic parking in |  |  |  |  |  |  |  |  |
|  | 0x8=Saving path |  |  |  |  |  |  |  |  |
|  | 0x9=Learning path invalid\_Reserved |  |  |  |  |  |  |  |  |
|  | 0xA=Setting path name |  |  |  |  |  |  |  |  |
|  | 0xB=Learning path valid\_Reserved |  |  |  |  |  |  |  |  |
|  | 0xC=Select learning path type |  |  |  |  |  |  |  |  |
|  | 0xD=Learning finished |  |  |  |  |  |  |  |  |
|  | 0xE=Keep driving to ending |  |  |  |  |  |  |  |  |
|  | 0xF: Setting path ending |  |  |  |  |  |  |  |  |
|  | 0x10=Ending point invalid |  |  |  |  |  |  |  |  |
|  | 0x11=Learning path failed |  |  |  |  |  |  |  |  |
|  | 0x12=Speed higher than 15km/h |  |  |  |  |  |  |  |  |
|  | 0x13=Speed higher than 20km/h and quit |  |  |  |  |  |  |  |  |
|  | 0x14: Path starting point success |  |  |  |  |  |  |  |  |
|  | 0x15: Select slot |  |  |  |  |  |  |  |  |
|  | 0x16: Park in manually |  |  |  |  |  |  |  |  |
|  | 0x17: Setting slot as path ending |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HAVP\_Use\_Path\_Popup |  | 6 | 0 | 63 | 0 | - | - | 1 | 0 |
|  | 0x0: No text |  |  |  |  |  |  |  |  |
|  | 0x1: Front Fisheye Camera Blockage |  |  |  |  |  |  |  |  |
|  | 0x2: Rear Fisheye Camera Blockage |  |  |  |  |  |  |  |  |
|  | 0x3: Left Fisheye Camera Blockage |  |  |  |  |  |  |  |  |
|  | 0x4: Right Fisheye Camera Blockage |  |  |  |  |  |  |  |  |
|  | 0x5: Front view Camera Blockage |  |  |  |  |  |  |  |  |
|  | 0x6: Functional Conflict |  |  |  |  |  |  |  |  |
|  | 0x7: Req\_Standstill |  |  |  |  |  |  |  |  |
|  | 0x8: Not Normal Mode |  |  |  |  |  |  |  |  |
|  | 0x9: No Dynamics |  |  |  |  |  |  |  |  |
|  | 0xA: eCALL |  |  |  |  |  |  |  |  |
|  | 0xB: Mobile Control |  |  |  |  |  |  |  |  |
|  | 0xC: Slope Too Large |  |  |  |  |  |  |  |  |
|  | 0xD: Req\_Drive\_Path\_Scope |  |  |  |  |  |  |  |  |
|  | 0xE: Req\_Update\_Path |  |  |  |  |  |  |  |  |
|  | 0xF: Path Matching |  |  |  |  |  |  |  |  |
|  | 0x10: Path ending arrived |  |  |  |  |  |  |  |  |
|  | 0x11: Path Matched |  |  |  |  |  |  |  |  |
|  | 0x12: In a parking space |  |  |  |  |  |  |  |  |
|  | 0x13: Front USS Blockage |  |  |  |  |  |  |  |  |
|  | 0x14: Rear USS Blockage |  |  |  |  |  |  |  |  |
|  | 0x15: Wheel Stuck |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HAVP\_Use\_Path\_Info |  | 6 | 0 | 63 | 0 | - | - | 1 | 0 |
|  | 0x0=No text |  |  |  |  |  |  |  |  |
|  | 0x1=Req\_Close\_Door\_all doors |  |  |  |  |  |  |  |  |
|  | 0x2=Req\_Power\_On\_PTReady |  |  |  |  |  |  |  |  |
|  | 0x3: Req\_Stop\_Charging |  |  |  |  |  |  |  |  |
|  | 0x4: Req\_Gear\_P |  |  |  |  |  |  |  |  |
|  | 0x5: Req\_Drive\_Path\_Scope |  |  |  |  |  |  |  |  |
|  | 0x6: Req\_Update\_Path |  |  |  |  |  |  |  |  |
|  | 0x7=Req\_PowerOFF |  |  |  |  |  |  |  |  |
|  | 0x8: Req\_Fasten\_Safty\_belt |  |  |  |  |  |  |  |  |
|  | 0x9=Req\_Function Off |  |  |  |  |  |  |  |  |
|  | 0xA: Path Matching |  |  |  |  |  |  |  |  |
|  | 0xB: Path ending arrived |  |  |  |  |  |  |  |  |
|  | 0xC=Path Matched |  |  |  |  |  |  |  |  |
|  | 0xD: Parking In |  |  |  |  |  |  |  |  |
|  | 0xE=Parking in random lot |  |  |  |  |  |  |  |  |
|  | 0xF=communication complete |  |  |  |  |  |  |  |  |
|  | 0x10: Parking out |  |  |  |  |  |  |  |  |
|  | 0x11=Parking completed |  |  |  |  |  |  |  |  |
|  | 0x12=PT Ready failed |  |  |  |  |  |  |  |  |
|  | 0x13=Power OFF failed |  |  |  |  |  |  |  |  |
|  | 0x14=RD\_info\_Getting Off |  |  |  |  |  |  |  |  |
|  | 0x15=RD\_info\_No Person confirm |  |  |  |  |  |  |  |  |
|  | 0x16=RD\_info\_Close And Lock All |  |  |  |  |  |  |  |  |
|  | 0x17=RD\_info\_AVP Unavailable |  |  |  |  |  |  |  |  |
|  | 0x18=RD\_info\_Position unaviable |  |  |  |  |  |  |  |  |
|  | 0x19=RD\_info\_Power On failed |  |  |  |  |  |  |  |  |
|  | 0x1A=RD\_info\_EPS handshaking failed |  |  |  |  |  |  |  |  |
|  | 0x1B=RD\_info\_ESP handshaking failed |  |  |  |  |  |  |  |  |
|  | 0x1C=RD\_info\_Summon completed |  |  |  |  |  |  |  |  |
|  | 0x1D=RD\_info\_Return completed |  |  |  |  |  |  |  |  |
|  | 0x1E=RD\_info\_No Parking Lot |  |  |  |  |  |  |  |  |
|  | 0x1F=Req\_Go\_Back\_Path |  |  |  |  |  |  |  |  |
|  | 0x20: Req\_Press\_Park\_Control\_Button |  |  |  |  |  |  |  |  |
|  | 0x21=Parking space found and start parking |  |  |  |  |  |  |  |  |
|  | 0x22: In a parking space |  |  |  |  |  |  |  |  |
|  | 0x23: Req\_Release\_Brake |  |  |  |  |  |  |  |  |
|  | 0x24=Req\_Quit\_Task failed |  |  |  |  |  |  |  |  |
|  | 0x25=Req\_Main driving nobody,function is not available |  |  |  |  |  |  |  |  |
|  | 0x26=RD\_info\_GPS\_Out of range |  |  |  |  |  |  |  |  |
|  | 0x27=RD\_info\_Pick\_Up\_Position |  |  |  |  |  |  |  |  |
|  | 0x28=RD\_info\_Summon\_out |  |  |  |  |  |  |  |  |
|  | 0x29: Req\_Close\_Hood |  |  |  |  |  |  |  |  |
|  | 0x2A: Req\_Close\_Trunk |  |  |  |  |  |  |  |  |
|  | 0x2B: Req\_Close\_Left\_Front\_Door |  |  |  |  |  |  |  |  |
|  | 0x2C: Req\_Close\_Right\_Front\_Door |  |  |  |  |  |  |  |  |
|  | 0x2D: Req\_Close\_Left\_Rear\_Door |  |  |  |  |  |  |  |  |
|  | 0x2E: Req\_Close\_Right\_Rear\_Door |  |  |  |  |  |  |  |  |
|  | 0x2F: Req\_Press\_Brake |  |  |  |  |  |  |  |  |
|  | 0x30: Req\_Gear\_N |  |  |  |  |  |  |  |  |
|  | 0x31: Req\_Standstill |  |  |  |  |  |  |  |  |
|  | 0x32: Leaving\_For\_Fixed\_Park\_In\_Ending\_Point |  |  |  |  |  |  |  |  |
|  | 0x33: Turning\_Left |  |  |  |  |  |  |  |  |
|  | 0x34: Turning\_Right |  |  |  |  |  |  |  |  |
|  | 0x35: Req\_Release\_Gas\_Pedal |  |  |  |  |  |  |  |  |
|  | 0x36: Bypassing\_Control |  |  |  |  |  |  |  |  |
|  | 0x37: Target\_Slot\_Available |  |  |  |  |  |  |  |  |
|  | 0x38: Random\_Slot\_Searching |  |  |  |  |  |  |  |  |
|  | 0x39: Random\_Slot\_Found |  |  |  |  |  |  |  |  |
|  | 0x3A: Leaving\_For\_Park\_Out\_Ending\_Point |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_RecInd |  | 6 | 0 | 63 | 0 | 0 | / | 1 | 0 |
|  | 0x0=No Request |  |  |  |  |  |  |  |  |
|  | 0x1=Recover\_Press suspend button |  |  |  |  |  |  |  |  |
|  | 0x2=Recover\_Door\_Hood\_Trunk\_Closed |  |  |  |  |  |  |  |  |
|  | 0x3=Recover\_Door\_Closed |  |  |  |  |  |  |  |  |
|  | 0x4=Recover\_Remove obstacle in trajectory |  |  |  |  |  |  |  |  |
|  | 0x5=Recover\_Mobile out of range |  |  |  |  |  |  |  |  |
|  | 0x6=Recover\_\_ Close hood |  |  |  |  |  |  |  |  |
|  | 0x7=Recover\_\_Close trunk |  |  |  |  |  |  |  |  |
|  | 0x8=Recover\_\_poor Bluetooth connection |  |  |  |  |  |  |  |  |
|  | 0x9: Recover\_Fasten seat belt |  |  |  |  |  |  |  |  |
|  | 0xA: Recover\_Left front door Closed |  |  |  |  |  |  |  |  |
|  | 0xB: Recover\_Right front door Closed |  |  |  |  |  |  |  |  |
|  | 0xC: Recover\_Left rear door Closed |  |  |  |  |  |  |  |  |
|  | 0xD: Recover\_Right rear door Closed |  |  |  |  |  |  |  |  |
|  | 0xE: Recover\_poor 4G connection |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_QuitInd |  | 6 | 0 | 63 | 0 | 0 | / | 1 | 0 |
|  | 0x0=No Request ——没有请求 |  |  |  |  |  |  |  |  |
|  | 0x1=Req\_Quit\_Timing overflow ——定时超时 |  |  |  |  |  |  |  |  |
|  | 0x2=Req\_Quit\_Move times overflow—泊车超时 |  |  |  |  |  |  |  |  |
|  | 0x3=Req\_Quit\_Recover Interrupt Times Overflow——恢复中断次数超限 |  |  |  |  |  |  |  |  |
|  | 0x4=Req\_Quit\_Trajectory——偏离轨迹 |  |  |  |  |  |  |  |  |
|  | 0x5=Req\_Quit\_Space limit ——空间超限 |  |  |  |  |  |  |  |  |
|  | 0x6=Req\_Quit\_Speed high ——车速过高 |  |  |  |  |  |  |  |  |
|  | 0x7=Req\_Quit\_Gas pedal ——油门干预 |  |  |  |  |  |  |  |  |
|  | 0x8=Req\_Quit\_ADAS ——ADAS被激活 |  |  |  |  |  |  |  |  |
|  | 0x9=Req\_Quit\_TJA——TJA退出 |  |  |  |  |  |  |  |  |
|  | 0xA=Req\_Quit\_Seat belt unbuckle\_HAVP ——主驾未系安全带 |  |  |  |  |  |  |  |  |
|  | 0xB=Req\_Quit\_Door Open\_all Doors ——车门打开 |  |  |  |  |  |  |  |  |
|  | 0xC=Req\_Quit\_Luggage Door Open\_Reserved ——后背门打开 |  |  |  |  |  |  |  |  |
|  | 0xD=Req\_Quit Terminate Button Pressed HMI Cancel\_ RD\_Cancel——按下取消按钮 |  |  |  |  |  |  |  |  |
|  | 0xE=Req\_Quit\_Gear Intervention ——档位干预 |  |  |  |  |  |  |  |  |
|  | 0xF=Req\_Quit\_Gear Interrupt ——档位中断 |  |  |  |  |  |  |  |  |
|  | 0x10=Req\_Quit\_EPB\_Apply ——EPB干预 |  |  |  |  |  |  |  |  |
|  | 0x11=Req\_Quit\_Door Unlock ——车门解锁 |  |  |  |  |  |  |  |  |
|  | 0x12=Req\_Quit\_ABS actvie ——ABS激活 |  |  |  |  |  |  |  |  |
|  | 0x13: Req\_Quit\_Steering Wheel Intervention ——方向盘干预 |  |  |  |  |  |  |  |  |
|  | 0x14=Req\_Quit\_Sys\_Failure ——系统故障 |  |  |  |  |  |  |  |  |
|  | 0x15=Req\_Quit\_External ECU failure ——关联系统故障 |  |  |  |  |  |  |  |  |
|  | 0x16=Req\_Quit\_VCU failure ——VCU失效 |  |  |  |  |  |  |  |  |
|  | 0x17=Req\_Quit\_ESP failure ——ESP失效 |  |  |  |  |  |  |  |  |
|  | 0x18=Req\_Quit\_EPS failure ——EPS失效 |  |  |  |  |  |  |  |  |
|  | 0x19=Req\_Quit\_Phone\_Disconnected\_HRVP——手机未连接 |  |  |  |  |  |  |  |  |
|  | 0x1A=Req\_Quit\_No\_parkinglot\_HRVP ——没有车位 |  |  |  |  |  |  |  |  |
|  | 0x1B=Req\_Quit\_Unsafe\_Behavior ——不安全行为 |  |  |  |  |  |  |  |  |
|  | 0x1C=Req\_Quit\_TBOX\_failure ——TBOX失效 |  |  |  |  |  |  |  |  |
|  | 0x1D=Req\_Quit\_Remote Device error ——远程设备错误 |  |  |  |  |  |  |  |  |
|  | 0x1E=Req\_Quit\_Remote Device error\_VP —— |  |  |  |  |  |  |  |  |
|  | 0x1F=Req\_Quit\_Brake\_pedal ——踩刹车 |  |  |  |  |  |  |  |  |
|  | 0x20: Req\_Quit\_TCS ——TCS激活 |  |  |  |  |  |  |  |  |
|  | 0x21=Req\_Quit\_PT READY FAILED（H） ——READY失败 |  |  |  |  |  |  |  |  |
|  | 0x22=Req\_Quit\_In a parking space(H) ——在停车位里 |  |  |  |  |  |  |  |  |
|  | 0x23=Req\_Quit\_Path ending arrived （H） ——已到达终点 |  |  |  |  |  |  |  |  |
|  | 0x24: Req\_Quit\_Handshake failed ——握手失败 |  |  |  |  |  |  |  |  |
|  | 0x25: Req\_PowerOFF （H） ——断电 |  |  |  |  |  |  |  |  |
|  | 0x26=Req\_Drive\_Path\_Scope——请驾驶到学习路线区域内 |  |  |  |  |  |  |  |  |
|  | 0x27=Req\_Update\_Path.——请人工驾驶完成此任务，系统将自动跟新路线 |  |  |  |  |  |  |  |  |
|  | 0x28: Req\_Quit\_Wait time overflow-超时120s系统退出 |  |  |  |  |  |  |  |  |
|  | 0x29=Req\_Quit\_Path Match failed |  |  |  |  |  |  |  |  |
|  | 0x2A=Req\_Quit\_Driver\_Door\_Open-请关主驾车门 |  |  |  |  |  |  |  |  |
|  | 0x2B=Req\_Quit\_SteeringAngle\_Out\_of\_Limit-方向盘角度超限 |  |  |  |  |  |  |  |  |
|  | 0x2C=Req\_Quit\_Shift\_Operate\_Failed-换挡失败 |  |  |  |  |  |  |  |  |
|  | 0x2D: Req\_Quit\_Vehcle\_Charging-车辆充电 |  |  |  |  |  |  |  |  |
|  | 0x2E: Req\_Quit\_CAN\_Communication\_failure-CAN通信故障 |  |  |  |  |  |  |  |  |
|  | 0x2F: Req\_Remote\_parking\_complete\_Not\_PowerOFF |  |  |  |  |  |  |  |  |
|  | 0x30: Slope\_Too large |  |  |  |  |  |  |  |  |
|  | 0x31: Front Fisheye Camera Blockage |  |  |  |  |  |  |  |  |
|  | 0x32: Rear Fisheye Camera Blockage |  |  |  |  |  |  |  |  |
|  | 0x33: Left Fisheye Camera Blockage |  |  |  |  |  |  |  |  |
|  | 0x34: Key In Vehicle |  |  |  |  |  |  |  |  |
|  | 0x34: Right Fisheye Camera Blockage |  |  |  |  |  |  |  |  |
|  | 0x35: Front view Camera Blockage |  |  |  |  |  |  |  |  |
|  | 0x36: Front USS Blockage |  |  |  |  |  |  |  |  |
|  | 0x37: Rear USS Blockage |  |  |  |  |  |  |  |  |
|  | 0x38: Vehicle Low Battery |  |  |  |  |  |  |  |  |
|  | 0x39: TPMS System Failure |  |  |  |  |  |  |  |  |
|  | 0x3A: Tire Pressure Too Low |  |  |  |  |  |  |  |  |
|  | 0x3B: Charge Cover Open |  |  |  |  |  |  |  |  |
|  | 0x3C: Wheel Stuck |  |  |  |  |  |  |  |  |
|  | 0x3D: Lost Dynamics |  |  |  |  |  |  |  |  |
|  | 0x3E: eCALL |  |  |  |  |  |  |  |  |
|  | 0x3F: Recovery Timeout |  |  |  |  |  |  |  |  |
|  | 0x40: Fixed slot not available |  |  |  |  |  |  |  |  |
|  | 0x41: No available random slot |  |  |  |  |  |  |  |  |
|  | 0x42: Remote control out of range |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_LearningPathType1 |  | 3 | 0 | 7 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Park Out |  |  |  |  |  |  |  |  |
|  | 0x2: Fixed Park In |  |  |  |  |  |  |  |  |
|  | 0x3: Random Park In |  |  |  |  |  |  |  |  |
|  | 0x4-0x7: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_LearningPathType2 |  | 3 | 0 | 7 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Park Out |  |  |  |  |  |  |  |  |
|  | 0x2: Fixed Park In |  |  |  |  |  |  |  |  |
