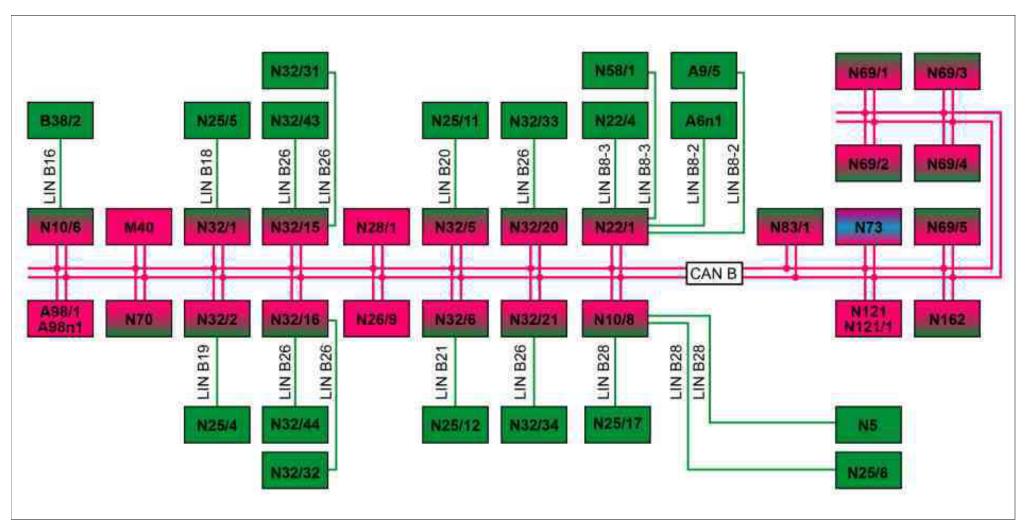
**Document title** Overall network (GVN) function

**Document number** gf0019p0001fg

## Model 213



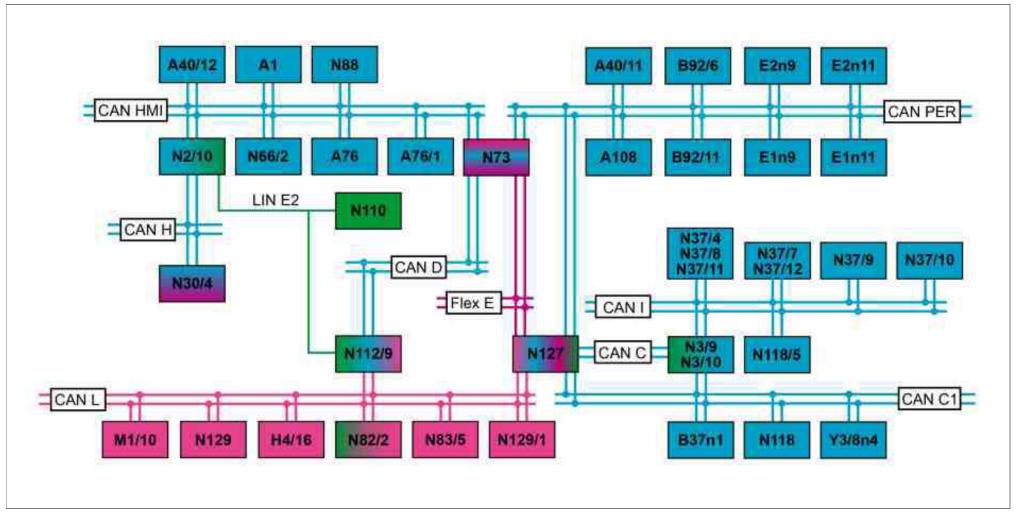
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A6n1	Stationary heater control unit (with code 228 (Stationary heater))	N32/32	Right front backrest massage function control unit (with code 432 (Left and right dynamic multicontour seat))
A9/5	Electric refrigerant compressor (model 213.016/050/053/054/216 or with code B01 (48V technology))	N32/33	Left rear backrest massage function control unit (model 213.1 with code 406 (Rear multicontour seats))
A98n1	Panoramic sliding sunroof control unit (with code 413 (Panoramic sliding sunroof))	N32/34	Right rear backrest massage function control unit (model 213.1 with code 406 (Rear multicontour seats))
A98/1	Sliding roof control module (with CODE 414 (Sliding roof))	N32/43	Left front seat cushion massage function control unit (with code 432 (Left and right dynamic multicontour seat))
B38/2	Rain/light sensor with additional functions	N32/44	Right front seat cushion massage function control unit (with code 432 (Left and right dynamic multicontour seat))
M40	Multicontour seat pneumatic pump (with code 432 (Left and right dynamic multicontour seat) or model 213.1 with code 406 (Rear multicontour seats))	N58/1	Climate control operating unit
N5	Armrest heater control unit (with code 906 (Front armrest heater) or model 213.1 with code 907 (Rear armrest heater))	N69/1	Left front door control unit
N10/6	Front SAM control unit	N69/2	Right front door control unit
N10/8	Rear SAM control unit	N69/3	Left rear door control unit
N22/1	Climate control control unit	N69/4	Right rear door control unit
N22/4	Rear air conditioning operating unit (with code 581 (Automatic air conditioning))	N69/5	KEYLESS-GO control unit
N25/4	Front passenger seat heater control unit (with code 902 (Seat heater plus for driver and front passenger))	N70	Overhead control panel control unit
N25/5	Driver seat heater control unit (with code 902 (Seat heater plus for driver and front passenger))	N73	Electronic ignition switch control unit
N25/6	Rear seat heater control unit (with code 872 (Seat heater in rear) and except code 223 (Electrically adjustable rear bench seat))	N83/1	DC/DC converter control unit (with code B01 (48V technology))
N25/11	Left rear seat seat heater control unit (model 213.1 with code 903 (Seat heater plus for rear outer seats))	N121	Trunk lid control control unit (model 213.0/1 with CODE 881 (Remote trunk closing))
N25/12	Right rear seat seat heater control unit (model 213.1 with code 903 (Seat heater plus for rear outer seats))	N121/1	Liftgate control control unit (model 213.2 with code (890) EASY-PACK liftgate)
N25/17	Front seat heater/seat ventilation control unit (with code 401 (Seat climate control for driver and front passenger) or code 873 (Seat heater for driver and front passenger), except code 221 (Electrically adjustable left driver's seat) and except code 222 (Electrically adjustable right front seat) and except code 275 (Memory package))	N162	Ambiance illumination control unit (with code 877 (Ambiance illumination))
N26/9	Special-purpose vehicle multifunction control unit (model 213.0/2 with code 965 (Taxi/rental vehicle pre-	CAN B	Interior CAN

