LOCO KAVACH PARAMETERS BASED ON KAVACH VERSION 4.0 FROM ANNEXURE-C AND ANNEXURE-A2

S.NO	DEFINED NAME	VALUE	REMARK
Access Request Packet			
1.	PKT_TYPE_SIZE	4	It is a length of 4 bits **Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
2.	PKT_UNDEF	0	Undefined, It is a length of 4 bits **Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
3.	PKT_TYPE_RADIO_FOR_VER_3_2	5	Radio packets for KAVACH V4.0, It is a length of 4 bits**.** **Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
4.	PKT_TYPE_RES1	8	Reserved for future use, It is a length of 4 bits **Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
5.	PKT_ONBOARD_STN_REGU	10	Onboard to Station Regular Packet, It is a length of 4 bits **Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
6.	PKT_ADTL_EMG_MSG	12	Additional Emergency Packet, It is a length of 4 bits **Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
7.	PKT_ONBOARD_ACSS_REQ	13	Onboard Access Request , It is a length of 4 bits **Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
8.	PKT_RES2	14	Reserved for future use, It is a length of 4 bits **Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
9.	PKT_RES3	15	Reserved for future use, It is a length of 4 bits **Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
10.	PKT_LENGTH_SIZE	7	Packet Length is in terms of bytes, It is a length of 7 bits**,** **Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
11.	PKT_LENGTH	111	It is a length of 7 bits **Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
12.	PKT_LENGTH_MAX	127	It is a length of 7 bits **Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
13.	PKT_LENGTH_MIN	0	It is a length of 7 bits **Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6

14.	FRAME_NUM_SIZE	17	1 to 86400 ((hr * 3600 + mm * 60 + ss)+ 1), It is a length of 17 bits **Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
15.	FRAME_NUM	111	It is a length of 17 bits **Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
16.	FRAME_NUM_MAX	86399	It is a length of 17 bits Example: 00:00:00 – Frame No 1 00:00:02 – Frame No. 3 …… 23:59:58 – Frame No 86399, **Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
17.	FRAME_NUM_MIN	1	It is a length of 17 bits **Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
18.	HOURS_MAX	23	**Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
19.	HOURS_MIN	0	**Reference:** Annexure-C-Specification of Kavach, page no: 31, C.4.8
20.	MINUTES_MAX	59	**Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
21.	MINUTES_MIN	0	**Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
22.	SECONDS_MAX	59	**Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
23.	SECONDS_MIN	0	**Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
24.	SRC_LOCO_ID	111	It is a length of 20 bits Source loco id **Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
25.	SRC_LOCO_ID_SIZE	20	It is a length of 20 bits **Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
26.	SRC_LOCO_ID_MIN	1	It is a length of 20 bits 1 to 999999 **Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
27.	SRC_LOCO_ID_MAX	999999	It is a length of 20 bits **Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
28.	SRC_LOCO_VERSION_SIZE	3	It is a length of 3 bits **Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6

29.	SRC_LOCO_VERSION	5	It is a length of 3 bits **Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
30.	SRC_LOCO_VERSION_NOT_USED	0	It is a length of 3 bits **Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
31.	SRC_LOCO_VERSION_3_2	1	Kavach Specification 3.2 It is a length of 3 bits **Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
32.	SRC_LOCO_VERSION_4_0	2	It is a length of 3 bits Kavach Specification 4.0 **Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
33.	ABS_LOCO_LOCATION_SIZE	23	It is a length of 23 bits **Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
34.	ABS_LOCO_LOCATION	111	It is a length of 23 bits Absolute Location in meters, **Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
35.	ABS_LOCO_LOCATION_MAX	8388607	It is a length of 23 bits. Absolute Location in meters, **Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
36.	ABS_LOCO_LOCATION_MIN	0	It is a length of 23 bits. Absolute Location in meters, **Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
37.	TRAIN_LENGTH_SIZE	11	It is a length of 11 bits. **Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
38.	TRAIN_LENGTH	111	It is a length of 11 bits. **Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
39.	TRAIN_LENGTH_UNIDENT	0	It is a length of 11 bits. Unidentified or invalid, **Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
40.	TRAIN_LENGTH_MAX	2047	It is a length of 11 bits. Train length in meters, **Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6
41.	TRAIN_LENGTH_MIN	1	It is a length of 11 bits. Train length in meters, **Reference:** Annexure-C-Specification of Kavach, page no: 64, C.5.6

42.	TRAIN_SPEED_SIZE	9	It is a length of 9 bits. **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6
43.	TRAIN_SPEED	111	It is a length of 9 bits. Train Speed in km/h, **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6
44.	TRAIN_SPEED_MAX	510	It is a length of 9 bits. Train Speed in km/h, **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6
45.	TRAIN_SPEED_MIN	0	It is a length of 9 bits. Train Speed in km/h, **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6
46.	TRAIN_SPEED_RESERVED_FU		It is a length of 9 bits. Reserved for future use **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6
47.	TRAIN_SPEED_UNIDENT	511	It is a length of 9 bits. Unidentified, **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6
48.	MOVEMENT_DIR_SIZE	2	It is a length of 2 bits. **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6
49.	MOVEMENT_DIR	1	It is a length of 2 bits. **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6
50.	MOVEMENT_DIR_UNIDENT	0	It is a length of 2 bits. Direction of Movement of Train not established / unidentified, **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6
51.	MOVEMENT_DIR_NOMINAL	1	It is a length of 2 bits. Nominal (Normally Traffic Direction as UP), **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6
52.	MOVEMENT_DIR_REVERSE	2	It is a length of 2 bits. Reverse (Normally Traffic Direction as DOWN), **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6
53.	MOVEMENT_RESERVED_FU	3	It is a length of 2 bits. Reserved for future use, **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6

54.	EMERGENCY_STATUS_SIZE	3	It is a length of 3 bits. **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6
55.	EMERGENCY_STATUS	0	It is a length of 3 bits. **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6
56.	NO_EMERGENCY_STATUS	0	It is a length of 3 bits. No Emergency – Regular Packet, **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6
57.	EMERGENCY_STATUS_SIDE_COL	1	It is a length of 3 bits. Side Collision (Unusual Stoppage), **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6
58.	EMERGENCY_STATUS_SOS	2	It is a length of 3 bits.SOS, **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6
59.	EMERGENCY_STATUS_ROLLBACK	3	It is a length of 3 bits. Roll Back Detected, **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6
60.	EMERGENCY_STATUS_HEADON_COL	4	It is a length of 3 bits. Head ON Collision, **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6
61.	EMERGENCY_STATUS_REAREND_COL	5	It is a length of 3 bits. Rear End Collision, **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6
62.	EMERGENCY_STATUS_PARTING_SOS	6	It is a length of 3 bits. Parting SOS **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6
63.	EMERGENCY_STATUS_SPARE	7	It is a length of 3 bits. Spare, **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6
64.	LOCO_MODE_SIZE	4	It is a length of 4 bits. **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6
65.	LOCO_MODE	4	It is a length of 4 bits. **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6
66.	LOCO_MODE_STAND_BY	1	It is a length of 4 bits. STAND BY, **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6

67.	LOCO_MODE_STAFRESP	2	It is a length of 4 bits. STAFF RESPONSIBLE_MODE, **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6
68.	LOCO_MODE_LTD_SUPERVISION	3	It is a length of 4 bits. LIMITED SUPERVISION, **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6
69.	LOCO_MODE_FULL_SUPERVISION	4	It is a length of 4 bits. FULL SUPERVISION, **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6
70.	LOCO_MODE_OVRD	5	It is a length of 4 bits. OVERRIDE, **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6
71.	LOCO_MODE_ON_SIGHT	6	It is a length of 4 bits. ON SIGHT, **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6
72.	LOCO_MODE_TRIP	7	It is a length of 4 bits. TRIP, **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6
73.	LOCO_MODE_POST_TRIP	8	It is a length of 4 bits. POST TRIP, **Reference:** Annexure-C-Specification of Kavach, page no: 32, C.4.8
74.	LOCO_MODE_REVERSE	9	It is a length of 4 bits. REVERSE, **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6
75.	LOCO_MODE_SHUNT	10	It is a length of 4 bits. SHUNTING, **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6
76.	LOCO_MODE_NON_LEAD	11	It is a length of 4 bits. NON LEADING, **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6
77.	LOCO_MODE_SYS_FAIL	12	It is a length of 4 bits. SYSTEM FAILURE, **Reference:** Annexure-C-Specification of Kavach, page no: 32, C.4.8
78.	LOCO_MODE_ISOLATION	13	It is a length of 4 bits. ISOLATION, **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6

79.	APPROACH_STN_ID_SIZE	16	It is a length of 4 bits. Approaching Station ID as received from Tag **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6
80.	APPROACH_STN_ID	111	It is a length of 16 bits. Approaching Station ID as received from Tag **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6
81.	APPROACH_STN_ID_MAX	65535	It is a length of 16 bits. **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6
82.	APPROACH_STN_ID_MIN	0	It is a length of 16 bits. **Reference:** Annexure-C-Specification of Kavach, page no: 65, C.5.6
83.	LAST_RFID_TAG_SIZE	10	It is a length of 10 bits. **Reference:** Annexure-C-Specification of Kavach, page no: 66, C.5.6
84.	LAST_RFID_TAG	111	It is a length of 10 bits. Tag ID of Last RFID Tag Read other than special tags like Banner Tag, Caution Tag, **Reference:** Annexure-C-Specification of Kavach, page no: 66, C.5.6
85.	LAST_RFID_TAG_MIN	0	It is a length of 10 bits. **Reference:** Annexure-C-Specification of Kavach, page no: 66, C.5.6
86.	LAST_RFID_TAG_MAX	1023	It is a length of 10 bits. **Reference:** Annexure-C-Specification of Kavach, page no: 66, C.5.6
87.	TIN_SIZE	9	It is a length of 9 bits. **Reference:** Annexure-C-Specification of Kavach, page no: 66, C.5.6
88.	TIN_VALUE	111	It is a length of 9 bits. **Reference:** Annexure-C-Specification of Kavach, page no: 66, C.5.6
89.	TIN_IGNORE	0	It is a length of 9 bits. Ignore/Don't care, **Reference:** Annexure-C-Specification of Kavach, page no: 66, C.5.6
90.	TIN_MAX	250	It is a length of 9 bits. Track Identity Number as per Track Section occupied, **Reference:** Annexure-C-Specification of Kavach, page no: 66, C.5.6
91.	TIN_MIN	1	It is a length of 9 bits. Track Identity Number as per Track Section occupied ,**Reference:** Annexure-C-Specification of Kavach, page no: 66, C.5.6

92.	ONBOARD_SHED_TIN	251	It is a length of 9 bits. Onboard shed TIN, **Reference:** Annexure-C-Specification of Kavach, page no: 66, C.5.6
93.	TIN_RESERVED_FU		It is a length of 9 bits. Reserved for future, **Reference:** Annexure-C-Specification of Kavach, page no: 66, C.5.6
94.	LONGITUDE_SIZE	21	It is a length of 21 bits. **Reference:** Annexure-C-Specification of Kavach, page no: 66, C.5.6
95.	LONGITUDE	11	It is a length of 21 bits. **Reference:** Annexure-C-Specification of Kavach, page no: 66, C.5.6
96.	LONGITUDE_MIN	-180	It is a length of 21 bits. **Reference:** Annexure-C-Specification of Kavach, page no: 66, C.5.6
97.	LONGITUDE_MAX	+180	It is a length of 21 bits. **Reference:** Annexure-C-Specification of Kavach, page no: 66, C.5.6
98.	LONGITUDE_SIGNED		It is a length of 21 bits. Signed. **Reference:** Annexure-C-Specification of Kavach, page no: 66, C.5.6
99.	LONGITUDE_DEG		It is a length of 21 bits. Degrees: First nine bits **Reference:** Annexure-C-Specification of Kavach, page no: 66, C.5.6
100.	LONGITUDE_MINUTES		It is a length of 21 bits. Minutes: six bits. **Reference:** Annexure-C-Specification of Kavach, page no: 66, C.5.6
101.	LONGITUDE_SECONDS		It is a length of 21 bits. Seconds: six bits **Reference:** Annexure-C-Specification of Kavach, page no: 66, C.5.6
102.	LATITUDE_SIZE	20	It is a length of 20 bits. **Reference:** Annexure-C-Specification of Kavach, page no: 66, C.5.6
103.	LATITUDE	11	It is a length of 20 bits. **Reference:** Annexure-C-Specification of Kavach, page no: 66, C.5.6
104.	LATITUDE_MIN	-90	It is a length of 20 bits. **Reference:** Annexure-C-Specification of Kavach, page no: 66, C.5.6
105.	LATITUDE_MAX	+90	It is a length of 20 bits. **Reference:** Annexure-C-Specification of Kavach, page no: 66, C.5.6

106.	LATITUDE_SIGNED		It is a length of 20 bits. Signed. **Reference:** Annexure-C-Specification of Kavach, page no: 66, C.5.6
107.	LATITUDE_DEG		It is a length of 20 bits. Degrees: First eight bits. **Reference:** Annexure-C-Specification of Kavach, page no: 66, C.5.6
108.	LATITUDE_MINUTES		It is a length of 20 bits. Minutes: six bits. **Reference:** Annexure-C-Specification of Kavach, page no: 66, C.5.6
109.	LATITUDE_SECONDS		It is a length of 20 bits. Seconds: six bits **Reference:** Annexure-C-Specification of Kavach, page no: 66, C.5.6
110.	LOCO_RAND_NUM_RL_SIZE	16	It is a length of 16 bits. Onboard Random number for session request. Change of this value by Onboard KAVACH indicates that requesting a fresh session from onboard KAVACH **Reference:** Annexure-C-Specification of Kavach, page no: 66, C.5.6
111.	LOCO_RAND_NUM_RL	111	It is a length of 16 bits. Onboard Random number for session request. Change of this value by Onboard KAVACH indicates that requesting a fresh session from onboard KAVACH **Reference:** Annexure-C-Specification of Kavach, page no: 66, C.5.6
112.	LOCO_RAND_NUM_RL_MIN	0	It is a length of 16 bits. Onboard Random number for session request. Change of this value by Onboard KAVACH indicates that requesting a fresh session from onboard KAVACH **Reference:** Annexure-C-Specification of Kavach, page no: 66, C.5.6
113.	LOCO_RAND_NUM_RL_MAX	65535	It is a length of 16 bits. Onboard Random number for session request. Change of this value by Onboard KAVACH indicates that requesting a fresh session from onboard KAVACH **Reference:** Annexure-C-Specification of Kavach, page no: 66, C.5.6
114.	PADDING_BITS	111	It is a length of 5 bits. If required to make sub packet length as multiple of bytes **Reference:** Annexure-C-Specification of Kavach, page no: 66, C.5.6

115.	PADDING_BITS_SIZE	5	It is a length of 5 bits. If required to make sub packet length as multiple of bytes **Reference:** Annexure-C-Specification of Kavach, page no: 66, C.5.6
116.	PKT_CRC	111	It is a length of 5 bits. Packet CRC, **Reference:** Annexure-C-Specification of Kavach, page no: 66, C.5.6
117.	PKT_CRC_SIZE	32	It is a length of 5 bits. Packet CRC, **Reference:** Annexure-C-Specification of Kavach, page no: 66, C.5.6
Access Authority Packet			
118.	SRC_STN_ILC_IBS_VERSION_SIZE	3	It is a length of 3 bits. **Reference**: Annexure- C-Specification of KAVACH, page no:-61, C.5.4.
119.	SRC_STN_ILC_IBS_VERSION	2	It is a length of 3 bits. **Reference**: Annexure- C-Specification of KAVACH, page no:-61, C.5.4.
120.	SRC_ STN_ILC_IBS_VERSION_NOT _USE	0	It is a length of 3 bits. Not used. **Reference**: Annexure- C-Specification of KAVACH, page no:-61, C.5.4.
121.	SRC_STN _ILC_IBS_VERSION_3_2	1	It is a length of 3 bits. KAVACH specification 3.2 **Reference**: Annexure- C-Specification of KAVACH, page no:-61, C.5.4.
122.	SRC_STN_ILC_IBS_VERSION_4_0	2	It is a length of 3 bits. KAVACH specification 4.0 **Reference:** Annexure- C-Specification of KAVACH, page no:-61, C.5.4.
123.	SRC_STN_ILC_IBS_VERSION_MIN	1	It is a length of 3 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-61, C.5.4.
124.	SRC_STN_ILC_IBS_VERSION_MAX	7	It is a length of 3 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-61, C.5.4.
125.	ALOTD_UPLINK_FREQ_SIZE	12	It is a length of 12 bits. **Reference**: Annexure- C-Specification of KAVACH, page no:-61, C.5.4.
126.	ALOTD_UPLINK_FREQ	111	It is a length of 12 bits. **Reference**: Annexure- C-Specification of KAVACH, page no:-61, C.5.4.
127.	ALOTD_UPLINK_FREQ_FDMA_NOT_US ED	0	It is a length of 12 bits. FDMA Not used It is a length of 12 bits.

			Reference: Annexure- C-Specification of KAVACH, page no:-61, C.5.4.
128.	ALOTD_UPLINK_FREQ_MAX	4095	It is a length of 12 bits. Base Frequency: 406 MHz (Configurable) Allotted Channel Frequencies at 25kHz space. **Reference**: Annexure- C-Specification of KAVACH, page no:-61, C.5.4.
129.	ALOTD_UPLINK_FREQ_MIN	0	It is a length of 12 bits. Base Frequency: 406 MHz (Configurable) Allotted Channel Frequencies at 25kHz space. **Reference**: Annexure- C-Specification of KAVACH, page no:-61, C.5.4.
130.	ALOTD_UPLINK_FREQ_FUTURE_USE		It is a length of 12 bits. Reserved for future use. **Reference:** Annexure- C-Specification of KAVACH, page no:-61, C.5.4.
131.	ALOTD_UPLINK_FREQ_RAD_COM_SYS	4094	It is a length of 12 bits. Other Radio Communication systems used like Wi-Fi /LTE/4G/5G Networks **Reference:** Annexure- C-Specification of KAVACH, page no:-61, C.5.4.
132.	ALOTD_UPLINK_FREQ_FOR_NOT_USED	4095	It is a length of 12 bits. Not to be used. **Reference:** Annexure- C-Specification of KAVACH, page no:-61, C.5.4.
Onboard to Station Regular Packet			
133.	L_DOUBTOVER_SIZE	9	It is a length of 9 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-55, C.5.3.
134.	L_DOUBTOVER	5	It is a length of 9 bits. Units in %**.** This is the over-reading amount plus the 5 m location accuracy of RFID Tag + 5% odometer error + Reader Offset in front (ROF). This information shall be used for distance supervision of targets on safe side (e.g. PSR, TSR, Linking, etc.) **Reference:** Annexure- C-Specification of KAVACH, page no:-55, C.5.3.
135.	L_DOUBTOVER_MAX	10	It is a length of 9 bits. Units in %. **Reference:** Annexure- A2-Specification of KAVACH, page no:-4, C.5.3.
136.	L_DOUBTOVER_MIN	2	It is a length of 9 bits. Units in %. **Reference:** Annexure- A2-Specification of KAVACH, page no:-4, C.5.3.
137.	L_DOUBTUNDER_SIZE	9	It is a length of 9 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-55, C.5.3.

138.	L_DOUBTUNDER	5	It is a length of 9 bits. Units in %**.** This is the under-reading amount plus the 5 m location accuracy of RFID Tag + 5% odometer error+ Reader Offset from Rear (ROR). This information shall be used for distance supervision of targets on safe-side (e.g. PSR, TSR, Linking, etc.) **Reference:** Annexure- C-Specification of KAVACH, page no:-55, C.5.3.
139.	L_DOUBTUNDER_MAX	10	It is a length of 9 bits. Units in %**.** **Reference:** Annexure- A2-Specification of KAVACH, page no:-4, C.5.3.
140.	L_DOUBTUNDER_MIN	2	It is a length of9 bits. Units in %**.** **Reference:** Annexure- A2-Specification of KAVACH, page no:-4, C.5.3.
141.	TRAIN_INT_SIZE	2	It is a length of 2 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-55, C.5.3.
142.	TRAIN_INT	2	It is a length of 2 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-55, C.5.3.
143.	TRAIN_INT_MAX	3	It is a length of 2 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-55, C.5.3.
144.	TRAIN_INT_MIN	0	It is a length of 2 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-55, C.5.3.
145.	NO_TRAIN_INT_INFO	0	It is a length of 2 bits. Train Integrity status of the train 00: No Train Integrity information available. **Reference:** Annexure- C-Specification of KAVACH, page no:-55, C.5.3.
146.	TRAIN_INT_CONF_BY_DEVICE	1	It is a length of 2 bits.01: Train integrity confirmed by integrity monitoring device. **Reference:** Annexure- C-Specification of KAVACH, page no:-55, C.5.3.
147.	TRAIN_INT_CONF_BY_LP	2	It is a length of 2 bits. 10: Train integrity confirmed by Loco Pilot **Reference:** Annexure- C-Specification of KAVACH, page no:-55, C.5.3.
148.	TRAIN_INT_RESERVED_FU	3	It is a length of 2 bits. 11: Reserved. **Reference:** Annexure- C-Specification of KAVACH, page no:-55, C.5.3.
149.	TAG_DUP_SIZE	1	It is a length of 1 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-57, C.5.3.
150.	TAG_MAIN	0	It is a length of 1 bits.