|  | 0x3: Random Park In |  |  |  |  |  |  |  |  |
|  | 0x4-0x7: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_LearningPathType3 |  | 3 | 0 | 7 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Park Out |  |  |  |  |  |  |  |  |
|  | 0x2: Fixed Park In |  |  |  |  |  |  |  |  |
|  | 0x3: Random Park In |  |  |  |  |  |  |  |  |
|  | 0x4-0x7: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_LearningPathType4 |  | 3 | 0 | 7 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Park Out |  |  |  |  |  |  |  |  |
|  | 0x2: Fixed Park In |  |  |  |  |  |  |  |  |
|  | 0x3: Random Park In |  |  |  |  |  |  |  |  |
|  | 0x4-0x7: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_LearningPathType5 |  | 3 | 0 | 7 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Park Out |  |  |  |  |  |  |  |  |
|  | 0x2: Fixed Park In |  |  |  |  |  |  |  |  |
|  | 0x3: Random Park In |  |  |  |  |  |  |  |  |
|  | 0x4-0x7: Reserved |  |  |  |  |  |  |  |  |
| AVP\_LearningPathType6 |  | 3 | 0 | 7 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Park Out |  |  |  |  |  |  |  |  |
|  | 0x2: Fixed Park In |  |  |  |  |  |  |  |  |
|  | 0x3: Random Park In |  |  |  |  |  |  |  |  |
|  | 0x4-0x7: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_LearningPathType7 |  | 3 | 0 | 7 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Park Out |  |  |  |  |  |  |  |  |
|  | 0x2: Fixed Park In |  |  |  |  |  |  |  |  |
|  | 0x3: Random Park In |  |  |  |  |  |  |  |  |
|  | 0x4-0x7: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_LearningPathType8 |  | 3 | 0 | 7 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Park Out |  |  |  |  |  |  |  |  |
|  | 0x2: Fixed Park In |  |  |  |  |  |  |  |  |
|  | 0x3: Random Park In |  |  |  |  |  |  |  |  |
|  | 0x4-0x7: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_LearningPathType9 |  | 3 | 0 | 7 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Park Out |  |  |  |  |  |  |  |  |
|  | 0x2: Fixed Park In |  |  |  |  |  |  |  |  |
|  | 0x3: Random Park In |  |  |  |  |  |  |  |  |
|  | 0x4-0x7: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_LearningPathType10 |  | 3 | 0 | 7 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Park Out |  |  |  |  |  |  |  |  |
|  | 0x2: Fixed Park In |  |  |  |  |  |  |  |  |
|  | 0x3: Random Park In |  |  |  |  |  |  |  |  |
|  | 0x4-0x7: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPathDst1 |  | 8 | 0 | 255 | 0 | 0 | m | 1 | 0 |
|  | 0x0-0xFF |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPathDst2 |  | 8 | 0 | 255 | 0 | 0 | m | 1 | 0 |
|  | 0x0-0xFF |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPathDst3 |  | 8 | 0 | 255 | 0 | 0 | m | 1 | 0 |
|  | 0x0-0xFF |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPathDst4 |  | 8 | 0 | 255 | 0 | 0 | m | 1 | 0 |
|  | 0x0-0xFF |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPathDst5 |  | 8 | 0 | 255 | 0 | 0 | m | 1 | 0 |
|  | 0x0-0xFF |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPathDst6 |  | 8 | 0 | 255 | 0 | 0 | m | 1 | 0 |
|  | 0x0-0xFF |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPathDst7 |  | 8 | 0 | 255 | 0 | 0 | m | 1 | 0 |
|  | 0x0-0xFF |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPathDst8 |  | 8 | 0 | 255 | 0 | 0 | m | 1 | 0 |
|  | 0x0-0xFF |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPathDst9 |  | 8 | 0 | 255 | 0 | 0 | m | 1 | 0 |
|  | 0x0-0xFF |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPathDst10 |  | 8 | 0 | 255 | 0 | 0 | m | 1 | 0 |
|  | 0x0-0xFF |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPath1Src |  | 2 | 0 | 3 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Learned |  |  |  |  |  |  |  |  |
|  | 0x2: Shared |  |  |  |  |  |  |  |  |
|  | 0x3: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPath2Src |  | 2 | 0 | 3 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Learned |  |  |  |  |  |  |  |  |
|  | 0x2: Shared |  |  |  |  |  |  |  |  |
|  | 0x3: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPath3Src |  | 2 | 0 | 3 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Learned |  |  |  |  |  |  |  |  |
|  | 0x2: Shared |  |  |  |  |  |  |  |  |
|  | 0x3: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPath4Src |  | 2 | 0 | 3 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Learned |  |  |  |  |  |  |  |  |
|  | 0x2: Shared |  |  |  |  |  |  |  |  |
|  | 0x3: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPath5Src |  | 2 | 0 | 3 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Learned |  |  |  |  |  |  |  |  |
|  | 0x2: Shared |  |  |  |  |  |  |  |  |
|  | 0x3: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPath6Src |  | 2 | 0 | 3 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Learned |  |  |  |  |  |  |  |  |
|  | 0x2: Shared |  |  |  |  |  |  |  |  |
|  | 0x3: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPath7Src |  | 2 | 0 | 3 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Learned |  |  |  |  |  |  |  |  |
|  | 0x2: Shared |  |  |  |  |  |  |  |  |
|  | 0x3: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPath8Src |  | 2 | 0 | 3 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Learned |  |  |  |  |  |  |  |  |
|  | 0x2: Shared |  |  |  |  |  |  |  |  |
|  | 0x3: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPath9Src |  | 2 | 0 | 3 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Learned |  |  |  |  |  |  |  |  |
|  | 0x2: Shared |  |  |  |  |  |  |  |  |
|  | 0x3: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPath10Src |  | 2 | 0 | 3 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Learned |  |  |  |  |  |  |  |  |
|  | 0x2: Shared |  |  |  |  |  |  |  |  |
|  | 0x3: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPathSt1 |  | 2 | 0 | 3 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Learning Complete |  |  |  |  |  |  |  |  |
|  | 0x2: Learning In Process |  |  |  |  |  |  |  |  |
|  | 0x3: Backstage Learning In Process |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPathSt2 |  | 2 | 0 | 3 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Learning Complete |  |  |  |  |  |  |  |  |
|  | 0x2: Learning In Process |  |  |  |  |  |  |  |  |
|  | 0x3: Backstage Learning In Process |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPathSt3 |  | 2 | 0 | 3 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Learning Complete |  |  |  |  |  |  |  |  |
|  | 0x2: Learning In Process |  |  |  |  |  |  |  |  |
|  | 0x3: Backstage Learning In Process |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPathSt4 |  | 2 | 0 | 3 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Learning Complete |  |  |  |  |  |  |  |  |
|  | 0x2: Learning In Process |  |  |  |  |  |  |  |  |
|  | 0x3: Backstage Learning In Process |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPathSt5 |  | 2 | 0 | 3 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Learning Complete |  |  |  |  |  |  |  |  |
|  | 0x2: Learning In Process |  |  |  |  |  |  |  |  |
|  | 0x3: Backstage Learning In Process |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPathSt6 |  | 2 | 0 | 3 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Learning Complete |  |  |  |  |  |  |  |  |
|  | 0x2: Learning In Process |  |  |  |  |  |  |  |  |
|  | 0x3: Backstage Learning In Process |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPathSt7 |  | 2 | 0 | 3 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Learning Complete |  |  |  |  |  |  |  |  |
|  | 0x2: Learning In Process |  |  |  |  |  |  |  |  |
|  | 0x3: Backstage Learning In Process |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPathSt8 |  | 2 | 0 | 3 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Learning Complete |  |  |  |  |  |  |  |  |
|  | 0x2: Learning In Process |  |  |  |  |  |  |  |  |
|  | 0x3: Backstage Learning In Process |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPathSt9 |  | 2 | 0 | 3 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Learning Complete |  |  |  |  |  |  |  |  |
|  | 0x2: Learning In Process |  |  |  |  |  |  |  |  |
|  | 0x3: Backstage Learning In Process |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPathSt10 |  | 2 | 0 | 3 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Learning Complete |  |  |  |  |  |  |  |  |
|  | 0x2: Learning In Process |  |  |  |  |  |  |  |  |
|  | 0x3: Backstage Learning In Process |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPathLearnRate1 |  | 4 | 0 | 100 | 0 | / | % | 10 | 0 |
|  | 0x0-0xA |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPathLearnRate2 |  | 4 | 0 | 100 | 0 | / | % | 10 | 0 |
|  | 0x0-0xA |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPathLearnRate3 |  | 4 | 0 | 100 | 0 | / | % | 10 | 0 |
|  | 0x0-0xA |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPathLearnRate4 |  | 4 | 0 | 100 | 0 | / | % | 10 | 0 |
|  | 0x0-0xA |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPathLearnRate5 |  | 4 | 0 | 100 | 0 | / | % | 10 | 0 |
|  | 0x0-0xA |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPathLearnRate6 |  | 4 | 0 | 100 | 0 | / | % | 10 | 0 |
|  | 0x0-0xA |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPathLearnRate7 |  | 4 | 0 | 100 | 0 | / | % | 10 | 0 |
|  | 0x0-0xA |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPathLearnRate8 |  | 4 | 0 | 100 | 0 | / | % | 10 | 0 |
|  | 0x0-0xA |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPathLearnRate9 |  | 4 | 0 | 100 | 0 | / | % | 10 | 0 |
|  | 0x0-0xA |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPPathLearnRate10 |  | 4 | 0 | 100 | 0 | / | % | 10 | 0 |
|  | 0x0-0xA |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HavpDelPathID |  | 4 | 0 | 15 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: 1 |  |  |  |  |  |  |  |  |
|  | 0x2: 2 |  |  |  |  |  |  |  |  |
|  | 0x3: 3 |  |  |  |  |  |  |  |  |
|  | 0x4: 4 |  |  |  |  |  |  |  |  |
|  | 0x5: 5 |  |  |  |  |  |  |  |  |
|  | 0x6: 6 |  |  |  |  |  |  |  |  |
|  | 0x7: 7 |  |  |  |  |  |  |  |  |
|  | 0x8: 8 |  |  |  |  |  |  |  |  |
|  | 0x9: 9 |  |  |  |  |  |  |  |  |
|  | 0xA: 10 |  |  |  |  |  |  |  |  |
|  | 0xB~0xF: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Path\_Delete\_Result |  | 2 | 0 | 3 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Success |  |  |  |  |  |  |  |  |
|  | 0x2: Failure |  |  |  |  |  |  |  |  |
|  | 0x3: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Path\_Sync\_Result |  | 2 | 0 | 3 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Success |  |  |  |  |  |  |  |  |
|  | 0x2: Failure |  |  |  |  |  |  |  |  |
|  | 0x3: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Path\_Share\_Result |  | 2 | 0 | 3 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Success |  |  |  |  |  |  |  |  |
|  | 0x2: Failure |  |  |  |  |  |  |  |  |
|  | 0x3: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPStrtgEndgPointInfo |  | 6 | 0 | 63 | 0 | 0 | / | 1 | 0 |
|  | 0x0: No text |  |  |  |  |  |  |  |  |
|  | 0x1: Insufficient brightness for PI starting |  |  |  |  |  |  |  |  |
|  | 0x2: Too empty environment for PI starting |  |  |  |  |  |  |  |  |
|  | 0x3: In parking space for PI starting |  |  |  |  |  |  |  |  |
|  | 0x4: Camera is blocked for PI starting |  |  |  |  |  |  |  |  |
|  | 0x5: Environment is abnormal for PI starting |  |  |  |  |  |  |  |  |
|  | 0x6: System error for PI starting |  |  |  |  |  |  |  |  |
|  | 0x7: Insufficient brightness for PO starting |  |  |  |  |  |  |  |  |
|  | 0x8: Too empty environment for PO starting |  |  |  |  |  |  |  |  |
|  | 0x9: Front car is too close for PO starting |  |  |  |  |  |  |  |  |
|  | 0xA: Camera is blocked for PO starting |  |  |  |  |  |  |  |  |
|  | 0xB: Environment is abnormal for PO starting |  |  |  |  |  |  |  |  |
|  | 0xC: System error for for PO starting |  |  |  |  |  |  |  |  |
|  | 0xD: Not in parking space linefor PO starting |  |  |  |  |  |  |  |  |
|  | 0xE: Insufficient brightness for PI ending |  |  |  |  |  |  |  |  |
|  | 0xF: Too empty environment for PI ending |  |  |  |  |  |  |  |  |
|  | 0x10: In positive diagonal parking space for PI ending |  |  |  |  |  |  |  |  |