installation))

N28/1	Trailer recognition control unit (with code 550 (Trailer hitch))	LIN B8-2	Climate control LIN 2
N32/1	Driver's seat control unit (with CODE 221 (Electrically adjustable left driver's seat) or CODE 275 (Memory package))	LIN B8-3	AC operation LIN
N32/2	Front passenger seat control unit (with code 222 (Electrically adjustable right front seat) or code 275 (Memory package))	LIN B16	Rain and light sensor LIN
N32/5	Right rear seat control unit (model 213.1 with code 223 (Electrically adjustable rear bench seat))	LIN B18	Seat LIN, driver (with code 902 (Seat heater plus for driver and front passenger))
N32/6	Left rear seat control unit (model 213.1 with code 223 (Electrically adjustable rear bench seat))	LIN B19	Front passenger seat LIN (with code 902 (Seat heater plus for driver and front passenger))
N32/15	Left front multicontour seat control unit (with code 432 (Left and right dynamic multicontour seat))	LIN B20	Left rear seat LIN (model 213.1 with code 903 (Seat heater plus for rear outer seats))
N32/16	Right front multicontour seat control unit (with code 432 (Left and right dynamic multicontour seat))	LIN B21	Right rear seat LIN (model 213.1 with code 903 (Seat heater plus for rear outer seats))
N32/20	Left rear multicontour seat control unit (model 213.1 with code 406 (Rear multicontour seats))	LIN B26	Massage components LIN (with code 432 (Left and right dynamic multicontour seat) or model 213.1 with code 406 (Rear multicontour seats))
N32/21	Right rear multicontour seat control unit (model 213.1 with code 406 (Rear multicontour seats))	LIN B28	Heater LIN (with code 401 (Seat climate control for driver and front passenger) or code 873 (Seat heater for driver and front passenger), except code 221 (Electrically adjustable left driver's seat) and except code 222 (Electrically adjustable right front seat) and except code 275 (Memory package), with code 906 (Front armrest heater) or model 213.1 with code 907 (Rear armrest heater), with code 872 (Seat heater in rear) and except code 223 (Electrically adjustable rear bench seat))

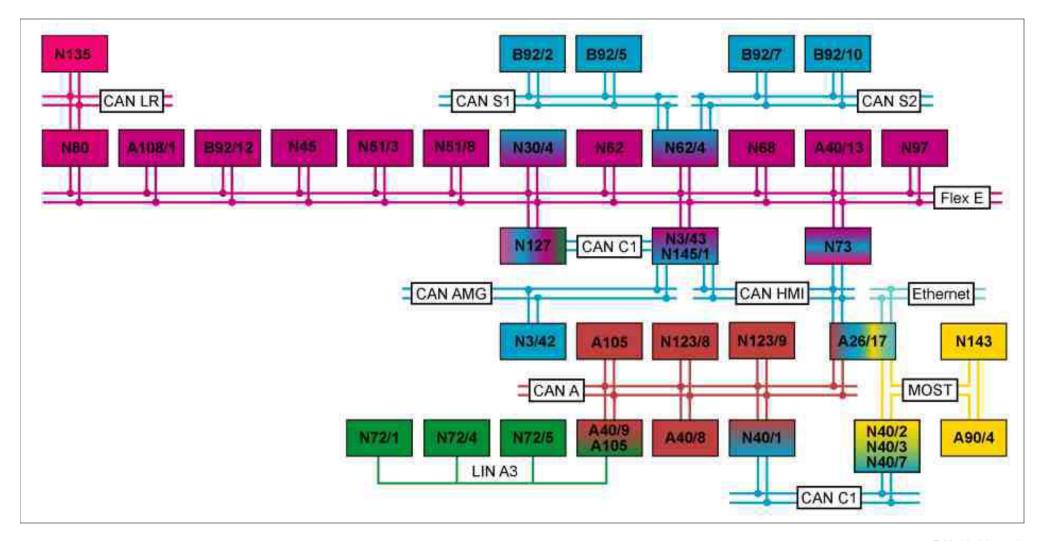
N32/31 Left front backrest massage function control unit (with code 432 (Left and right dynamic multicontour seat))