			0: Main Tag **Reference:** Annexure- C-Specification of KAVACH, page no:-57, C.5.3.
151.	TAG_DUP	1	It is a length of 1 bits. 1: Duplicate Tag **Reference:** Annexure- C-Specification of KAVACH, page no:-57, C.5.3.
152.	TAG_LINK_INFO_SIZE	3	It is a length of 3 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-57, C.5.3.
153.	TAG_LINK_INFO	4	It is a length of 3 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-57, C.5.3.
154.	TAG_LINK_INFO_MAX	7	It is a length of 3 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-57, C.5.3.
155.	TAG_LINK_INFO_MIN	0	It is a length of 3 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-57, C.5.3.
156.	NO_TAG_LINK_INFO	0	It is a length of 3 bits. No Tag missing **Reference:** Annexure- C-Specification of KAVACH, page no:-57, C.5.3.
157.	NO_DUP_TAG_LINK_INFO	1	It is a length of 3 bits. Duplicate Tag missing **Reference:** Annexure- C-Specification of KAVACH, page no:-57, C.5.3.
158.	NO_MAIN_TAG_LINK_INFO	2	It is a length of 3 bits. Main Tag missing **Reference:** Annexure- C-Specification of KAVACH, page no:-57, C.5.3.
159.	NO_BOTH_TAG_LINK_INFO	3	It is a length of 3 bits. Both Tag missing **Reference:** Annexure- C-Specification of KAVACH, page no:-57, C.5.3.
160.	TAG_LINK_INFO_POS_INTERCHANGE	4	It is a length of 3 bits. Tag position interchanged **Reference:** Annexure- C-Specification of KAVACH, page no:-57, C.5.3.
161.	SAME_TAG_LINK_INFO	5	It is a length of 3 bits. Both Tags have same location info **Reference:** Annexure- C-Specification of KAVACH, page no:-57, C.5.3.
162.	TAG_LINK_INFO_LESSTHAN_DDT	6	It is a length of 3 bits. Inter TAG distance less than DIST_DUP_TAG **Reference:** Annexure- C-Specification of KAVACH, page no:-57, C.5.3.
163.	TAG_LINK_INFO_GREATERTHAN_DDT	7	It is a length of 3 bits.

			Inter tag distance greater than DIST_DUP_TAG It is a length of 4 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-57, C.5.3.
164.	BRAKE_APPLIED_SIZE	3	It is a length of 3 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-57, C.5.3.
165.	BRAKE_APPLIED	4	It is a length of 3 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-57, C.5.3.
166.	BRAKE_APPLIED_MAX	7	It is a length of 3 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-57, C.5.3.
167.	BRAKE_APPLIED_MIN	0	It is a length of 3 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-57, C.5.3.
168.	NOOVRSPD_NOBRKS_KAVACH	0	It is a length of 3 bits. No over speed, No brakes by KAVACH, **Reference:** Annexure- C-Specification of KAVACH, page no:-57, C.5.3.
169.	OVRSPD_NOBRKS_KAVACH	1	It is a length of 3 bits. Over speed but no brakes by KAVACH, **Reference:** Annexure- C-Specification of KAVACH, page no:-57, C.5.3.
170.	NORM_SVCBRKS_KAVACH	2	It is a length of 3 bits. Normal Service Brake by KAVACH, **Reference:** Annexure- C-Specification of KAVACH, page no:-57, C.5.3.
171.	FULL_SVCBRKS_KAVACH	3	It is a length of 3 bits. Full Service Brake by KAVACH, **Reference:** Annexure- C-Specification of KAVACH, page no:-57, C.5.3.
172.	EMERG_BRAKE_KAVACH	4	It is a length of 3 bits. Emergency Brake by KAVACH, **Reference:** Annexure- C-Specification of KAVACH, page no:-57, C.5.3.
173.	BRAKE_APPLIED_SPARE1	5	It is a length of 3 bits. Spare, **Reference:** Annexure- C-Specification of KAVACH, page no:-57, C.5.3.
174.	BRAKE_APPLIED_SPARE2	6	It is a length of 3 bits. Spare, **Reference:** Annexure- C-Specification of KAVACH, page no:-57, C.5.3.
175.	BRAKE_APPLIED_SPARE3	7	It is a length of 3 bits. Spare, **Reference:** Annexure- C-Specification of KAVACH,

			page no:-57, C.5.3.
176.	NEW_MA_REPLY_SIZE	2	It is a length of 2 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-58, C.5.3.
177.	NEW_MA_REPLY_MAX	3	It is a length of 2 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-58, C.5.3.
178.	NEW_MA_REPLY_MIN	0	It is a length of 2 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-58, C.5.3.
179.	NO_NEW_MA_REPLY	0	It is a length of 2 bits. 0: No request for Shorten MA from Station KAVACH **Reference:** Annexure- C-Specification of KAVACH, page no:-58, C.5.3.
180.	REQ_SHORTEN_MA_GRANTED	1	It is a length of 2 bits. 1: Request to Shorten MA granted **Reference:** Annexure- C-Specification of KAVACH, page no:-58, C.5.3.
181.	REQ_SHORTEN_MA_REJECTED	2	It is a length of 2 bits. 2: Request to Shorten MA rejected **Reference:** Annexure- C-Specification of KAVACH, page no:-58, C.5.3.
182.	NEW_MA_REPLY_RESERVED	3	It is a length of 2 bits. 3: reserved **Reference:** Annexure- C-Specification of KAVACH, page no:-58, C.5.3.
183.	LAST_REF_PROFILE_NUM_SIZE	4	It is a length of 4 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-58, C.5.3.
184.	LAST_REF_PROFILE_NUM_MAX	15	It is a length of 4 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-58, C.5.3.
185.	LAST_REF_PROFILE_NUM_MIN	0	It is a length of 4 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-58, C.5.3.
186.	LAST_REF_PROFILE_NUM	0	It is a length of 4 bits. 0: Indicates no track profile data with Onboard KAVACH in given MA. On receipt of Access Authority Packet, the onboard KAVACH shall send '0000' retraining the profile already available for speed supervision **Reference:** Annexure- C-Specification of KAVACH, page no:-58, C.5.3.
187.	SIG_OVRD_SIZE	1	It is a length of 1 bit. **Reference:** Annexure- C-Specification of KAVACH, page no:-58, C.5.3.

188.	SIG_OVRD	1	It is a length of 1 bit. **Reference:** Annexure- C-Specification of KAVACH, page no:-58, C.5.3.
189.	SIG_OVRD_INACTIVE	0	It is a length of 1 bit. 0: Signal Override Inactive **Reference:** Annexure- C-Specification of KAVACH, page no:-58, C.5.3.
190.	SIG_OVRD_ACTIVE	1	It is a length of 1 bit. 1: Signal Override Active **Reference:** Annexure- C-Specification of KAVACH, page no:-58, C.5.3.
191.	INFO_ACK_SIZE	4	It is a length of 4 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-59, C.5.3.
192.	INFO_ACK	3	It is a length of 4 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-59, C.5.3.
193.	INFO_ACK_MAX	15	It is a length of 4 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-59, C.5.3.
194.	INFO_ACK_MIN	0	It is a length of 4 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-59, C.5.3.
195.	NO_INFO_ACK	0	It is a length of 4 bits.0: No Ack **Reference:** Annexure- C-Specification of KAVACH, page no:-59, C.5.3.
196.	LOCOPILOT_SOS_INFO_ACK	1	It is a length of 4 bits. 1: Loco Specific SoS Ack by LP **Reference:** Annexure- C-Specification of KAVACH, page no:-59, C.5.3.
197.	FS_LS_ACK_INFO_LP	2	It is a length of 4 bits. 2: FS to LS Ack by LP **Reference:** Annexure- C-Specification of KAVACH, page no:-59, C.5.3.
198.	LS_SR_ACK_INFO_LP	3	It is a length of 4 bits. 3: LS to SR Ack by LP **Reference:** Annexure- C-Specification of KAVACH, page no:-59, C.5.3.
199.	FS_SR_ACK_INFO_LP	4	It is a length of 4 bits. 4: FS to SR Ack by LP **Reference:** Annexure- C-Specification of KAVACH, page no:-59, C.5.3.
200.	OS_SR_ACK_INFO_LP	5	It is a length of 4 bits. 5: OS to SR Ack by LP **Reference:** Annexure- C-Specification of KAVACH, page no:-59, C.5.3.
201.	OV_SR_ACK_INFO_LP	6	It is a length of 4 bits. 6: OV to SR Ack by LP

			Reference: Annexure- C-Specification of KAVACH, page no:-59, C.5.3.
202.	INFO_ACK_TRIP_LP	7	It is a length of 4 bits. 7: Trip Ack by LP **Reference:** Annexure- C-Specification of KAVACH, page no:-59, C.5.3.
203.	PTRIP_SR_ACK_INFO_LP	8	It is a length of 4 bits. 8: PTRIP to SR Ack by LP **Reference:** Annexure- C-Specification of KAVACH, page no:-59, C.5.3.
204.	INFO_ACK_AUTO_HORN	9	It is a length of 4 bits. 9: Auto horn Ack by LP **Reference:** Annexure- C-Specification of KAVACH, page no:-59, C.5.3.
205.	TLM_START_INFO_ACK	10	It is a length of 4 bits. 10: Train Length Measurement (TLM) Start packet received Ack from Onboard KAVACH **Reference:** Annexure- C-Specification of KAVACH, page no:-59, C.5.3.
206.	TLM_END_INFO_ACK	11	It is a length of 4 bits. 11: TLM End packet received Ack from Onboard KAVACH **Reference:** Annexure- C-Specification of KAVACH, page no:-59, C.5.3.
207.	UNUSUAL_STOP_INFO_ACK	12	It is a length of 4 bits. 12: Unusual Stoppage Ack by LP **Reference:** Annexure- C-Specification of KAVACH, page no:-59, C.5.3.
208.	MANUAL_SOS_INFO_ACK	13	It is a length of 4 bits. 13: Manual SoS Ack by LP **Reference:** Annexure- C-Specification of KAVACH, page no:-59, C.5.3.
209.	INFO_ACK_SPARE1	14	It is a length of 4 bits. 14: Spare **Reference:** Annexure- C-Specification of KAVACH, page no:-59, C.5.3.
210.	INFO_ACK_SPARE2	15	It is a length of 4 bits. 15: Spare **Reference:** Annexure- C-Specification of KAVACH, page no:-59, C.5.3.
211.	SPARE_FOR_FUTURE_USE		It is a length of 2 bits. FUTURE USE **Reference:** Annexure- C-Specification of KAVACH, page no:-59, C.5.3.
212.	LOCO_HEALTH_STATUS_SIZE	6	It is a length of 6 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-59, C.5.3.

213.	LOCO_HEALTH_STATUS_MIN	0	It is a length of 6 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-59, C.5.3.
214.	LOCO_HEALTH_STATUS_MAX	63	It is a length of 6 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-59, C.5.3.
215.	LOCO_HEALTH_STATUS		It is a length of 6 bits. Onboard Kavach health shall be prepared for length of 24bits and same to be included in each radio packet as per below procedure. Each bit indicates status of each sub system in the Onboard Kavach unit. (Only for NMS Logging and report generation) **Reference:** Annexure- C-Specification of KAVACH, page no:-59, C.5.3.
Additional Emergency Packet			
216.	GEN_SOS_CALL_SIZE	1	It is a length of 1 bit. **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.5
217.	GEN_SOS_CALL	1	It is a length of 1 bit. **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.5
218.	NO_GEN_SOS_CALL	0	It is a length of 1 bit. No Station Manual SoS **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.5.
219.	GEN_SOS_CALL_BY_STN	1	It is a length of 1 bit. General SoS Call generated by Stationary unit Conditions: Manual operation of SOS buttons provided on SOIP. **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.5.
Static Speed Profile			
220.	SUB_PKT_TYPE	11	It is a length of 4 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-44, C.5.2.
221.	SUB_PKT_TYPE_SIZE	4	It is a length of 4 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-44, C.5.2.
222.	SUB_PKT_TYPE_MIN	0	It is a length of 4 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-44, C.5.2.
223.	SUB_PKT_TYPE_MAX	15	It is a length of 4 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-44, C.5.2.

224.	SUB_PKT_TYPE_MA	0	It is a length of 4 bits. - 0000: Movement Authority **Reference:** Annexure- C-Specification of KAVACH, page no:-44, C.5.2.
225.	SUB_PKT_TYPE_SSP_PROF	1	It is a length of 4 bits. - 0001: Static Speed Profile **Reference:** Annexure- C-Specification of KAVACH, page no:-44, C.5.2.
226.	SUB_PKT_TYPE_GRAD_PROF	2	It is a length of 4 bits. - 0010: Gradient Profile **Reference:** Annexure- C-Specification of KAVACH, page no:-44, C.5.2.
227.	SUB_PKT_TYPE_LC_GATE_PROF	3	It is a length of 4 bits. - 0011: LC gate profile **Reference:** Annexure- C-Specification of KAVACH, page no:-44, C.5.2.
228.	SUB_PKT_TYPE_TURNOUT_SPD_PROF	4	It is a length of 4 bits. - 0100: Turnout Speed Profile **Reference:** Annexure- C-Specification of KAVACH, page no:-44, C.5.2.
229.	SUB_PKT_TYPE_TAG_LINK_INFO	5	It is a length of 4 bits. - 0101: Tag Linking Information **Reference:** Annexure- C-Specification of KAVACH, page no:-44, C.5.2.
230.	SUB_PKT_TYPE_TRACK_CONDITION	6	It is a length of 4 bits. - 0110: Track Condition data **Reference:** Annexure- C-Specification of KAVACH, page no:-44, C.5.2.
231.	SUB_PKT_TYPE_TEMP_SPD_RESTRICT	7	It is a length of 4 bits. -0111:Temporary speed Restrictions Profile
232.	SUB_PKT_TYPE_RESERVED_FU		It is a length of 4 bits. - 1000 to 1111: Reserved for future use
233.	SUB_PKT_LENGTH_SIZE	7	It is a length of 7 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-44, C.5.2.
234.	SUB_PKT_LENGTH_SSP	111	It is a length of 7 bits. Length in bytes. Max 128 bytes (1024 bits **Reference:** Annexure- C-Specification of KAVACH, page no:-44, C.5.2.
235.	SUB_PKT_LENGTH_SSP_MAX	128	It is a length of 7 bits. Length in bytes. Max 128 bytes (1024 bits. **Reference:** Annexure-C-Specification of KAVACH, page no:-44, C.5.2.
236.	SUB_PKT_LENGTH_SSP_MIN	1	It is a length of 7 bits. Length in bytes. Max 128 bytes (1024 bits **Reference:** Annexure- C-Specification of KAVACH, page no:-44, C.5.2.

237.	LM_SPD_INFO_CNT_SIZE	5	It is a length of 5 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-44, C.5.2.
238.	LM_SPD_INFO_CNT	11	It is a length of 5 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-44, C.5.2.
239.	LM_SPD_INFO_CNT_MIN	1	It is a length of 5 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-44, C.5.2.
240.	LM_SPD_INFO_CNT_MAX	31	It is a length of 5 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-44, C.5.2.
241.	LM_STATIC_SPD_DIST_SIZE	15	It is a length of 15 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-45, C.5.2.
242.	LM_STATIC_SPD_DIST	111	It is a length of 15 bits. Value in meters i.e. ranging from 0 – 32.76 km **Reference:** Annexure- C-Specification of KAVACH, page no:-45, C.5.2.
243.	LM_STATIC_SPD_DIST_MIN	0	It is a length of 15 bits. Value in meters i.e. ranging from 0 – 32.76 km **Reference:** Annexure- C-Specification of KAVACH, page no:-45, C.5.2.
244.	LM_STATIC_SPD_DIST_MAX	32767	It is a length of 15 bits. Value in meters i.e. ranging from 0 – 32.76 km **Reference:** Annexure- C-Specification of KAVACH, page no:-45, C.5.2.
245.	LM_STATIC_SPD_CLASS_SIZE	1	It is a length of 1 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-45, C.5.2.
246.	LM_STATIC_SPD_CLASS	1	It is a length of 1 bits. 0 – Universal Speed will follow 1 – Classified Speeds A,B,C will follow **Reference:** Annexure- C-Specification of KAVACH, page no:-45, C.5.2.
247.	LM_STATIC_SPD_CLASS_UNIVERSAL	0	It is a length of 1 bits. 0 – Universal Speed will follow **Reference:** Annexure- C-Specification of KAVACH, page no:-45, C.5.2.
248.	LM_STATIC_SPD_CLASS_CLASSIFIED	1	It is a length of 1 bits. 1 – Classified Speeds A,B,C will follow **Reference:** Annexure- C-Specification of KAVACH, page no:-45, C.5.2.
249.	LM_STATIC_SPD_CLASS_MIN	0	It is a length of 1 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-45, C.5.2.
250.	LM_STATIC_SPD_CLASS_MAX	1	It is a length of 1 bits.

			Reference: Annexure- C-Specification of KAVACH, page no:-45, C.5.2.
251.	LM_STATIC_SPD_VALUE_SIZE	6	It is a length of 6 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-45, C.5.2.
252.	LM_STATIC_SPD_VALUE	19	It is a length of 6 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-45, C.5.2.
253.	LM_STATIC_SPD_VALUE_MAX	63	It is a length of 6 bits. 0: Reserved 1- 50: 5-250 Kmph, Speed in steps of 5kmph. Max Speed = 250 kmph 51--61 : Reserved for future use 62 – 8 Kmph 63 : Unknown **Reference:** Annexure- C-Specification of KAVACH, page no:-45, C.5.2.
254.	LM_STATIC_SPD_VALUE_MIN	0	It is a length of 6 bits. 0: Reserved 1- 50: 5-250 Kmph, Speed in steps of 5kmph. Max Speed = 250 kmph 51--61 : Reserved for future use 62 – 8 Kmph 63 : Unknown **Reference:** Annexure- C-Specification of KAVACH, page no:-45, C.5.2.
255.	LM_STATIC_SPEED_VALUE_UNIVERSAL	0	It is a length of 6 bits. Universal Static Speed **Reference:** Annexure- C-Specification of KAVACH, page no:-45, C.5.2.
256.	LM_STATIC_SPEED_VAL_CAT_A	1	It is a length of 6 bits. Static Speed for Category A Trains (LE / Passenger Trains) **Reference:** Annexure- C-Specification of KAVACH, page no:-45, C.5.2.
257.	LM_STATIC_SPEED_VAL_CAT_B	1	It is a length of 6 bits. Static Speed for Category B Trains (Loaded Goods Trains) **Reference:** Annexure- C-Specification of KAVACH, page no:-45, C.5.2.
258.	LM_STATIC_SPEED_VAL_CAT_C	1	It is a length of 6 bits. Static Speed for Category C Trains (Empty Goods Trains) **Reference:** Annexure- C-Specification of KAVACH, page no:-45, C.5.2.
Gradient Profile			
259.	SUB_PKT_LENGTH_GRAD_SIZE	7	It is a length of 7 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-45, C.5.2.
260.	SUB_PKT_LENGTH_GRAD	111	It is a length of 7 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-45, C.5.2.
261.	SUB_PKT_LENGTH_GRAD_MIN	1	It is a length of 7 bits.

			Length in bytes. Max 128 bytes (1024 bits). **Reference:** Annexure- C-Specification of KAVACH, page no:-45, C.5.2.
262.	SUB_PKT_LENGTH_GRAD_MAX	128	It is a length of 7 bits. Length in bytes. Max 128 bytes (1024 bits). **Reference:** Annexure- C-Specification of KAVACH, page no:-45, C.5.2.
263.	LM_GRAD_INFO_CNT_SIZE	5	It is a length of 5 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-45, C.5.2.
264.	LM_GRAD_INFO_CNT	11	It is a length of 5 bits. 1 to 31 **Reference:** Annexure- C-Specification of KAVACH, page no:-45, C.5.2.
265.	LM_GRAD_INFO_CNT_MIN	1	It is a length of 5 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-45, C.5.2.
266.	LM_GRAD_INFO_CNT_MAX	31	It is a length of 5 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-45, C.5.2.
267.	LM_GRADENT_DIST_SIZE	15	It is a length of 15 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-45, C.5.2.
268.	LM_GRADENT_DIST	111	It is a length of 15 bits. Value in meters i.e. ranging from 0 – 32.76 km **Reference:** Annexure- C-Specification of KAVACH, page no:-45, C.5.2.
269.	LM_GRADENT_DIST_MIN	0	It is a length of 15 bits. Value in meters i.e. ranging from 0 – 32.76 km **Reference:** Annexure- C-Specification of KAVACH, page no:-45, C.5.2.
270.	LM_GRADENT_DIST_MAX	32767	It is a length of 15 bits. Value in meters i.e. ranging from 0 – 32.76 km **Reference:** Annexure- C-Specification of KAVACH, page no:-45, C.5.2.
271.	LM_GDIR_SIZE	1	It is a length of 1 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-45, C.5.2.
272.	LM_GDIR	1	It is a length of 1 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-45, C.5.2.
273.	LM_GDIR_MIN	0	It is a length of 1 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-45, C.5.2.
274.	LM_GDIR_MAX	1	It is a length of 1 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-45, C.5.2.
275.	LM_DOWNHILL_GDIR	0	It is a length of 1 bits.

