

VTs – GEMENI AIS-140

Protocol, TCP, Packets as String.

DATA message format (4A):

Example:

\$,200,GEM,1.7.34,NR,L,869247044437413,xx,1,05032020,091833,015.476349,N,073.978439,E,000.20,000.00,4,0200.01,30,28,BSNL,1,1,011.9,004.1,0,C,10,404,66,2546,18591,5,2546,18411,31,2546,18067,31,2546,18191,3,2546,18631,1011,00,000473,7dd5,*

Field	Description
Start Character	\$
Header	The header of the packet/ identifier (200)
Vendor ID	Vendor identification header
Firmware Version	Version details of the Firmware used in EX.1.0.0
Packet Type	Specify the packet type NR = Normal EA = Emergency Alert TA = Tamper Alert (Optional) IN = Ignition On IF = Ignition Off BD = Vehicle Battery Disconnect BR = Vehicle Battery Reconnect BL = Internal Battery Low HB= Harsh Braking HA= Harsh Acceleration RT= Rash Turning
Packet Status	L=Live or H= History
IMEI	Identified of the sending unit. 15 digit standard unique IMEI no.
Vehicle Reg. No	Mapped vehicle registration number
GPS Fix	1 = GPS fix OR 0 = GPS invalid
GPS Date	Date value as per GPSdate time per GPS date time (DDMMYYYY)
GPS Time	Time value as per GPS date time in UTC format (hhmmss)
Latitude	Latitude value in decimal degrees (not less than 6 places)
Latitude Dir	Latitude Direction. Example N=North, S= South
Longitude	Longitude value in decimal degrees (not less than 6 places).
Longitude Dir	Longitude Direction. E=East, W= West
Speed	Speed of Vehicle as Calculated by GPS module in VLT. (in km/hrs.) (Upto One Decimal Value)
Heading	Course over ground in degrees
No of Satellites	Number of satellites available for fix
Altitude	Altitude of the device in meters

PDOP	Positional dilution of precision
HDOP	Horizontal dilution of precision
Network Operator	Name of Network
Ignition	1= Ignition On , 0 = Ignition Off
Main Power Status	0 = Vehicle Battery disconnected 1= Vehicle Battery reconnected
Main Input Voltage	Indicator showing source voltage in Volts.(Upto One Decimal Value)
Internal Battery Voltage	Indicator for level of battery charge remaining. (Upto One Decimal Value)
Emergency Status	1= On , 0 = Off
Tamper Alert (Optional)	C = Cover Closed, O = Cover Open
GSM Signal Strength	Value Ranging from 0 –31
MCC	Mobile Country Code
MNC	Mobile Network Code
LAC	Location Area Code
Cell ID	GSM Cell ID
NMR (Network Measurement Report) Neighboring Cell ID	Neighboring 4 cell ID along with their LAC & signal strength
Digital Input Status	4 external digital input status (Status of Input 1 to Input 3 (0=Off; 1=On))
Digital Output Status	2 external digital output status (0=Off; 1=On)
Frame Number	Sequence Number of the messages (000001 to 999999)
Checksum	Insures No error in transmission (optimal)(4char asciihex)
End Character	*

Health message format :

Example: \$,HLM,GEM,1.7.34,869247044437413,10,1,100,92,1, 1011,0.0,0.0, 05032020, 091833*

Field	Description
Start Character	\$
Header	The header of the packet/ identifier (HLM)
Vendor ID	Vendor identification header
Firmware Version	Version details of the Firmware used in EX.1.0.0
IMEI	Identified of the sending unit. 15 digit standard unique IMEI no.
Data Update Rate – Ign ON	Data update rate when Ignition ON in seconds.
Data update Rate – Ign OFF	Data update rate when Ignition OFF in minutes
Battery Percentage	Current Battery percentage
Low Battery threshold	Low battery threshold in %
Memory used %	Memory used percentage
Digital input Status	4 external digital input status (Status of Input 1 to Input 3 (0=Off; 1=On))
Analog input 1	Analog input 1 in Volts

Analog input 2	Analog input 2 in Volts
GPS Date	Date value as per GPSdate time per GPS date time (DDMMYYYY)
GPS Time	Time value as per GPS date time in UTC format (hhmmss)
End Character	*

Login message format :

Example: \$,LGN, 869247044437413,123456, 015.476349,N,073.978439,E, 05032020,091833,000.20 *

Field	Description
Start Character	\$
Header	The header of the packet/ identifier (LGN)
IMEI	Identified of the sending unit. 15 digit standard unique IMEI no.
activation key	activation key which is sent over sms
Latitude	Latitude value in decimal degrees (not less than 6 places)
Latitude Dir	Latitude Direction. Example N=North, S= South
Longitude	Longitude value in decimal degrees (not less than 6 places).
Longitude Dir	Longitude Direction. E=East, W= West
GPS Date	Date value as per GPSdate time per GPS date time (DDMMYYYY)
GPS Time	Time value as per GPS date time in UTC format (hhmmss)
Speed	Speed of Vehicle as Calculated by GPS module in VLT. (in km/hrs.) (Upto One Decimal Value)
End Character	*

Emergency Packets (6F):

example:

\$,100,EMR,869247044437413,SP,05032020033755,A,015.476622,N,073.978516,E,0199.48,000.70,G,xx,+919923514233,9caa,*

Field	Description
Start character	\$
Header	The header of the packet/ identifier (100)
Message Type	Message Types supported. Emergency Message (EMR) or Stop Message (SEM)
DEVICE ID	Unique ID of the Vehicle (IMEI Number)
Packet Type	NM – Normal Packet, SP – Stored Packet
Date	Date and time of the location obtained from the location data in DDMMYYYYhhmmss format

GPS Validity	A – Valid, V – Invalid
Latitude	Latitude in decimal degrees - dd.mmmmmm format
Latitude Direction	N – North, S – South
Longitude	Longitude in decimal degrees - dd.mmmmmm format
Longitude Direction	E – East W – West
Altitude	Altitude in meters (above sea level)
Speed	Speed of Vehicle as Calculated by GPS module in VLT. (in km/hrs.)
Distance	Distance calculated from previous GPS data
Provider	G - Fine GPS N – Coarse GPS or data from the network
Vehicle RegnNo	Registration Number of theVehicle
Reply Number	The mobile number to which Test response need to be sent. (Emergency Mobile No. as specified by MHA/MoRTH/States.)
checksum	Insures No error in transmission (optimal)(4char asciihex)
end of frame	*