P00.19-6546-79

A1	Instrument cluster	N37/12	NOx sensor control unit upstream of diesel oxidation catalytic converter (engine 654 with code U79 (BLUETEC (SCR) Generation 3 diesel exhaust gas cleaning), engine 656)
A40/11	Mono multifunction camera (with code 513 (Traffic Sign Assist) or code 22P (Lane package) or code P35 (Light package) and except code 23P (Driving Assistance package) and except code P20 (Driving Assistance package Plus))	N66/2	Reversing camera control unit (with code 218 (Reversing camera) and except code 235 (Parking Pilot with PARKTRONIC) and except code P44 (Parking Package))
A40/12	Head-up-display (with code 463 (Head-up display))	N73	Electronic ignition switch control unit
A76	Left front reversible emergency tensioning retractor	N82/2	Battery management system control unit (model 213.016/050/053/054/216)
A76/1	Right front reversible emergency tensioning retractor	N83/5	Charger (model 213.016/050/053/054/216)
A108	Active Brake Assist controller unit (with code 258 (COLLISION PREVENTION ASSIST))	N88	Tire pressure monitor control unit (with CODE 475 (Tire pressure monitor))
B37n1	Accelerator pedal module control unit (model 213.050/053/054)	N110	Weight sensing system (WSS) control unit (with code U10 (Automatic front passenger airbag shutoff))
B92/6	Right outer rear bumper integrated radar sensor (with CODE22P (Lane package))	N112/9	HERMES control unit (with code 360 (HERMES UMTS) or code 362 (HERMES LTE))
B92/11	Left outer rear bumper integrated radar sensor (with CODE 22P(Lane package))	N118	Fuel pump control unit
Moroodes De	77 AC 2/27/22 1/40/20 af00.40 a 0004fg Overall pobusely (CVA) function		Pere 2 e

E1n9	Left headlamp control unit (with code 631 (Static left- hand traffic LED headlamp) or code 632 (Static right- hand traffic LED headlamp) or code P35 (Light package))	N118/5	AdBlue® control unit (engine 642, engine 654 with code U79 (BLUETEC (SCR) Generation 3 diesel exhaust gas cleaning), engine 656)
E1n11	Left front lamp unit LED matrix control unit (with code P35 (Light package))	N127	Drivetrain control unit
E2n9	Right headlamp control unit (with code 631 (Static left- hand traffic LED headlamp) or code 632 (Static right- hand traffic LED headlamp) or code P35 (Light package))	N129	Starter-alternator control unit (engine 256 with code B01 (48V technology))
E2n11	Right front lamp unit LED matrix control unit (with code P35 (Light package))	N129/1	Power electronics control unit (model 213.016/050/053/054/216)
H4/16	Sound generator (model 213.050 with code B53 (Acoustic presence indicator), model 213.016/053/054/216)	Y3/8n4	Fully integrated transmission control unit (transmission 725)
M1/10	Starter alternator (engine 264 with code B01 (48V technology))	CAN C	Engine CAN
N2/10	Supplemental restraint system control unit	CAN C1	Drive train CAN
N3/9	CDI control unit (diesel engine)	CAN D	Diagnostic CAN
N3/10	ME-SFI [ME] control unit (gasoline engine)	CAN H	Vehicle dynamics CAN
N30/4	Electronic Stability Program control unit	CAN HMI	User interface CAN
N37/4	NOx sensor control unit (model 213 (except 213.050/053/054) with engine 274 with code 920	CAN I	Drive train sensor CAN
	(Gasoline direct injection with stratified charge))		
N37/7	NOx sensor control unit downstream of diesel particulate filter (engine 642 with code U77 (BLUETEC (SCR) diesel exhaust treatment))	CAN L	Hybrid CAN (model 213.016/050/053/054/216 or with code B01 (48V technology))
N37/8	NOx sensor control unit downstream of SCR catalytic converter (engine 642 with code U77 (BLUETEC (SCR) diesel exhaust gas cleaning), engine 654 except in model 213.016/216 with code U79 (BLUETEC (SCR) Generation 3 diesel exhaust gas cleaning), engine 654 in model 213.016/216, engine 656)	CAN PER	Peripherals CAN
N37/9	Left NOx sensor control unit upstream of NOx storage catalytic converter (engine 276.8 with code 920 (Gasoline direct injection with stratified charge))	Flex E	Chassis FlexRay
N37/10	Right NOx sensor control unit upstream of NOx storage catalytic converter (engine 276.8 with code 920 (Gasoline direct injection with stratified charge))	LIN E2	Seat occupied recognition LIN
N37/11	NOx sensor control unit downstream of NOx storage catalytic converter (engine 276.8 with code 920 (Gasoline		



P00.19-A047-79

A26/17	Head unit	N68	Electrical power steering control unit
A40/8	Audio/COMAND display	N72/1	Upper control panel control unit
A40/9	Audio/COMAND control panel (except code 446 (Touchpad only))	N72/4	Left lower control panel
A40/13	Stereo multifunction camera (with code 23P (Driving assistance package) or code P20 (Driving assistance package Plus))	N72/5	Right lower control panel
A90/4	Tuner unit (with code 522 (Audio 20 radio) and code 536 (SIRIUS satellite radio) or code 522 (Audio 20 radio) and code 537 (Digital radio (DAB)))	N73	Electronic ignition switch control unit
A105	Touchpad (with code 446 (Touchpad only) or code 448 (Touchpad))	N80	Steering column module control unit

direct injection with stratified charge))