			0 = downhill **Reference:** Annexure- C-Specification of KAVACH, page no:-45, C.5.2.
276.	LM_UPHILL_GDIR	1	It is a length of 1 bits. 1 = uphill **Reference:** Annexure- C-Specification of KAVACH, page no:-45, C.5.2.
277.	LM_GRADIENT_VALUE_SIZE	5	It is a length of 5 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-46, C.5.2.
278.	LM_GRADIENT_VALUE	11	It is a length of 5 bits. This is the absolute value of the average gradient between two defined position as described in Annexure-I . Values lie between 0 to 30. Value 31: reserved. n : Gradient from “1 in (1000/n)” to not steeper than “1 in {1000/(n+1)}” **Reference:** Annexure- C-Specification of KAVACH, page no:-46, C.5.2.
279.	LM_GRADIENT_VALUE_MIN	0	It is a length of 5 bits. 0: Gradient not steeper than “1 in 1000”. Includes Level Gradient n : Gradient from “1 in (1000/n)” to not steeper than “1 in {1000/(n+1)}” **Reference:** Annexure- C-Specification of KAVACH, page no:-46, C.5.2.
280.	LM_GRADIENT_VALUE_MAX	31	It is a length of 5 bits.30:Gradient steeper than “1 in 33” **,** 31: Reserved **Reference:** Annexure- C-Specification of KAVACH, page no:-46, C.5.2.
LC Gate profile			
281.	SUB_PKT_LENGTH_LC_SIZE	7	It is a length of 7 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-46, C.5.2.
282.	SUB_PKT_LENGTH_LC	111	It is a length of 7 bits. Length in bytes. Max 128 bytes (1024 bits). **Reference:** Annexure- C-Specification of KAVACH, page no:-46, C.5.2.
283.	SUB_PKT_LENGTH_LC_MIN	1	It is a length of 7 bits. Length in bytes. Max 128 bytes (1024 bits). **Reference:** Annexure- C-Specification of KAVACH, page no:-46, C.5.2.
284.	SUB_PKT_LENGTH_LC_MAX	128	It is a length of 7 bits. Length in bytes. Max 128 bytes (1024 bits). **Reference:** Annexure- C-Specification of KAVACH, page no:-46, C.5.2.

285.	LM_LC_INFO_CNT_SIZE	5	It is a length of 5 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-46, C.5.2.
286.	LM_LC_INFO_CNT	11	It is a length of 5 bits. 0 to 31 **Reference:** Annexure- C-Specification of KAVACH, page no:-46, C.5.2.
287.	LM_LC_INFO_CNT_MIN	0	It is a length of 5 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-46, C.5.2.
288.	LM_LC_INFO_CNT_MAX	31	It is a length of 5 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-46, C.5.2.
289.	LM_LC_DISTANCE_SIZE	15	It is a length of 15 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-46, C.5.2.
290.	LM_LC_DISTANCE_MIN	0	It is a length of 15 bits. Value in meters i.e. ranging from 0 – 32.76 km **Reference:** Annexure- C-Specification of KAVACH, page no:-46, C.5.2.
291.	LM_LC_DISTANCE_MAX	32767	It is a length of 15 bits. Value in meters i.e. ranging from 0 – 32.76 km **Reference:** Annexure- C-Specification of KAVACH, page no:-46, C.5.2.
292.	LM_LC_DISTANCE	111	It is a length of 15 bits. Value in meters i.e. ranging from 0 – 32.76 km **Reference:** Annexure- C-Specification of KAVACH, page no:-46, C.5.2.
293.	LM_LC_ID_NUMERIC_SIZE	10	It is a length of 10 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
294.	LM_LC_ID_NUMERIC	111	It is a length of 10 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
295.	LM_LC_ID_INVALID_NUMERIC	0	It is a length of 10 bits. 0: Invalid **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
296.	LM_LC_ID_VALID_NUMERIC	111	It is a length of 10 bits. 1 – 1021: LC Gate Number **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
297.	LM_LC_ID_NUMERIC_OUT_OF_RANGE	1022	It is a length of 10 bits. 1022: LC Gate Number other than 1 to 1022 - out of range **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
298.	LM_LC_ID_VALID_NUMERIC_SPARE	1023	It is a length of 10 bits.

			1023: Spare **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
299.	LM_LC_ID_ALPHA_SUFIX_SIZE	3	It is a length of 3 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
300.	LM_LC_ID_ALPHA_NO_SUFIX	0	It is a length of 3 bits. No suffix **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
301.	LM_LC_ID_ALPHA_SUFIX_A	1	It is a length of 3 bits. a, **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
302.	LM_LC_ID_ALPHA_SUFIX_B	2	It is a length of 3 bits. b, **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
303.	LM_LC_ID_ALPHA_SUFIX_C	3	It is a length of 3 bits. C, **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
304.	LM_LC_ID_ALPHA_SUFIX_D	4	It is a length of 3 bits. D **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
305.	LM_LC_ID_ALPHA_SUFIX_E	5	It is a length of 3 bits. E, **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
306.	LM_LC_ID_ALPHA_SUFIX_OUT_OF_RANGE	6	It is a length of 3 bits. Out of Range (Display xx on DMI) **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
307.	LM_LC_ID_ALPHA_SUFIX_SPARE	7	It is a length of 3 bits. Spare **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
308.	LM_LC_MANNING_TYPE_SIZE	1	It is a length of 1 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
309.	LM_LC_MANNING_TYPE	1	It is a length of 1 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
310.	LM_LC_MANNED_TYPE	0	It is a length of 1 bits. 0 : Manned, **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.

311.	LM_LC_MANNING_TYPE_MIN	0	It is a length of 1 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
312.	LM_LC_MANNING_TYPE_MAX	1	It is a length of 1 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
313.	LM_LC_CLASS_SIZE	3	It is a length of 3 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
314.	LM_LC_CLASS	4	It is a length of 3 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
315.	LM_LC_CLASS_MIN	0	It is a length of 3 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
316.	LM_LC_CLASS_MAX	7	It is a length of 3 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
317.	LM_LC_UNMANNED_TYPE	1	It is a length of 1 bits. 1 : Unmanned **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
318.	LM_LC_SPL_CLASS	0	It is a length of 3 bits. Special **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
319.	LM_LC_CLASS_A	1	It is a length of 3 bits. A **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
320.	LM_LC_CLASS_B1	2	It is a length of 3 bits **,** B1 **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
321.	LM_LC_CLASS_B2	3	It is a length of 3 bits. B2 **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
322.	LM_LC_CLASS_B	4	It is a length of 3 bits. B **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
323.	LM_LC_CLASS_C	5	It is a length of 3 bits. C **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
324.	LM_LC_CLASS_D	6	It is a length of 3 bits. D **Reference:** Annexure- C-Specification of KAVACH,

			page no:-47, C.5.2.
325.	LM_LC_CLASS_SPARE	7	It is a length of 3 bits. SPARE **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
326.	LM_LC_AUTO_WHISTLING_ENABLED_SIZE	1	It is a length of 1 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
327.	LM_LC_AUTO_WHISTLING_ENABLED	1	It is a length of 1 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
328.	LM_LC_AUTO_WHISTLING_NOT_ENABLED	0	It is a length of 1 bits. 0 : No, 1 : Yes **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
329.	LM_LC_AUTO_WHISTLING_ENABLED	1	It is a length of 1 bits. 0 : No, 1 : Yes **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
330.	LM_LC_AUTO_WHISTLING_DIST_TYPE_SIZE	2	It is a length of 2 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
331.	LM_LC_AUTO_WHISTLING_DIST_TYPE_MAX	3	It is a length of 2 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
332.	LM_LC_AUTO_WHISTLING_DIST_TYPE_MIN	0	It is a length of 2 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
333.	LM_LC_AUTO_WHISTLING_DIST_TYPE	0	It is a length of 2 bits. 00 Distance Based **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
334.	LM_LC_AUTO_WHISTLING_TIMBASED	1	It is a length of 2 bits. 01 Time Based (Not Used) **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
335.	LM_LC_AUTO_WHISTLING_COFIG_PATTERN_BASED	2	It is a length of 2 bits. 10 Configured Pattern Based (Not Used) **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
336.	LM_LC_AUTO_WHISTLING_SPARE	3	It is a length of 2 bits. 11 Spare **Reference:** Annexure- C-Specification of KAVACH, page no:-47, C.5.2.
Turnout Speed Profile			
337.	SUB_PKT_LENGTH_TSP_SIZE	7	It is a length of 7 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-48, C.5.2.

338.	SUB_PKT_LENGTH_TSP	111	It is a length of 7 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-48, C.5.2.
339.	SUB_PKT_LENGTH_TSP_MAX	128	It is a length of 7 bits. Length in bytes. Max 128 bytes (1024 bits) **Reference:** Annexure- C-Specification of KAVACH, page no:-48, C.5.2.
340.	SUB_PKT_LENGTH_TSP_MIN	1	It is a length of 7 bits. Length in bytes. Max 128 bytes (1024 bits) **Reference:** Annexure- C-Specification of KAVACH, page no:-48, C.5.2.
341.	TO_CNT_SIZE	2	It is a length of 2 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-48, C.5.2.
342.	TO_CNT	3	It is a length of 2 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-48, C.5.2.
343.	NO_TO_CNT	0	It is a length of 2 bits.0: No turnouts **Reference:** Annexure- C-Specification of KAVACH, page no:-48, C.5.2.
344.	TO_CNT_MAX	3	It is a length of 2 bits. 1-3: No of turnouts follow **Reference:** Annexure- C-Specification of KAVACH, page no:-48, C.5.2.
345.	TO_CNT_MIN	1	It is a length of 2 bits. 1-3: No of turnouts follow **Reference:** Annexure- C-Specification of KAVACH, page no:-48, C.5.2.
346.	TO_SPEED_SIZE	5	It is a length of 5 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-48, C.5.2.
347.	TO_SPEED_MIN	0	It is a length of 5 bits. Not Used **Reference:** Annexure- C-Specification of KAVACH, page no:-48, C.5.2.
348.	TO_SPEED_MAX	32	It is a length of 5 bits. Unrestricted **Reference:** Annexure- C-Specification of KAVACH, page no:-48, C.5.2.
349.	TO_SPEED_5KMPH	1	It is a length of 5 bits. Up to 5 kmph **Reference:** Annexure- C-Specification of KAVACH, page no:-48, C.5.2.
350.	TO_SPEED_10KMPH	2	It is a length of 5 bits. Up to 10 kmph **Reference:** Annexure- C-Specification of KAVACH, page no:-48, C.5.2.

351.	TO_SPEED_15KMPH	3	It is a length of 5 bits. Up to 15 kmph **Reference:** Annexure- C-Specification of KAVACH, page no:-48, C.5.2.
352.	TO_SPEED_RESERVED_FU		It is a length of 5 bits. 10011- 11110 Reserved for future use **Reference:** Annexure- C-Specification of KAVACH, page no:-48, C.5.2.
353.	DIFF_DIST_TO_SIZE	15	It is a length of 15 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-48, C.5.2.
354.	DIFF_DIST_TO	111	It is a length of 15 bits. Only If TO_SPEED = restricted, DIFF_DIST_TO variable follow. Starting Distance of the turnout from last reference RFID. Value in meters i.e. ranging from 0 – 32.76 km **Reference:** Annexure- C-Specification of KAVACH, page no:-48, C.5.2.
355.	DIFF_DIST_TO_MIN	0	It is a length of 15 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-48, C.5.2.
356.	DIFF_DIST_TO_MAX	32767	It is a length of 15 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-48, C.5.2.
357.	TO_SPEED_REL_DIST_SIZE	12	It is a length of 12 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-48, C.5.2.
358.	TO_SPEED_REL_DIST	111	It is a length of 12 bits. Only If TO_SPEED = restricted, DIFF_DIST_TO variable follow. Turnout release distance. Value in meters i.e. ranging from 0 - 4095 m. Value to be given up to end of turnout or up to other location will be defined by railways **Reference:** Annexure- C-Specification of KAVACH, page no:-48, C.5.2.
359.	TO_SPEED_REL_DIST_MAX	4095	It is a length of 12 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-48, C.5.2.
360.	TO_SPEED_REL_DIST_MIN	0	It is a length of 12 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-48, C.5.2.
Tag Linking Information			
361.	SUB_PKT_LENGTH_TLI_SIZE	7	It is a length of 7 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-49, C.5.2.
362.	SUB_PKT_LENGTH_TLI	111	It is a length of 7 bits. Length in bytes. Max 128 bytes (1024 bits).

			Reference: Annexure- C-Specification of KAVACH, page no:-49, C.5.2.
363.	SUB_PKT_LENGTH_TLI_MIN	1	It is a length of 7 bits. Length in bytes. Max 128 bytes (1024 bits). **Reference:** Annexure- C-Specification of KAVACH, page no:-49, C.5.2.
364.	SUB_PKT_LENGTH_TLI_MAX	128	It is a length of 7 bits. Length in bytes. Max 128 bytes (1024 bits). **Reference:** Annexure- C-Specification of KAVACH, page no:-49, C.5.2.
365.	DIST_DUP_TAG_SIZE	4	It is a length of 4 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-49, C.5.2.
366.	DIST_DUP_TAG	11	It is a length of 4 bits. Distance between Main and duplicate tag. **Reference:** Annexure- C-Specification of KAVACH, page no:-49, C.5.2.
367.	DIST_DUP_TAG_MIN	0	It is a length of 4 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-49, C.5.2.
368.	DIST_DUP_TAG_MAX	15	It is a length of 4 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-49, C.5.2.
369.	DIST_DUP_TAG_LESSTHAN_1MTR	0	It is a length of 4 bits. 0000 shall be sent when the tags are placed closer than 1 meter. **Reference:** Annexure- C-Specification of KAVACH, page no:-49, C.5.2.
370.	DIST_DUP_TAG_INVALID	15	It is a length of 4 bits. 1111 is invalid **Reference:** Annexure- C-Specification of KAVACH, page no:-49, C.5.2.
371.	ROUTE_RFID_CNT_SIZE	6	It is a length of 6 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-49, C.5.2.
372.	ROUTE_RFID_CNT	11	It is a length of 6 bits. List of expected approaching RFID tags from reference position up to the End of Authority. Station updates the new list only when required. **Reference:** Annexure- C-Specification of KAVACH, page no:-49, C.5.2.
373.	ROUTE_RFID_CNT_MIN	0	It is a length of 6 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-49, C.5.2.
374.	ROUTE_RFID_CNT_MAX	63	It is a length of 6 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-49, C.5.2.
375.	NO_ROUTE_RFID_CNT	0	It is a length of 6 bits. 0: No tag shall be crossed by Onboard KAVACH.

			e.g.: In approach of danger signal. **Reference:** Annexure- C-Specification of KAVACH, page no:-49, C.5.2.
376.	EXPECTED_ROUTE_RFID_CNT	11	It is a length of 6 bits. 1-62: expected route RFID count. Only If RFID_CNT = 1 to 62, RFID_TAG and LINK_REACTION variables follow. **Reference:** Annexure- C-Specification of KAVACH, page no:-49, C.5.2.
377.	UNKNOWN_ROUTE_RFID_CNT	63	It is a length of 6 bits. 63 unknown route (15 Kmph speed restriction in OS mode).Only If RFID_CNT = 1 to 62, RFID_TAG and LINK_REACTION variables follow **Reference:** Annexure- C-Specification of KAVACH, page no:-49, C.5.2.
378.	DIST_NXT_RFID_SIZE	11	It is a length of 11 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-50, C.5.2.
379.	DIST_NXT_RFID	111	It is a length of 11 bits. Distance of next RFID from previous RFID (first tag will be from last reference RFID) in meters i.e. 2047 meter. **Reference:** Annexure- C-Specification of KAVACH, page no:-50, C.5.2.
380.	DIST_NXT_RFID_MAX	2047	It is a length of 11 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-50, C.5.2.
381.	DIST_NXT_RFID_MIN	0	It is a length of 11 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-50, C.5.2.
382.	NXT_RFID_TAG_ID_SIZE	10	It is a length of 10 bits. Next RFID Tag ID **Reference:** Annexure- C-Specification of KAVACH, page no:-50, C.5.2.
383.	NXT_RFID_TAG_ID	111	It is a length of 10 bits. Next RFID Tag ID **Reference:** Annexure- C-Specification of KAVACH, page no:-50, C.5.2.
384.	NXT_RFID_TAG_ID_MIN	0	It is a length of 10 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-50, C.5.2.
385.	NXT_RFID_TAG_ID_MAX	1023	It is a length of 10 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-50, C.5.2.
386.	DUP_TAG_DIR_SIZE	1	It is a length of 1 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-50, C.5.2.

387.	DUP_TAG_DIR	1	It is a length of 1 bits. Linking Direction of Duplicate Tag w.r.t Main Tag **Reference:** Annexure- C-Specification of KAVACH, page no:-50, C.5.2.
388.	DUP_TAG_DIR_NOM	0	It is a length of 1 bits. 0: Duplicate Tag in Nominal Direction (+)/No Linking distance correction is required for T-Tag and A-Tag **Reference:** Annexure- C-Specification of KAVACH, page no:-50, C.5.2.
389.	DUP_TAG_DIR_REVERSE	1	It is a length of 1 bits. 1: Duplicate Tag in Reverse Direction (-) **Reference:** Annexure- C-Specification of KAVACH, page no:-50, C.5.2.
390.	DUP_TAG_DIR_MAX	1	It is a length of 1 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-50, C.5.2.
391.	DUP_TAG_DIR_MIN	0	It is a length of 1 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-50, C.5.2.
392.	ABS_LOC_RESET_SIZE	1	It is a length of 1 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-50, C.5.2.
393.	ABS_LOC_RESET_MAX	1	It is a length of 1 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-50, C.5.2.
394.	ABS_LOC_RESET_MIN	0	It is a length of 1 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-50, C.5.2.
395.	ABS_LOC_RESET	1	It is a length of 1 bits. 0 – No Location Error (The following bits will not be padded) 1 – Location Correction (New Section) Location shall get corrected in block section after 100m from Advance Starter. **Reference:** Annexure- C-Specification of KAVACH, page no:-50, C.5.2.
396.	NO_ABS_LOC_ERROR	0	It is a length of 1 bits. 0 – No Location Error (The following bits will not be padded) **Reference:** Annexure- C-Specification of KAVACH, page no:-50, C.5.2.
397.	ABS_LOC_RESET_NEEDED	1	It is a length of 1 bits. 1 – Location Correction (New Section) Location shall get corrected in block section after 100m from Advance Starter. Onboard shall not apply brakes due to any of these reasons. When this information is not available, linking distance given

			in N-tag shall be used to avoid abnormal train trip due to location correction. Station shall able to transmit MA, SSP, and TSR and maintain radio communication even after location reset. Only If ABS_LOC_RESET>0, below variables follow. In Given MA, single location reset is considered. **Reference:** Annexure- C-Specification of KAVACH, page no:-50, C.5.2.
398.	START_DIST_TO_ LOC_RESET_SIZE	15	It is a length of 15 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-50, C.5.2.
399.	START_DIST_TO_ LOC_RESET_MIN	0	It is a length of 15 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-50, C.5.2.
400.	START_DIST_TO_ LOC_RESET_MAX	32767	It is a length of 15 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-50, C.5.2.
401.	START_DIST_TO_ LOC_RESET	111	It is a length of 15 bits. This is the start distance of the Normal tag (from the Onboard current location) in which location correction is done. Value in meters. **Reference:** Annexure- C-Specification of KAVACH, page no:-50, C.5.2.
402.	ADJ_LOCO_DIR_SIZE	2	It is a length of 2 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-50, C.5.2.
403.	ADJ_LOCO_DIR	3	It is a length of 2 bits. This is expected Onboard direction after passing location correction N-tag **Reference:** Annexure- C-Specification of KAVACH, page no:-50, C.5.2.
404.	ADJ_LOCO_DIR_MAX	3	It is a length of 2 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-50, C.5.2.
405.	ADJ_LOCO_DIR_MIN	0	It is a length of 2 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-50, C.5.2.
406.	ADJ_LOCO_DIR_UNKNOWN	0	It is a length of 2 bits, 00 – Not Known **Reference:** Annexure- C-Specification of KAVACH, page no:-50, C.5.2.
407.	ADJ_LOCO_DIR_NOM	1	It is a length of 2 bits. 01 – Nominal **Reference:** Annexure- C-Specification of KAVACH, page no:-50, C.5.2.
408.	ADJ_LOCO_DIR_REVERSE	2	It is a length of 2 bits. 10 – Reverse **Reference:** Annexure- C-Specification of KAVACH,

			page no:-50, C.5.2.
409.	ADJ_LOCO_DIR_DEDUCE_FROM_TAGS	3	It is a length of 2 bits. 11 – Deduce from Tags **Reference:** Annexure- C-Specification of KAVACH, page no:-50, C.5.2.
410.	ABS_LOC_CORRECTION_SIZE	23	It is a length of 23 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-51, C.5.2.
411.	ABS_LOC_CORRECTION_MAX	8388607	It is a length of 23 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-51, C.5.2.
412.	ABS_LOC_CORRECTION_MIN	0	It is a length of 23 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-51, C.5.2.
413.	ABS_LOC_CORRECTION	111	It is a length of 23 bits. This is the new absolute location from Adjustment/Junction Tag location correction **Reference:** Annexure- C-Specification of KAVACH, page no:-51, C.5.2.
414.	ADJ_LINE_CNT_SIZE	3	It is a length of 3 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-51, C.5.2.
415.	ADJ_LINE_CNT_MAX	7	It is a length of 3 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-51, C.5.2.
416.	ADJ_LINE_CNT_MIN	0	It is a length of3 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-51, C.5.2.
417.	ADJ_LINE_CNT	3	It is a length of 3 bits. Adjacent line TINs along the MA for unusual stoppage detection. **Reference:** Annexure- C-Specification of KAVACH, page no:-51, C.5.2.
418.	NO_ADJ_LINE_CNT	0	It is a length of 3 bits. 0: No adjacent lines, Self block section TIN will follow. **Reference:** Annexure- C-Specification of KAVACH, page no:-51, C.5.2.
419.	ADJ_LINE_CNT_INC_BLOCK_SEC	1	It is a length of 3 bits. 1-5: Number of Adjacent lines including occupied self block section TIN. **Reference:** Annexure- C-Specification of KAVACH, page no:-51, C.5.2.
420.	ADJ_LINE_CNT_RESERVED	6	It is a length of 3 bits. 6: Reserved **Reference:** Annexure- C-Specification of KAVACH, page no:-51, C.5.2.
421.	ADJ_LINE_CNT_UNKNOWN	7	It is a length of 3 bits. 7: unknown **Reference:** Annexure- C-Specification of KAVACH, page no:-51, C.5.2.