|  | 0x11: Camera is blocked for PI ending |  |  |  |  |  |  |  |  |
|  | 0x12: Environment is abnormal for PI ending |  |  |  |  |  |  |  |  |
|  | 0x13: System error for PI ending |  |  |  |  |  |  |  |  |
|  | 0x14: Not in parking space line for PI ending |  |  |  |  |  |  |  |  |
|  | 0x15: Insufficient brightness for PO ending |  |  |  |  |  |  |  |  |
|  | 0x16: Too empty environment for PO ending |  |  |  |  |  |  |  |  |
|  | 0x17: In positive diagonal parking space for PO ending |  |  |  |  |  |  |  |  |
|  | 0x18: Camera is blocked for PO ending |  |  |  |  |  |  |  |  |
|  | 0x19: Environment is abnormal for PO ending |  |  |  |  |  |  |  |  |
|  | 0x1A: System error for PO ending |  |  |  |  |  |  |  |  |
|  | 0x1B: In parking space line for PO ending |  |  |  |  |  |  |  |  |
|  | 0x1C: Not supported tail out for PO ending |  |  |  |  |  |  |  |  |
|  | 0x1D: Not supported head in for PI ending |  |  |  |  |  |  |  |  |
|  | 0x1E: Ending invalid |  |  |  |  |  |  |  |  |
|  | 0x1F: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPLearningFailedInfo |  | 6 | 0 | 63 | 0 | 0 | / | 1 | 0 |
|  | 0x0: No text |  |  |  |  |  |  |  |  |
|  | 0x1: Learning time exceed 10mins |  |  |  |  |  |  |  |  |
|  | 0x2: Speed higher than 20km/h and quit |  |  |  |  |  |  |  |  |
|  | 0x3: Exceed learning distance limit |  |  |  |  |  |  |  |  |
|  | 0x4: Route overlap |  |  |  |  |  |  |  |  |
|  | 0x5: Camera is blocked |  |  |  |  |  |  |  |  |
|  | 0x6: Environment is abnormal |  |  |  |  |  |  |  |  |
|  | 0x7: Algorithm error |  |  |  |  |  |  |  |  |
|  | 0x8: Slope above limit 15% |  |  |  |  |  |  |  |  |
|  | 0x9: Need to overscan a slot |  |  |  |  |  |  |  |  |
|  | 0xA: Front Fisheye Camera Blockage |  |  |  |  |  |  |  |  |
|  | 0xB: Rear Fisheye Camera Blockage |  |  |  |  |  |  |  |  |
|  | 0xC: Left Fisheye Camera Blockage |  |  |  |  |  |  |  |  |
|  | 0xD: Right Fisheye Camera Blockage |  |  |  |  |  |  |  |  |
|  | 0xE: Front view Camera Blockage |  |  |  |  |  |  |  |  |
|  | 0xF: Functional Conflict |  |  |  |  |  |  |  |  |
|  | 0x10: Not Normal Mode |  |  |  |  |  |  |  |  |
|  | 0x11: No Dynamics |  |  |  |  |  |  |  |  |
|  | 0x12: eCALL |  |  |  |  |  |  |  |  |
|  | 0x13: Mobile Control |  |  |  |  |  |  |  |  |
|  | 0x14: Trajectory error |  |  |  |  |  |  |  |  |
|  | 0x15: Reverse too long |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPstatus |  | 4 | 0 | 15 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Off |  |  |  |  |  |  |  |  |
|  | 0x1: Standby |  |  |  |  |  |  |  |  |
|  | 0x2: Checking |  |  |  |  |  |  |  |  |
|  | 0x3: Active |  |  |  |  |  |  |  |  |
|  | 0x4: Completed |  |  |  |  |  |  |  |  |
|  | 0x5: Terminated |  |  |  |  |  |  |  |  |
|  | 0x6: Failure |  |  |  |  |  |  |  |  |
|  | 0x7: Learning path |  |  |  |  |  |  |  |  |
|  | 0x8: Disable |  |  |  |  |  |  |  |  |
|  | 0x9: Suspend |  |  |  |  |  |  |  |  |
|  | 0xA: Initialization |  |  |  |  |  |  |  |  |
|  | 0xB~0xF: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_RemainDst\_Learn\_Path |  | 8 | 0 | 255 | 0 | 0 | m | 1 | 0 |
|  | 0x0-0xFF |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Parking\_RemainDst |  | 11 | 0 | 2047 | 0 | 0 | cm | 1 | 0 |
|  | 0-2047 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Veh\_Avoid\_Time |  | 6 | 0 | 63 | 0 | 0 | / | 1 | 0 |
|  | 0x0-0xFF |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Pes\_Avoid\_Time |  | 6 | 0 | 63 | 0 | 0 | / | 1 | 0 |
|  | 0x0-0xFF |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_HAVPUseTolTime |  | 10 | 0 | 1023 | 0 | 0 | s | 1 | 0 |
|  | 0x0-0xFFF |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_RemainDst\_Use\_Path |  | 8 | 0 | 255 | 0 | 0 | m | 1 | 0 |
|  | 0x0-0xFF |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_LearningPathID1 |  | 4 | 0 | 15 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: 1 |  |  |  |  |  |  |  |  |
|  | 0x2: 2 |  |  |  |  |  |  |  |  |
|  | 0x3: 3 |  |  |  |  |  |  |  |  |
|  | 0x4: 4 |  |  |  |  |  |  |  |  |
|  | 0x5: 5 |  |  |  |  |  |  |  |  |
|  | 0x6: 6 |  |  |  |  |  |  |  |  |
|  | 0x7: 7 |  |  |  |  |  |  |  |  |
|  | 0x8: 8 |  |  |  |  |  |  |  |  |
|  | 0x9: 9 |  |  |  |  |  |  |  |  |
|  | 0xA: 10 |  |  |  |  |  |  |  |  |
|  | 0xB~0xF: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_LearningPathID2 |  | 4 | 0 | 15 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: 1 |  |  |  |  |  |  |  |  |
|  | 0x2: 2 |  |  |  |  |  |  |  |  |
|  | 0x3: 3 |  |  |  |  |  |  |  |  |
|  | 0x4: 4 |  |  |  |  |  |  |  |  |
|  | 0x5: 5 |  |  |  |  |  |  |  |  |
|  | 0x6: 6 |  |  |  |  |  |  |  |  |
|  | 0x7: 7 |  |  |  |  |  |  |  |  |
|  | 0x8: 8 |  |  |  |  |  |  |  |  |
|  | 0x9: 9 |  |  |  |  |  |  |  |  |
|  | 0xA: 10 |  |  |  |  |  |  |  |  |
|  | 0xB~0xF: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_LearningPathID3 |  | 4 | 0 | 15 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: 1 |  |  |  |  |  |  |  |  |
|  | 0x2: 2 |  |  |  |  |  |  |  |  |
|  | 0x3: 3 |  |  |  |  |  |  |  |  |
|  | 0x4: 4 |  |  |  |  |  |  |  |  |
|  | 0x5: 5 |  |  |  |  |  |  |  |  |
|  | 0x6: 6 |  |  |  |  |  |  |  |  |
|  | 0x7: 7 |  |  |  |  |  |  |  |  |
|  | 0x8: 8 |  |  |  |  |  |  |  |  |
|  | 0x9: 9 |  |  |  |  |  |  |  |  |
|  | 0xA: 10 |  |  |  |  |  |  |  |  |
|  | 0xB~0xF: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_LearningPathID4 |  | 4 | 0 | 15 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: 1 |  |  |  |  |  |  |  |  |
|  | 0x2: 2 |  |  |  |  |  |  |  |  |
|  | 0x3: 3 |  |  |  |  |  |  |  |  |
|  | 0x4: 4 |  |  |  |  |  |  |  |  |
|  | 0x5: 5 |  |  |  |  |  |  |  |  |
|  | 0x6: 6 |  |  |  |  |  |  |  |  |
|  | 0x7: 7 |  |  |  |  |  |  |  |  |
|  | 0x8: 8 |  |  |  |  |  |  |  |  |
|  | 0x9: 9 |  |  |  |  |  |  |  |  |
|  | 0xA: 10 |  |  |  |  |  |  |  |  |
|  | 0xB~0xF: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_LearningPathID5 |  | 4 | 0 | 15 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: 1 |  |  |  |  |  |  |  |  |
|  | 0x2: 2 |  |  |  |  |  |  |  |  |
|  | 0x3: 3 |  |  |  |  |  |  |  |  |
|  | 0x4: 4 |  |  |  |  |  |  |  |  |
|  | 0x5: 5 |  |  |  |  |  |  |  |  |
|  | 0x6: 6 |  |  |  |  |  |  |  |  |
|  | 0x7: 7 |  |  |  |  |  |  |  |  |
|  | 0x8: 8 |  |  |  |  |  |  |  |  |
|  | 0x9: 9 |  |  |  |  |  |  |  |  |
|  | 0xA: 10 |  |  |  |  |  |  |  |  |
|  | 0xB~0xF: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_LearningPathID6 |  | 4 | 0 | 15 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: 1 |  |  |  |  |  |  |  |  |
|  | 0x2: 2 |  |  |  |  |  |  |  |  |
|  | 0x3: 3 |  |  |  |  |  |  |  |  |
|  | 0x4: 4 |  |  |  |  |  |  |  |  |
|  | 0x5: 5 |  |  |  |  |  |  |  |  |
|  | 0x6: 6 |  |  |  |  |  |  |  |  |
|  | 0x7: 7 |  |  |  |  |  |  |  |  |
|  | 0x8: 8 |  |  |  |  |  |  |  |  |
|  | 0x9: 9 |  |  |  |  |  |  |  |  |
|  | 0xA: 10 |  |  |  |  |  |  |  |  |
|  | 0xB~0xF: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_LearningPathID7 |  | 4 | 0 | 15 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: 1 |  |  |  |  |  |  |  |  |
|  | 0x2: 2 |  |  |  |  |  |  |  |  |
|  | 0x3: 3 |  |  |  |  |  |  |  |  |
|  | 0x4: 4 |  |  |  |  |  |  |  |  |
|  | 0x5: 5 |  |  |  |  |  |  |  |  |
|  | 0x6: 6 |  |  |  |  |  |  |  |  |
|  | 0x7: 7 |  |  |  |  |  |  |  |  |
|  | 0x8: 8 |  |  |  |  |  |  |  |  |
|  | 0x9: 9 |  |  |  |  |  |  |  |  |
|  | 0xA: 10 |  |  |  |  |  |  |  |  |
|  | 0xB~0xF: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_LearningPathID8 |  | 4 | 0 | 15 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: 1 |  |  |  |  |  |  |  |  |
|  | 0x2: 2 |  |  |  |  |  |  |  |  |
|  | 0x3: 3 |  |  |  |  |  |  |  |  |
|  | 0x4: 4 |  |  |  |  |  |  |  |  |
|  | 0x5: 5 |  |  |  |  |  |  |  |  |
|  | 0x6: 6 |  |  |  |  |  |  |  |  |
|  | 0x7: 7 |  |  |  |  |  |  |  |  |
|  | 0x8: 8 |  |  |  |  |  |  |  |  |
|  | 0x9: 9 |  |  |  |  |  |  |  |  |
|  | 0xA: 10 |  |  |  |  |  |  |  |  |
|  | 0xB~0xF: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_LearningPathID9 |  | 4 | 0 | 15 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: 1 |  |  |  |  |  |  |  |  |
|  | 0x2: 2 |  |  |  |  |  |  |  |  |
|  | 0x3: 3 |  |  |  |  |  |  |  |  |
|  | 0x4: 4 |  |  |  |  |  |  |  |  |
|  | 0x5: 5 |  |  |  |  |  |  |  |  |
|  | 0x6: 6 |  |  |  |  |  |  |  |  |
|  | 0x7: 7 |  |  |  |  |  |  |  |  |
|  | 0x8: 8 |  |  |  |  |  |  |  |  |
|  | 0x9: 9 |  |  |  |  |  |  |  |  |
|  | 0xA: 10 |  |  |  |  |  |  |  |  |
|  | 0xB~0xF: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_LearningPathID10 |  | 4 | 0 | 15 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: 1 |  |  |  |  |  |  |  |  |
|  | 0x2: 2 |  |  |  |  |  |  |  |  |
|  | 0x3: 3 |  |  |  |  |  |  |  |  |
|  | 0x4: 4 |  |  |  |  |  |  |  |  |
|  | 0x5: 5 |  |  |  |  |  |  |  |  |
|  | 0x6: 6 |  |  |  |  |  |  |  |  |
|  | 0x7: 7 |  |  |  |  |  |  |  |  |
|  | 0x8: 8 |  |  |  |  |  |  |  |  |
|  | 0x9: 9 |  |  |  |  |  |  |  |  |
|  | 0xA: 10 |  |  |  |  |  |  |  |  |
|  | 0xB~0xF: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Geo\_Fence\_Path1 |  | 1 | 0 | 1 | 0 | - | - | 1 | 0 |
|  | 0x0: No |  |  |  |  |  |  |  |  |
|  | 0x1: Yes |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Geo\_Fence\_Path2 |  | 1 | 0 | 1 | 0 | - | - | 1 | 0 |
|  | 0x0: No |  |  |  |  |  |  |  |  |
|  | 0x1: Yes |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Geo\_Fence\_Path3 |  | 1 | 0 | 1 | 0 | - | - | 1 | 0 |
|  | 0x0: No |  |  |  |  |  |  |  |  |
|  | 0x1: Yes |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Geo\_Fence\_Path4 |  | 1 | 0 | 1 | 0 | - | - | 1 | 0 |
|  | 0x0: No |  |  |  |  |  |  |  |  |
|  | 0x1: Yes |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Geo\_Fence\_Path5 |  | 1 | 0 | 1 | 0 | - | - | 1 | 0 |
|  | 0x0: No |  |  |  |  |  |  |  |  |
|  | 0x1: Yes |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Geo\_Fence\_Path6 |  | 1 | 0 | 1 | 0 | - | - | 1 | 0 |
|  | 0x0: No |  |  |  |  |  |  |  |  |
|  | 0x1: Yes |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Geo\_Fence\_Path7 |  | 1 | 0 | 1 | 0 | - | - | 1 | 0 |
|  | 0x0: No |  |  |  |  |  |  |  |  |
|  | 0x1: Yes |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Geo\_Fence\_Path8 |  | 1 | 0 | 1 | 0 | - | - | 1 | 0 |
|  | 0x0: No |  |  |  |  |  |  |  |  |
|  | 0x1: Yes |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Geo\_Fence\_Path9 |  | 1 | 0 | 1 | 0 | - | - | 1 | 0 |
|  | 0x0: No |  |  |  |  |  |  |  |  |
|  | 0x1: Yes |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Geo\_Fence\_Path10 |  | 1 | 0 | 1 | 0 | - | - | 1 | 0 |
|  | 0x0: No |  |  |  |  |  |  |  |  |
|  | 0x1: Yes |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_LearningUniqueID1 |  | 8 | 0 | 255 | 0 | 0 | / | 1 | 0 |
|  | 0x0-0xFF |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_LearningUniqueID2 |  | 8 | 0 | 255 | 0 | 0 | / | 1 | 0 |
|  | 0x0-0xFF |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_LearningUniqueID3 |  | 8 | 0 | 255 | 0 | 0 | / | 1 | 0 |
|  | 0x0-0xFF |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_LearningUniqueID4 |  | 8 | 0 | 255 | 0 | 0 | / | 1 | 0 |
|  | 0x0-0xFF |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_LearningUniqueID5 |  | 8 | 0 | 255 | 0 | 0 | / | 1 | 0 |
|  | 0x0-0xFF |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_LearningUniqueID6 |  | 8 | 0 | 255 | 0 | 0 | / | 1 | 0 |
|  | 0x0-0xFF |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_LearningUniqueID7 |  | 8 | 0 | 255 | 0 | 0 | / | 1 | 0 |
|  | 0x0-0xFF |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_LearningUniqueID8 |  | 8 | 0 | 255 | 0 | 0 | / | 1 | 0 |
|  | 0x0-0xFF |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_LearningUniqueID9 |  | 8 | 0 | 255 | 0 | 0 | / | 1 | 0 |
|  | 0x0-0xFF |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| AVP\_LearningUniqueID10 |  | 8 | 0 | 255 | 0 | 0 | / | 1 | 0 |
|  | 0x0-0xFF |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HAVP\_Active\_Push\_Req |  | 1 | 0 | 1 | 0 | - | - | 1 | 0 |
|  | 0x0: No Display |  |  |  |  |  |  |  |  |
|  | 0x1: Display |  |  |  |  |  |  |  |  |