A108/1	Distance Pilot DISTRONIC controller unit (with code 239 (Active Distance Assist DISTRONIC))	N97	Electronic rear axle level control control unit (model 213.2 except code 459 (Steel suspension with adjustable dampening) and except code 489 (AIR BODY CONTROL))
B92/2	Left outer front bumper radar sensor (with code 292 (Lateral PRE-SAFE® pulse))	N123/8	Mobile phone cradle control unit (with code 896 (Vehicle access and drive authorization via mobile phone) or code 897 (Wireless mobile phone charging) or code 899 (Multifunction telephony))
B92/5	Right outer front bumper radar sensor (with code 292 (Lateral PRE-SAFE® pulse))	N123/9	Telephone control unit (with code 380 (Car telephony package))
B92/7	Right outer rear bumper radar sensor (with code 23P (Driving Assistance package) or code P20 (Driving Assistance package Plus))	N127	Drivetrain control unit
B92/10	Left outer rear bumper radar sensor (with code 23P (Driving Assistance package) or code P20 (Driving Assistance package Plus))	N135	Steering wheel electronics (as of 01.06.2018)
B92/12	Short and long-range radar sensor (with code 23P (Driving Assistance package) or code P20 (Driving Assistance package Plus))	N143	TV tuner control unit (with code 531 (COMAND APS) and code 865 (TV tuner))
N3/42	Active engine mount control unit (with engine 177.9 and code 466 (Active engine mount))	N145/1	Drive Unit control unit (transmission 725.092 up to model year 2018 except code 466 (Active engine mount) and except code 467 (Electronic locking differential), transmission 725.092 as of model year 2018, model 213.064/264 with transmission 725.0)
N3/43	AMG sports suspension control unit (with transmission 725.092 up to model year 2018 with code 466 (Active engine mount) or with code 467 (Electronic locking differential))	CAN A	Telematics CAN
N30/4	Electronic Stability Program control unit	CAN AMG	AMG CAN (model 213.088/089/288/289)
N40/1	Engine sound control unit (engine 177, 256, 276.823 except code 810 (Sound system), except code 811 (Advanced Sound System) and except code B63 (Sporty engine sound) up to 31.05.2018 or vehicles with code B63 (Sporty engine sound), except code 810 (Sound system) and except code 811 (Advanced Sound System))	CAN C1	Drive train CAN
N40/2	Midline sound system amplifier control unit (as of 01.06.2018, engine 177 except code 810 (Sound system) and except code 811 (Advanced Sound System) or engine 256 with code M016 (Engine, boosted high performance) except code 810 (Sound system) and except code 811 (Advanced Sound System))	CAN HMI	User interface CAN
N40/3	Sound system amplifier control unit (with code 810 (Sound system), with code B63 (Sporty engine sound) or engine 256 with code M016 (Engine, boosted high performance) connected to CAN C1)	CAN LR	Steering wheel CAN (as of 01.06.2018)
N40/7	Advanced Sound System amplifier control unit (model 213.0 with code 811 (Advanced Sound System), with code B63 (Sporty engine sound) or engine 256 with code M016 (Engine, boosted high performance) connected to CAN C1)	CAN S1	Front radar CAN (with code 23P (Driving Assistance Package) or code P20 (Driving Assistance Plus Package))
N45	All-wheel drive control unit (transmission 725.092)	CAN S2	Rear radar CAN (with code 23P (Driving Assistance Package) or code P20 (Driving Assistance Plus Package))
N51/3	AIR BODY CONTROL control unit (with code 489 (AIR BODY CONTROL))	Ethernet	Ethernet
N51/8	AIR BODY CONTROL Plus control unit (with code 489 (AIR BODY CONTROL))	Flex E	Chassis FlexRay
N62	Parking system control unit (with code 235 (Parking Pilot with PARKTRONIC) or code P44 (Parking Package))	MOST	Media Oriented System Transport
N62/4	Mercedes-Benz Intelligent Drive control unit (with code 23P (Driving Assistance package) or code P20 (Driving Assistance package Plus))	LIN A3	LCP LIN

## Overall network, general

The requirements for vehicle electronics, e.g. in the following areas are constantly increasing:

- Vehicle safety
- Comfort
- Communication
- Diagnosis

This requires networking of the existing systems in the vehicle so that the necessary information can be exchanged.

This cannot be achieved using conventional data transfer since the amount of installation space is limited and a reduction of the weight of the vehicle is targeted. This is why bus systems are used.

The vehicle electronics are networked using the following bus systems:

- CAN
- Chassis FlexRay
- MOST
- Ethernet

#### **CAN**

The CAN is an electrical bus system for the transmission of data via two lines. The CAN consists of a twisted two-core data line that connects all CAN participants (control units) via a parallel connection. The two lines of the data line must not be swapped (low level/high level). Each connected control unit is able to transmit or receive data (bidirectional bus). The data is sent digitally via the CAN at various intervals. The individual data blocks are defined in a data protocol and it is specified which data are received or transmitted by a control unit. The sum of the data blocks, the short break between two transmission intervals and other properties of the CAN are checked constantly. Detected faults are stored and placed in the fault memory.

The CAN offers the following advantages:

- Data exchange between individual control units
- Provision of sensor signals for several systems
- Reduction of the number of electrical lines
- Improvement of the electromagnetic compatibility

The following CANs are involved in the overall network:

- Telematics CAN
- AMG CAN (model 213.088/089/288/289)
- Interior CAN

#### **Telematics CAN**

The telematics CAN is used for the data exchange of the attached audio components with one another. The telematics CAN operates at a data rate of 250 kBit/s.

The following control units are participants on the telematics CAN:

- Head unit
- Audio/COMAND display
- Audio/COMAND control panel (except code 446 (Touchpad only))
- Touchpad (with code 446 (Touchpad only) or code 448 (Touchpad))
- Mobile phone cradle control unit (with code 896 (Vehicle access and drive authorization via mobile phone) or code 897 (Wireless mobile phone charging) or code 899 (Multifunction telephony))

#### AMG CAN (model 213.088/089/288/289)

The AMG CAN is used for the data exchange of the attached control units with one another. The AMG CAN operates at a data rate of 500 kBit/s. The following control units are participants of the AMG CAN:

 AMG sports suspension control unit (with transmission 725.092 up to model year 2018 with code 466 (Active engine mount) or with code 467 (Electronic locking differential))

## **Interior CAN**

The interior CAN is used for the data exchange of the attached control units with one another. The interior CAN operates at a data rate of 250 kBit/s.