422.	ADJ_LINE_TIN_SIZE	9	It is a length of 9 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-51, C.5.2.
423.	ADJ_LINE_TIN_MAX	511	It is a length of 9 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-51, C.5.2.
424.	ADJ_LINE_TIN_MIN	0	It is a length of 9 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-51, C.5.2.
425.	SELF_ADJ_LINE_TIN	111	It is a length of 9 bits. Self and Adjacent Line TIN Only If ADJ_LINE_CNT = 0 to 5, LINE_TIN variable will follow **Reference:** Annexure- C-Specification of KAVACH, page no:-51, C.5.2.
Track Condition Data			
426.	SUB_PKT_LENGTH_TC_SIZE	7	It is a length of 7 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-51, C.5.2.
427.	SUB_PKT_LENGTH_TC_MAX	128	It is a length of 7 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-51, C.5.2.
428.	SUB_PKT_LENGTH_TC_MIN	1	It is a length of 7 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-51, C.5.2.
429.	SUB_PKT_LENGTH_TC	111	It is a length of 7 bits. Length in bytes. Max 128 bytes (1024 bits). **Reference:** Annexure- C-Specification of KAVACH, page no:-51, C.5.2.
430.	TRACKCOND_CNT_SIZE	4	It is a length of 4 bits. Track condition in MA region from reference RFID **Reference:** Annexure- C-Specification of KAVACH, page no:-51, C.5.2.
431.	TRACKCOND_CNT_MAX	15	It is a length of 4 bits. Track condition in MA region from reference RFID **Reference:** Annexure- C-Specification of KAVACH, page no:-51, C.5.2.
432.	TRACKCOND_CNT_MIN	0	It is a length of 4 bits. Track condition in MA region from reference RFID **Reference:** Annexure- C-Specification of KAVACH, page no:-51, C.5.2.
433.	TRACKCOND_CNT	11	It is a length of 4 bits. Track condition in MA region from reference RFID **Reference:** Annexure- C-Specification of KAVACH, page no:-51, C.5.2.
434.	TRACK_COND_TYPE_SIZE	4	It is a length of 4 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-51, C.5.2.

435.	TRACK_COND_TYPE	11	It is a length of 4 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-51, C.5.2.
436.	TRACK_COND_TYPE_MAX	15	It is a length of 4 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-51, C.5.2.
437.	TRACK_COND_TYPE_MIN	0	It is a length of 4 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-51, C.5.2.
438.	TRACK_COND_TYPE_NOT_USED	0	It is a length of 4 bits. 0000: Not used **Reference:** Annexure- C-Specification of KAVACH, page no:-51, C.5.2.
439.	TRACK_COND_TYPE_ DEAD_STOP	1	It is a length of 4 bits. 0001: Dead Stop **Reference:** Annexure- C-Specification of KAVACH, page no:-51, C.5.2
440.	TRACK_COND_TYPE_RADIO_HOLE	2	It is a length of 4 bits. 0010: Radio hole (MA is valid up to Comm. fail time out) **Reference:** Annexure- C-Specification of KAVACH, page no:-52, C.5.2.
441.	TRACK_COND_TYPE_NON_STOP	3	It is a length of 4 bits. 0011: Non stopping area **Reference:** Annexure- C-Specification of KAVACH, page no:-52, C.5.2.
442.	TRACK_COND_TYPE_TUNNEL	4	It is a length of 4 bits. 0100: Tunnel stopping area **Reference:** Annexure- C-Specification of KAVACH, page no:-52, C.5.2.
443.	TRACK_COND_TYPE_NEUTRAL	5	It is a length of 4 bits. 0101: Powerless section (Neutral section) **Reference:** Annexure- C-Specification of KAVACH, page no:-52, C.5.2.
444.	TRACK_COND_TYPE_SOUND_HORN	6	It is a length of 4 bits. 0110: Sound horn **Reference:** Annexure- C-Specification of KAVACH, page no:-52, C.5.2.
445.	TRACK_COND_TYPE_REV_AREA	7	It is a length of 4 bits. 0111: Reversing area **Reference:** Annexure- C-Specification of KAVACH, page no:-52, C.5.2.
446.	TRACK_COND_TYPE_FOULING	8	It is a length of 4 bits. 1000: Fouling Mark location **Reference:** Annexure- C-Specification of KAVACH, page no:-52, C.5.2.
447.	TRACK_COND_TYPE_TERR_EXIT	9	It is a length of 4 bits. 1001: KAVACH Territory Exit. (Not to validate RFID linking beyond this location).

			Reference: Annexure- C-Specification of KAVACH, page no:-52, C.5.2.
448.	TRACK_COND_TYPE_RESERVED_FU		It is a length of 4 bits. 1010 to 1111: Reserved for future use **Reference:** Annexure- C-Specification of KAVACH, page no:-52, C.5.2.
449.	START_DIST_TRACKCOND_SIZE	15	It is a length of 15 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-52, C.5.2.
450.	START_DIST_TRACKCOND_MAX	32767	It is a length of 15 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-52, C.5.2.
451.	START_DIST_TRACKCOND_MIN	0	It is a length of 15 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-52, C.5.2.
452.	START_DIST_TRACKCOND	111	It is a length of 15 bits. Start distance to Track condition from reference RFID. **Reference:** Annexure- C-Specification of KAVACH, page no:-52, C.5.2.
453.	LENGTH_TRACKCOND_SIZE	15	It is a length of 15 bits. Length of the Track condition. Value in meters i.e. ranging from 0 – New 32.76 km. **Reference:** Annexure- C-Specification of KAVACH, page no:-52, C.5.2.
454.	LENGTH_TRACKCOND_MIN	0	It is a length of 15 bits, Length of the Track condition. Value in meters i.e. ranging from 0 – New 32.76 km. **Reference:** Annexure- C-Specification of KAVACH, page no:-52, C.5.2.
455.	LENGTH_TRACKCOND_MAX	32767	It is a length of 15 bits. Length of the Track condition. Value in meters i.e. ranging from 0 – New 32.76 km. **Reference:** Annexure- C-Specification of KAVACH, page no:-52, C.5.2.
456.	LENGTH_TRACKCOND	111	It is a length of 15 bits. Length of the Track condition. Value in meters i.e. ranging from 0 – New 32.76 km. **Reference:** Annexure- C-Specification of KAVACH, page no:-52, C.5.2.
Temporary Speed Restriction Profile			
457.	SUB_PKT_LENGTH_TSR_SIZE	7	It is a length of 7 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-52, C.5.2.
458.	SUB_PKT_LENGTH_TSR_MAX	128	It is a length of 7 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-52, C.5.2.
459.	SUB_PKT_LENGTH_TSR_MIN	1	It is a length of 7 bits. **Reference:** Annexure- C-Specification of KAVACH,

			page no:-52, C.5.2.
460.	SUB_PKT_LENGTH_TSR	111	It is a length of 7 bits. Length in bytes. Max 128 bytes (1024 bits). **Reference:** Annexure- C-Specification of KAVACH, page no:-52, C.5.2.
461.	TSR_STATUS_SIZE	2	It is a length of 2 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-52, C.5.2.
462.	TSR_STATUS_MIN	0	It is a length of 2 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-52, C.5.2.
463.	TSR_STATUS_MAX	3	It is a length of 2 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-52, C.5.2.
464.	TSR_STATUS	1	It is a length of 2 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-52, C.5.2.
465.	NO_TSR_STATUS	0	It is a length of 2 bits. 00 – No applicable TSR for the current MA. **Reference:** Annexure- C-Specification of KAVACH, page no:-52, C.5.2.
466.	NO_LATEST_TSR_STATUS	1	It is a length of 2 bits. 01 – No Latest TSR Information (Onboard KAVACH shall transit to SR Mode, No MA to be extended by Stationary KAVACH). **Reference:** Annexure- C-Specification of KAVACH, page no:-52, C.5.2.
467.	TSR_STATUS_LATEST	2	It is a length of 2 bits. 10 – Latest TSR Information **Reference:** Annexure- C-Specification of KAVACH, page no:-52, C.5.2.
468.	TSR_STATUS_RESERVED	3	It is a length of 2 bits. 11 – Reserved **Reference:** Annexure- C-Specification of KAVACH, page no:-52, C.5.2.
469.	TSR_INFO_CNT_SIZE	5	It is a length of 5 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
470.	TSR_INFO_CNT_MAX	31	It is a length of 5 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
471.	TSR_INFO_CNT_MIN	0	It is a length of 5 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
472.	TSR_INFO_CNT	11	It is a length of 5 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
473.	TSR_ID_SIZE	8	It is a length of 8 bits.

			Reference: Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
474.	TSR_ID_MAX	255	It is a length of 8 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
475.	TSR_ID_MIN	0	It is a length of 8 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
476.	TSR_ID	111	It is a length of 8 bits. This is the ID of TSR received from TSR management system. **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
477.	TSR_DISTANCE_SIZE	15	It is a length of 15 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
478.	TSR_DISTANCE_MAX	32767	It is a length of 15 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
479.	TSR_DISTANCE_MIN	0	It is a length of 15 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
480.	TSR_DISTANCE	111	It is a length of 15 bits. This is the distance to TSR starting point from reference RFID. Value in meters i.e. ranging from 0 – 32.76 km. **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
481.	TSR_LENGTH_SIZE	15	It is a length of 15 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
482.	TSR_LENGTH_MAX	32767	It is a length of 15 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
483.	TSR_LENGTH_MIN	0	It is a length of 15 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
484.	TSR_LENGTH	111	It is a length of 15 bits. Length of TSR. Value in meters i.e. ranging from 0 – 32.76km. **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
485.	TSR_CLASS_SIZE	1	It is a length of 1 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
486.	TSR_CLASS_MAX	1	It is a length of 1 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.

487.	TSR_CLASS_MIN	0	It is a length of 1 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
488.	TSR_CLASS_UNIVERSAL	0	It is a length of 1 bits. 0 – Universal Speed **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
489.	TSR_CLASS_CLASSIFIED	1	It is a length of 1 bits. 1 – Classified Speed **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
490.	TSR_UNIVERSAL_SPEED_SIZE	6	It is a length of 6 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
491.	TSR_UNIVERSAL_SPEED	11	It is a length of 6 bits. only if Q_TSR_CLASS = 0, LM_TSR_Universal_Speed variable follow **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
492.	TSR_UNIVERSAL_SPEED_MIN	0	It is a length of 6 bits. only if Q_TSR_CLASS = 0, LM_TSR_Universal_Speed variable follow **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
493.	TSR_UNIVERSAL_SPEED_MAX	63	It is a length of 6 bits. only if Q_TSR_CLASS = 0, LM_TSR_Universal_Speed variable follow **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
494.	TSR_UNIVERSAL_SPEED_DEAD_STOP	0	It is a length of 6 bits. Dead stop **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
495.	TSR_UNIVERSAL_SPEED_RESERVED_FU		It is a length of 6 bits. Reserved for future use **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
496.	TSR_UNIVERSAL_SPEED_8	62	It is a length of 6 bits. 8 kmph **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
497.	TSR_UNIVERSAL_SPEED_UNKNOWN	3	It is a length of 6 bits. Unknown **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
498.	TSR_CLASSA_SPEED_SIZE	6	It is a length of 6 bits. **Reference:** Annexure- C-Specification of KAVACH,

			page no:-53, C.5.2.
499.	TSR_CLASSA_SPEED_MAX	63	It is a length of 6 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
500.	TSR_CLASSA_SPEED_MIN	0	It is a length of 6 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
501.	TSR_CLASSA_SPEED	11	It is a length of 6 bits. Only if LM_TSR_Class = 1, LM_TSR_ClassA_Speed variable follow. Values are Same as LM_TSR_Universal_Speed **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
502.	TSR_CLASSB_SPEED_SIZE	6	It is a length of 6 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
503.	TSR_CLASSB_SPEED_MAX	63	It is a length of 6 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
504.	TSR_CLASSB_SPEED_MIN	0	It is a length of 6 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
505.	TSR_CLASSB_SPEED	11	It is a length of 6 bits. Only if LM_TSR_Class = 1, LM_TSR_ClassB_Speed variable follow. Values are Same as LM_TSR_Universal_Speed. **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
506.	TSR_CLASSC_SPEED_SIZE	6	It is a length of 6 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
507.	TSR_CLASSC_SPEED_MAX	63	It is a length of 6 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
508.	TSR_CLASSC_SPEED_MIN	0	It is a length of 6 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
509.	TSR_CLASSC_SPEED	11	It is a length of 6 bits. Only if LM_TSR_Class = 1, LM_TSR_ClassC_Speed variable follow. Values are Same as LM_TSR_Universal_Speed. **Reference:** Annexure- C-Specification of KAVACH, page no:-53, C.5.2.
510.	TSR_WHISTLE_SIZE	2	It is a length of 2 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-54, C.5.2.
511.	TSR_WHISTLE_MAX	3	It is a length of 2 bits. **Reference:** Annexure- C-Specification of KAVACH,

			page no:-54, C.5.2.
512.	TSR_WHISTLE_MIN	0	It is a length of 2 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-54, C.5.2.
513.	TSR_WHISTLE	3	It is a length of 2 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-54, C.5.2.
514.	NO_TSR_WHISTLE	0	It is a length of 2 bits. 00: No Whistle, **Reference:** Annexure- C-Specification of KAVACH, page no:-54, C.5.2.
515.	TSR_ WHISTLE_BLOW	1	It is a length of 2 bits. 01: Whistle blow, **Reference:** Annexure- C-Specification of KAVACH, page no:-54, C.5.2.
516.	TSR_ WHISTLE_SPARE1	2	It is a length of 2 bits. 10-11: Spare **Reference:** Annexure- C-Specification of KAVACH, page no:-54, C.5.2.
517.	TSR_ WHISTLE_SPARE2	3	It is a length of 2 bits. 10-11: Spare **Reference:** Annexure- C-Specification of KAVACH, page no:-54, C.5.2.
End Of The Sub Packets			
518.	LOCO_SPECIFIC_MAC_CODE_SIZE	32	It is a length of 32 bits. **Reference:** Annexure- C-Specification of KAVACH, page no:-54, C.5.2.
519.	LOCO_SPECIFIC_MAC_CODE	111	It is a length of 32 bits. Calculated from starting field PACKET_TYPE to last Sub-Packet padding bit. **Reference:** Annexure- C-Specification of KAVACH, page no:-54, C.5.2.
520.	LOCO_SPECIFIC_MAC_CODE_MAX	4294967295	It is a length of 32 bits. Calculated from starting field PACKET_TYPE to last Sub-Packet padding bit. **Reference:** Annexure- C-Specification of KAVACH, page no:-54, C.5.2.
521.	LOCO_SPECIFIC_MAC_CODE_MIN	0	It is a length of 32 bits. Calculated from starting field PACKET_TYPE to last Sub-Packet padding bit. **Reference:** Annexure- C-Specification of KAVACH, page no:-54, C.5.2.
Movement Authority Packet			
522.	REF_PROF_ID_SIZE	4	It is a length of 4 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:35,C.5.2
523.	REF_PROF_ID	11	It is a length of 4 bits. **Reference**: Annexure-C-Specification of KAVACH,

			page no:35,C.5.2
524.	NO_REF_PROF_ID	0	It is a length of 4 bits. No profile information. On receipt of Access Authority Packet, the onboard KAVACH shall send '0000' retaining the profile already available for speed supervision. **Reference**: Annexure-C-Specification of KAVACH, page no:35,C.5.2
525.	REF_PROF_ID_MAX	15	It is a length of 4 bits. Valid profile information. **Reference**: Annexure-C-Specification of KAVACH, page no:35,C.5.2
526.	REF_PROF_ID_MIN	1	It is a length of 4 bits. Valid profile information. **Reference**: Annexure-C-Specification of KAVACH, page no:35,C.5.2
527.	LAST_REF_RFID_SIZE	10	It is a length of 10 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:36,C.5.2
528.	LAST_REF_RFID_MAX	1023	It is a length of 10 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:36,C.5.2
529.	LAST_REF_RFID_MIN	0	It is a length of 10 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:36,C.5.2
530.	LAST_REF_RFID	111	It is a length of 10 bits. Below track profile data is given from last RFID as a reference position. This RFID shall be one of the last ten tags read by Onboard KAVACH. Onboard KA-VACH shall retain last 11 RFID Tags along with their location. From the last 10 RFID Tags reported by Onboard KAVACH, Stationary KAVACH shall send the profile with respect to the most recently received tag. Stationary KAVACH shall send the actual distances of start and end locations of each element in the profile with respect to LAST_REF_RFID. Stationary and Onboard KAVACH shall not consider Foreign tags and wrong line tags as LAST_REF_RFID. **Reference**: Annexure-C-Specification of KAVACH, page no:36,C.5.2
531.	DIST_PKT_START_SIZE	15	It is a length of 15 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:36,C.5.2
532.	DIST_PKT_START	111	It is a length of 15 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:36,C.5.2

533.	DIST_PKT_START_MAX	+16383	It is a length of 15 bits. When the value is positive, the onboard KAVACH shall merge with the existing profile, if available and supervise MRSP. Positive correction shall be sent by Stationary KAVACH in exceptional cases. **Reference**: Annexure-C-Specification of KAVACH, page no:36,C.5.2
534.	DIST_PKT_START_MIN	-16383	It is a length of 15 bits. When the value is negative, the onboard KAVACH shall supervise the profile from the REAR end of the train. **Reference**: Annexure-C-Specification of KAVACH, page no:36,C.5.2
535.	PKT_DIR_SIZE	2	It is a length of 2 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:36,C.5.2
536.	PKT_DIR _UN_IDENT	0	It is a length of 2 bits. Unidentified. **Reference**: Annexure-C-Specification of KAVACH, page no:36,C.5.2
537.	PKT_DIR _NOMINAL	1	It is a length of 2 bits. Nominal **Reference**: Annexure-C-Specification of KAVACH, page no:36,C.5.2
538.	PKT_DIR _REV	2	It is a length of 2 bits. Reverse **Reference**: Annexure-C-Specification of KAVACH, page no:36,C.5.2
539.	PKT_DIR _SPARE	3	It is a length of 2 bits. Spare **Reference**: Annexure-C-Specification of KAVACH, page no:36,C.5.2
540.	SUB_PKT_LENGTH_MA_SIZE	7	It is a length of 7 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:37,C.5.2
541.	SUB_PKT_LENGTH_MA	111	It is a length of 7 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:37,C.5.2
542.	SUB_PKT_LENGTH_MA_MAX	128	It is a length of 7 bits. Length in bytes. Max 128 bytes **Reference**: Annexure-C-Specification of KAVACH, page no:37,C.5.2
543.	SUB_PKT_LENGTH_MA_MIN	1	It is a length of 7 bits. Length in bytes. **Reference**: Annexure-C-Specification of KAVACH, page no:37,C.5.2
544.	FRAME_OFFSET_SIZE	4	It is a length of 4 bits.