Satisfied by:

* Functions:
  + HAVP

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: 1 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

2 ACU\_Tx\_(Input\_Signal) (SOA\_Message)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Message\_Name** | **Signal\_Name** | **Detail** | **Min.** | **Max.** | **Unit** | **period of trans.** |
| Obstacle |  |  |  |  |  |  |
|  | Obstacle\_id | int32 | / | / | / | 20Hz |
|  | Obstacle\_timestamp | uint64 | / | / | us |  |
|  | Obstable\_type | enum | 0 | 2 | / | 20Hz |
|  | speed\_heading | double | -π | +π | rad | 20Hz |
|  | bounding\_box | BoundingBox | / | / |  | 20Hz |
|  |  |  |  |  |  |  |
| Bounding Box |  |  |  |  |  |  |
|  | left\_front | Point | / | / | m | 20Hz |
|  | right\_front | Point | / | / | m | 20Hz |
|  | left\_back | Point | / | / | m | 20Hz |
|  | right\_back | Point | / | / | m | 20Hz |
|  |  |  |  |  |  |  |
| Planing |  |  |  |  |  |  |
|  | Planing\_trajectory | Point | / | / | / | 20Hz |
|  | Planing\_trajectoryDir | double | / | / | / | 20Hz |
|  |  |  |  |  |  |  |
| ParkingSpaceInfo |  |  |  |  |  |  |
|  | bounding\_point | Point | / | / | / | 20Hz |
|  | parkspace\_type | enum | / | / | / | 20Hz |
|  | parking\_lot\_status | enum | / | / | / | 20Hz |
|  | XXXXXXXXXX | enum |  |  |  | 20Hz |
|  | ParkingSpaceInfo\_id | int32 | / | / | / | 20Hz |
|  |  |  |  |  |  |  |
| CurrentPositionCar |  |  |  |  |  |  |
|  | current\_pose | Pose | / | / | / | 20Hz |
|  |  |  |  |  |  |  |
| Pose | point | Point | / | / | / | 20Hz |
|  | euler\_ypr | Euler | / | / | / | 20Hz |
|  | Pose\_timestamp | double | / | / | / | 20Hz |
|  |  |  |  |  |  |  |
| GeneralInformation |  |  |  |  |  |  |
|  | GeneralInoformation\_id | string |  |  |  |  |
|  |  |  |  |  |  |  |
| roads |  |  |  |  |  |  |
|  | roads\_id | string |  |  |  |  |
|  | roads\_type | int |  |  |  |  |
|  | roads\_geometry | array<Point> |  |  |  |  |
|  |  |  |  |  |  |  |
| roadmarks |  |  |  |  |  |  |
|  | roadmarks\_id | string |  |  |  |  |
|  | roadmarks\_type | int |  |  |  |  |
|  | roadmarks\_geometry | array<Point> |  |  |  |  |
|  | roadmarks\_indices | array<int> |  |  |  |  |
|  |  |  |  |  |  |  |
| bndboxs |  |  |  |  |  |  |
|  | bandboxs\_id | string |  |  |  |  |
|  | bndboxs\_type | string |  |  |  |  |
|  | bndboxs\_geometry | array<Point> |  |  |  |  |
|  | bndboxs\_indices | array<int> |  |  |  |  |
|  |  |  |  |  |  |  |
| regions |  |  |  |  |  |  |
|  | regions\_id | string |  |  |  |  |
|  | regions\_type | int |  |  |  |  |
|  | regions\_geometry | array<Point> |  |  |  |  |
|  | regions\_indices | array<int> |  |  |  |  |
|  |  |  |  |  |  |  |
| end\_information |  |  |  |  |  |  |
|  | end\_point | array<Point> |  |  |  |  |
|  | end\_park | string |  |  |  |  |
|  |  |  |  |  |  |  |
| Backtrack\_Route\_Information |  |  |  |  |  |  |
|  | Backtrack\_trajectory | Point | / | / | / | 20Hz |
|  | Backtrack\_trajectoryDir | double | / | / | / | 20Hz |
|  | trajectory-backtrack | Point | / | / | / | 20Hz |

Satisfied by:

* Functions:
  + HAVP

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: 2 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

3 IVI\_Tx\_(Output\_Signal)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Signal\_Name** | **Detail** | **Size(bits)** | **Min.** | **Max.** | **Default(hex)** | **Invalid(hex)** | **Unit** | **Res.** | **Offset** |
| HAVP\_VoiceActivationButton |  | 1 | 0 | 1 | 0x0 | / | - | 1 | 0 |
|  | 0x0: No request |  |  |  |  |  |  |  |  |
|  | 0x1: ON |  |  |  |  |  |  |  |  |
|  | 0x2: OFF |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Parking\_Exit\_Button |  | 1 | 0 | 1 | 0x0 | / | - | 1 | 0 |
|  | 0x0: No pressed |  |  |  |  |  |  |  |  |
|  | 0x1: Pressed |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HU\_Driver\_Park\_Slot\_Req |  | 4 | 0 | 15 | 0 | - | - | 1 | 0 |
|  | 0x0: No\_Req |  |  |  |  |  |  |  |  |
|  | 0x1: Slot\_L1 |  |  |  |  |  |  |  |  |
|  | 0x2: Slot\_L2 |  |  |  |  |  |  |  |  |
|  | 0x3: Slot\_L3 |  |  |  |  |  |  |  |  |
|  | 0x4: Slot\_L4 |  |  |  |  |  |  |  |  |
|  | 0x5: Slot\_L5 |  |  |  |  |  |  |  |  |
|  | 0x6: Slot\_R1 |  |  |  |  |  |  |  |  |
|  | 0x7: Slot\_R2 |  |  |  |  |  |  |  |  |
|  | 0x8: Slot\_R3 |  |  |  |  |  |  |  |  |
|  | 0x9: Slot\_R4 |  |  |  |  |  |  |  |  |
|  | 0xA: Slot\_R5 |  |  |  |  |  |  |  |  |
|  | 0xB~0xF: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HU\_Resume\_Req |  | 1 | 0 | 1 | 0x0 | / | - | 1 | 0 |
|  | 0x0: No Pressed |  |  |  |  |  |  |  |  |
|  | 0x1: Pressed |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HU\_HAVP\_Activation\_Flag |  | 1 | 0 | 1 | 0x0 | / | / | 1 | 0 |
|  | 0x0: Unactivated |  |  |  |  |  |  |  |  |
|  | 0x1: Activated |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HU\_HAVP\_SoftButton |  | 1 | 0 | 1 | 0x0 | / | / | 1 | 0 |
|  | 0x0: No pressed |  |  |  |  |  |  |  |  |
|  | 0x1: Pressed |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HU\_HAVPSetPathLearn |  | 1 | 0 | 1 | 0x0 | / | / | 1 | 0 |
|  | 0x0: No pressed |  |  |  |  |  |  |  |  |
|  | 0x1: Pressed |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HU\_HAVPLearningTypeSele |  | 3 | 0 | 7 | 0x0 | / | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Park Out |  |  |  |  |  |  |  |  |
|  | 0x2: Fixed Park In |  |  |  |  |  |  |  |  |
|  | 0x3: Random Park In |  |  |  |  |  |  |  |  |
|  | 0x4-0x7: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HU\_HAVPSetStarting |  | 1 | 0 | 1 | 0x0 | / | / | 1 | 0 |
|  | 0x0: No pressed |  |  |  |  |  |  |  |  |
|  | 0x1: Pressed |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HU\_HAVPSetPathEndingSlot |  | 3 | 0 | 7 | 0x0 | 0x0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: 1 |  |  |  |  |  |  |  |  |
|  | 0x2: 2 |  |  |  |  |  |  |  |  |
|  | 0x3: 3 |  |  |  |  |  |  |  |  |
|  | 0x4: 4 |  |  |  |  |  |  |  |  |
|  | 0x5: 5 |  |  |  |  |  |  |  |  |
|  | 0x6: 6 |  |  |  |  |  |  |  |  |
|  | 0x7: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HU\_HAVPSetPathEnding |  | 1 | 0 | 1 | 0x0 | / | / | 1 | 0 |
|  | 0x0: No pressed |  |  |  |  |  |  |  |  |
|  | 0x1: Pressed |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HU\_HAVPSetSlotPathEnding |  | 1 | 0 | 1 | 0x0 | / | / | 1 | 0 |
|  | 0x0: No pressed |  |  |  |  |  |  |  |  |
|  | 0x1: Pressed |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HU\_HAVPRequestParkIn |  | 1 | 0 | 1 | 0x0 | / | / | 1 | 0 |
|  | 0x0: No pressed |  |  |  |  |  |  |  |  |
|  | 0x1: Pressed |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HU\_HAVPPathDelete |  | 4 | 0 | 15 | 0x0 | 0x0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: 1 |  |  |  |  |  |  |  |  |
|  | 0x2: 2 |  |  |  |  |  |  |  |  |
|  | 0x3: 3 |  |  |  |  |  |  |  |  |
|  | 0x4: 4 |  |  |  |  |  |  |  |  |
|  | 0x5: 5 |  |  |  |  |  |  |  |  |
|  | 0x6: 6 |  |  |  |  |  |  |  |  |
|  | 0x7: 7 |  |  |  |  |  |  |  |  |
|  | 0x8: 8 |  |  |  |  |  |  |  |  |
|  | 0x9: 9 |  |  |  |  |  |  |  |  |
|  | 0xA: 10 |  |  |  |  |  |  |  |  |
|  | 0xB~0xF: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HU\_HAVPPathSelect |  | 4 | 0 | 15 | 0x0 | 0x0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: 1 |  |  |  |  |  |  |  |  |
|  | 0x2: 2 |  |  |  |  |  |  |  |  |
|  | 0x3: 3 |  |  |  |  |  |  |  |  |
|  | 0x4: 4 |  |  |  |  |  |  |  |  |
|  | 0x5: 5 |  |  |  |  |  |  |  |  |
|  | 0x6: 6 |  |  |  |  |  |  |  |  |
|  | 0x7: 7 |  |  |  |  |  |  |  |  |
|  | 0x8: 8 |  |  |  |  |  |  |  |  |
|  | 0x9: 9 |  |  |  |  |  |  |  |  |
|  | 0xA: 10 |  |  |  |  |  |  |  |  |
|  | 0xB~0xF: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HAVP\_Park\_Control\_Req |  | 1 | 0 | 1 | 0 | - | - | 1 | 0 |
|  | 0x0: No pressed |  |  |  |  |  |  |  |  |
|  | 0x1: Pressed |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HU\_LearningPathNum1 |  | 4 | 0 | 15 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: 1 |  |  |  |  |  |  |  |  |
|  | 0x2: 2 |  |  |  |  |  |  |  |  |
|  | 0x3: 3 |  |  |  |  |  |  |  |  |
|  | 0x4: 4 |  |  |  |  |  |  |  |  |
|  | 0x5: 5 |  |  |  |  |  |  |  |  |
|  | 0x6: 6 |  |  |  |  |  |  |  |  |
|  | 0x7: 7 |  |  |  |  |  |  |  |  |
|  | 0x8: 8 |  |  |  |  |  |  |  |  |
|  | 0x9: 9 |  |  |  |  |  |  |  |  |
|  | 0xA: 10 |  |  |  |  |  |  |  |  |
|  | 0xB~0xF: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HU\_LearningPathNum2 |  | 4 | 0 | 15 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: 1 |  |  |  |  |  |  |  |  |
|  | 0x2: 2 |  |  |  |  |  |  |  |  |
|  | 0x3: 3 |  |  |  |  |  |  |  |  |
|  | 0x4: 4 |  |  |  |  |  |  |  |  |
|  | 0x5: 5 |  |  |  |  |  |  |  |  |
|  | 0x6: 6 |  |  |  |  |  |  |  |  |
|  | 0x7: 7 |  |  |  |  |  |  |  |  |
|  | 0x8: 8 |  |  |  |  |  |  |  |  |
|  | 0x9: 9 |  |  |  |  |  |  |  |  |
|  | 0xA: 10 |  |  |  |  |  |  |  |  |
|  | 0xB~0xF: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HU\_LearningPathNum3 |  | 4 | 0 | 15 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: 1 |  |  |  |  |  |  |  |  |
|  | 0x2: 2 |  |  |  |  |  |  |  |  |
|  | 0x3: 3 |  |  |  |  |  |  |  |  |
|  | 0x4: 4 |  |  |  |  |  |  |  |  |
|  | 0x5: 5 |  |  |  |  |  |  |  |  |
|  | 0x6: 6 |  |  |  |  |  |  |  |  |
|  | 0x7: 7 |  |  |  |  |  |  |  |  |
|  | 0x8: 8 |  |  |  |  |  |  |  |  |
|  | 0x9: 9 |  |  |  |  |  |  |  |  |
|  | 0xA: 10 |  |  |  |  |  |  |  |  |
|  | 0xB~0xF: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HU\_LearningPathNum4 |  | 4 | 0 | 15 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: 1 |  |  |  |  |  |  |  |  |
|  | 0x2: 2 |  |  |  |  |  |  |  |  |
|  | 0x3: 3 |  |  |  |  |  |  |  |  |
|  | 0x4: 4 |  |  |  |  |  |  |  |  |
|  | 0x5: 5 |  |  |  |  |  |  |  |  |
|  | 0x6: 6 |  |  |  |  |  |  |  |  |
|  | 0x7: 7 |  |  |  |  |  |  |  |  |
|  | 0x8: 8 |  |  |  |  |  |  |  |  |
|  | 0x9: 9 |  |  |  |  |  |  |  |  |
|  | 0xA: 10 |  |  |  |  |  |  |  |  |
|  | 0xB~0xF: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HU\_LearningPathNum5 |  | 4 | 0 | 15 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: 1 |  |  |  |  |  |  |  |  |
|  | 0x2: 2 |  |  |  |  |  |  |  |  |
|  | 0x3: 3 |  |  |  |  |  |  |  |  |
|  | 0x4: 4 |  |  |  |  |  |  |  |  |
|  | 0x5: 5 |  |  |  |  |  |  |  |  |
|  | 0x6: 6 |  |  |  |  |  |  |  |  |
|  | 0x7: 7 |  |  |  |  |  |  |  |  |
|  | 0x8: 8 |  |  |  |  |  |  |  |  |
|  | 0x9: 9 |  |  |  |  |  |  |  |  |
|  | 0xA: 10 |  |  |  |  |  |  |  |  |
|  | 0xB~0xF: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HU\_LearningPathNum6 |  | 4 | 0 | 15 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: 1 |  |  |  |  |  |  |  |  |
|  | 0x2: 2 |  |  |  |  |  |  |  |  |
|  | 0x3: 3 |  |  |  |  |  |  |  |  |
|  | 0x4: 4 |  |  |  |  |  |  |  |  |
|  | 0x5: 5 |  |  |  |  |  |  |  |  |
|  | 0x6: 6 |  |  |  |  |  |  |  |  |
|  | 0x7: 7 |  |  |  |  |  |  |  |  |
|  | 0x8: 8 |  |  |  |  |  |  |  |  |
|  | 0x9: 9 |  |  |  |  |  |  |  |  |
|  | 0xA: 10 |  |  |  |  |  |  |  |  |
|  | 0xB~0xF: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HU\_LearningPathNum7 |  | 4 | 0 | 15 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: 1 |  |  |  |  |  |  |  |  |
|  | 0x2: 2 |  |  |  |  |  |  |  |  |
|  | 0x3: 3 |  |  |  |  |  |  |  |  |
|  | 0x4: 4 |  |  |  |  |  |  |  |  |
|  | 0x5: 5 |  |  |  |  |  |  |  |  |
|  | 0x6: 6 |  |  |  |  |  |  |  |  |
|  | 0x7: 7 |  |  |  |  |  |  |  |  |
|  | 0x8: 8 |  |  |  |  |  |  |  |  |
|  | 0x9: 9 |  |  |  |  |  |  |  |  |
|  | 0xA: 10 |  |  |  |  |  |  |  |  |
|  | 0xB~0xF: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HU\_LearningPathNum8 |  | 4 | 0 | 15 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: 1 |  |  |  |  |  |  |  |  |
|  | 0x2: 2 |  |  |  |  |  |  |  |  |
|  | 0x3: 3 |  |  |  |  |  |  |  |  |
|  | 0x4: 4 |  |  |  |  |  |  |  |  |
|  | 0x5: 5 |  |  |  |  |  |  |  |  |
|  | 0x6: 6 |  |  |  |  |  |  |  |  |
|  | 0x7: 7 |  |  |  |  |  |  |  |  |
|  | 0x8: 8 |  |  |  |  |  |  |  |  |
|  | 0x9: 9 |  |  |  |  |  |  |  |  |
|  | 0xA: 10 |  |  |  |  |  |  |  |  |
|  | 0xB~0xF: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HU\_LearningPathNum9 |  | 4 | 0 | 15 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: 1 |  |  |  |  |  |  |  |  |
|  | 0x2: 2 |  |  |  |  |  |  |  |  |
|  | 0x3: 3 |  |  |  |  |  |  |  |  |
|  | 0x4: 4 |  |  |  |  |  |  |  |  |
|  | 0x5: 5 |  |  |  |  |  |  |  |  |
|  | 0x6: 6 |  |  |  |  |  |  |  |  |
|  | 0x7: 7 |  |  |  |  |  |  |  |  |
|  | 0x8: 8 |  |  |  |  |  |  |  |  |
|  | 0x9: 9 |  |  |  |  |  |  |  |  |
|  | 0xA: 10 |  |  |  |  |  |  |  |  |
|  | 0xB~0xF: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HU\_LearningPathNum10 |  | 4 | 0 | 15 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: 1 |  |  |  |  |  |  |  |  |
|  | 0x2: 2 |  |  |  |  |  |  |  |  |
|  | 0x3: 3 |  |  |  |  |  |  |  |  |
|  | 0x4: 4 |  |  |  |  |  |  |  |  |
|  | 0x5: 5 |  |  |  |  |  |  |  |  |
|  | 0x6: 6 |  |  |  |  |  |  |  |  |
|  | 0x7: 7 |  |  |  |  |  |  |  |  |
|  | 0x8: 8 |  |  |  |  |  |  |  |  |
|  | 0x9: 9 |  |  |  |  |  |  |  |  |
|  | 0xA: 10 |  |  |  |  |  |  |  |  |
|  | 0xB~0xF: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| ECG\_HAVPPathSelect |  | 4 | 0 | 15 | 0x0 | 0x0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: 1 |  |  |  |  |  |  |  |  |
|  | 0x2: 2 |  |  |  |  |  |  |  |  |
|  | 0x3: 3 |  |  |  |  |  |  |  |  |
|  | 0x4: 4 |  |  |  |  |  |  |  |  |
|  | 0x5: 5 |  |  |  |  |  |  |  |  |
|  | 0x6: 6 |  |  |  |  |  |  |  |  |
|  | 0x7: 7 |  |  |  |  |  |  |  |  |
|  | 0x8: 8 |  |  |  |  |  |  |  |  |
|  | 0x9: 9 |  |  |  |  |  |  |  |  |
|  | 0xA: 10 |  |  |  |  |  |  |  |  |
|  | 0xB~0xF: Reserved |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HU\_HAVP\_Active\_Push\_Req |  | 1 | 0 | 1 | 0 | - | - | 1 | 0 |
|  | 0x0: No pressed |  |  |  |  |  |  |  |  |
|  | 0x1: Pressed |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HU\_HAVP\_Parking\_Assist\_Req |  | 1 | 0 | 1 | 0 | - | - | 1 | 0 |
|  | 0x0: No pressed |  |  |  |  |  |  |  |  |
|  | 0x1: Pressed |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HU\_HAVP\_APA\_Req |  | 1 | 0 | 1 | 0 | - | - | 1 | 0 |
|  | 0x0: No pressed |  |  |  |  |  |  |  |  |
|  | 0x1: Pressed |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HU\_SetStarting\_Btn\_Sts |  | 2 | 0 | 3 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Activated |  |  |  |  |  |  |  |  |
|  | 0x2: Deactivated |  |  |  |  |  |  |  |  |
|  | 0x3: Recommand |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HU\_SetPathEnding\_Btn\_Sts |  | 2 | 0 | 3 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Activated |  |  |  |  |  |  |  |  |
|  | 0x2: Deactivated |  |  |  |  |  |  |  |  |
|  | 0x3: Recommand |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| HU\_Park\_Control\_Btn\_Sts |  | 2 | 0 | 3 | 0 | 0 | / | 1 | 0 |
|  | 0x0: Invalid |  |  |  |  |  |  |  |  |
|  | 0x1: Activated |  |  |  |  |  |  |  |  |
|  | 0x2: Deactivated |  |  |  |  |  |  |  |  |
|  | 0x3: Recommand |  |  |  |  |  |  |  |  |