The following control units are participants on the interior CAN:

- Panoramic sliding sunroof control unit (with code 413 (Panoramic sliding sunroof))
- Sliding roof control module (with CODE 414 (Sliding roof))
- Multicontour seat pneumatic pump (with code 432 (Left and right dynamic multicontour seat) or model 213.1 with code 406 (Rear multicontour seats))
- Front SAM control unit
- Rear SAM control unit
- Climate control control unit
- Special-purpose vehicle multifunction control unit (model 213.0/2 with code 965 (Taxi/rental vehicle pre-installation))
- Trailer recognition control unit (with code 550 (Trailer hitch))
- Driver's seat control unit (with CODE 221 (Electrically adjustable left driver's seat) or CODE 275 (Memory package))
- Front passenger seat control unit (with code 222 (Electrically adjustable right front seat) or code 275 (Memory package))
- Right rear seat control unit (model 213.1 with code 223 (Electrically adjustable rear bench seat))
- Left rear seat control unit (model 213.1 with code 223 (Electrically adjustable rear bench seat))
- Left front multicontour seat control unit (with code 432 (Left and right dynamic multicontour seat))
- Right front multicontour seat control unit (with code 432 (Left and right dynamic multicontour seat))

- Engine CAN
- Drive train CAN
- Diagnostic CAN
- Vehicle dynamics CAN

**Drive train sensor CAN** 

- User interface CAN
- Hybrid CAN (model 213.016/050/053/054/216 or with code B01 (48V technology))
- Peripherals CAN
- Front radar CAN (with code 23P (Driving Assistance Package) or code P20 (Driving Assistance Plus Package))
- Rear radar CAN (with code 23P (Driving Assistance Package) or code P20 (Driving Assistance Plus Package))
- Steering wheel CAN (as of 01.06.2018)
- Telephone control unit (with code 380 (Car telephony package))
- Engine sound control unit (engine 177, 256, 276.823 except code 810 (Sound system), except code 811 (Advanced Sound System) and except code B63 (Sporty engine sound) up to 31.05.2018 or vehicles with code B63 (Sporty engine sound), except code 810 (Sound system) and except code 811 (Advanced Sound System))

### Gateway:

The head unit forms the interface for data exchange between control units connected to other bus systems.

The following control units are connected via LCP LIN to the Audio/COMAND control panel (except code 446 (Touchpad only)) or to the touchpad (with code 446 (Touchpad only)):

- Upper control panel control unit
- Left lower control panel
- Right lower control panel
- Drive Unit control unit (with transmission 725.092 up to model year 2018 except code 466 (Active engine mount) and except code 467 (Electronic locking differential), with transmission 725.092 as of model year 2018)
- Active engine mount control unit (with CODE 466 (Active engine mount))

## Gateway:

The AMG sports suspension control unit (with transmission 725.092 up to model year 2018 with code 466 (Active engine mount) or with code 467 (Electronic locking differential)) or the Drive Unit control unit (with transmission 725.092 up to model year 2018 except code 466 (Active engine mount) and except code 467 (Electronic locking differential), with transmission 725.092 as of model year 2018) forms the interface for data exchange with control units that are connected to the other bus systems.

- Liftgate control control unit (model 213.2 with code (890) EASY-PACK liftgate)
- Ambiance illumination control unit (with code 877 (Ambiance illumination))
- DC/DC converter control unit (with code B01 (48V technology))
  Gateway:

The electronic ignition lock control unit forms the interface for data exchange between control units connected to other bus systems. The rain/light sensor with additional functions is connected via the rain/light sensor LIN to the front SAM control unit.

The following control units are connected to the rear SAM control unit via heater LIN:

- Armrest heater control unit (with code 906 (Front armrest heater) or model 213.1 with code 907 (Rear armrest heater))
- Rear seat heater control unit (with code 872 (Seat heater in rear) and except code 223 (Electrically adjustable rear bench seat))
- Front seat heater/seat ventilation control unit (with code 401 (Seat climate control for driver and front passenger) or code 873 (Seat heater for driver and front passenger), except code 221 (Electrically adjustable left driver's seat) and except code 222 (Electrically adjustable right front seat) and except code 275 (Memory package))

The following control units are connected to the A/C system control unit via LIN:

- Stationary heater control unit (with CODE 228 (Stationary heater)) via the climate control LIN 2
- Electric refrigerant compressor (model 213.016/050/053/054/216 or with code B01 (48V technology)) over the air conditioning control LIN 2
- Rear air conditioning operating unit (with code 581 (Automatic air conditioning)) via climate control LIN

- Left rear multicontour seat control unit (model 213.1 with code 406 (Rear multicontour seats))
- Right rear multicontour seat control unit (model 213.1 with code 406 (Rear multicontour seats))
- Left front door control unit
- Right front door control unit
- Left rear door control unit
- Right rear door control unit
- KEYLESS-GO control unit
- Overhead control panel control unit
- Electronic ignition switch control unit
- Trunk lid control control unit (model 213.0/1 with CODE 881 (Remote trunk closing))

## **Engine CAN**

The engine CAN is used for the data exchange of the connected control units with one another. The engine CAN operates at a data rate of 500 kBit/s.