			Reference: Annexure-C-Specification of KAVACH, page no:37,C.5.2
545.	FRAME_OFFSET	11	It is a length of 4 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:37,C.5.2
546.	FRAME_OFFSET_MAX	14	It is a length of 4 bits. Frame offset = (Stationary Kavach frame number - last received Onboard Kavach frame number)/2 Cyclic subtraction to be ensured at 00:00 hours. **Reference**: Annexure-C-Specification of KAVACH, page no:37,C.5.2
547.	FRAME_OFFSET_MIN	1	It is a length of 4 bits. Frame offset = (Stationary Kavach frame number - last received Onboard Kavach frame number)/2 Cyclic subtraction to be ensured at 00:00 hours. **Reference**: Annexure-C-Specification of KAVACH, page no:37,C.5.2
548.	DEST_LOCO_SOS_SIZE	4	It is a length of 4 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:37,C.5.2
549.	DEST_LOCO_SOS	11	It is a length of 4 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:37,C.5.2
550.	DEST_LOCO_SOS_MAX	15	It is a length of 4 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:37,C.5.2
551.	DEST_LOCO_SOS_MIN	0	It is a length of 4 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:37,C.5.2
552.	NO_DEST_LOCO_SOS	0	It is a length of 4 bits. No SoS /Emergency **Reference**: Annexure-C-Specification of KAVACH, page no:37,C.5.2
553.	FOREIGN_RFID_DEST_LOCO_SOS	1	It is a length of 4 bits. Foreign RFID **Reference**: Annexure-C-Specification of KAVACH, page no:37,C.5.2
554.	RES_DEST_LOCO_SOS	2	It is a length of 4 bits. Reserved. **Reference**: Annexure-C-Specification of KAVACH, page no:37,C.5.2
555.	ONBOARD_ODO_ERR_ DEST_LOCO_SOS	3	It is a length of 4 bits. Onboard Odo error is >= 120m **Reference**: Annexure-C-Specification of KAVACH, page no:37,C.5.2
556.	DEST_LOCO_SOS_ SPAD_DETECTION	4	It is a length of 4 bits. Detection of SPAD

			Reference: Annexure-C-Specification of KAVACH, page no:37,C.5.2
557.	DEST_LOCO_SOS_ REAREND_COL	5	It is a length of 4 bits. Rear-end collision **Reference**: Annexure-C-Specification of KAVACH, page no:37,C.5.2
558.	DEST_LOCO_SOS_ HEADON_COL	6	It is a length of 4 bits. Head-On collision **Reference**: Annexure-C-Specification of KAVACH, page no:37,C.5.2
559.	DEST_LOCO_SOS_ VIOL_SHUNT_LMT	7	It is a length of 4 bits. Violation of Shunting limits in shunt mode **Reference**: Annexure-C-Specification of KAVACH, page no:37,C.5.2
560.	RES_DEST_LOCO_SOS_MAX	15	It is a length of 4 bits. Reserved **Reference**: Annexure-C-Specification of KAVACH, page no:37,C.5.2
561.	RES_DEST_LOCO_SOS_MIN	9	It is a length of 4 bits. Reserved **Reference**: Annexure-C-Specification of KAVACH, page no:37,C.5.2
562.	TRAIN_SEC_TYPE_SIZE	2	It is a length of 2 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:37,C.5.2
563.	TRAIN_SEC_TYPE	1	It is a length of 2 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:37,C.5.2
564.	TRAIN_SEC_TYPE_STN_SEC	0	It is a length of 2 bits. Station Section **Reference**: Annexure-C-Specification of KAVACH, page no:37,C.5.2
565.	TRAIN_SEC_TYPE_ABS_BLOCK	1	It is a length of 2 bits. Absolute Block **Reference**: Annexure-C-Specification of KAVACH, page no:37,C.5.2
566.	TRAIN_SEC_TYPE_AUTO_BLOCK	2	It is a length of 2 bits. Auto block **Reference**: Annexure-C-Specification of KAVACH, page no:37,C.5.2
567.	TRAIN_SEC_TYPE_RES	3	It is a length of 2 bits. Reserved **Reference**: Annexure-C-Specification of KAVACH, page no:37,C.5.2
568.	TRAIN_SEC_TYPE_MAX	3	It is a length of 2 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:37,C.5.2

569.	TRAIN_SEC_TYPE_MIN	0	It is a length of 2 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:37,C.5.2
570.	CUR_SIG_INFO_SIZE	17	It is a length of 17 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:38,C.5.2
571.	CUR_SIG_INFO	111	It is a length of 17 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:38,C.5.2
572.	CUR_SIG_INFO_MIN	0	It is a length of 17 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:38,C.5.2
573.	CUR_SIG_INFO_MAX	131071	It is a length of 17 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:38,C.5.2
574.	CUR_SIG_INFO_LINE_NUM_NA	0	It is a length of 17bits. **a4 to a0**: (to be defined and displayed only for applicable Home / Routing Home / Starter / Intermediate Starter).To be sent when line number information is not applicable **Reference**: Annexure-C-Specification of KAVACH, page no:38,C.5.2
575.	CUR_SIG_INFO_NOLINE _NUM_DISP_ON_DMI	31	It is a length of 17 bits. **a4 to a0**: (to be defined and displayed only for applicable Home / Routing Home / Starter / Intermediate Starter). Line Number in excess of 30 Decimal, in this case, no line number to be displayed on DMI. **Reference**: Annexure-C-Specification of KAVACH, page no:38,C.5.2
576.	CUR_SIG_INFO_GOOD_LINE	30	It is a length of 17 bits. **a4 to a0:** (to be defined and displayed only for applicable Home / Routing Home / Starter / Intermediate Starter). Goods Lines (in case of any Goods Line > 30 Decimal, no need to display Line Number on DMI, however, and the information to be displayed on DMI that the Train is going to Goods Line). It is clarified that even for multiple Goods Lines, Line Number shall not be communicated to Onboard KAVACH Unit and distinction among Goods Line would not be available through DMI to Onboard Pilot. **Reference**: Annexure-C-Specification of KAVACH, page no:38,C.5.2
577.	CUR_SIG_INFO _UP_SIG	0	It is a length of 17 bits. **a8 to a5**: **Line Name** Up Signal

			Reference: Annexure-C-Specification of KAVACH, page no:38,C.5.2
578.	CUR_SIG_INFO_DWN_SIG	1	It is a length of 17 bits. **a8 to a5**: **Line Name** Down Signal **Reference**: Annexure-C-Specification of KAVACH, page no:38,C.5.2
579.	CUR_SIG_INFO_UPFAST_SIG	2	It is a length of 17 bits. **a8 to a5**: **Line Name** Up Fast Signal **Reference**: Annexure-C-Specification of KAVACH, page no:38,C.5.2
580.	CUR_SIG_INFO_DWNFAST_SIG	3	It is a length of 17 bits. **a8 to a5**: **Line Name** Down Fast Signal **Reference**: Annexure-C-Specification of KAVACH, page no:38,C.5.2
581.	CUR_SIG_INFO_UPSLW_SIG	8	It is a length of 17 bits. **a8 to a5**: **Line Name** Up Slow Signal **Reference**: Annexure-C-Specification of KAVACH, page no:38,C.5.2
582.	CUR_SIG_INFO_DWNSLW_SIG	9	It is a length of 17 bits. **a8 to a5**: **Line Name** Down Slow Signal **Reference**: Annexure-C-Specification of KAVACH, page no:38,C.5.2
583.	CUR_SIG_INFO_UPMAIN_SIG	10	It is a length of 17 bits. **a8 to a5**: **Line Name** Up Main Signal **Reference**: Annexure-C-Specification of KAVACH, page no:38,C.5.2
584.	CUR_SIG_INFO_DWNMAIN_SIG	11	It is a length of 17 bits. **a8 to a5**: **Line Name** Down Main Signal **Reference**: Annexure-C-Specification of KAVACH, page no:38,C.5.2
585.	CUR_SIG_INFO_UPSUB_SIG	12	It is a length of 17 bits. **a8 to a5**: **Line Name** Up Sub Signal **Reference**: Annexure-C-Specification of KAVACH, page no:38,C.5.2
586.	CUR_SIG_INFO_DWNSUB_SIG	13	It is a length of 17 bits. **a8 to a5**: **Line Name** Down Sub Signal **Reference**: Annexure-C-Specification of KAVACH, page no:38,C.5.2
587.	CUR_SIG_INFO_RESERVED_FU		It is a length of 17 bits. **a8 to a5**: **Line Name** 11xx-Future Use. **Reference**: Annexure-C-Specification of KAVACH, page no:38,C.5.2

588.	CUR_SIG_INFO_UNDEF	0	It is a length of 17 bits. **a14 to a9**:type of signal Undefined - nothing to be displayed on DMI. **Reference**: Annexure-C-Specification of KAVACH, page no:39,C.5.2
589.	CUR_SIG_INFO_DISTNT	16	It is a length of 17 bits. **a14 to a9**:type of signal Distant **Reference**: Annexure-C-Specification of KAVACH, page no:39,C.5.2
590.	CUR_SIG_INFO_INN_DISTNT	17	It is a length of 17 bits. **a14 to a9**:type of signal Inner Distant **Reference**: Annexure-C-Specification of KAVACH, page no:39,C.5.2
591.	CUR_SIG_INFO_GAT_DISTNT	18	It is a length of 17 bits. **a14 to a9**:type of signal Gate Distant **Reference**: Annexure-C-Specification of KAVACH, page no:39,C.5.2
592.	CUR_SIG_INFO_GAT_INN_DISTNT	19	It is a length of 17 bits. **a14 to a9**:type of signal Gate Inner Distant **Reference**: Annexure-C-Specification of KAVACH, page no:39,C.5.2
593.	CUR_SIG_INFO_IB_DISTNT	20	It is a length of 17 bits. **a14 to a9**:type of signal IB Distant **Reference**: Annexure-C-Specification of KAVACH, page no:39,C.5.2
594.	CUR_SIG_INFO_IB_INN_DISTNT	21	It is a length of 17 bits. **a14 to a9**:type of signal IB Inner Distant **Reference**: Annexure-C-Specification of KAVACH, page no:39,C.5.2
595.	CUR_SIG_INFO_AUTO_SIG	22	It is a length of 17 bits. **a14 to a9**:type of signal Auto Signal (Excludes Gate Stop Signal in Auto Territory) **Reference**: Annexure-C-Specification of KAVACH, page no:39,C.5.2
596.	CUR_SIG_INFO_ SEMI_AUTO_SIG	23	It is a length of 17 bits. **a14 to a9**:type of signal Semi-Automatic Signal with A-marker lit **Reference**: Annexure-C-Specification of KAVACH, page no:39,C.5.2
597.	CUR_SIG_INFO_MAIN_HOME_ WO_JUN_RT_IND	24	It is a length of 17 bits. Main Home without Junction Route Indicator **Reference**: Annexure-C-Specification of KAVACH, page no:39,C.5.2

598.	CUR_SIG_INFO_MAIN_HOME_WO_JUN_RT_IND	25	It is a length of 17 bits. **a14 to a9**:type of signal Main Home with Junction Route Indicator **Reference**: Annexure-C-Specification of KAVACH, page no:39,C.5.2
599.	CUR_SIG_INFO_RT_HOME_WO_JUN_RT_IND	26	It is a length of 17 bits. **a14 to a9**:type of signal Routing Home without Junction Type Route Indicator. **Reference**: Annexure-C-Specification of KAVACH, page no:39,C.5.2
600.	CUR_SIG_INFO_RT_HOME_WITH_JUN_RT_IND	27	It is a length of 17 bits. **a14 to a9**:type of signal Routing Home with Junction Type Route Indicator **Reference**: Annexure-C-Specification of KAVACH, page no:39,C.5.2
601.	CUR_SIG_INFO_MAINLINE_STARTER	28	It is a length of 17 bits. **a14 to a9**:type of signal, Mainline Starter **Reference**: Annexure-C-Specification of KAVACH, page no:39,C.5.2
602.	CUR_SIG_INFO_LOOPLINE_STARTER	29	It is a length of 17 bits. **a14 to a9**:type of signal Loop line Starter **Reference**: Annexure-C-Specification of KAVACH, page no:39,C.5.2
603.	CUR_SIG_INFO_INTR_MED_STARTER	30	It is a length of 17 bits. **a14 to a9**:type of signal Intermediate Starter **Reference**: Annexure-C-Specification of KAVACH, page no:39,C.5.2
604.	CUR_SIG_INFO_ADV_STARTER	1	It is a length of 17 bits. **a14 to a9**:type of signal Advanced Starter **Reference**: Annexure-C-Specification of KAVACH, page no:39,C.5.2
605.	CUR_SIG_INFO_IB_SIG	2	It is a length of 17 bits. **a14 to a9**:type of signal IB Signal **Reference**: Annexure-C-Specification of KAVACH, page no:39,C.5.2
606.	CUR_SIG_INFO_GATE_STP_SIG	3	It is a length of 17 bits. **a14 to a9**:type of signal Gate Stop Signal **Reference**: Annexure-C-Specification of KAVACH, page no:40,C.5.2
607.	CUR_SIG_INFO_CALLON_SIG	4	It is a length of 17 bits. **a14 to a9**:type of signal Calling-on Signal **Reference**: Annexure-C-Specification of KAVACH, page no:35,C.5.2

608.	CUR_SIG_INFO_ADVSTARTER_CUM_GATESIG	5	It is a length of 17 bits. **a14 to a9**:type of signal Advanced Starter-cum-Gate Signal **Reference**: Annexure-C-Specification of KAVACH, page no:40,C.5.2
609.	CUR_SIG_INFO_GATE_ CUM_DISTNT	6	It is a length of 17 bits. **a14 to a9**:type of signal Gate-cum-Distant It is a length of 17 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:40,C.5.2
610.	CUR_SIG_INFO_ADVSTARTER_CUM_DISTNTSIG	7	It is a length of 17 bits. **a14 to a9**:type of signal Advanced Starter-cum-Distant Signal **Reference**: Annexure-C-Specification of KAVACH, page no:40,C.5.2
611.	CUR_SIG_INFO_AUTO_TERR _GATSTP_SIG	35	It is a length of 17 bits. **a14 to a9**:type of signal Gate Stop Signal in Auto Territory **Reference**: Annexure-C-Specification of KAVACH, page no:40,C.5.2
612.	CUR_SIG_INFO_ SEMIAUTOMAT_SIG_1	36	It is a length of 17 bits. **a14 to a9**:type of signal Semi Automatic Signal without A marker lit. **Reference**: Annexure-C-Specification of KAVACH, page no:40,C.5.2
613.	CUR_SIG_INFO_ADVSTARTER_CUM_ GATINN_DISTNT_SIG	37	It is a length of 17 bits. **a14 to a9**:type of signal Advance Starter-cum-Gate Inner Distant Signal **Reference**: Annexure-C-Specification of KAVACH, page no:40,C.5.2
614.	CUR_SIG_INFO_GAT_ CUM_INN_DISTNT	38	It is a length of 17 bits. **a14 to a9**:type of signal Gate-cum-Inner Distant Signal. **Reference**: Annexure-C-Specification of KAVACH, page no:40,C.5.2
615.	CUR_SIG_INFO_GATINN_DISNT_CUM_ DISTNT_SIG	39	It is a length of 17 bits. **a14 to a9**:type of signal Gate Inner Distant-cum-Distant Signal **Reference**: Annexure-C-Specification of KAVACH, page no:40,C.5.2
616.	CUR_SIG_INFO_IBSIG_CUM_GATDISTNT	40	It is a length of 17 bits. **a14 to a9**:type of signal IB Signal-cum-Gate Distant **Reference**: Annexure-C-Specification of KAVACH, page no:40,C.5.2
617.	CUR_SIG_INFO_IBSIG_CUM_GATINN_ DISTNT	41	It is a length of 17 bits. **a14 to a9**:type of signal IB Signal-cum-Gate Inner Distant

			Reference: Annexure-C-Specification of KAVACH, page no:40,C.5.2
618.	CUR_SIG_INFO_IB_SIG_CUM_DISTNTSIG	42	It is a length of 17 bits. **a14 to a9**:type of signal IB Signal-cum-Distant Signal **Reference**: Annexure-C-Specification of KAVACH, page no:40,C.5.2
619.	CUR_SIG_INFO_ADVSTARTR_CUM_IBDISTNT	43	It is a length of 17 bits. **a14 to a9**:type of signal Advanced Starter-cum- IB Distant **Reference**: Annexure-C-Specification of KAVACH, page no:40,C.5.2
620.	CUR_SIG_INFO_STARTR_CUM_IBDISTNT	44	It is a length of 17 bits. **a14 to a9**:type of signal Starter-cum- IB Distant Signal , **Reference**: Annexure-C-Specification of KAVACH, page no:40,C.5.2
621.	CUR_SIG_INFO_STP_BOARD	45	It is a length of 17 bits. **a14 to a9**:type of signal Stop Board/Buffer Stop **Reference**: Annexure-C-Specification of KAVACH, page no:40,C.5.2
622.	CUR_SIG_INFO_GAT_CUM_IBDISTNT	46	It is a length of 17 bits. **a14 to a9**:type of signal Gate cum IB Distant Signal **Reference**: Annexure-C-Specification of KAVACH, page no:40,C.5.2
623.	CUR_SIG_INFO_GAT_CUM_IBINN_DISTNT	47	It is a length of 17 bits. **a14 to a9**:type of signal Gate cum IB Inner Distant Signal **Reference**: Annexure-C-Specification of KAVACH, page no:40,C.5.2
624.	CUR_SIG_INFO_TAGRFID_NOT_IN_RADIO_PKT	8	It is a length of 17 bits. **a14 to a9**:type of signal Only in RFID Tag, not in Radio Packet. **Reference**: Annexure-C-Specification of KAVACH, page no:40,C.5.2
625.	CUR_SIG_ASPT_SIZE	6	It is a length of 6 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:40,C.5.2
626.	CUR_SIG_ASPT_MAX	127	It is a length of 6 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:40,C.5.2
627.	CUR_SIG_ASPT_MIN	0	It is a length of 6 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:40,C.5.2
628.	CUR_SIG_ASPT_UNIDEN	0	It is a length of 6 bits. Unidentified. **Reference**: Annexure-C-Specification of KAVACH, page no:40,C.5.2

629.	CUR_SIG_ASPT_RED	1	It is a length of 6 bits. Red **Reference**: Annexure-C-Specification of KAVACH, page no:41,C.5.2
630.	CUR_SIG_ASPT_YELLOW_WTO_DISP_RT_IND	2	It is a length of 6 bits. Yellow without Display of Route Indication, **Reference**: Annexure-C-Specification of KAVACH, page no:41,C.5.2.
631.	CUR_SIG_ASPT_YELLOW_POS1_JUN_TYPE_RT_IND	3	It is a length of 6 bits. Yellow with Pos1 Junction Type Route Indication (left) **Reference**: Annexure-C-Specification of KAVACH, page no:41,C.5.2
632.	CUR_SIG_ASPT_YELLOW_POS2_JUN_TYPE_RT_IND	4	It is a length of 6 bits. Yellow with Pos2 Junction Type Route Indication (left) **Reference**: Annexure-C-Specification of KAVACH, page no:41,C.5.2
633.	CUR_SIG_ASPT_YELLOW_POS3_JUN_TYPE_RT_IND	5	It is a length of 6 bits. Yellow with Pos3 Junction Type Route Indication (left) **Reference**: Annexure-C-Specification of KAVACH, page no:41,C.5.2
634.	CUR_SIG_ASPT_YELLOW_POS4_JUN_TYPE_RT_IND	6	It is a length of 6 bits. Yellow with Pos4 Junction Type Route Indication (right) **Reference**: Annexure-C-Specification of KAVACH, page no:41,C.5.2
635.	CUR_SIG_ASPT_YELLOW_POS5_JUN_TYPE_RT_IND	7	It is a length of 6 bits. Yellow with Pos5 Junction Type Route Indication (right) **Reference**: Annexure-C-Specification of KAVACH, page no:41,C.5.2
636.	CUR_SIG_ASPT_YELLOW_POS6_JUN_TYPE_RT_IND	8	It is a length of 6 bits. Yellow with Pos6 Junction Type Route Indication (right) **Reference**: Annexure-C-Specification of KAVACH, page no:41,C.5.2
637.	CUR_SIG_ASPT_SPARE	9	It is a length of 6 bits. Spare, **Reference**: Annexure-C-Specification of KAVACH, page no:41,C.5.2
638.	CUR_SIG_ASPT_DOUBYELLOW	10	It is a length of 6 bits. Double Yellow. **Reference**: Annexure-C-Specification of KAVACH, page no:41,C.5.2
639.	CUR_SIG_ASPT_GREEN	11	It is a length of 6 bits. Green.