4 State Matrix for HAVP\_Readiness\_X\_Status\_Flag

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **+** | **HAVP\_Cfg** | **HAVP\_Activation\_Popup** | **HAVP\_Readiness\_1\_Status\_Flag** | **HAVP\_Readiness\_2\_Status\_Flag** | **HAVP\_Readiness\_3\_Status\_Flag** | **HAVP\_Readiness\_4\_Status\_Flag** | **HAVP\_Readiness\_5\_Status\_Flag** | **HAVP\_Readiness\_6\_Status\_Flag** | **HAVP\_Readiness\_7\_Status\_Flag** | **HAVP\_Readiness\_8\_Status\_Flag** | **HAVP\_Readiness\_9\_Status\_Flag** | **HAVP\_Readiness\_10\_Status\_Flag** | **HAVP\_Readiness\_11\_Status\_Flag** | **HAVP\_Readiness\_12\_Status\_Flag** | **HAVP\_Readiness\_13\_Status\_Flag** | **HAVP\_Readiness\_14\_Status\_Flag** |
|
| Normal | Enabled | 0x1 | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x2 | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x3 | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x4 | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x5 | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x6 | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x7 | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x8 | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x9 | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina |
| 0xA | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina |
| 0xB | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina |
| 0xC | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina |
| 0xD | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina |
| Other Cases | | | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **Ina** |

5 HAVP Readiness popup MC Status Flags to MC Message and Active Chime

|  |  |  |  |
| --- | --- | --- | --- |
| **Message ID** | **Description of ReadinessPopup** | **Active MC\_Status\_Flag** | **Active Chime\_Status\_Flag** |
| Mxxxx | Functional Conflict | HAVP\_Readiness\_1\_Status\_Flag | No Chime |
| Mxxxx | Speed Too High | HAVP\_Readiness\_2\_Status\_Flag | No Chime |
| Mxxxx | Not Normal Mode | HAVP\_Readiness\_3\_Status\_Flag | No Chime |
| Mxxxx | No Dynamics | HAVP\_Readiness\_4\_Status\_Flag | No Chime |
| Mxxxx | eCALL | HAVP\_Readiness\_5\_Status\_Flag | No Chime |
| Mxxxx | Mobile Control | HAVP\_Readiness\_6\_Status\_Flag | No Chime |
| Mxxxx | Under Developing | HAVP\_Readiness\_7\_Status\_Flag | No Chime |
| Mxxxx | Log In | HAVP\_Readiness\_8\_Status\_Flag | No Chime |
| Mxxxx | Authorization | HAVP\_Readiness\_9\_Status\_Flag | No Chime |
| Mxxxx | Require Exam | HAVP\_Readiness\_10\_Status\_Flag | No Chime |
| Mxxxx | Wake Up | HAVP\_Readiness\_11\_Status\_Flag | No Chime |
| Mxxxx | HAVP Failure | HAVP\_Readiness\_12\_Status\_Flag | No Chime |
| Mxxxx | ACU Updating | HAVP\_Readiness\_13\_Status\_Flag | No Chime |

6 State Matrix for HAVP\_LearnParth\_X\_Status\_Flag

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Operational\_ Mode** | **HAVP\_Cfg** | **HAVP\_Learn\_Path\_Popup** | **HAVP\_Learn\_Path\_1\_Status\_Flag** | **HAVP\_Learn\_Path\_2\_Status\_Flag** | **HAVP\_Learn\_Path\_3\_Status\_Flag** | **HAVP\_Learn\_Path\_4\_Status\_Flag** | **HAVP\_Learn\_Path\_5\_Status\_Flag** | **HAVP\_Learn\_Path\_6\_Status\_Flag** | **HAVP\_Learn\_Path\_7\_Status\_Flag** | **HAVP\_Learn\_Path\_8\_Status\_Flag** | **HAVP\_Learn\_Path\_9\_Status\_Flag** | **HAVP\_Learn\_Path\_10\_Status\_Flag** | **HAVP\_Learn\_Path\_11\_Status\_Flag** | **HAVP\_Learn\_Path\_12\_Status\_Flag** | **HAVP\_Learn\_Path\_13\_Status\_Flag** | **HAVP\_Learn\_Path\_14\_Status\_Flag** | **HAVP\_Learn\_Path\_15\_Status\_Flag** | **HAVP\_Learn\_Path\_16\_Status\_Flag** |
|
| Normal | Enabled | 0x1 | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
|  | 0x2 | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
|  | 0x3 | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
|  | 0x4 | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
|  | 0x5 | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
|  | 0x6 | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
|  | 0x7 | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
|  | 0x8 | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
|  | 0x9 | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
|  | 0xA | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina |
|  | 0xB | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina |
|  | 0xC | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina |
|  | 0xD | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina |
|  | 0xE | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina |
|  | 0xF | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina |
| Other Cases | | | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **Ina** |

7 HAVP LearnParth popup MC Status Flags to MC Message and Active Chime

|  |  |  |  |
| --- | --- | --- | --- |
| **Message ID** | **Description of LearnPath Popup** | **Active MC\_Status\_Flag** | **Active Chime\_Status\_Flag** |
| Mxxxx | Front Fisheye Camera Blockage | HAVP\_LearnParth\_1\_Status\_Flag | No Chime |
| Mxxxx | Rear Fisheye Camera Blockage | HAVP\_LearnParth\_2\_Status\_Flag | No Chime |
| Mxxxx | Left Fisheye Camera Blockage | HAVP\_LearnParth\_3\_Status\_Flag | No Chime |
| Mxxxx | Right Fisheye Camera Blockage | HAVP\_LearnParth\_4\_Status\_Flag | No Chime |
| Mxxxx | Front view Camera Blockage | HAVP\_LearnParth\_5\_Status\_Flag | No Chime |
| Mxxxx | Functional Conflict | HAVP\_LearnParth\_6\_Status\_Flag | No Chime |
| Mxxxx | Speed Too High | HAVP\_LearnParth\_7\_Status\_Flag | No Chime |
| Mxxxx | Not Normal Mode | HAVP\_LearnParth\_8\_Status\_Flag | No Chime |
| Mxxxx | No Dynamics | HAVP\_LearnParth\_9\_Status\_Flag | No Chime |
| Mxxxx | eCALL | HAVP\_LearnParth\_10\_Status\_Flag | No Chime |
| Mxxxx | Mobile Control | HAVP\_LearnParth\_11\_Status\_Flag | No Chime |
| Mxxxx | Slope Too Large | HAVP\_LearnParth\_12\_Status\_Flag | No Chime |
| Mxxxx | Front USS Blockage | HAVP\_LearnParth\_13\_Status\_Flag | No Chime |
| Mxxxx | Rear USS Blockage | HAVP\_LearnParth\_14\_Status\_Flag | No Chime |
| Mxxxx | Wheel Stuck | HAVP\_LearnParth\_15\_Status\_Flag | No Chime |

8 State Matrix for HAVP\_StrtgEndgPoint\_X\_Status\_Flag

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Operational\_ Mode** | **HAVP\_Cfg** | **AVP\_HAVPStrtgEndgPointInfo** | **HAVP\_LearnFailed\_1\_Status\_Flag** | **HAVP\_LearnFailed\_2\_Status\_Flag** | **HAVP\_LearnFailed\_3\_Status\_Flag** | **HAVP\_LearnFailed\_4\_Status\_Flag** | **HAVP\_LearnFailed\_5\_Status\_Flag** | **HAVP\_LearnFailed\_6\_Status\_Flag** | **HAVP\_LearnFailed\_7\_Status\_Flag** | **HAVP\_LearnFailed\_8\_Status\_Flag** | **HAVP\_LearnFailed\_9\_Status\_Flag** | **HAVP\_LearnFailed\_10\_Status\_Flag** | **HAVP\_LearnFailed\_11\_Status\_Flag** | **HAVP\_LearnFailed\_12\_Status\_Flag** | **HAVP\_LearnFailed\_13\_Status\_Flag** | **HAVP\_LearnFailed\_14\_Status\_Flag** | **HAVP\_LearnFailed\_15\_Status\_Flag** | **HAVP\_LearnFailed\_16\_Status\_Flag** | **HAVP\_LearnFailed\_17\_Status\_Flag** | **HAVP\_LearnFailed\_18\_Status\_Flag** | **HAVP\_LearnFailed\_19\_Status\_Flag** | **HAVP\_LearnFailed\_20\_Status\_Flag** | **HAVP\_LearnFailed\_21\_Status\_Flag** | **HAVP\_LearnFailed\_22\_Status\_Flag** | **HAVP\_LearnFailed\_23\_Status\_Flag** | **HAVP\_LearnFailed\_24\_Status\_Flag** | **HAVP\_LearnFailed\_25\_Status\_Flag** | **HAVP\_LearnFailed\_26\_Status\_Flag** | **HAVP\_LearnFailed\_27\_Status\_Flag** | **HAVP\_LearnFailed\_28\_Status\_Flag** | **HAVP\_LearnFailed\_29\_Status\_Flag** | **HAVP\_LearnFailed\_30\_Status\_Flag** | **HAVP\_LearnFailed\_31\_Status\_Flag** |
|
| Normal | Enabled | 0x1 | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x2 | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x3 | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x4 | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x5 | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x6 | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x7 | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x8 | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x9 | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0xA | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0xB | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0xC | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0xD | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0xE | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0xF | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x10 | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x11 | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x12 | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x13 | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x14 | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x15 | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x16 | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x17 | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x18 | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x19 | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x1A | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina |
| 0x1B | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina |
| 0x1C | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina |
| 0x1D | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina |
| 0x1E | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina |
| Other Cases | | | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **Ina** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **Ina** |