The following control units are participants of the engine CAN:

- CDI control unit or ME-SFI [ME] control unit
- Drivetrain control unit

### **Drive train CAN**

The drive train CAN is used for the data exchange of the attached control units with one another. The drive train CAN operates at a data rate of 500 kBit/s.

The following control units are participants on the drive train CAN:

- Accelerator pedal module control unit (model 213.050/053/054)
- CDI control unit or ME-SFI [ME] control unit
- Fuel pump control unit
- Drivetrain control unit
- AMG sports suspension control unit (with transmission 725.092 up to model year 2018 with code 466 (Active engine mount) or with code 467 (Electronic locking differential))
- Drive Unit control unit (transmission 725.092 up to model year 2018 except code 466 (Active engine mount) and except code 467 (Electronic locking differential), transmission 725.092 as of model year 2018, model 213.064/264 with transmission 725.0)
- Sound system amplifier control unit (with code 810 (Sound system) and either code B63 (Sporty engine sound) or with engine 256 and code M016 (Engine, boosted high performance))

## Diagnostic CAN

The diagnostic CAN is used for the data exchange between external applications and the control units in the vehicle. The diagnostic CAN operates at a data rate of 500 kBit/s.

The following control units are participants on the diagnostic CAN:

- Electronic ignition switch control unit
- HERMES control unit (with code 360 (HERMES UMTS) or code 362 (HERMES LTE))

## **Vehicle dynamics CAN**

The vehicle dynamics CAN is used for the data exchange of the attached control units with one another. The vehicle dynamics CAN operates at a data rate of 500 kBit/s.

The following control units are participants on the vehicle dynamics CAN:

- Supplemental restraint system control unit
- Electronic Stability Program control unit Gateway:

Climate control operating unit via climate control LIN

The driver seat heater control unit (with code 902 (Seat heater plus for driver and front passenger)) is connected via the driver seat LIN to the driver seat control unit.

The front passenger seat heater control unit (with code 902 (Seat heater plus for driver and front passenger)) is connected via the front passenger seat LIN to the front passenger seat control unit.

The left rear seat seat heater control unit (model 213.1 with code 903 (Seat heater plus for rear outer seats)) is connected via left rear seat LIN to the left rear seat control unit.

The right rear seat seat heater control unit (model 213.1 with code 903 (Seat heater plus for rear outer seats)) is connected via right rear seat LIN to the right rear seat control unit.

The following control units are connected via the massage components LIN to the left front multicontour seat control unit (with code 432 (Left and right dynamic multicontour seat)):

- Left front backrest massage function control unit
- Left front seat cushion massage function control unit

The following control units are connected via the massage components LIN to the right front multicontour seat control unit (with code 432 (Left and right dynamic multicontour seat)):

- Right front backrest massage function control unit
- Right front seat cushion massage function control unit

The left rear backrest massage function control unit (model 213.1 with code 406 (Rear multicontour seats)) is connected via massage components LIN to the left rear multicontour seat control unit.

The right rear backrest massage function control unit (model 213.1 with code 406 (Rear multicontour seats)) is connected via massage components LIN to the right rear multicontour seat control unit.

#### Gateway:

The following control units form the interfaces for data exchange between control units connected to other bus systems:

- CDI control unit or ME-SFI [ME] control unit
- Drivetrain control unit
- Advanced Sound System amplifier control unit (model 213.0 with code 811 (Advanced Sound System) and either code B63 (Sporty engine sound) or with engine 256 and code M016 (Engine, boosted high performance))
- Fully integrated transmission control unit (transmission 725) Gateway:

The following control units form the interfaces for data exchange between control units connected to other bus systems:

- CDI control unit or ME-SFI [ME] control unit
- Drivetrain control unit
- AMG sports suspension control unit (with transmission 725.092 up to model year 2018 with code 466 (Active engine mount) or with code 467 (Electronic locking differential))
- Drive Unit control unit (transmission 725.092 up to model year 2018 except code 466 (Active engine mount) and except code 467 (Electronic locking differential), transmission 725.092 as of model year 2018, model 213.064/264 with transmission 725.0)
- Engine sound control unit (engine 177, 256, 276.823 except code 810 (Sound system), except code 811 (Advanced Sound System) and except code B63 (Sporty engine sound) up to 31.05.2018 or vehicles with code B63 (Sporty engine sound), except code 810 (Sound system) and except code 811 (Advanced Sound System))

## Gateway:

The following control units form the interfaces for data exchange between control units connected to other bus systems:

- Electronic ignition switch control unit
- HERMES control unit (with code 360 (HERMES UMTS) or code 362 (HERMES LTE))

The Supplemental Restraint System control unit and the HERMES control unit (with code 360 (HERMES UMTS) or code 362 (HERMES LTE)) are connected to each other via the seat occupied LIN.

The following control units form the interfaces for data exchange between control units connected to other bus systems:

- Supplemental restraint system control unit
- Electronic Stability Program control unit

The following control units are connected to the Supplemental Restraint System control unit via the seat occupied LIN:

- Weight sensing system (WSS) control unit (with code U10 (Automatic front passenger airbag shutoff))
- HERMES control unit (with code 360 (HERMES UMTS) or code 362 (HERMES LTE))

#### **User interface CAN**

The user interface CAN is used for the data exchange of the attached control units with one another. The user interface CAN operates at a data rate of 500 kBit/s.