			Reference: Annexure-C-Specification of KAVACH, page no:41,C.5.2
640.	CUR_SIG_ASPT_DOUBYELLOW_POS1_ JUN_TYPE_RT_IND	12	It is a length of 6 bits. Double Yellow with Pos1 Junction Type Route Indication (left) **Reference**: Annexure-C-Specification of KAVACH, page no:41,C.5.2
641.	CUR_SIG_ASPT_DOUBYELLOW_POS4_ JUN_TYPE_RT_IND	13	It is a length of 6 bits. Double Yellow with Pos4 Junction Type Route Indication (right) **Reference**: Annexure-C-Specification of KAVACH, page no:41,C.5.2
642.	CUR_SIG_ASPT_AG_MARKER_OFF	14	It is a length of 6 bits. AG Marker OFF **Reference**: Annexure-C-Specification of KAVACH, page no:41,C.5.2
643.	CUR_SIG_ASPT_REDCALLON_OFF	15	It is a length of 6 bits. Red with Calling-on at OFF **Reference**: Annexure-C-Specification of KAVACH, page no:41,C.5.2
644.	CUR_SIG_ASPT_SPARE1		It is a length of 6 bits. Current signal aspect spare1 **Reference**: Annexure-C-Specification of KAVACH, page no:41,C.5.2
645.	CUR_SIG_ASPT_STP_BOARD	24	It is a length of 6 bits. Stop Board / Buffer Stop **Reference**: Annexure-C-Specification of KAVACH, page no:41,C.5.2
646.	CUR_SIG_ASPT_SPARE2		It is a length of 6 bits. Current signal aspect Spare2 **Reference**: Annexure-C-Specification of KAVACH, page no:41,C.5.2
647.	CUR_SIG_ASPT_YELLOW_STENCIL_MA X	63	It is a length of 6 bits. Yellow with Stencil route 1 to 32 **Reference**: Annexure-C-Specification of KAVACH, page no:41,C.5.2
648.	CUR_SIG_ASPT_YELLOW_STENCIL_MI N	32	It is a length of 6 bits. Yellow with Stencil route 1 to 32 **Reference**: Annexure-C-Specification of KAVACH, page no:41,C.5.2
649.	CUR_SIG_ASPT _SIG_OVRD_PERM_STANDSTILL	0	It is a length of 1 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:42,C.5.2
650.	CUR_SIG_ASPT _SIG_OVRD_PERM_RUNING	1	It is a length of 1 bit. **Reference**: Annexure-C-Specification of KAVACH, page no:42,C.5.2
651.	CUR_SIG_ASPT _STP_SIG_NO	0	It is a length of 1 bit.

			Stop Signal (0: No, 1: Yes) **Reference**: Annexure-C-Specification of KAVACH, page no:42,C.5.2
652.	CUR_SIG_ASPT _STP_SIG_YES	1	It is a length of 1 bit. Stop Signal (0: No, 1: Yes) **Reference**: Annexure-C-Specification of KAVACH, page no:42,C.5.2
653.	NXT_SIG_ASPT_SIZE	6	It is a length of 6 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:42,C.5.2
654.	NXT_SIG_ASPT_MAX	127	It is a length of 6 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:42,C.5.2
655.	NXT_SIG_ASPT_MIN	0	It is a length of 6 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:42,C.5.2
656.	NXT_SIG_ASPT_UNDEF	0	It is a length of 6 bits. In case current Signal Aspect is RED (Un-defined) **Reference**: Annexure-C-Specification of KAVACH, page no:42,C.5.2
657.	APPR_SIG_DIST_SIZE	15	It is a length of 15 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:42,C.5.2
658.	APPR_SIG_DIST	111	It is a length of 15 bits. Approaching signal distance in meter from the last reference RFID Tag (valid up to 32767m) **Reference**: Annexure-C-Specification of KAVACH, page no:42,C.5.2
659.	APPR_SIG_DIST_MAX	32767	It is a length of 15 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:42,C.5.2
660.	APPR_SIG_DIST_MIN	0	It is a length of 15 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:42,C.5.2
661.	AUTH_TYPE_SIZE	2	It is a length of 2 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:42,C.5.2
662.	AUTH_TYPE_MIN	0	It is a length of 2 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:42,C.5.2
663.	AUTH_TYPE_MAX	3	It is a length of 2 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:42,C.5.2
664.	AUTH_TYPE_NOT_USE	0	It is a length of 2 bits. Not to be used **Reference**: Annexure-C-Specification of KAVACH, page no:42,C.5.2

665.	AUTH_TYPE_OS_AUTH	1	It is a length of 2 bits. OS Authority (Distance allowed in OS mode with speed restriction) **Reference**: Annexure-C-Specification of KAVACH, page no:42,C.5.2
666.	AUTH_TYPE_FS_AUTH	2	It is a length of 2 bits. FS Authority (Distance allowed in FS mode) **Reference**: Annexure-C-Specification of KAVACH, page no:42,C.5.2
667.	AUTH_TYPE_SR_AUTH	3	It is a length of 2 bits. SR Authority. When MA is required to be extended beyond border signal and adjacent S-KAVACH communication failed, Authorized speed shall be un-known (63). Onboard KAVACH shall ignore APPR_SIG_DIST and MA_W_R_T_SIG. **Reference**: Annexure-C-Specification of KAVACH, page no:42,C.5.2
668.	AUTHORIZED_SPD_SIZE	6	It is a length of 6 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:42,C.5.2
669.	AUTHORIZED_SPD	11	It is a length of 6 bits. Only If AUTHORITY_TYPE = '01', AUTHORIZED_SPEED variables follows. **Reference**: Annexure-C-Specification of KAVACH, page no:42,C.5.2
670.	AUTHORIZED_SPD_MAX	63	It is a length of 6 bits. Only If AUTHORITY_TYPE = '01', AUTHORIZED_SPEED variables follows. **Reference**: Annexure-C-Specification of KAVACH, page no:42,C.5.2
671.	AUTHORIZED_SPD_MIN	0	It is a length of 6 bits. Only If AUTHORITY_TYPE = '01', AUTHORIZED_SPEED variables follows. **Reference**: Annexure-C-Specification of KAVACH, page no:42,C.5.2
672.	AUTHORIZED_SPD_RES_FU		It is a length of 6 bits. Reserved for future use, **Reference**: Annexure-C-Specification of KAVACH, page no:42,C.5.2
673.	AUTHORIZED_SPD_AUTO_SIG_OVRD_DURING_NYT	62	It is a length of 6 bits. 8 Kmph (Configurable) for auto signal override during night **Reference**: Annexure-C-Specification of KAVACH, page no:42,C.5.2
674.	AUTHORIZED_SPD_UNKNOWN	63	It is a length of 6 bits. Unknown **Reference**: Annexure-C-Specification of KAVACH, page no:42,C.5.2

675.	MA_W_R_T_SIG_SIZE	16	It is a length of 16 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:42,C.5.2
676.	MA_W_R_T_SIG	111	It is a length of 16 bits. 0 to 65534 in meters. **Reference**: Annexure-C-Specification of KAVACH, page no:42,C.5.2
677.	MA_W_R_T_SIG_MAX	65534	It is a length of 16 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:42,C.5.2
678.	MA_W_R_T_SIG_MIN	0	It is a length of 16 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:42,C.5.2
679.	MA_W_R_T_SIG_UNKNOWN	65535	It is a length of 16 bits. Unknown (Onboard Kavach continues in SR Mode). **Reference**: Annexure-C-Specification of KAVACH, page no:43,C.5.2
680.	REQ_SHORTEN_MA_SIZE	1	It is a length of 1 bit. **Reference**: Annexure-C-Specification of KAVACH, page no:43,C.5.2
681.	REQ_SHORTEN_MA_MAX	1	It is a length of 1 bit. **Reference**: Annexure-C-Specification of KAVACH, page no:43,C.5.2
682.	REQ_SHORTEN_MA_MIN	0	It is a length of 1 bit. **Reference**: Annexure-C-Specification of KAVACH, page no:43,C.5.2
683.	NO_REQ_SHORTEN_ MA	0	It is a length of 1 bit. No request from trackside for shortening MA **Reference**: Annexure-C-Specification of KAVACH, page no:43,C.5.2
684.	NEW_REQ_SHORTEN_ MA	1	It is a length of 1 bit. New request from trackside for shortening MA **Reference**: Annexure-C-Specification of KAVACH, page no:43,C.5.2
685.	NEW_MA_SIZE	16	It is a length of 16 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:43,C.5.2
686.	NEW_MA_MAX	65535	It is a length of 16 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:43,C.5.2
687.	NEW_MA_MIN	0	It is a length of 16 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:43,C.5.2
688.	NEW_MA	111	It is a length of 16 bits. Only If REQ_SHORTEN_MA = 1, NEW_MA variables follow. New MA due to signal cancellation request from EI.

			Reference: Annexure-C-Specification of KAVACH, page no:43,C.5.2
689.	TRN_LEN_INFO_STS_SIZE	1	It is a length of 1 bit. **Reference**: Annexure-C-Specification of KAVACH, page no:43,C.5.2
690.	TRN_LEN_INFO_STS_MAX	1	It is a length of 1 bit. **Reference**: Annexure-C-Specification of KAVACH, page no:43,C.5.2
691.	TRN_LEN_INFO_STS_MIN	0	It is a length of 1 bit. **Reference**: Annexure-C-Specification of KAVACH, page no:43,C.5.2
692.	NO_TRAIN_LEN_INFO_STS	0	It is a length of 1 bit. No Train Length Info, **Reference**: Annexure-C-Specification of KAVACH, page no:43,C.5.2
693.	TRN_LEN_INFO_STS_FOLLOW	1	It is a length of 1 bit. Train Length Info follows Only If TRAIN_LEN_INFO_STS = 1, TRAINN_LEN_INFO_TYPE and remaining variables follow. **Reference**: Annexure-C-Specification of KAVACH, page no:43,C.5.2
694.	TRN_LEN_INFO_TYPE_SIZE	1	It is a length of 1 bit. **Reference**: Annexure-C-Specification of KAVACH, page no:43,C.5.2
695.	TRN_LEN_INFO_TYPE_MAX	1	It is a length of 1 bit. **Reference**: Annexure-C-Specification of KAVACH, page no:43,C.5.2
696.	TRN_LEN_INFO_TYPE_MIN	0	It is a length of 1 bit. **Reference**: Annexure-C-Specification of KAVACH, page no:43,C.5.2
697.	TRN_LEN_INFO_TYPE_START	0	It is a length of 1 bit. REF_FRAME_NUM_TL and REF_OFFSET_INT_TL pertain to “Start” frame and offset. **Reference**: Annexure-C-Specification of KAVACH, page no:43,C.5.2
698.	TRN_LEN_INFO_TYPE_END	1	It is a length of 1 bit. REF_FRAME_NUM_TL and REF_OFFSET_INT_TL pertain to “END” frame and offset. **Reference**: Annexure-C-Specification of KAVACH, page no:43,C.5.2
699.	REF_FRAME_NUM_TLM_SIZE	17	It is a length of 17 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:43,C.5.2
700.	REF_FRAME_NUM_TLM	111	It is a length of 17 bits. 1 to 86400 ((hr * 3600 + mm * 60 + ss) + 1) Example : 00:00:00 - Frame No 1 00:00:02 - Frame No. 3

			…… 23:59:58 - Frame No 86399 **Reference**: Annexure-C-Specification of KAVACH, page no:43,C.5.2
701.	REF_FRAME_NUM_TLM_MAX	86400	It is a length of 17 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:43,C.5.2
702.	REF_FRAME_NUM_TLM_MIN	1	It is a length of 17 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:43,C.5.2
703.	REF_OFFSET_INT_TLM_SIZE	8	It is a length of 8 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:43,C.5.2
704.	REF_OFFSET_INT_TLM	111	It is a length of 8 bits. 0 to 200 (10ms resolution) **Reference**: Annexure-C-Specification of KAVACH, page no:43,C.5.2
705.	REF_OFFSET_INT_ TLM_MAX	200	It is a length of 8 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:43,C.5.2
706.	REF_OFFSET_INT_ TLM_MIN	0	It is a length of 8 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:43,C.5.2
707.	NO_NEXT_STN_COMM_SIZE	1	It is a length of 1 bit. **Reference**: Annexure-C-Specification of KAVACH, page no:43,C.5.2
708.	NO_NEXT_STN_COMM_MAX	1	It is a length of 1 bit. **Reference**: Annexure-C-Specification of KAVACH, page no:43,C.5.2
709.	NO_NEXT_STN_COMM_MIN	0	It is a length of 1 bit. **Reference**: Annexure-C-Specification of KAVACH, page no:43,C.5.2
710.	NO_NEXT_STN_COMM	0	It is a length of 1 bit. No next station handover **Reference**: Annexure-C-Specification of KAVACH, page no:43,C.5.2
711.	REQ_NEXT_STN_COMM	1	It is a length of 1 bit. Requires next station handover **Reference**: Annexure-C-Specification of KAVACH, page no:43,C.5.2
712.	APPR_STN_ILC_IBS_ID_SIZE	16	It is a length of 16 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:43,C.5.2
713.	APPR_STN_ILC_IBS_ID	111	It is a length of 16bits. Approaching next stationary Kavach ID. Only If NEXT_STION_COMM = 1, APPR_STN_ILC_IBS_ID variables follow.

			Reference: Annexure-C-Specification of KAVACH, page no:43,C.5.2
714.	APPR_STN_ILC_IBS_ID_MAX	65535	It is a length of 16 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:43,C.5.2
715.	APPR_STN_ILC_IBS_ID_MIN	1	It is a length of 16 bits. **Reference**: Annexure-C-Specification of KAVACH, page no:43,C.5.2
Onboard KAVACH Configurable Parameters			
716.	LOCO_SPEED	LD	**UNITS IN KMPH** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:3,A2.3.1
717.	LOCO_SPEED_MIN	0	**UNITS IN KMPH** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:3,A2.3.1
718.	LOCO_SPEED_MAX	510	**UNITS IN KMPH** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:3,A2.3.1
719.	LOCO_WHEEL_DIA_D1	LD	**UNITS IN MM** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:3,A2.3.1
720.	LOCO_WHEEL_DIA_D1_MIN	640	**UNITS IN MM** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:3,A2.3.1
721.	LOCO_WHEEL_DIA_D1_MAX	1220	**UNITS IN MM** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:3,A2.3.1
722.	LOCO_WHEEL_DIA_D2	LD	**UNITS IN MM** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:3,A2.3.1
723.	LOCO_WHEEL_DIA_D2_MIN	640	**UNITS IN MM** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:3,A2.3.1
724.	LOCO_WHEEL_DIA_D2_MAX	1220	**UNITS IN MM** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:3,A2.3.1
725.	RFID_READER_1_OFFSET_FRONT	3	**UNITS IN METERS** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:3,A2.3.1
726.	RFID_READER_1_OFFSET_FRONT_MIN	0	**UNITS IN METERS** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:3,A2.3.1
727.	RFID_READER_1_OFFSET_FRONT_MAX	20	**UNITS IN METERS** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:3,A2.3.1
728.	RFID_READER_1_OFFSET_REAR	3	**UNITS IN METERS**

			Reference: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:3,A2.3.1
729.	RFID_READER_1_OFFSET_REAR_MIN	0	**UNITS IN METERS** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
730.	RFID_READER_1_OFFSET_REAR_MAX	20	**UNITS IN METERS** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
731.	RFID_READER_2_OFFSET_FRONT	3	**UNITS IN METERS** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
732.	RFID_READER_2_OFFSET_FRONT_MIN	0	**UNITS IN METERS** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
733.	RFID_READER_2_OFFSET_FRONT_MAX	20	**UNITS IN METERS** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
734.	RFID_READER_2_OFFSET_REAR	3	**UNITS IN METERS** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
735.	RFID_READER_2_OFFSET_REAR_MIN	0	**UNITS IN METERS** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
736.	RFID_READER_2_OFFSET_REAR_MAX	20	**UNITS IN METERS** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
737.	ACCUUR_LOC_OF_RFIDTAG	5	**UNITS IN METERS** This is difference between the location read from the Tag & its actual location **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
738.	ACCUUR_LOC_OF_RFIDTAG_MIN	2	**UNITS IN METERS** This is difference between the location read from the Tag & its actual location. **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
739.	ACCUUR_LOC_OF_RFIDTAG_MAX	10	**UNITS IN METERS** This is difference between the location read from the Tag & its actual location. **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
740.	LOCO_ACCELERATION	LD	**UNITS IN /S^2** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
741.	LOCO_ACCELERATION_MIN	0.1	**UNITS IN /S^2** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1

742.	LOCO_ACCELERATION_MAX	0.2	**UNITS IN /S^2** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
SPEED SENSOR 1			
743.	TACHO_PULSE_PER_REVOL_SEN_1	LD	**UNITS IN NUMBER** Tacho output of pulses per Revolution **UNITS IN NUMBER** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
744.	TACHO_PULSE_PER_REVOL_MIN_SEN_1	30	**UNITS IN NUMBER** Tacho output of pulses per Revolution **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
745.	TACHO_PULSE_PER_REVOL_MAX_SEN_1	700	**UNITS IN NUMBER** Tacho output of pulses per Revolution **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
746.	TACHO_TYPE_SEN_1	LD	**UNITS IN NUMBER** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
747.	TACHO_TYPE_0_SEN_1	0	**UNITS IN NUMBER** Single pulse(0), **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
748.	TACHO_TYPE_1_SEN_1	1	**UNITS IN NUMBER** Quadrate e out(1), **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
749.	TACHO_TYPE_2_SEN_1	2	**UNITS IN NUMBER** Redundant Quad output(2) **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
750.	TACHO_TYPE_MIN_SEN_1	0	**UNITS IN NUMBER** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
751.	TACHO_TYPE_MAX_SEN_1	3	**UNITS IN NUMBER** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
752.	TACHO_MOV_DIR_SEN_1	LD	**UNITS IN NUMBER** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
753.	TACHO_MOV_DIR_0_SEN_1	0	**UNITS IN NUMBER** Left side(0) **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
754.	TACHO_MOV_DIR_1_SEN_1	1	**UNITS IN NUMBER** Right side(1)

			Reference: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
755.	TACHO_MOV_DIR_MIN_SEN_1	0	**UNITS IN NUMBER** Left side(0)/ Right side(1) mount wrt CAB1/ Short Hood cab(Based on this Onboard KAVACH may complement Feedback Direction) **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
756.	TACHO_MOV_DIR_MAX_SEN_1	1	**UNITS IN NUMBER** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
SPEED SENSOR 2			
757.	TACHO_PULSE_PER_REVOL_SEN_2	LD	**UNITS IN NUMBER** Tacho output of pulses per Revolution **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
758.	TACHO_PULSE_PER_REVOL_MIN_SEN_2	30	**UNITS IN NUMBER** Tacho output of pulses per Revolution **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
759.	TACHO_PULSE_PER_REVOL_MAX_SEN_2	700	**UNITS IN NUMBER** Tacho output of pulses per Revolution **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
760.	TACHO_TYPE_SEN_2	LD	**UNITS IN NUMBER** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
761.	TACHO_TYPE_0_SEN_2	0	**UNITS IN NUMBER** Single pulse(0), **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
762.	TACHO_TYPE_1_SEN_2	1	**UNITS IN NUMBER** Quadrate e out(1), **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
763.	TACHO_TYPE_2_SEN_2	2	**UNITS IN NUMBER** Redundant Quad output(2) **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
764.	TACHO_TYPE_MIN_SEN_2	0	**UNITS IN NUMBER** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
765.	TACHO_TYPE_MAX_SEN_2	2	**UNITS IN NUMBER** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
766.	TACHO_MOV_DIR_SEN_2	LD	**UNITS IN NUMBER** **Reference**: Annexure-A2- Onboard KAVACH