9 HAVP StrtgEndgPoint popup MC Status Flags to MC Message and Active Chime

|  |  |  |  |
| --- | --- | --- | --- |
| **Message ID** | **Description of StrtgEndgPoint Popup** | **Active MC\_Status\_Flag** | **Active Chime\_Status\_Flag** |
| Mxxxx | Insufficient brightness for PI starting | HAVP\_StrtgEndgPoint\_1\_Status\_Flag | No Chime |
| Mxxxx | Too empty environment for PI starting | HAVP\_StrtgEndgPoint\_2\_Status\_Flag | No Chime |
| Mxxxx | In parking space for PI starting | HAVP\_StrtgEndgPoint\_3\_Status\_Flag | No Chime |
| Mxxxx | Camera is blocked for PI starting | HAVP\_StrtgEndgPoint\_4\_Status\_Flag | No Chime |
| Mxxxx | Environment is abnormal for PI starting | HAVP\_StrtgEndgPoint\_5\_Status\_Flag | No Chime |
| Mxxxx | System error for PI starting | HAVP\_StrtgEndgPoint\_6\_Status\_Flag | No Chime |
| Mxxxx | Insufficient brightness for PO starting | HAVP\_StrtgEndgPoint\_7\_Status\_Flag | No Chime |
| Mxxxx | Too empty environment for PO starting | HAVP\_StrtgEndgPoint\_8\_Status\_Flag | No Chime |
| Mxxxx | Front car is too close for PO starting | HAVP\_StrtgEndgPoint\_9\_Status\_Flag | No Chime |
| Mxxxx | Camera is blocked for PO starting | HAVP\_StrtgEndgPoint\_10\_Status\_Flag | No Chime |
| Mxxxx | Environment is abnormal for PO starting | HAVP\_StrtgEndgPoint\_11\_Status\_Flag | No Chime |
| Mxxxx | System error for for PO starting | HAVP\_StrtgEndgPoint\_12\_Status\_Flag | No Chime |
| Mxxxx | Not in parking space linefor PO starting | HAVP\_StrtgEndgPoint\_13\_Status\_Flag | No Chime |
| Mxxxx | Insufficient brightness for PI ending | HAVP\_StrtgEndgPoint\_14\_Status\_Flag | No Chime |
| Mxxxx | Too empty environment for PI ending | HAVP\_StrtgEndgPoint\_15\_Status\_Flag | No Chime |
| Mxxxx | In positive diagonal parking space for PI ending | HAVP\_StrtgEndgPoint\_16\_Status\_Flag | No Chime |
| Mxxxx | Camera is blocked for PI ending | HAVP\_StrtgEndgPoint\_17\_Status\_Flag | No Chime |
| Mxxxx | Environment is abnormal for PI ending | HAVP\_StrtgEndgPoint\_18\_Status\_Flag | No Chime |
| Mxxxx | System error for PI ending | HAVP\_StrtgEndgPoint\_19\_Status\_Flag | No Chime |
| Mxxxx | Not in parking space line for PI ending | HAVP\_StrtgEndgPoint\_20\_Status\_Flag | No Chime |
| Mxxxx | Insufficient brightness for PO ending | HAVP\_StrtgEndgPoint\_21\_Status\_Flag | No Chime |
| Mxxxx | Too empty environment for PO ending | HAVP\_StrtgEndgPoint\_22\_Status\_Flag | No Chime |
| Mxxxx | In positive diagonal parking space for PO ending | HAVP\_StrtgEndgPoint\_23\_Status\_Flag | No Chime |
| Mxxxx | Camera is blocked for PO ending | HAVP\_StrtgEndgPoint\_24\_Status\_Flag | No Chime |
| Mxxxx | Environment is abnormal for PO ending | HAVP\_StrtgEndgPoint\_25\_Status\_Flag | No Chime |
| Mxxxx | System error for PO ending | HAVP\_StrtgEndgPoint\_26\_Status\_Flag | No Chime |
| Mxxxx | In parking space line for PO ending | HAVP\_StrtgEndgPoint\_27\_Status\_Flag | No Chime |
| Mxxxx | Not supported tail out for PO ending | HAVP\_StrtgEndgPoint\_28\_Status\_Flag | No Chime |
| Mxxxx | Not supported head in for PI ending | HAVP\_StrtgEndgPoint\_29\_Status\_Flag | No Chime |
| Mxxxx | Ending invalid | HAVP\_StrtgEndgPoint\_30\_Status\_Flag | No Chime |

10 State Matrix for HAVP\_LearnFailed\_X\_Status\_Flag

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Operational\_ Mode** | **HAVP\_Cfg** | **AVP\_HAVPLearningFailedInfo** | **HAVP\_LearnFailed\_1\_Status\_Flag** | **HAVP\_LearnFailed\_2\_Status\_Flag** | **HAVP\_LearnFailed\_3\_Status\_Flag** | **HAVP\_LearnFailed\_4\_Status\_Flag** | **HAVP\_LearnFailed\_5\_Status\_Flag** | **HAVP\_LearnFailed\_6\_Status\_Flag** | **HAVP\_LearnFailed\_7\_Status\_Flag** | **HAVP\_LearnFailed\_8\_Status\_Flag** | **HAVP\_LearnFailed\_9\_Status\_Flag** | **HAVP\_LearnFailed\_10\_Status\_Flag** | **HAVP\_LearnFailed\_11\_Status\_Flag** | **HAVP\_LearnFailed\_12\_Status\_Flag** | **HAVP\_LearnFailed\_13\_Status\_Flag** | **HAVP\_LearnFailed\_14\_Status\_Flag** | **HAVP\_LearnFailed\_15\_Status\_Flag** | **HAVP\_LearnFailed\_16\_Status\_Flag** | **HAVP\_LearnFailed\_17\_Status\_Flag** | **HAVP\_LearnFailed\_18\_Status\_Flag** | **HAVP\_LearnFailed\_19\_Status\_Flag** | **HAVP\_LearnFailed\_20\_Status\_Flag** | **HAVP\_LearnFailed\_21\_Status\_Flag** | **HAVP\_LearnFailed\_22\_Status\_Flag** | **HAVP\_LearnFailed\_23\_Status\_Flag** |
|
| Normal | Enabled | 0x1 | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x2 | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x3 | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x4 | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x5 | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x6 | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x7 | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x8 | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x9 | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0xA | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0xB | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0xC | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0xD | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0xE | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0xF | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x10 | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x11 | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x12 | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina |
| 0x13 | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina |
| 0x14 | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina |
| 0x15 | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina |
| 0x16 | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina |
| Other Cases | | | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **Ina** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **Ina** |

11 HAVP LearnFailed popup MC Status Flags to MC Message and Active Chime

|  |  |  |  |
| --- | --- | --- | --- |
| **Message ID** | **Description of LearnFailed Popup** | **Active MC\_Status\_Flag** | **Active Chime\_Status\_Flag** |
| Mxxxx | Learning time exceed 10mins | HAVP\_LearnFailed\_1\_Status\_Flag | No Chime |
| Mxxxx | Speed higher than 20km/h and quit | HAVP\_LearnFailed\_2\_Status\_Flag | No Chime |
| Mxxxx | Exceed learning distance limit | HAVP\_LearnFailed\_3\_Status\_Flag | No Chime |
| Mxxxx | Route overlap | HAVP\_LearnFailed\_4\_Status\_Flag | No Chime |
| Mxxxx | Camera is blocked | HAVP\_LearnFailed\_5\_Status\_Flag | No Chime |
| Mxxxx | Environment is abnormal | HAVP\_LearnFailed\_6\_Status\_Flag | No Chime |
| Mxxxx | Algorithm error | HAVP\_LearnFailed\_7\_Status\_Flag | No Chime |
| Mxxxx | Slope above limit 15% | HAVP\_LearnFailed\_8\_Status\_Flag | No Chime |
| Mxxxx | Need to overscan a slot | HAVP\_LearnFailed\_9\_Status\_Flag | No Chime |
| Mxxxx | Front Fisheye Camera Blockage | HAVP\_LearnFailed\_10\_Status\_Flag | No Chime |
| Mxxxx | Rear Fisheye Camera Blockage | HAVP\_LearnFailed\_11\_Status\_Flag | No Chime |
| Mxxxx | Left Fisheye Camera Blockage | HAVP\_LearnFailed\_12\_Status\_Flag | No Chime |
| Mxxxx | Right Fisheye Camera Blockage | HAVP\_LearnFailed\_13\_Status\_Flag | No Chime |
| Mxxxx | Front view Camera Blockage | HAVP\_LearnFailed\_14\_Status\_Flag | No Chime |
| Mxxxx | Functional Conflic | HAVP\_LearnFailed\_15\_Status\_Flag | No Chime |
| Mxxxx | Not Normal Mode | HAVP\_LearnFailed\_16\_Status\_Flag | No Chime |
| Mxxxx | No Dynamics | HAVP\_LearnFailed\_17\_Status\_Flag | No Chime |
| Mxxxx | eCALL | HAVP\_LearnFailed\_18\_Status\_Flag | No Chime |
| Mxxxx | Mobile Control | HAVP\_LearnFailed\_19\_Status\_Flag | No Chime |
| Mxxxx | Trajectory error | HAVP\_LearnFailed\_20\_Status\_Flag | No Chime |
| Mxxxx | Reverse too long | HAVP\_LearnFailed\_21\_Status\_Flag | No Chime |
| Mxxxx | In positive diagonal parking space for PO starting | HAVP\_LearnFailed\_22\_Status\_Flag | No Chime |

12 State Matrix for HAVP\_BeforUsePath\_X\_Status\_Flag

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Operational\_ Mode** | **HAVP\_Cfg** | **HAVP\_Use\_Path\_Popup** | **HAVP\_Use\_Path\_1\_Status\_Flag** | **HAVP\_Use\_Path\_2\_Status\_Flag** | **HAVP\_Use\_Path\_3\_Status\_Flag** | **HAVP\_Use\_Path\_4\_Status\_Flag** | **HAVP\_Use\_Path\_5\_Status\_Flag** | **HAVP\_Use\_Path\_6\_Status\_Flag** | **HAVP\_Use\_Path\_7\_Status\_Flag** | **HAVP\_Use\_Path\_8\_Status\_Flag** | **HAVP\_Use\_Path\_9\_Status\_Flag** | **HAVP\_Use\_Path\_10\_Status\_Flag** | **HAVP\_Use\_Path\_11\_Status\_Flag** | **HAVP\_Use\_Path\_12\_Status\_Flag** | **HAVP\_Use\_Path\_13\_Status\_Flag** | **HAVP\_Use\_Path\_14\_Status\_Flag** | **HAVP\_Use\_Path\_15\_Status\_Flag** | **HAVP\_Use\_Path\_16\_Status\_Flag** | **HAVP\_Use\_Path\_17\_Status\_Flag** | **HAVP\_Use\_Path\_18\_Status\_Flag** | **HAVP\_Use\_Path\_19\_Status\_Flag** | **HAVP\_Use\_Path\_20\_Status\_Flag** | **HAVP\_Use\_Path\_21\_Status\_Flag** | **HAVP\_Use\_Path\_22\_Status\_Flag** |
|
| Normal | Enabled | 0x1 | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x2 | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x3 | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x4 | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x5 | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x6 | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x7 | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x8 | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x9 | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0xA | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0xB | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0xC | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0xD | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0xE | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0xF | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x10 | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x11 | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina |
| 0x12 | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina |
| 0x13 | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina |
| 0x14 | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina |
| 0x15 | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina |
| Other Cases | | | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **Ina** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **Ina** |

13 HAVP BeforUsePath popup MC Status Flags to MC Message and Active Chime

|  |  |  |  |
| --- | --- | --- | --- |
| **Message ID** | **Description of UsePath Popup** | **Active MC\_Status\_Flag** | **Active Chime\_Status\_Flag** |
| Mxxxx | Front Fisheye Camera Blockage | HAVP\_BeforUsePath\_1\_Status\_Flag | No Chime |
| Mxxxx | Rear Fisheye Camera Blockage | HAVP\_BeforUsePath\_2\_Status\_Flag | No Chime |
| Mxxxx | Left Fisheye Camera Blockage | HAVP\_BeforUsePath\_3\_Status\_Flag | No Chime |
| Mxxxx | Right Fisheye Camera Blockage | HAVP\_BeforUsePath\_4\_Status\_Flag | No Chime |
| Mxxxx | Front view Camera Blockage | HAVP\_BeforUsePath\_5\_Status\_Flag | No Chime |
| Mxxxx | Functional Conflict | HAVP\_BeforUsePath\_6\_Status\_Flag | No Chime |
| Mxxxx | Req\_Standstill | HAVP\_BeforUsePath\_7\_Status\_Flag | No Chime |
| Mxxxx | Not Normal Mode | HAVP\_BeforUsePath\_8\_Status\_Flag | No Chime |
| Mxxxx | No Dynamics | HAVP\_BeforUsePath\_9\_Status\_Flag | No Chime |
| Mxxxx | eCALL | HAVP\_BeforUsePath\_10\_Status\_Flag | No Chime |
| Mxxxx | Mobile Control | HAVP\_BeforUsePath\_11\_Status\_Flag | No Chime |
| Mxxxx | Slope Too Large | HAVP\_BeforUsePath\_12\_Status\_Flag | No Chime |
| Mxxxx | Req\_Drive\_Path\_Scope | HAVP\_BeforUsePath\_13\_Status\_Flag | No Chime |
| Mxxxx | Req\_Update\_Path | HAVP\_BeforUsePath\_14\_Status\_Flag | No Chime |
| Mxxxx | Path Matching | HAVP\_BeforUsePath\_15\_Status\_Flag | No Chime |
| Mxxxx | Path ending arrived | HAVP\_BeforUsePath\_16\_Status\_Flag | No Chime |
| Mxxxx | Path Matched | HAVP\_BeforUsePath\_17\_Status\_Flag | No Chime |
| Mxxxx | In a parking space | HAVP\_BeforUsePath\_18\_Status\_Flag | No Chime |
| Mxxxx | Front USS Blockage | HAVP\_BeforUsePath\_19\_Status\_Flag | No Chime |
| Mxxxx | Rear USS Blockage | HAVP\_BeforUsePath\_20\_Status\_Flag | No Chime |
| Mxxxx | Wheel Stuck | HAVP\_BeforUsePath\_21\_Status\_Flag | No Chime |

14 State Matrix for HAVP\_Suspend\_X\_Status\_Flag

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Operational\_ Mode** | **HAVP\_Cfg** | **AVP\_RecInd** | **HAVP\_Suspend\_1\_Status\_Flag** | **HAVP\_Suspend\_2\_Status\_Flag** | **HAVP\_Suspend\_3\_Status\_Flag** | **HAVP\_Suspend\_4\_Status\_Flag** | **HAVP\_Suspend\_5\_Status\_Flag** | **HAVP\_Suspend\_6\_Status\_Flag** | **HAVP\_Suspend\_7\_Status\_Flag** | **HAVP\_Suspend\_8\_Status\_Flag** | **HAVP\_Suspend\_9\_Status\_Flag** | **HAVP\_Suspend\_10\_Status\_Flag** | **HAVP\_Suspend\_11\_Status\_Flag** | **HAVP\_Suspend\_12\_Status\_Flag** | **HAVP\_Suspend\_13\_Status\_Flag** | **HAVP\_Suspend\_14\_Status\_Flag** |
|
| Normal | Enabled | 0x1 | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x2 | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x3 | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x4 | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x5 | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x6 | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x7 | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x8 | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina | Ina |
| 0x9 | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina | Ina |
| 0xA | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina | Ina |
| 0xB | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina | Ina |
| 0xC | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina | Ina |
| 0xD | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **ACT** | Ina |
| Other Cases | | | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | Ina | **Ina** |

15 HAVP Suspend popup MC Status Flags to MC Message and Active Chime

|  |  |  |  |
| --- | --- | --- | --- |
| **Message ID** | **Description of Suspend Popup** | **Active MC\_Status\_Flag** | **Active Chime\_Status\_Flag** |
| Mxxxx | Recover\_Press suspend button | HAVP\_Suspend\_1\_Status\_Flag | No Chime |
| Mxxxx | Recover\_Door\_Hood\_Trunk\_Closed | HAVP\_Suspend\_2\_Status\_Flag | No Chime |
| Mxxxx | Recover\_Door\_Closed | HAVP\_Suspend\_3\_Status\_Flag | No Chime |
| Mxxxx | Recover\_Remove obstacle in trajectory | HAVP\_Suspend\_4\_Status\_Flag | No Chime |
| Mxxxx | Recover\_Mobile out of range | HAVP\_Suspend\_5\_Status\_Flag | No Chime |
| Mxxxx | Recover\_ Close hood | HAVP\_Suspend\_6\_Status\_Flag | No Chime |
| Mxxxx | Recover\_Close trunk | HAVP\_Suspend\_7\_Status\_Flag | No Chime |
| Mxxxx | Recover\_poor Bluetooth connection | HAVP\_Suspend\_8\_Status\_Flag | No Chime |
| Mxxxx | Recover\_Fasten seat belt | HAVP\_Suspend\_9\_Status\_Flag | No Chime |
| Mxxxx | Recover\_Left front door Closed | HAVP\_Suspend\_10\_Status\_Flag | No Chime |
| Mxxxx | Recover\_Right front door Closed | HAVP\_Suspend\_11\_Status\_Flag | No Chime |
| Mxxxx | Recover\_Left rear door Closed | HAVP\_Suspend\_12\_Status\_Flag | No Chime |
| Mxxxx | Recover\_Right rear door Closed | HAVP\_Suspend\_13\_Status\_Flag | No Chime |