The following control units are participants of the user interface CAN:

- Instrument cluster
- Head unit
- Head-up-display (with code 463 (Head-up display))
- Left front reversible emergency tensioning retractor
- Right front reversible emergency tensioning retractor
- Reversing camera control unit (with code 218 (Reversing camera) and except code 235 (Parking Pilot with PARKTRONIC) and except code P44 (Parking Package))
- Supplemental restraint system control unit
- Electronic ignition switch control unit
- Tire pressure monitor control unit (with CODE 475 (Tire pressure monitor))

#### **Drive train sensor CAN**

The drive train sensor CAN is used for the data exchange of the attached control units with one another. The drive train sensor CAN operates at a data rate of 500 kBit/s.

The following control units are participants on the drive train sensor CAN:

- CDI control unit or ME-SFI [ME] control unit
- NOx sensor control unit (model 213 (except 213.050/053/054) with engine 274 with code 920 (Gasoline direct injection with stratified charge))
- NOx sensor control unit downstream of diesel particulate filter (engine 642 with code U77 (BLUETEC (SCR) diesel exhaust treatment))
- NOx sensor control unit downstream of SCR catalytic converter (engine 642 with code U77 (BLUETEC (SCR) diesel exhaust gas cleaning), engine 654 except in model 213.016/216 with code U79 (BLUETEC (SCR) Generation 3 diesel exhaust gas cleaning), engine 654 in model 213.016/216, engine 656)

# Hybrid CAN (model 213.016/050/053/054/216 or with code B01 (48V technology))

The hybrid CAN is used for the data exchange of the connected control units with one another. The hybrid CAN operates at a data rate of 500 kBit/s.

The following control units are subscribers to the hybrid CAN:

- Sound generator (model 213.050 with code B53 (Acoustic presence indicator), model 213.016/053/054/216)
- Battery management system control unit (model 213.016/050/053/054/216)
- Charger (model 213.016/050/053/054/216)
- HERMES control unit (with code 360 (HERMES UMTS) or code 362 (HERMES LTE))
- Drivetrain control unit

## **Peripherals CAN**

The periphery CAN is used for the data exchange of the attached control units with one another. The periphery CAN operates at a data rate of 500 kBit/s.

The following control units are participants of the periphery CAN:

- Mono multifunction camera (with code 513 (Traffic Sign Assist) or code 22P (Lane package) or code P35 (Light package) and except code 23P (Driving Assistance package) and except code P20 (Driving Assistance package Plus))
- Active Brake Assist controller unit (with code 258 (COLLISION PREVENTION ASSIST))
- Right outer rear bumper integrated radar sensor (with CODE22P (Lane package))
- Left outer rear bumper integrated radar sensor (with CODE 22P(Lane package))
- Left headlamp control unit (with code 631 (Static left-hand traffic LED headlamp) or code 632 (Static right-hand traffic LED headlamp) or code P35 (Light package))
- Left front lamp unit LED matrix control unit (with code P35 (Light package))

# Front radar CAN (with code 23P (Driving Assistance Package) or code P20 (Driving Assistance Plus Package))

The front radar CAN is used for exchanging data between the connected control units. The front radar CAN operates at a data rate of 500 kBit/s.

- AMG sports suspension control unit (with transmission 725.092 up to model year 2018 with code 466 (Active engine mount) or with code 467 (Electronic locking differential))
- Drive Unit control unit (transmission 725.092 up to model year 2018 except code 466 (Active engine mount) and except code 467 (Electronic locking differential), transmission 725.092 as of model year 2018, model 213.064/264 with transmission 725.0)

#### Gateway:

The following control units form the interfaces for data exchange between control units connected to other bus systems:

- Head unit
- Electronic ignition switch control unit
- AMG sports suspension control unit (with transmission 725.092 up to model year 2018 with code 466 (Active engine mount) or with code 467 (Electronic locking differential))
- Drive Unit control unit (transmission 725.092 up to model year 2018 except code 466 (Active engine mount) and except code 467 (Electronic locking differential), transmission 725.092 as of model year 2018, model 213.064/264 with transmission 725.0)

The following control units are connected to the Supplemental Restraint System control unit via the seat occupied LIN:

- Weight sensing system (WSS) control unit (with code U10 (Automatic front passenger airbag shutoff))
- HERMES control unit (with code 360 (HERMES UMTS) or code 362 (HERMES LTE))
- Left NOx sensor control unit upstream of NOx storage catalytic converter (engine 276.8 with code 920 (Gasoline direct injection with stratified charge))
- Right NOx sensor control unit upstream of NOx storage catalytic converter (engine 276.8 with code 920 (Gasoline direct injection with stratified charge))
- NOx sensor control unit downstream of NOx storage catalytic converter (engine 276.8 with code 920 (Gasoline direct injection with stratified charge))
- NOx sensor control unit upstream of diesel oxidation catalytic converter (engine 654 with code U79 (BLUETEC (SCR) Generation 3 diesel exhaust gas cleaning), engine 656)
- AdBlue® control unit (engine 642, engine 654 with code U79 (BLUETEC (SCR) Generation 3 diesel exhaust gas cleaning), engine 656)

#### Gateway:

The CDI control unit or the ME-SFI [ME] control unit forms the interface for data exchange between control unit connected to other bus systems.