			Configurable Parameters, page no:4,A2.3.1
767.	TACHO_MOV_DIR_0_SEN_2	0	**UNITS IN NUMBER** Left side(0) **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
768.	TACHO_MOV_DIR_1_SEN_2	1	**UNITS IN NUMBER** Right side(1) **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
769.	TACHO_MOV_DIR_MIN_SEN_2	0	**UNITS IN NUMBER** Left side(0)/ Right side(1) mount wrt CAB1/ Short Hood cab(Based on this Onboard KAVACH may complement Feedback Direction) **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
770.	TACHO_MOV_DIR_MAX_SEN_2	1	**UNITS IN NUMBER** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:4,A2.3.1
SPEED MARGIN			
771.	SPEED_MARGIN_WARNING	2	**UNITS IN KMPH** Warning Speed beyond permitted speed after which warning is to be displayed on DMI **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:5,A2.3.1
772.	SPEED_MARGIN_WARNING_MIN	0	**UNITS IN KMPH** Warning Speed beyond permitted speed after which warning is to be displayed on DMI **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:5,A2.3.1
773.	SPEED_MARGIN_WARNING_MAX	10	**UNITS IN KMPH** Warning Speed beyond permitted speed after which warning is to be displayed on DMI **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:5,A2.3.1
774.	SPEED_MARGIN_NB	5	**UNITS IN KMPH** Speed beyond permitted speed after which NSB to be applied **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:5,A2.3.1
775.	SPEED_MARGIN_NB_MIN	5	**UNITS IN KMPH** Speed beyond permitted speed after which NSB to be applied **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:5,A2.3.1
776.	SPEED_MARGIN_NB_MAX	10	**UNITS IN KMPH** Speed beyond permitted speed after which NSB to be applied

			Reference: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:5,A2.3.1
777.	SPEED_MARGIN_FSB	8	**UNITS IN KMPH** Speed beyond permitted speed after which FSB to be applied **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:5,A2.3.1
778.	SPEED_MARGIN_FSB_MIN	5	**UNITS IN KMPH** Speed beyond permitted speed after which FSB to be applied **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:5,A2.3.1
779.	SPEED_MARGIN_FSB_MAX	10	**UNITS IN KMPH** Speed beyond permitted speed after which FSB to be applied **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:5,A2.3.1
780.	SPEED_MARGIN_EB	10	**UNITS IN KMPH** Speed beyond permitted speed after which EB to be applied **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:5,A2.3.1
781.	SPEED_MARGIN_EB_MIN	5	**UNITS IN KMPH** Speed beyond permitted speed after which EB to be applied **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:5,A2.3.1
782.	SPEED_MARGIN_EB_MAX	15	**UNITS IN KMPH** Speed beyond permitted speed after which EB to be applied **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:5,A2.3.1
RESTRICTED SPEED			
783.	SOS_SPEED_LIMIT	30	**UNITS IN KMPH** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:5,A2.3.1
784.	SOS_SPEED_LIMIT_MIN	5	**UNITS IN KMPH** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:5,A2.3.1
785.	SOS_SPEED_LIMIT_MAX	60	**UNITS IN KMPH** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:5,A2.3.1
786.	SOS_STOP_SPEED	0	**UNITS IN KMPH** Speed to maintain while reaching SOS originated loco**. Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:5,A2.3.1
787.	SOS_STOP_SPEED_MIN	0	**UNITS IN KMPH**

			Speed to maintain while reaching SOS originated loco**. Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:5,A2.3.1
788.	SOS_STOP_SPEED_MAX	30	**UNITS IN KMPH** Speed to maintain while reaching SOS originated loco**. Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:5,A2.3.1
789.	REVERSE_MODE_SPEED	25	**UNITS IN KMPH** RV mode speed limit **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
790.	REVERSE_MODE_SPEED_MIN	15	**UNITS IN KMPH** RV mode speed limit **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
791.	REVERSE_MODE_SPEED_MAX	60	**UNITS IN KMPH** RV mode speed limit **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
792.	SHUNT_SPEED	15	**UNITS IN KMPH** SH mode speed Limit **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
793.	SHUNT_SPEED_MIN	5	**UNITS IN KMPH** SH mode speed Limit **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
794.	SHUNT_SPEED_MAX	50	**UNITS IN KMPH** SH mode speed Limit **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
795.	WHEEL_SEN_DIR_DISCRIMINATION_SPEED	5	**UNITS IN KMPH** Wheel Sensor direction discrimination speed **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
796.	WHEEL_SEN_DIR_DISCRIMINATION_SPEED_MIN	1	**UNITS IN KMPH** Wheel Sensor direction discrimination speed **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
797.	WHEEL_SEN_DIR_DISCRIMINATION_SPEED_MAX	10	**UNITS IN KMPH** Wheel Sensor direction discrimination speed **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
798.	BRK_INTERVENTION_WITH_DRAWAL_SPEED	5	**UNITS IN KMPH** When target speed is non Zero, the brake command is released when actual speed is within this limit above permitted speed

			Reference: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
799.	BRK_INTERVENTION_WITH_DRAWAL_SPEED_MIN	2	**UNITS IN KMPH** When target speed is non Zero, the brake command is released when actual speed is within this limit above permitted speed **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
800.	BRK_INTERVENTION_WITH_DRAWAL_SPEED_MAX	10	**UNITS IN KMPH** When target speed is non Zero, the brake command is released when actual speed is within this limit above permitted speed **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
801.	SLIPPING_ACCELERATION_LIMIT	LD	**UNITS IN KMPH** Slipping acceleration Limit **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
802.	SLIPPING_ACCELERATION_LIMIT_MAX	0.5	**UNITS IN KMPH** Slipping acceleration Limit **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
803.	SLIPPING_ACCELERATION_LIMIT_MIN	2.5	**UNITS IN KMPH** Slipping acceleration Limit **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
804.	SLIPPING_DURATION	90	**UNITS IN KMPH** Duration of slipping time **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
805.	SLIPPING_DURATION_MIN	60	**UNITS IN KMPH** Duration of slipping time **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
806.	SLIPPING_DURATION_MAX	180	**UNITS IN KMPH** Duration of slipping time **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
807.	SLIPPING_PERCENTAGE	5	**UNITS IN KMPH** Duration of slipping time **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
808.	SLIPPING_PERCENTAGE_MIN	2	**UNITS IN KMPH** Duration of slipping time **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
809.	SLIPPING_PERCENTAGE_MAX	10	**UNITS IN KMPH**

			Duration of slipping time **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
810.	SLIP_LIMIT_1	4	**UNITS IN KMPH** To detect slip in Kmph (PG1) **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
811.	SLIP_LIMIT_1_MIN	2	**UNITS IN KMPH** To detect slip in Kmph (PG1) **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
812.	SLIP_LIMIT_1_MAX	10	**UNITS IN KMPH** To detect slip in Kmph (PG2) **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
813.	SLIP_LIMIT_2	4	**UNITS IN KMPH** To detect slip in Kmph (PG1) **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
814.	SLIP_LIMIT_2_MIN	2	**UNITS IN KMPH** To detect slip in Kmph (PG2) **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
815.	SLIP_LIMIT_2_MAX	10	**UNITS IN KMPH** To detect slip in Kmph (PG2) **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
816.	SKID_LIMIT_1	6	**UNITS IN KMPH** To detect SKID in Kmph (PG1) **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
817.	SKID_LIMIT_1_MIN	2	**UNITS IN KMPH** To detect SKID in Kmph (PG1) **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
818.	SKID_LIMIT_1_MAX	10	**UNITS IN KMPH** To detect SKID in Kmph (PG2) **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
819.	SKID_LIMIT_2	6	**UNITS IN KMPH** To detect SKID in Kmph (PG1) **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
820.	SKID_LIMIT_2_MIN	2	**UNITS IN KMPH** To detect SKID in Kmph (PG2) **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1

821.	SKID _LIMIT_2_MAX	10	**UNITS IN KMPH** To detect SKID in Kmph (PG2) **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
Warning Time margin in second			
822.	INTERVENTION_WARNING_INDICATION	2	**UNITS IN SECOND** Warning indication before KAVACH brake intervention **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
823.	INTERVENTION_WARNING_INDICATION_MIN	0	**UNITS IN SECOND** Warning indication before KAVACH brake intervention **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
824.	INTERVENTION_WARNING_INDICATION_MAX	20	**UNITS IN SECOND** Warning indication before KAVACH brake intervention **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
825.	LP_TIME_MERGIN_IN_SECONDS	4	**UNITS IN SECOND** After warning indication, the LP reaction time margin before KAVACH brake intervention **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
826.	LP_TIME_MERGIN_IN_SECONDS_MIN	0	**UNITS IN SECOND** After warning indication, the LP reaction time margin before KAVACH brake intervention **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
827.	LP_TIME_MERGIN_IN_SECONDS_MAX	30	**UNITS IN SECOND** After warning indication, the LP reaction time margin before KAVACH brake intervention **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:6,A2.3.1
Time Out			
828.	TRACTION_CUTOFF_TIME	LD	**UNITS IN SECOND** The time delay between command to Traction cutoff **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:7,A2.3.1
829.	TRACTION_CUTOFF_TIME_MIN	0	**UNITS IN SECOND** The time delay between command to Traction cutoff **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:7,A2.3.1

830.	TRACTION_CUTOFF_TIME_MAX	30	**UNITS IN SECOND** The time delay between command to Traction cutoff **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:7,A2.3.1
831.	SOS_TIMEOUT	180	**UNITS IN SECOND** SoS clears after this time if SoS source not transmitting SoS **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:7,A2.3.1
832.	SOS_TIMEOUT_MIN	30	**UNITS IN SECOND** SoS clears after this time if SoS source not transmitting SoS **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:7,A2.3.1
833.	SOS_TIMEOUT_MAX	300	**UNITS IN SECOND** SoS clears after this time if SoS source not transmitting SoS **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:7,A2.3.1
834.	REVERSE_MODE_TIMEOUT	600	**UNITS IN SECOND** Reverse mode will be exited after this time out. **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:7,A2.3.1
835.	REVERSE_MODE_TIMEOUT_MIN	60	**UNITS IN SECOND** Reverse mode will be exited after this time out. **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:7,A2.3.1
836.	REVERSE_MODE_TIMEOUT_MAX	900	**UNITS IN SECOND** Reverse mode will be exited after this time out. **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:7,A2.3.1
837.	OVRD_TIMEOUT	120	**UNITS IN SECOND** Override mode will be exited after this time out **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:7,A2.3.1
838.	OVRD_TIMEOUT_MIN	60	**UNITS IN SECOND** Override mode will be exited after this time out **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:7,A2.3.1
839.	OVRD_TIMEOUT_MAX	600	**UNITS IN SECOND** Override mode will be exited after this time out **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:7,A2.3.1
840.	ONSIGHT_MA_EXPIRY_TIMOUT	240	**UNITS IN SECOND** On sight movement authority expires, if communication is not available for this time in

			communication mandatory zone. **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:7,A2.3.1
841.	ONSIGHT_MA_EXPIRY_TIMOUT_MIN	30	**UNITS IN SECOND** On sight movement authority expires, if communication is not available for this time in communication mandatory zone. **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:7,A2.3.1
842.	ONSIGHT_MA_EXPIRY_TIMOUT_MAX	600	**UNITS IN SECOND** On sight movement authority expires, if communication is not available for this time in communication mandatory zone. **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:7,A2.3.1
843.	COMM_TIMOUT_ABS	30	**UNITS IN SECOND** The time up to which the loco shall remain in Full Supervision Mode when valid Radio packets are not received **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:7,A2.3.1
844.	COMM_TIMOUT_ABS_MIN	6	**UNITS IN SECOND** The time up to which the loco shall remain in Full Supervision Mode when valid Radio packets are not received **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:7,A2.3.1
845.	COMM_TIMOUT_ABS_MAX	120	**UNITS IN SECOND** The time up to which the loco shall remain in Full Supervision Mode when valid Radio packets are not received **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:7,A2.3.1
846.	COMM_TIMOUT_AUTOMATIC_BLK	10	**UNITS IN SECOND** The time up to which the loco shall remain in Full Supervision Mode when valid Radio packets are not received **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:7,A2.3.1
847.	COMM_TIMOUT_AUTOMATIC_BLK_MIN	6	**UNITS IN SECOND** The time up to which the loco shall remain in Full Supervision Mode when valid Radio packets are not received **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:7,A2.3.1
848.	COMM_TIMOUT_AUTOMATIC_BLK_MAX	120	**UNITS IN SECOND** The time up to which the loco shall remain in Full

			Supervision Mode when valid Radio packets are not received **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:7,A2.3.1
849.	RAND_NUM_TIMOUT	30	**UNITS IN SECOND** Resetting the secured communication after communication failure **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:7,A2.3.1
850.	RAND_NUM_TIMOUT_MAX	6	**UNITS IN SECOND** Resetting the secured communication after communication failure **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:7,A2.3.1
851.	RAND_NUM_TIMOUT_MIN	120	**UNITS IN SECOND** Resetting the secured communication after communication failure **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:7,A2.3.1
852.	BLK_STOP_ANNONCE_TIMOUT	15	**UNITS IN SECOND** Time allowed for generating block stop SoS **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:7,A2.3.1
853.	BLK_STOP_ANNONCE_TIMOUT_MIN	0	**UNITS IN SECOND** Time allowed for generating block stop SoS **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:7,A2.3.1
854.	BLK_STOP_ANNONCE_TIMOUT_MAX	60	**UNITS IN SECOND** Time allowed for generating block stop SoS **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:7,A2.3.1
855.	TIMOUT_FOR_SIG_DISPLAY	8	**UNITS IN SECOND** Time out to display of signal aspect after previous signal foot tag/location crossed **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:7,A2.3.1
856.	TIMOUT_FOR_SIG_DISPLAY_MIN	2	**UNITS IN SECOND** Time out to display of signal aspect after previous signal foot tag/location crossed **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:7,A2.3.1
857.	TIMOUT_FOR_SIG_DISPLAY_MAX	20	**UNITS IN SECOND** Time out to display of signal aspect after previous signal foot tag/location crossed **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:7,A2.3.1
858.	SLIP_SKID_TIMOUT	90	**UNITS IN SECOND**

			To detect slip/skid time out **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:8,A2.3.1
859.	SLIP_SKID_TIMOUT_MIN	10	**UNITS IN SECOND** To detect slip/skid time out **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:8,A2.3.1
860.	SLIP_SKID_TIMOUT_MAX	180	**UNITS IN SECOND** To detect slip/skid time out **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:8,A2.3.1
861.	ACK_TIMOUT_SR_MODE_TRANS	15	**UNITS IN SECOND** Time out for SR mode transition when train move KAVACH area to Non KAVACH area. **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:8,A2.3.1
862.	ACK_TIMOUT_SR_MODE_TRANS_MIN	5	**UNITS IN SECOND** Time out for SR mode transition when train move KAVACH area to Non KAVACH area. **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:8,A2.3.1
863.	ACK_TIMOUT_SR_MODE_TRANS_MAX	30	**UNITS IN SECOND** Time out for SR mode transition when train move KAVACH area to Non KAVACH area. **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:8,A2.3.1
864.	TIMOUT_DISPLAY_DMI_MSG	2	**UNITS IN SECOND** First and second targets (for Head ON/Rear End Collision, Turnout PSR. TSRLC Gate Approach **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:8,A2.3.1
865.	TIMOUT_DISPLAY_DMI_MSG	1	**UNITS IN SECOND** First and second targets (for Head ON/Rear End Collision, Turnout PSR. TSRLC Gate Approach **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:8,A2.3.1
866.	TIMOUT_DISPLAY_DMI_MSG	10	**UNITS IN SECOND** First and second targets (for Head ON/Rear End Collision, Turnout PSR. TSRLC Gate Approach **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:8,A2.3.1
867.	GPS_FAIL_RTC_TIMOUT	30	**UNITS IN MINUTE** Post GPS/GNSS failure the time out Real Time Clock (RTC) **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:8,A2.3.1
868.	GPS_FAIL_RTC_TIMOUT_MIN	10	**UNITS IN MINUTE**

			Post GPS/GNSS failure the time out Real Time Clock (RTC) **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:8,A2.3.1
869.	GPS_FAIL_RTC_TIMOUT_MAX	60	**UNITS IN MINUTE** Post GPS/GNSS failure the time out Real Time Clock (RTC) **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:8,A2.3.1
870.	REQ_KMS_PERIODICITY	5	**UNITS IN MINUTE** Request for Key Management System (Not having any key) **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:8,A2.3.1
871.	REQ_KMS_PERIODICITY	1	**UNITS IN MINUTE** Request for Key Management System (Not having any key) **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:8,A2.3.1
872.	REQ_KMS_PERIODICITY	30	**UNITS IN MINUTE** Request for Key Management System (Not having any key) **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:8,A2.3.1
873.	REQ_KMS_VALID_CHECK	30	**UNITS IN MINUTE** Request for KMS (having any key) **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:8,A2.3.1
874.	REQ_KMS_VALID_CHECK_MIN	10	**UNITS IN MINUTE** Request for KMS (having any key) **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:8,A2.3.1
875.	REQ_KMS_VALID_CHECK_MAX	30	**UNITS IN MINUTE** Request for KMS (having any key) **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:8,A2.3.1
876.	RAND_REQ_MODE_VAL	120	**UNITS IN MINUTE** Randomized request mode value for Key **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:8,A2.3.1
877.	RAND_REQ_MODE_VAL_MIN	30	**UNITS IN MINUTE** Randomized request mode value for Key **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:8,A2.3.1
878.	RAND_REQ_MODE_VAL_MAX	240	**UNITS IN MINUTE** Randomized request mode value for Key **Reference**: Annexure-A2- Onboard KAVACH

			Configurable Parameters, page no:8,A2.3.1
Reaction Time			
879.	LP_REACT_TIME	15	**UNITS IN SECOND** Loco pilot Time margin before KAVACH Intervention during mode change or unusual stop SoS in block section. **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:8,A2.3.1
880.	LP_REACT_TIME_MIN	4	**UNITS IN SECOND** Loco pilot Time margin before KAVACH Intervention during mode change or unusual stop SoS in block section. **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:8,A2.3.1
881.	LP_REACT_TIME_MAX	30	**UNITS IN SECOND** Loco pilot Time margin before KAVACH Intervention during mode change or unusual stop SoS in block section. **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:8,A2.3.1
Margin Distance			
882.	OVRLAP_DIST	80	**UNITS IN METER** Overlap in addition to MA control **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:9,A2.3.1
883.	OVRLAP_DIST_MIN	0	**UNITS IN METER** Overlap in addition to MA control **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:9,A2.3.1
884.	OVRLAP_DIST_MAX	400	**UNITS IN METER** Overlap in addition to MA control **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:9,A2.3.1
885.	COLL_MARGIN_DIST	300	**UNITS IN METER** For Rear End Collisions **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:9,A2.3.1
886.	COLL_MARGIN_DIST_MIN	100	**UNITS IN METER** For Rear End Collisions **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:9,A2.3.1
887.	COLL_MARGIN_DIST_MAX	500	**UNITS IN METER** For Rear End Collisions **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:9,A2.3.1
888.	SOS_TRIG_DIST	3000	**UNITS IN METER**

			Distance for Acceptance of SOS from Station or other Loco **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:9,A2.3.1
889.	SOS_TRIG_DIST_MIN	500	**UNITS IN METER** Distance for Acceptance of SOS from Station or other Loco **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:9,A2.3.1
890.	SOS_TRIG_DIST_MAX	6000	**UNITS IN METER** Distance for Acceptance of SOS from Station or other Loco **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:9,A2.3.1
891.	SOS_CANCEL_DIST	1500	**UNITS IN METER** Distance for Clear of SOS from Station or other Loco **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:9,A2.3.1
892.	SOS_CANCEL_DIST_MIN	500	**UNITS IN METER** Distance for Clear of SOS from Station or other Loco **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:9,A2.3.1
893.	SOS_CANCEL_DIST_MAX	5000	**UNITS IN METER** Distance for Clear of SOS from Station or other Loco **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:9,A2.3.1
894.	SOS_HOLD_DIST	1500	**UNITS IN METER** Distance to clear SOS from the point of occurrence **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:9,A2.3.1
895.	SOS_HOLD_DIST_MIN	0	**UNITS IN METER** Distance to clear SOS from the point of occurrence **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:9,A2.3.1
896.	SOS_HOLD_DIST_MAX	3000	**UNITS IN METER** Distance to clear SOS from the point of occurrence **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:9,A2.3.1
897.	ROL_AWAY_ROL_BACK_TRIG_DIST	5	**UNITS IN METER** Roll away or Roll Back Trigger Distance **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:9,A2.3.1
898.	ROL_AWAY_ROL_BACK_TRIG_DIST	5	**UNITS IN METER** Roll away or Roll Back Trigger Distance