16 State Matrix for HAVP\_TemrinationInUsed\_X\_Status\_Fla

17 HAVP TemrinationInUsed popup MC Status Flags to MC Message and Active Chime

|  |  |  |  |
| --- | --- | --- | --- |
| **Message ID** | **Description of StrtgEndgPoint Popup** | **Active MC\_Status\_Flag** | **Active Chime\_Status\_Flag** |
| Mxxxx | Req\_Quit\_Timing overflow | HAVP\_TemrinationInUsed\_1\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_Move times overflow | HAVP\_TemrinationInUsed\_2\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_Recover Interrupt Times Overflow | HAVP\_TemrinationInUsed\_3\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_Trajectory | HAVP\_TemrinationInUsed\_4\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_Space limit | HAVP\_TemrinationInUsed\_5\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_Speed high | HAVP\_TemrinationInUsed\_6\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_Gas pedal | HAVP\_TemrinationInUsed\_7\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_ADAS | HAVP\_TemrinationInUsed\_8\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_GPS\_Out of range | HAVP\_TemrinationInUsed\_9\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_Seat belt unbuckle\_HAVP | HAVP\_TemrinationInUsed\_10\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_Door Open\_all Doors | HAVP\_TemrinationInUsed\_11\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_Luggage Door Open\_Reserved | HAVP\_TemrinationInUsed\_12\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit Terminate Button Pressed HMI Cancel\_ RD\_Cancel | HAVP\_TemrinationInUsed\_13\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_Gear Intervention | HAVP\_TemrinationInUsed\_14\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_Gear Interrupt | HAVP\_TemrinationInUsed\_15\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_EPB\_Apply | HAVP\_TemrinationInUsed\_16\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_Door Unlock | HAVP\_TemrinationInUsed\_17\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_ABS active | HAVP\_TemrinationInUsed\_18\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_Steering Wheel Intervention | HAVP\_TemrinationInUsed\_19\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_Sys\_Failure | HAVP\_TemrinationInUsed\_20\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_External ECU failure | HAVP\_TemrinationInUsed\_21\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_VCU failure | HAVP\_TemrinationInUsed\_22\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_ESP failure | HAVP\_TemrinationInUsed\_23\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_EPS failure | HAVP\_TemrinationInUsed\_24\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_Account\_Log\_Out | HAVP\_TemrinationInUsed\_25\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_No\_parkinglot\_HAVP | HAVP\_TemrinationInUsed\_26\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_Unsafe\_Behavior | HAVP\_TemrinationInUsed\_27\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_TBOX\_failure | HAVP\_TemrinationInUsed\_28\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_Remote Device error | HAVP\_TemrinationInUsed\_29\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_Remote Device error\_HAVP | HAVP\_TemrinationInUsed\_30\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_Brake\_pedal | HAVP\_TemrinationInUsed\_31\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_TCS | HAVP\_TemrinationInUsed\_32\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_PT READY FAILED（H） | HAVP\_TemrinationInUsed\_33\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_In a parking space(H) | HAVP\_TemrinationInUsed\_34\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_Path ending arrived （H） | HAVP\_TemrinationInUsed\_35\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_Handshake failed | HAVP\_TemrinationInUsed\_36\_Status\_Flag | No Chime |
| Mxxxx | Req\_PowerOFF （H） | HAVP\_TemrinationInUsed\_37\_Status\_Flag | No Chime |
| Mxxxx | Req\_Drive\_Path\_Scope | HAVP\_TemrinationInUsed\_38\_Status\_Flag | No Chime |
| Mxxxx | Req\_Update\_Path | HAVP\_TemrinationInUsed\_39\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_Wait time overflow | HAVP\_TemrinationInUsed\_40\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_Path Match failed | HAVP\_TemrinationInUsed\_41\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_Driver\_Door\_Open | HAVP\_TemrinationInUsed\_42\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_SteeringAngle\_Out\_of\_Limit | HAVP\_TemrinationInUsed\_43\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_Shift\_Operate\_Failed | HAVP\_TemrinationInUsed\_44\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_Vehcle\_Charging | HAVP\_TemrinationInUsed\_45\_Status\_Flag | No Chime |
| Mxxxx | Req\_Quit\_CAN\_Communication\_failure | HAVP\_TemrinationInUsed\_46\_Status\_Flag | No Chime |
| Mxxxx | Req\_Remote\_parking\_complete\_Not\_PowerOFF | HAVP\_TemrinationInUsed\_47\_Status\_Flag | No Chime |
| Mxxxx | Slope\_Too large | HAVP\_TemrinationInUsed\_48\_Status\_Flag | No Chime |
| Mxxxx | Front Fisheye Camera Blockage | HAVP\_TemrinationInUsed\_49\_Status\_Flag | No Chime |
| Mxxxx | Rear Fisheye Camera Blockage | HAVP\_TemrinationInUsed\_50\_Status\_Flag | No Chime |
| Mxxxx | Left Fisheye Camera Blockage | HAVP\_TemrinationInUsed\_51\_Status\_Flag | No Chime |
| Mxxxx | Key In Vehicle | HAVP\_TemrinationInUsed\_52\_Status\_Flag | No Chime |
| Mxxxx | Right Fisheye Camera Blockage | HAVP\_TemrinationInUsed\_53\_Status\_Flag | No Chime |
| Mxxxx | Front view Camera Blockage | HAVP\_TemrinationInUsed\_54\_Status\_Flag | No Chime |
| Mxxxx | Front USS Blockage | HAVP\_TemrinationInUsed\_55\_Status\_Flag | No Chime |
| Mxxxx | Rear USS Blockage | HAVP\_TemrinationInUsed\_56\_Status\_Flag | No Chime |
| Mxxxx | Vehicle Low Battery | HAVP\_TemrinationInUsed\_57\_Status\_Flag | No Chime |
| Mxxxx | TPMS System Failure | HAVP\_TemrinationInUsed\_58\_Status\_Flag | No Chime |
| Mxxxx | Tire Pressure Too Low | HAVP\_TemrinationInUsed\_59\_Status\_Flag | No Chime |
| Mxxxx | Charge Cover Open | HAVP\_TemrinationInUsed\_60\_Status\_Flag | No Chime |
| Mxxxx | Wheel Stuck | HAVP\_TemrinationInUsed\_61\_Status\_Flag | No Chime |
| Mxxxx | Lost Dynamics | HAVP\_TemrinationInUsed\_62\_Status\_Flag | No Chime |
| Mxxxx | eCALL | HAVP\_TemrinationInUsed\_63\_Status\_Flag | No Chime |
| Mxxxx | Recovery Timeout | HAVP\_TemrinationInUsed\_64\_Status\_Flag | No Chime |
| Mxxxx | Fixed slot not available | HAVP\_TemrinationInUsed\_65\_Status\_Flag | No Chime |
| Mxxxx | No available random slot | HAVP\_TemrinationInUsed\_66\_Status\_Flag | No Chime |
| Mxxxx | Remote control out of range | HAVP\_TemrinationInUsed\_67\_Status\_Flag | No Chime |
| Mxxxx | Actuator feedback abnormal | HAVP\_TemrinationInUsed\_68\_Status\_Flag | No Chime |

#### Error Handling

*No Error Handling Requirements specified.*

### Non-Functional Requirements

Operational Modes

|  |  |
| --- | --- |
| **Mode** | **Differentiating Vehicle Conditions** |
| Sleep Mode | Backtrack function and Information displaying Disabled |
| Limited Mode | Backtrack function and Information displaying Disabled |
| Normal Mode | Backtrack function and Information displaying Enabled / Disabled |
| Crank Mode | Backtrack function and Information displaying Disabled |

Function activation and button response

Users can activate Backtrack via voice control command (IVI\_Backtrack\_VoiceActivationButton) or buttons

(IVI\_Backtrack\_AVMButton or IVI\_Backtrack\_QuickPanel) in touchable screen of infotainment system.

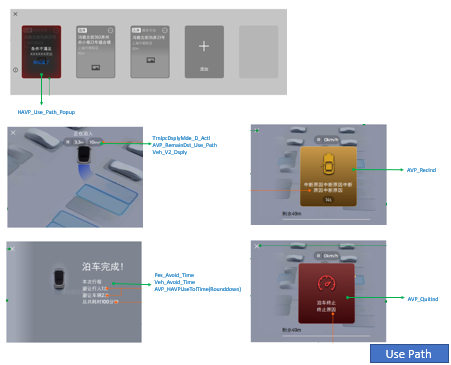
When buttons clicked, IVI should send signals with value 0x01 for three times, then send value 0x0. All button

event for backtrack should comply this behavior.

Indicator Graphics / Display Format







Self Test

None

Supported Diagnostic Trouble Codes (DTCs)

|  |  |  |
| --- | --- | --- |
| **DTC** | **Description** | **When Logged** |
| Cxxxxx | Lost communication with IPMB | Message missing for more than 5 seconds |
| Cxxxxx | Invalid Data Received From IPMB | XX signal value |

Engineering Test Mode

Reference section “Dealer / Engineering Test Mode (ETM)”

DID DExx:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Block Num** | **Block Description** | **Byte(s)** | **Bits** | **State: Description** | **"0"** | **"1"** | **Default** | **Comments / Information** |
|  | PACKETED BLOCKS |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| $xx | Option Content (B&A) | \* | \* | HAVP | Disabled | Enabled | Disabled | Disabled means the feature is not presented in the vehicle |
|  |  |  |  |  |  |  |  |  |

Memory Storage Table 2

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Parameter Name** | **Description** | **Range** | **Units** | **Resolution** | **Init Value** |
| Check\_ popup\_display\_Timer1 | Variable used to set amount of time before Check\_popup message off | 0-20 | Seconds | 1 | 12 |
| Check\_ popup\_display\_Timer2 | Variable used to set amount of time before Check\_popup message off | 0-20 | Seconds | 1 | 3 |
| Cloud\_Resp\_Timer1 | Variable used to set amount of time before Cloud response | 0-20 | Seconds | 1 | 3 |
| Check\_ popup\_display\_Timer2 | Variable used to set amount of time before Cloud response | 0-20 | Seconds | 1 | 3 |