- Power electronics control unit (model 213.016/050/053/054/216)
- Starter-alternator control unit (engine 256 with code B01 (48V technology))
- Starter alternator (engine 264 with code B01 (48V technology))

## Gateway:

The following control units form the interfaces for data exchange between control units connected to other bus systems:

- HERMES control unit (with code 360 (HERMES UMTS) or code 362 (HERMES LTE))
- Drivetrain control unit
- Right headlamp control unit (with code 631 (Static left-hand traffic LED headlamp) or code 632 (Static right-hand traffic LED headlamp) or code P35 (Light package))
- Right front lamp unit LED matrix control unit (with code P35 (Light package))
- Electronic ignition switch control unit
- Drivetrain control unit

## Gateway:

The following control units form the interfaces for data exchange between control units connected to other bus systems:

- Electronic ignition switch control unit
- Drivetrain control unit
- Right outer front bumper radar sensor
- Mercedes-Benz Intelligent Drive control unit

Gateway:

The following control units are participants of the front radar CAN:

Left outer front bumper radar sensor

# Rear radar CAN (with code 23P (Driving Assistance Package) or code P20 (Driving Assistance Plus Package))

The rear radar CAN is used for exchanging data between the connected control units. The rear radar CAN operates at a data rate of 500 kBit/s.

The following control units are participants of the rear radar CAN:

Right outer rear bumper radar sensor

#### Steering wheel CAN (as of 01.06.2018)

The steering wheel CAN serves for data exchange between the connected control units. The steering wheel CAN operates at a data transfer rate of 125 kBit/s.

The following control units are subscribers to the steering wheel CAN:

Steering column module control unit

#### **Chassis FlexRay**

The chassis FlexRay is a quick, deterministic and fault-tolerant bus system. Signals are not transmitted based on an event but during fixed defined time windows. As a result, the bus load can be reduced. The time windows are divided into static and dynamic sections.

The chassis FlexRay consists of a twisted two-core data line that transmits differential signals in order to improve the interference resistance. Each connected control unit is able to transmit or receive data in the form of voltage pulses.

The chassis FlexRay is used for the data exchange of the attached control units with one another. The chassis FlexRay operates at a data rate of up to 10 Mbit/s.

The following control units are participants of the chassis FlexRay:

- Stereo multifunction camera (with code 23P (Driving assistance package) or code P20 (Driving assistance package Plus))
- Distance Pilot DISTRONIC controller unit (with code 239 (Active Distance Assist DISTRONIC))
- Short and long-range radar sensor (with code 23P (Driving Assistance package) or code P20 (Driving Assistance package Plus))
- Electronic Stability Program control unit
- All-wheel drive control unit (transmission 725.092)
- AIR BODY CONTROL control unit (with code 489 (AIR BODY CONTROL))
- AIR BODY CONTROL Plus control unit (with code 489 (AIR BODY CONTROL))
- Parking system control unit (with code 235 (Parking Pilot with PARKTRONIC) or code P44 (Parking Package))
- Mercedes-Benz Intelligent Drive control unit (with code 23P (Driving Assistance package) or code P20 (Driving Assistance package Plus))
- Electrical power steering control unit

## MOST

The MOST is an optical bus system. Here, data are transferred via fiber optic cable to the connected information, navigation, and communication components. The MOST operates with a data rate of 22 Mbit/s.

The following control units are participants on the MOST:

- Head unit
- Tuner unit (with CODE 536 (SIRIUS satellite radio) or CODE 537 (Digital radio (DAB)))
- Sound system amplifier control unit (with code 810 (Sound system))

## **Ethernet**

The Ethernet vehicle access is used for data transfer to the head unit. The Ethernet vehicle access operates with a data rate of 100 Mbit/s.

The Mercedes-Benz Intelligent Drive control unit forms the interface for data exchange between control units connected to other bus systems.

- Left outer rear bumper radar sensor
- Mercedes-Benz Intelligent Drive control unit

#### Gateway:

The Mercedes-Benz Intelligent Drive control unit forms the interface for data exchange between control units connected to other bus systems.

Steering wheel electronics

#### Gateway:

The steering column tube module control unit forms the interface for the data exchange with control units that are connected to other bus systems.

- Electronic ignition switch control unit
- Steering column module control unit
- Electronic rear axle level control control unit (model 213.2 except code 459 (Steel suspension with adjustable dampening) and except code 489 (AIR BODY CONTROL))
- Drivetrain control unit
- AMG sports suspension control unit (with transmission 725.092 up to model year 2018 with code 466 (Active engine mount) or with code 467 (Electronic locking differential))
- Drive Unit control unit (transmission 725.092 up to model year 2018 except code 466 (Active engine mount) and except code 467 (Electronic locking differential), transmission 725.092 as of model year 2018, model 213.064/264 with transmission 725.0)

#### Gateway:

The following control units form the interfaces for data exchange between control units connected to other bus systems:

- Mercedes-Benz Intelligent Drive control unit (with code 23P (Driving Assistance package) or code P20 (Driving Assistance package Plus))
- Electronic ignition switch control unit
- Steering column module control unit
- Drivetrain control unit
- AMG sports suspension control unit (with transmission 725.092 up to model year 2018 with code 466 (Active engine mount) or with code 467 (Electronic locking differential))
- Drive Unit control unit (transmission 725.092 up to model year 2018 except code 466 (Active engine mount) and except code 467 (Electronic locking differential), transmission 725.092 as of model year 2018, model 213.064/264 with transmission 725.0)
- Advanced sound system amplifier control unit (model 213.0 with code 811 (Advanced Sound System))
- TV tuner control unit (with code 531 (COMAND APS) and code 865 (TV tuner))
- Midline sound system amplifier control unit (as of 01.06.2018, engine 177 except code 810 (Sound system) and except code 811 (Advanced Sound System) or engine 256 with code M016 (Engine, boosted high performance) except code 810 (Sound system) and except code 811 (Advanced Sound System))

## Gateway:

The head unit forms the interface for data exchange between control units connected to other bus systems.

i The bandwidth of 100 Mbit/s makes it possible, e.g. to program the Digital Owner's Manual, the head unit and the MOST components without a separate DVD.

Overview of system components for overall network (GVN)	GF00.19-P-9997FG