			Reference: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:9,A2.3.1
899.	ROL_AWAY_ROL_BACK_TRIG_DIST	30	**UNITS IN METER** Roll away or Roll Back Trigger Distance **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:9,A2.3.1
900.	OVRD_PERMIT_DIST	200	**UNITS IN METER** Override Permitted only when MA is Less than this limit. **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:9,A2.3.1
901.	OVRD_PERMIT_DIST_MIN	50	**UNITS IN METER** Override Permitted only when MA is Less than this limit **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:9,A2.3.1
902.	OVRD_PERMIT_DIST_MAX	500	**UNITS IN METER** Override Permitted only when MA is Less than this limit **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:9,A2.3.1
903.	UNUSUAL_STOP_BYPASS_MA_LIMIT	300	**UNITS IN METER** SoS will not generate even if train stops in block section, If MA is less than this Distance limit **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:9,A2.3.1
904.	UNUSUAL_STOP_BYPASS_MA_LIMIT_ MIN	100	**UNITS IN METER** SoS will not generate even if train stops in block section, If MA is less than this Distance limit **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:9,A2.3.1
905.	UNUSUAL_STOP_BYPASS_MA_LIMIT_ MAX	1000	**UNITS IN METER** SoS will not generate even if train stops in block section, If MA is less than this Distance limit **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:9,A2.3.1
906.	SIG_FOOT_TAG_MIS_DIST	30	**UNITS IN METER** Distance to declare signal foot crossed in case of tag missed. **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:9,A2.3.1
907.	SIG_FOOT_TAG_MIS_DIST_MIN	10	**UNITS IN METER** Distance to declare signal foot crossed in case of tag missed. **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:9,A2.3.1
908.	SIG_FOOT_TAG_MIS_DIST_MAX	100	**UNITS IN METER** Distance to declare signal foot crossed in case of

			tag missed. **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:9,A2.3.1
909.	NORMAL_TAG_MISS_DIST	50	**UNITS IN METER** Tolerance distance allowed for declaring Normal tag miss **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:9,A2.3.1
910.	NORMAL_TAG_MISS_DIST_MIN	10	**UNITS IN METER** Tolerance distance allowed for declaring Normal tag miss **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:9,A2.3.1
911.	NORMAL_TAG_MISS_DIST_MAX	100	**UNITS IN METER** Tolerance distance allowed for declaring Normal tag miss **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:9,A2.3.1
912.	DESCRIPTION_DISPLAY_SIGNAL_DIST	50	**UNITS IN METER** Distance for display of signal aspect after previous signal foot tag/location crossed **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:9,A2.3.1
913.	DESCRIPTION_DISPLAY_SIGNAL_DIST_MIN	10	**UNITS IN METER** Distance for display of signal aspect after previous signal foot tag/location crossed **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:9,A2.3.1
914.	DESCRIPTION_DISPLAY_SIGNAL_DIST_MAX	200	**UNITS IN METER** Distance for display of signal aspect after previous signal foot tag/location crossed **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:9,A2.3.1
915.	TRIP_MARGIN_DIST	30	**UNITS IN METER** Distance to enter to TRIP mode after the End of MA **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:10,A2.3.1
916.	TRIP_MARGIN_DIST_MIN	0	**UNITS IN METER** Distance to enter to TRIP mode after the End of MA **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:10,A2.3.1
917.	TRIP_MARGIN_DIST_MAX	100	**UNITS IN METER** Distance to enter to TRIP mode after the End of MA **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:10,A2.3.1
918.	BLOCK_STOP_TRIG_MA_DIST	300	**UNITS IN METER**

			Minimum MA required to declare Block stop SOS **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:9,A2.3.1
919.	BLOCK_STOP_TRIG_MA_DIST_MIN	100	**UNITS IN METER** Minimum MA required to declare Block stop SOS **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:10,A2.3.1
920.	BLOCK_STOP_TRIG_MA_DIST_MAX	1000	**UNITS IN METER** Minimum MA required to declare Block stop SOS **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:10,A2.3.1
921.	LC_HORN_ENABLE_DIST	600	**UNITS IN METER** Distance at which Horn to be enable at LC gate **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:9,A2.3.1
922.	LC_HORN_ENABLE_DIST_MIN	0	**UNITS IN METER** Distance at which Horn to be enable at LC gate **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:10,A2.3.1
923.	LC_HORN_ENABLE_DIST_MAX	1000	**UNITS IN METER** Distance at which Horn to be enable at LC gate **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:10,A2.3.1
924.	GRAD_SCAN_DIST	3000	**UNITS IN METER** Distance up to which gradient is to be scanned **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:10,A2.3.1
925.	GRAD_SCAN_DIST_MIN	1000	**UNITS IN METER** Distance up to which gradient is to be scanned **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:10,A2.3.1
926.	GRAD_SCAN_DIST_MAX	10000	**UNITS IN METER** Distance up to which gradient is to be scanned **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:10,A2.3.1
927.	PSP_SCAN_DIST	3000	**UNITS IN METER** Distance up to which PSR to be scanned **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:10,A2.3.1
928.	PSP_SCAN_DIST_MIN	1000	**UNITS IN METER** Distance up to which PSR to be scanned **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:1,A2.3.1
929.	PSP_SCAN_DIST_MAX	10000	**UNITS IN METER** Distance up to which PSR to be scanned **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:10,A2.3.1

930.	MIN_TRACK_PROF_REQ_DIST	3000	**UNITS IN METER** Minimum Track Profile distance required to go to LS/FS mode **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:10,A2.3.1
931.	MIN_TRACK_PROF_REQ_DIST_MIN	1000	**UNITS IN METER** Minimum Track Profile distance required to go to LS/FS mode **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:1,A2.3.1
932.	MIN_TRACK_PROF_REQ_DIST_MAX	10000	**UNITS IN METER** Minimum Track Profile distance required to go to LS/FS mode **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:10,A2.3.1
933.	RV_MODE_DIST_MARGIN	500	**UNITS IN METER** RV mode distance to move the Train in reverse direction **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:10,A2.3.1
934.	RV_MODE_DIST_MARGIN_MIN	100	**UNITS IN METER** RV mode distance to move the Train in reverse direction **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:10,A2.3.1
935.	RV_MODE_DIST_MARGIN_MAX	1000	**UNITS IN METER**RV mode distance to move the Train in reverse direction **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:10,A2.3.1
SOS			
936.	SIGNAL_LINKING_OS_MODE	100	**UNITS IN METER** Speed to maintain while reaching SOS originated location **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:10,A2.3.1
937.	SIGNAL_LINKING_OS_MODE_MIN	50	**UNITS IN METER** Speed to maintain while reaching SOS originated location **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:10,A2.3.1
938.	SIGNAL_LINKING_OS_MODE_MAX	30	**UNITS IN METER** Speed to maintain while reaching SOS originated location. **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:10,A2.3.1
939.	MISSED_VALID_ABS_RADIO_PKT	14	**UNITS IN CYCLE** For Mode transition from FS t or OS/OV to SR in

			Absolute Block **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:10,A2.3.1
940.	MISSED_VALID_ABS_RADIO_PKT_MIN	5	**UNITS IN CYCLE** For Mode transition from FS t or OS/OV to SR in Absolute Block **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:10,A2.3.1
941.	MISSED_VALID_ABS_RADIO_PKT_MAX	30	**UNITS IN CYCLE** For Mode transition from FS t or OS/OV to SR in Absolute Block **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:10,A2.3.1
942.	MISSED_VALID_AUTO_BLK_RADIO_PKT	5	**UNITS IN CYCLE** For Mode transition from FS to LS or OS/OV to SR in Automatic Block **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
943.	MISSED_VALID_AUTO_BLK_RADIO_PKT_MIN	1	**UNITS IN CYCLE** For Mode transition from FS to LS or OS/OV to SR in Automatic Block **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
944.	MISSED_VALID_AUTO_BLK_RADIO_PKT_MAX	30	**UNITS IN CYCLE** For Mode transition from FS to LS or OS/OV to SR in Automatic Block **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
945.	MISSED_VALID_VIRTUAL_BLK_RADIO_PKT	5	**UNITS IN CYCLE** For Mode transition from FS to LS or OS/OV to SR in Virtual Block **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
946.	MISSED_VALID_ VIRTUAL_BLK_RADIO_PKT_MIN	1	**UNITS IN CYCLE** For Mode transition from FS to LS or OS/OV to SR in Virtual Block **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
947.	MISSED_VALID_ VIRTUAL_BLK_RADIO_PKT_MAX	30	**UNITS IN CYCLE** For Mode transition from FS to LS or OS/OV to SR in Virtual Block **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
948.	REVERSE_MOV_TRIG_DIST	2	**UNITS IN METER** Cab input and wheel sensor direction discrimination distance **Reference**: Annexure-A2- Onboard KAVACH

			Configurable Parameters, page no:11,A2.3.1
949.	REVERSE_MOV_TRIG_DIST_MIN	2	**UNITS IN METER** Cab input and wheel sensor direction discrimination distance **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
950.	REVERSE_MOV_TRIG_DIST_MAX	10	**UNITS IN METER** Cab input and wheel sensor direction discrimination distance **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
Periodicity of Packet Transmission			
951.	ONBOARD_STN_RADIO_PKT_NON_LEAD_MODE	120	**UNITS IN SECOND** Onboard-to- Stationary Radio Packet in Non Leading mode. **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
952.	ONBOARD_STN_RADIO_PKT_NON_LEAD_MODE_MIN	30	**UNITS IN SECOND** Onboard-to- Stationary Radio Packet in Non Leading mode. **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
953.	ONBOARD_STN_RADIO_PKT_NON_LEAD_MODE_MAX	240	**UNITS IN SECOND** Onboard-to- Stationary Radio Packet in Non Leading mode. **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
954.	ONBOARD_STN_RADIO_PKT_NON_ISOLATION_MODE	120	**UNITS IN SECOND** Onboard-to- Stationary Radio Packet in Isolation mode. **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
955.	ONBOARD_STN_RADIO_PKT_NON_ISOLATION_MODE_MIN	30	**UNITS IN SECOND** Onboard-to- Stationary Radio Packet in Isolation mode. **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
956.	ONBOARD_STN_RADIO_PKT_NON_ISOLATION_MODE_MAX	240	**UNITS IN SECOND** Onboard-to- Stationary Radio Packet in Isolation mode. **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
957.	THRESHOLD_UPDATE_TRAIN_LEN_AFTER_TLM	25	**UNITS IN METER** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
958.	THRESHOLD_UPDATE_TRAIN_LEN_AFTER_TLM_MIN	10	**UNITS IN METER** **Reference**: Annexure-A2- Onboard KAVACH

			Configurable Parameters, page no:11,A2.3.1
959.	THRESHOLD_UPDATE_TRAIN_LEN_AFTER_TLM_MAX	100	**UNITS IN METER** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
LC Gate Auto Whistling			
960.	LC_HORN_ON_TIME	2	**UNITS IN SECOND** Horn on time for whistling at LC gate **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
961.	LC_HORN_ON_TIME_MIN	0	**UNITS IN SECOND** Horn on time for whistling at LC gate **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
962.	LC_HORN_ON_TIME_MAX	10	**UNITS IN SECOND** Horn on time for whistling at LC gate **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
963.	LC_HORN_OFF_TIME	3	**UNITS IN SECOND** Horn OFF time for whistling at LC gate **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
964.	LC_HORN_OFF_TIME_MIN	0	**UNITS IN SECOND** Horn OFF time for whistling at LC gate **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
965.	LC_HORN_OFF_TIME_MAX	10	**UNITS IN SECOND** Horn OFF time for whistling at LC gate **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
UHF Radio modem configuration			
966.	POWER	10	**UNITS IN WATT** Radio Transmission Power **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
967.	POWER_MIN	1	**UNITS IN WATT** Radio Transmission Power **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
968.	POWER_MAX	20	**UNITS IN WATT** Radio Transmission Power **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
969.	FREQ_RESOLUTION	1000	**UNITS IN HZ** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
970.	FREQ_RESOLUTION_MIN	1	**UNITS IN HZ**

			Reference: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
971.	FREQ_RESOLUTION_MAX	100000	**UNITS IN HZ** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
972.	BASE_FREQ	406	**UNITS IN MHZ** Base Frequency **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
973.	BASE_FREQ_MIN	100	**UNITS IN MHZ** Base Frequency **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
974.	BASE_FREQ_MAX	999	**UNITS IN MHZ** Base Frequency **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
975.	F0_FREQ	427.625	**UNITS IN MHZ** Centre frequency Tx & Rx **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
976.	F0_FREQ_MIN	100	**UNITS IN MHZ** Centre frequency Tx & Rx **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
977.	F0_FREQ_MAX	999	**UNITS IN MHZ** Centre frequency Tx & Rx **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
978.	CHANNEL_BAND_WIDTH	25	**UNITS IN KHZ** Channel Bandwidth **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
979.	CHANNEL_BAND_WIDTH_MIN	25	**UNITS IN KHZ** Channel Bandwidth **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
980.	CHANNEL_BAND_WIDTH_MAX	100	**UNITS IN KHZ** Channel Bandwidth **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:11,A2.3.1
981.	CHANNEL_SWITCHING_TIME	3	**UNITS IN MILLI SEC** Transmitter Turn-on time (Tx. Freq. stable)/ Channel Switching time **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:12,A2.3.1
982.	CHANNEL_SWITCHING_TIME_MIN	1	**UNITS IN MILLI SEC**

			Transmitter Turn-on time (Tx. Freq. stable)/ Channel Switching time **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:12,A2.3.1
983.	CHANNEL_SWITCHING_TIME_MAX	15	**UNITS IN MILLI SEC** Transmitter Turn-on time (Tx. Freq. stable)/ Channel Switching time **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:12,A2.3.1
Time slot Management			
984.	FRAME_CYCLE	2	**UNITS IN SECOND** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:12,A2.3.1
985.	FRAME_CYCLE_MIN	0.5	**UNITS IN SECOND** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:12,A2.3.1
986.	FRAME_CYCLE_MAX	2	**UNITS IN SECOND** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:12,A2.3.1
987.	NO_OF_SLOTS_CENTRE_FREQ	16	**UNITS IN NUMBER** Slot required for Access request packet and additional emergency packet **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:12,A2.3.1
988.	NO_OF_SLOTS_CENTRE_FREQ_MIN	1	**UNITS IN NUMBER** Slot required for Access request packet and additional emergency packet **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:12,A2.3.1
989.	NO_OF_SLOTS_CENTRE_FREQ_MAX	100	**UNITS IN NUMBER** Slot required for Access request packet and additional emergency packet **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:12,A2.3.1
990.	TIME_SLOT_ACC_REQ_PKT	P52	12 time slot are catered **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:12,A2.3.1
991.	TIME_SLOT_ACC_REQ_PKT_MIN	P47	12 time slot are catered **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:12,A2.3.1
992.	TIME_SLOT_ACC_REQ_PKT_MAX	P70	12 time slot are catered **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:12,A2.3.1
993.	TIME_SLOT_ADD_EMERG_PKT	P53	4 time slot are catered **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:12,A2.3.1

994.	TIME_SLOT_ ADD_EMERG_PKT_MIN	P47	4 time slot are catered **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:12,A2.3.1
995.	TIME_SLOT_ ADD_EMERG_PKT_MAX	P70	4 time slot are catered **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:12,A2.3.1
996.	TIME_SLOT_WIDTH	22.5	**UNITS IN MILLI SEC** Time slot width **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:12,A2.3.1
997.	TIME_SLOT_WIDTH_MIN	15	**UNITS IN MILLI SEC** Time slot width **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:12,A2.3.1
998.	TIME_SLOT_WIDTH_MAX	40	**UNITS IN MILLI SEC,** Time slot width **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:12,A2.3.1
999.	TIME_SLOT_SPACING	5	**UNITS IN MILLI SEC** Spacing between the time slot **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:12,A2.3.1
1000.	TIME_SLOT_SPACING_MIN	5	**UNITS IN MILLI SEC** Spacing between the time slot **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:12,A2.3.1
1001.	TIME_SLOT_SPACING_MAX	20	**UNITS IN MILLI SEC** Spacing between the time slot **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:12,A2.3.1
1002.	START_TIME_P2	45	**UNITS IN MILLI SEC** Start time of P2 slot in radio transmission **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1003.	START_TIME_P2_MIN	45	**UNITS IN MILLI SEC** Start time of P2 slot in radio transmission **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1004.	START_TIME_P2_MAX	100	**UNITS IN MILLI SEC** Start time of P2 slot in radio transmission **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1005.	START_TIME_P47	1320	**UNITS IN MILLI SEC** Start time of P47 slot in radio transmission **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1006.	START_TIME_P47_MIN	1200	**UNITS IN MILLI SEC** Start time of P47 slot in radio transmission

			Reference: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1007.	START_TIME_P47_MAX	1400	**UNITS IN MILLI SEC** Start time of P47 slot in radio transmission **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
GSM Configuration			
1008.	GSM_1_APN_NAME		**Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1009.	GSM_2_APN_NAME		**Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
IP Address			
1010.	NMS_OCTET_IP_ADDRESS_1	127	**UNITS IN NUMBER** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1011.	NMS_OCTET_IP_ADDRESS_1_MIN	1	**UNITS IN NUMBER** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1012.	NMS_OCTET_IP_ADDRESS_1_MAX	255	**UNITS IN NUMBER** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1013.	NMS_OCTET_IP_ADDRESS_2	168	**UNITS IN NUMBER** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1014.	NMS_OCTET_IP_ADDRESS_2_MIN	1	**UNITS IN NUMBER** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1015.	NMS_OCTET_IP_ADDRESS_2_MAX	255	**UNITS IN NUMBER** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1016.	NMS_PORT_1	60901	**UNITS IN NUMBER** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1017.	NMS_PORT_1_MIN	1	**UNITS IN NUMBER** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1018.	NMS_PORT_1_MAX	65535	**UNITS IN NUMBER** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1019.	NMS_PORT_2	60902	**UNITS IN NUMBER** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1020.	NMS_PORT_2_MIN	1	**UNITS IN NUMBER** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1021.	NMS_PORT_2_MAX	65535	**UNITS IN NUMBER**

			Reference: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1022.	KMS_OCTET_IP_ADDRESS_1	127	**UNITS IN NUMBER** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1023.	KMS_OCTET_IP_ADDRESS_1_MIN	1	**UNITS IN NUMBER** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1024.	KMS_OCTET_IP_ADDRESS_1_MAX	255	**UNITS IN NUMBER** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1025.	KMS_OCTET_IP_ADDRESS_2	168	**UNITS IN NUMBER** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1026.	KMS_OCTET_IP_ADDRESS_2_MIN	1	**UNITS IN NUMBER** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1027.	KMS_OCTET_IP_ADDRESS_2_MAX	255	**UNITS IN NUMBER** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1028.	KMS_PORT_1	60901	**UNITS IN NUMBER** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1029.	KMS_PORT_1_MIN	1	**UNITS IN NUMBER** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1030.	KMS_PORT_1_MAX	65535	**UNITS IN NUMBER** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1031.	KMS_PORT_2	60902	**UNITS IN NUMBER** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1032.	KMS_PORT_2_MIN	1	**UNITS IN NUMBER** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1033.	KMS_PORT_2_MAX	65535	**UNITS IN NUMBER** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
Data Logging			
1034.	DETAILED_DATA_LOGGING	72	**UNITS IN HOUR** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1035.	DETAILED_DATA_LOGGING_MIN	24	**UNITS IN HOUR** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1036.	DETAILED_DATA_LOGGING_MAX	240	**UNITS IN HOUR**

			Reference: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1037.	MAINTENCE_DATA_LOGGING	15	**UNITS IN DAYS** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1038.	MAINTENCE_DATA_LOGGING_MIN	5	**UNITS IN DAYS** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1039.	MAINTENCE_DATA_LOGGING_MAX	90	**UNITS IN DAYS** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1040.	CRITICAL_FAULT_DATA	90	**UNITS IN DAYS** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1041.	CRITICAL_FAULT_DATA_MIN	10	**UNITS IN DAYS** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1042.	CRITICAL_FAULT_DATA_MAX	180	**UNITS IN DAYS** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
LP OCIP			
1043.	MIN_BUTTON_PRESS_TIME	500	**UNITS IN MILLI SEC** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1044.	MIN_BUTTON_PRESS_TIME_MIN	100	**UNITS IN MILLI SEC** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1045.	MIN_BUTTON_PRESS_TIME_MAX	10000	**UNITS IN MILLI SEC** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1046.	MAX_BUTTON_PRESS_TIME	6000	**UNITS IN MILLI SEC** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1047.	MAX_BUTTON_PRESS_TIME_MIN	100	**UNITS IN MILLI SEC** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1048.	MAX_BUTTON_PRESS_TIME_MAX	10000	**UNITS IN MILLI SEC** **Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
RFID Missed Tag			
1049.	MAX_CONSECUTIVE_MISS_CNT	3	**Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1050.	MAX_CONSECUTIVE_MISS_CNT_MIN	1	**Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1
1051.	MAX_CONSECUTIVE_MISS_CNT_MAX	10	**Reference**: Annexure-A2- Onboard KAVACH Configurable Parameters, page no:13,A2.3.1