Memory Storage Table 1

|  |  |  |  |
| --- | --- | --- | --- |
| Parameter Name | Description | Value at Battery Connect | Value at Module Wake-up |
| Operational Mode | 4 state indicators for cluster operational mode | Limited | Limited or Normal or Crank |
| HAVP\_Cfg | State indicator for feature presence controlled via CAN at EOL at VO plant. | Use Stored Value | Use Stored Value |
| HAVP\_VoiceActivationButton | This signal indicates the voice activation of HAVP, if user request HAVP ON by voice, IVI will sent this signal to ACU. | 0x0 | Do not init |
| HU\_HAVP\_Activation\_Flag | This signal indicates whether HAVP is enabled, log in with authentication, test passed, configured, etc… | 0x0 | Do not init |
| HU\_HAVP\_SoftButton | User press this soft button via HU to use HAVP | 0x0 | Do not init |
| HU\_HAVP\_LauncherSoftButton | User press this soft button on launcher page via HU to use HAVP | 0x0 | Do not init |
| HU\_HAVPSetPathLearn | User press this soft button via HU to learn a new path | 0x0 | Do not init |
| HU\_HAVPLearningTypeSele | User press this soft button via HU to select HAVP learning type | 0x0 | Do not init |
| HU\_HAVPSetPathStarting | User press this soft button via HU to set new path starting point | 0x0 | Do not init |
| HU\_HAVPSetPathEnding | User press this soft button via HU to set new path ending point | 0x0 | Do not init |
| HU\_HAVPRequestParkIn | User press this soft button via HU to request park in after setting slot as new path ending point | 0x0 | Do not init |
| HU\_HAVPPathDelete | User press this soft button via HU to select which path user want to delete | 0x0 | Do not init |
| HU\_HAVPPathSelect | User press this soft button via HU to select which path user want to use | 0x0 | Do not init |
| HAVP\_Park\_Control\_Req | This signal indicates the selected status of HAVP activation button | 0x0 | Do not init |
| HU\_LearningPathNum1 | Number of path 1 from HU to indicate the path sort via HU | 0x0 | Do not init |
| HU\_LearningPathNum2 | Number of path 2 from HU to indicate the path sort via HU | 0x0 | Do not init |
| HU\_LearningPathNum3 | Number of path 3 from HU to indicate the path sort via HU | 0x0 | Do not init |
| HU\_LearningPathNum4 | Number of path 4 from HU to indicate the path sort via HU | 0x0 | Do not init |
| HU\_LearningPathNum5 | Number of path 5 from HU to indicate the path sort via HU | 0x0 | Do not init |
| HU\_LearningPathNum6 | Number of path 6 from HU to indicate the path sort via HU | 0x0 | Do not init |
| HU\_LearningPathNum7 | Number of path 7 from HU to indicate the path sort via HU | 0x0 | Do not init |
| HU\_LearningPathNum8 | Number of path 8 from HU to indicate the path sort via HU | 0x0 | Do not init |
| HU\_LearningPathNum9 | Number of path 9 from HU to indicate the path sort via HU | 0x0 | Do not init |
| HU\_LearningPathNum10 | Number of path 10 from HU to indicate the path sort via HU | 0x0 | Do not init |
| AVP\_HAVPCtrlSigSrc | This signal indicates which control mode HAVP is activated via HU or APP | 0x0 | Do not init |
| HAVP\_Page\_Display | This signal indicates which page HAVP request HU to display | 0x0 | Do not init |
| HAVP\_Activation\_Popup | Popup when user is not able to activate HAVP | 0x0 | Do not init |
| HAVP\_HomePage\_Popup | Popup when HAVP has to exit home page | 0x0 | Do not init |
| HAVP\_Learn\_Path\_Popup | Popup when user is not able to learn path | 0x0 | Do not init |
| AVP\_HAVPLearningProcessInfo | AVP controller will send this singal to show indications through HU to driver during learning process | 0x0 | Do not init |
| HAVP\_Use\_Path\_Popup | Popup when user is not able to use path | 0x0 | Do not init |
| HAVP\_Use\_Path\_Info | AVP controller will send this singal to show indications through HU to driver during using path process | 0x0 | Do not init |
| AVP\_RecInd | AVP Suspend indication sent to HU for indication | 0x0 | Do not init |
| AVP\_QuitInd | AVP Quit indication sent to HU for indication | 0x0 | Do not init |
| AVP\_LearningPathType1 | Path type of path 1 | 0x0 | Do not init |
| AVP\_LearningPathType2 | Path type of path 2 | 0x0 | Do not init |
| AVP\_LearningPathType3 | Path type of path 3 | 0x0 | Do not init |
| AVP\_LearningPathType4 | Path type of path 4 | 0x0 | Do not init |
| AVP\_LearningPathType5 | Path type of path 5 | 0x0 | Do not init |
| AVP\_LearningPathType6 | Path type of path 6 | 0x0 | Do not init |
| AVP\_LearningPathType7 | Path type of path 7 | 0x0 | Do not init |
| AVP\_LearningPathType8 | Path type of path 8 | 0x0 | Do not init |
| AVP\_LearningPathType9 | Path type of path 9 | 0x0 | Do not init |
| AVP\_LearningPathType10 | Path type of path 10 | 0x0 | Do not init |
| AVP\_HAVPPathDst1 | Distance of path 1 | 0x0 | Do not init |
| AVP\_HAVPPathDst2 | Distance of path 2 | 0x0 | Do not init |
| AVP\_HAVPPathDst3 | Distance of path 3 | 0x0 | Do not init |
| AVP\_HAVPPathDst4 | Distance of path 4 | 0x0 | Do not init |
| AVP\_HAVPPathDst5 | Distance of path 5 | 0x0 | Do not init |
| AVP\_HAVPPathDst6 | Distance of path 6 | 0x0 | Do not init |
| AVP\_HAVPPathDst7 | Distance of path 7 | 0x0 | Do not init |
| AVP\_HAVPPathDst8 | Distance of path 8 | 0x0 | Do not init |
| AVP\_HAVPPathDst9 | Distance of path 9 | 0x0 | Do not init |
| AVP\_HAVPPathDst10 | Distance of path 10 | 0x0 | Do not init |
| AVP\_HAVPPath1Src | Path 1 is self Learned or shared by others | 0x0 | Do not init |
| AVP\_HAVPPath2Src | Path 2 is self Learned or shared by others | 0x0 | Do not init |
| AVP\_HAVPPath3Src | Path 3 is self Learned or shared by others | 0x0 | Do not init |
| AVP\_HAVPPath4Src | Path 4 is self Learned or shared by others | 0x0 | Do not init |
| AVP\_HAVPPath5Src | Path 5 is self Learned or shared by others | 0x0 | Do not init |
| AVP\_HAVPPath6Src | Path 6 is self Learned or shared by others | 0x0 | Do not init |
| AVP\_HAVPPath7Src | Path 7 is self Learned or shared by others | 0x0 | Do not init |
| AVP\_HAVPPath8Src | Path 8 is self Learned or shared by others | 0x0 | Do not init |
| AVP\_HAVPPath9Src | Path 9 is self Learned or shared by others | 0x0 | Do not init |
| AVP\_HAVPPath10Src | Path 10 is self Learned or shared by others | 0x0 | Do not init |
| AVP\_HAVPPathSt1 | Learn status of path 1 | 0x0 | Do not init |
| AVP\_HAVPPathSt2 | Learn status of path 2 | 0x0 | Do not init |
| AVP\_HAVPPathSt3 | Learn status of path 3 | 0x0 | Do not init |
| AVP\_HAVPPathSt4 | Learn status of path 4 | 0x0 | Do not init |
| AVP\_HAVPPathSt5 | Learn status of path 5 | 0x0 | Do not init |
| AVP\_HAVPPathSt6 | Learn status of path 6 | 0x0 | Do not init |
| AVP\_HAVPPathSt7 | Learn status of path 7 | 0x0 | Do not init |
| AVP\_HAVPPathSt8 | Learn status of path 8 | 0x0 | Do not init |
| AVP\_HAVPPathSt9 | Learn status of path 9 | 0x0 | Do not init |
| AVP\_HAVPPathSt10 | Learn status of path 10 | 0x0 | Do not init |
| AVP\_HAVPPathLearnRate1 | Learn rate of path 1 | 0x0 | Do not init |
| AVP\_HAVPPathLearnRate2 | Learn rate of path 2 | 0x0 | Do not init |
| AVP\_HAVPPathLearnRate3 | Learn rate of path 3 | 0x0 | Do not init |
| AVP\_HAVPPathLearnRate4 | Learn rate of path 4 | 0x0 | Do not init |
| AVP\_HAVPPathLearnRate5 | Learn rate of path 5 | 0x0 | Do not init |
| AVP\_HAVPPathLearnRate6 | Learn rate of path 6 | 0x0 | Do not init |
| AVP\_HAVPPathLearnRate7 | Learn rate of path 7 | 0x0 | Do not init |
| AVP\_HAVPPathLearnRate8 | Learn rate of path 8 | 0x0 | Do not init |
| AVP\_HAVPPathLearnRate9 | Learn rate of path 9 | 0x0 | Do not init |
| AVP\_HAVPPathLearnRate10 | Learn rate of path 10 | 0x0 | Do not init |
| HavpDelPathID | This signal indicates path ID which need to sync to Baidu Cloud for deletion | 0x0 | Do not init |
| Path\_Delete\_Result | This signal indicates delete result inside Baidu ACU after receiving delete request from user | 0x0 | Do not init |
| Path\_Sync\_Result | This signal indicates if path has been uploaded to Baidu Cloud successfully | 0x0 | Do not init |
| Path\_Share\_Result | This signal indicates if path has been downloaded from Baidu Cloud successfully | 0x0 | Do not init |
| AVP\_HAVPStrtgEndgPointInfo | This signal indicates the reasons for invalid starting and ending point | 0x0 | Do not init |
| AVP\_HAVPLearningFailedInfo | Learning failed reasons for HAVP learning results | 0x0 | Do not init |
| HAVP\_Status | The HAVP status signal represents the current state of the HAVP statemachine contained in IPMB | 0x0 | Do not init |
| AVP\_RemainDst\_Learn\_Path | This signal indicates HAVP remain distance to end point during path learning | 0x0 | Do not init |
| Veh\_Avoid\_Time | This signal indicates total vehicle avoid frequency after complete using path | 0x0 | Do not init |
| Pes\_Avoid\_Time | This signal indicates total pedestrian avoid frequency after complete using path | 0x0 | Do not init |
| AVP\_HAVPUseTolTime | This signal indicates HAVP total time of route use | 0x0 | Do not init |
| AVP\_RemainDst\_Use\_Path | This signal indicates HAVP remain distance to arrive end point during path using | 0x0 | Do not init |
| PrkReqHazardLight | This signal is used to request hazard light turn on | 0x0 | Do not init |
| AVP\_LearningPathID1 | Path ID 1,0x0 represents invalid path | 0x0 | Do not init |
| AVP\_LearningPathID2 | Path ID 2,0x0 represents invalid path | 0x0 | Do not init |
| AVP\_LearningPathID3 | Path ID 3,0x0 represents invalid path | 0x0 | Do not init |
| AVP\_LearningPathID4 | Path ID 4,0x0 represents invalid path | 0x0 | Do not init |
| AVP\_LearningPathID5 | Path ID 5,0x0 represents invalid path | 0x0 | Do not init |
| AVP\_LearningPathID6 | Path ID 6,0x0 represents invalid path | 0x0 | Do not init |
| AVP\_LearningPathID7 | Path ID 7,0x0 represents invalid path | 0x0 | Do not init |
| AVP\_LearningPathID8 | Path ID 8,0x0 represents invalid path | 0x0 | Do not init |
| AVP\_LearningPathID9 | Path ID 9,0x0 represents invalid path | 0x0 | Do not init |
| AVP\_LearningPathID10 | Path ID 10,0x0 represents invalid path | 0x0 | Do not init |
| Geo\_Fence\_Path1 | This signal indicates if path1 is within geofence or not | 0x0 | Do not init |
| Geo\_Fence\_Path2 | This signal indicates if path2 is within geofence or not | 0x0 | Do not init |
| Geo\_Fence\_Path3 | This signal indicates if path3 is within geofence or not | 0x0 | Do not init |
| Geo\_Fence\_Path4 | This signal indicates if path4 is within geofence or not | 0x0 | Do not init |
| Geo\_Fence\_Path5 | This signal indicates if path5 is within geofence or not | 0x0 | Do not init |
| Geo\_Fence\_Path6 | This signal indicates if path6 is within geofence or not | 0x0 | Do not init |
| Geo\_Fence\_Path7 | This signal indicates if path7 is within geofence or not | 0x0 | Do not init |
| Geo\_Fence\_Path8 | This signal indicates if path8 is within geofence or not | 0x0 | Do not init |
| Geo\_Fence\_Path9 | This signal indicates if path9 is within geofence or not | 0x0 | Do not init |
| Geo\_Fence\_Path10 | This signal indicates if path10 is within geofence or not | 0x0 | Do not init |
| ECG\_HAVP\_App\_Activation | This signal indicates if HAVP App has been activated via mobile | 0x0 | Do not init |
| HAVP\_Long\_Link\_Connection | This signal indicates if ACU has connected with HAVP server successfully | 0x0 | Do not init |
| AVP\_LearningUniqueID1 | Unique ID for path1 to distinguish each path | 0x0 | Do not init |
| AVP\_LearningUniqueID2 | Unique ID for path2 to distinguish each path | 0x0 | Do not init |
| AVP\_LearningUniqueID3 | Unique ID for path3 to distinguish each path | 0x0 | Do not init |
| AVP\_LearningUniqueID4 | Unique ID for path4 to distinguish each path | 0x0 | Do not init |
| AVP\_LearningUniqueID5 | Unique ID for path5 to distinguish each path | 0x0 | Do not init |
| AVP\_LearningUniqueID6 | Unique ID for path6 to distinguish each path | 0x0 | Do not init |
| AVP\_LearningUniqueID7 | Unique ID for path7 to distinguish each path | 0x0 | Do not init |
| AVP\_LearningUniqueID8 | Unique ID for path8 to distinguish each path | 0x0 | Do not init |
| AVP\_LearningUniqueID9 | Unique ID for path9 to distinguish each path | 0x0 | Do not init |
| AVP\_LearningUniqueID10 | Unique ID for path10 to distinguish each path | 0x0 | Do not init |
| HAVP\_Active\_Push\_Req | HAVP active push window indicates via IVI | 0x0 | Do not init |
| HU\_HAVP\_Active\_Push\_Req | User press this soft button via HU to activate HAVP via active push popup window | 0x0 | Do not init |
| HU\_HAVP\_Parking\_Assist\_Req | User press this soft button via HU to activate HAVP via parking assist window | 0x0 | Do not init |
| HU\_HAVP\_Launcher\_Card\_Req | User press this soft button via HU to activate HAVP via launcher card | 0x0 | Do not init |
| HU\_HAVP\_APPs\_Entry\_Req | User press this soft button via HU to activate HAVP via apps entry | 0x0 | Do not init |
| HU\_HAVP\_APA\_Req | User press this soft button via HU to activate HAVP via APA window | 0x0 | Do not init |
| HAVP\_SetStarting\_Btn\_Sts | This signal indicates the status of set start point button | 0x0 | Do not init |
| HAVP\_SetPathEnding\_Btn\_Sts | This signal indicates the status of set end point button | 0x0 | Do not init |
| HAVP\_Park\_Control\_Btn\_Sts | This signal indicates the status of park control button | 0x0 | Do not init |
| HAVP\_Fixed\_Slot\_ID | ID of fixed slot used to indicate when using fixed park in path | 0x0 | Do not init |
| HAVP\_Random\_Slot\_ID | ID of first random slot used to indicate when using random park in path | 0x0 | Do not init |
| HAVP\_readiness\_Flag | HAVP readiness internal flag | 0x0 | Do not init |
| Fixed\_Park\_In\_ Flag | internal flag for fixed parking in study | 0x0 | Do not init |
| Random\_Park\_In\_ Flag | internal flag for random parking in study | 0x0 | Do not init |
| Park\_Out\_ Flag | internal flag for parking out study | 0x0 | Do not init |
| Park\_Manu\_Flag | internal flag for parking manually | 0x0 | Do not init |
| Use\_Path\_Flag | internal flag for using path | 0x0 | Do not init |
| Parking\_Flag | internal flag for parking when use path | 0x0 | Do not init |

### Functional Safety Requirements

*No Functional Safety Requirements specified.*

### Other Requirements

*No Other Requirements specified.*

#### Design Requirements

*No Design Requirements specified.*

# Open Concerns

*No Open Concerns (Ford Modeling Action Items) in the Magicdraw model.*

# Revision History

No Revision History found.

## Template Revisions

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Version | Rev. | Date | Description | Responsible |
| 1 | 0 | 2016-02-26 | Initial version, derived form FDS | Jbaden1 |
| 1 | 1 | 2016-02-26 | Word properties corrected | Jbaden1 |
| 1 | 2 | 2016-03-10 | Clean up of ocument meta data (Word properties) | Jbaden1 |
| 1 | 3 | 2016-03-22 | * Footer formating corrected (Issue 19) * “Constraints” chapter renamed to “Input Requirements” (Issue 20) | Jbaden1 |
| 1 | 4 | 2016-04-20 | * Broken Wiki links repaired | Jbaden1 |
| 2 | 0 | 2016-06-10 | * Document metadata adapted. Prepared for new macros * DTC table removed * HMI function added as a chapter (details still to be refined) * Signal / Parameter IDs column deleted interface tables | Jbaden1 |
| 2 | 1 | 2016-07-14 | * Converted to SysML diagrams * HMI section further elaborated * Template version added to footer * Dedicated Startup / Shutdown sections removed (only hints added) * Data Dictionary reworked and Signal / Parameter IDs column re-introduced | Jbaden1 |
| 2 | 2 | 2016-12-07 | * Minor formatting changes | Jbaden1 |
| 3 |  |  | Skipped to synchronize with Specification\_Macros.dotm |  |
| 4 |  |
| 5 | 0 | 2017-01-13 | * Meta data updated for specification macros, version 3.1 * SW Unit chapter removed for the time being * Green boxes added for user hints | Jbaden1 |
| 5 | 1 | 2017-01-18 | * Some additional hints. * Hyperlinks highlighted in hints | Jbaden1 |
| 6 | 0 | 2017-04-28 | * Editorial change. Hints added to chapter 4.1.4 * Chapter “Traceability Matrix” removed | Jbaden1 |
| 6 | 0 | 2018-04-28 | * CR69/63: New chapters added for Functional Safety (FTTI and Technical Safety Requirements) * CR53: New coversheet + additional meta-data * CR76: merge sections for configuration and for calibration parameters into one on Function Level | Jbaden1 |
| 6 | 0 | 2018-08-06 | * CR66: Fix version numbering in footer of Function Spec | Jbaden1 |
| 6 | 0 | 2018-09-28 | * Broken links to RE Wiki repaired | Jbaden1 |
| 6 | 0 | 2018-10-31 | * Minor corrections on cover sheet and in footer to be more GIS compliant and VSEM aligned * “Overview” and “Description” exchanged in headings (following common sense) | Jbaden1 |
| 6 | 0 | 2018-11-12 | * Explanatory text in Variants” section revised * Functional Safety modifications as agreed with FuSa core team (Baseline: November 2018 Dearborn On-Site) | Jbaden1 |
| 6 | 0b | 2019-01-02 | * Editorial changes (in “Variants” section) | Jbaden1 |
| 6 | 0b | 2019-01-21 | * Template Id set to 2 | Jbaden1 |
| 6 | 0b | 2019-03-22 | * Chapter “Decomposed FSRs” renamed to Functional Safety Requirements” A new chapter “ASIL Decomposition of of Functional Safety Requirements” added as a subsection to that chapter. | Jbaden1 |
| 6 | 0b | 2019-04-05 | * Some wording in ASIL decomposition table modified. Description of fields in that table improved. | Jbaden1 |
| 6 | 0b | 2019-04-05 | * ASIL decomposition table removed (ASIL decomposition only allowed on Feature Level or on Component Level in the FIS or ECU Functional Spec) | Jbaden1 |
| 6 | 0b | 2019-07-02 | * "Important" box added on cover sheet which points to the macros * Chapters “References” and “Glossary” moved back up to section “Introduction * Chapter “Inputs Requirements”” reworked | Jbaden1 |
| 6 | 0b | 2019-09-09 | * Function Spec derived from Function Group Spec, version 6.b by removing those sections, which make no sense when specifying a single function (driven by AV team request). * Chapter 2.4 has now one section per modeling technique again. This is to allow more intuitive tailoring of the section (driven by AV team request). | Jbaden1 |
| 6 | 0c | 2019-05-11 | * Copyright notice shortened and moved to cover sheet and added to footer (to be compliant [with Ford copyright guidelines](http://www.fgti.ford.com/client/NewFGTI/CopyrightNotice.html)) * Term “Disclaimer” no longer used for what is actually only a copyright notice | Jbaden1 |
| 6 | 0c | 2019-12-05 | * Upstream Documents section added to “Input Requirements/Documents” table * Custom style table formatting removed | Jbaden1 |
| 6 | 1a | 2019-12-10 | * Refinement of FSRs no longer supported by Function Specification (as requested by Functional Safety team). FSR chapter just forwards FSRs from the Feature Docs 1:1 to the Implemented Function(s). * Version number renamed from 6.0c to 6.1 due to Functional Safety changes | Jbaden1 |
| 6 | 1a | 2020-03-09 | * Missing document property “LatestSigMappingID” and “LatestAisInterfaceID” added * doc property “CopyrightDate” re-formatted to text and copyright date field in footer corrected * Version numbering re-initialized as 0.1 * Init value of version/revision date set to “yyyy/mm/dd” instead of “yyyy-mm-dd” to be in line with the “Edit Document Property” dialog * Copyright date field on cover sheet corrected | Jbaden1 |

# Appendix

## Data Dictionary

### Logical Signals

-163655300.png Actuation Status

|  |  |  |
| --- | --- | --- |
| **ASIL** | |  |
| **Value** | Encoding Name | -- |
| Value Range |  |
| Resolution |  |
| Unit |  |

**Table: Signal Details of Actuation Status**

-260315273.png Example Signal

The description of the signal in the Documentation field.

|  |  |  |
| --- | --- | --- |
| **ASIL** | | A(A) |
| **Value** | Encoding Name | -- |
| Value Range |  |
| Resolution |  |
| Unit |  |

**Table: Signal Details of Example Signal**

### Logical Parameters

(No parameters have been defined)

### Encoding Types

Document ends here.