Audi Academy

Modular Infotainment Platform (MIB)

Audi Academy

Contents

This eSelf Study Program provides a basic knowledge of the design and functions of new models, new automotive components or technologies.
It is not a Repair Manual! All values given are intended as a guideline only.
For maintenance and repair work, always refer to the current technical literature.

Note

Reference

Introduction

In response to the speed at which the development cycles for information and entertainment systems occur, the automotive industry has had to shorten its development cycles as well. Keeping up to date with the latest advances is a growing challenge for car makers.

To meet this challenge, the Volkswagen Group has introduced the Modular Infotainment Platform (*MiB**).

Central to the development of the MIB, Information Electronics Control Module 1 J794, has been re-designed as a modular component. The control module architecture allows the hardware to be easily and economically updated so that it always incorporates the latest technological advances.

An important component is the graphics processor made by market-leader Nvidia, with whom Audi enjoys a very successful business relationship. The latest Nvidia processors will continue to be used in Audi vehicles in the future.

The new platform means that it will be possible to use the same central processing units (J794) across the entire Group. So, in the future it will be possible to run brand-specific variants on four standardized hardware platforms.

For the purposes of differentiation, features such as the user interfaces and controls will be individually adapted for each brand. Customers will thus be able to identify distinctive

differences between the systems. The systems used by Audi will always be recognizable as genuine Audi MMI®.

With the MIB, components that are not subject to rapid development, such as radio tuners or audio amplifiers, can remain as they are. Put simply, that means that only the MMX (Multi Media Extension) board in J794 is upgraded.

On the 2015 Audi A3, the MMX is equipped with an Nvidia Tegra T20 dual-core processor with a clock speed of 1.2 GHz.

If the MMX board is upgraded in the future, the changes required can be compared with replacing the motherboard and graphics card in a home PC to make it faster.

The software for the MIB is also modular in design. This means that in the future both "old" and "new" software will be used together on a new control module.

The "old" software might be the CAN data protocol, while applications such as the Bluetooth profiles are likely to require the development of "new" software.

*Terms written in italics and marked with an asterisk are explained in the Glossary at the end of this eSelf-Study Program.

Information Electronics Control Module 1 J794

618_001

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On a world-wide basis, Audi offers three main configuration levels for the Modular Infotainment Platform:

- Entry MIB
- Standard MIB
- High-spec MIB

Each of the main configurations has its own sub-configurations depending on the optional equipment installed. All of the MIB configurations use Information Electronics Control Module 1 J794 as the central processing unit.

Depending on version, J794 controls the following functions:

- Control of information and entertainment systems
- System master and diagnostics master for MOST
- Radio tuner
- Digital radio tuner (SDARS*)
- CD* or DVD* drive
- Internal audio amplifier for Audi sound system with 180 watts power (6 channels, 3 x 20W + 3 x 40W) (9VD)
- Up to two SD* card readers
- Bluetooth interface (HFP*, A2DP* and, with Bluetooth car phone, also SAP*)
- Telephone module and SIM* card reader
- Navigation system
- Voice control
- WiFi hotspot

In the North American market, three versions of the MIB will be available beginning with the 2015 Audi A3*. They are:

- Standard MIB (Audi MMI® radio*)
- High spec MIB (Audi MMI® navigation plus**)
- High spec MIB (Audi MMI® navigation plus with Audi connect***)

Front panel of J794 for Entry MIB   *618_003*

Front panel of J794 for Entry plus MIB   *618_004*

Front panel of J794 for Standard MIB, navigation system version   *618_006*

Front panel of J794 for Standard MIB, radio version*   *618_005*

Front panel of J794 for High-spec MIB**   *618_007*

Front panel of J794 for High-spec MIB with Audi Connect***   *618_008*

eMedia

Click here for a closer look at the Audi A3 sedan Modular Infotainment System.

Standard MIB

In terms of functionality and specifications, the Standard MIB is comparable with the RMC Radio Media Center. This will be marketed in the North American region as Audi MMI® radio.

J794 for the Standard MIB always has a MOST bus connection. If no optional equipment requiring MOST data transfer is installed, the MOST connection is unused.

Standard MIB (MMI® radio)

MMI® radio is based on the Standard MIB and offers the following features:

▶ Radio with phase diversity module, FM twin tuner (frequency modulation) and AM tuner (amplitude modulation)
▶ Single CD drive which supports MP3, WMA and *AAC** files
▶ An SD card reader for MP3, WMA and AAC files
▶ Car menu
▶ Motorized 5.8-inch color *TFT** screen with 400 x 240 pixel resolution
▶ A discrete control panel in the center console
▶ AUX IN socket (UE3)
▶ SDARS Tuner (digital radio) (QV3)
▶ Internal audio amplifier for Audi sound system with 180 watts power (6 channels, 3 x 20W + 3 x 40W) (9VD)
▶ Bluetooth interface for HFP and A2DP (9ZX)

Standard MIB can also be equipped with the following optional feature:

▶ Audi music interface (UE7)

The PR number for the Standard MIB is I8D with the suffix 7Q0. Audi MMI® navigation plus is not available on the Standard MIB version.

MMI® screen for Standard MIB (Audi MMI® radio)   *618_016a*

Front panel of J794 for Standard MIB, (Audi MMI® radio) *618_005*

Private CAN High

Information/entertainment CAN High

FM1/AM radio signal input

FM2 radio signal input

SDARS radio signal input

Video output for MMI® display

*USB** connection to AMI

MOST bus connection

Private CAN Low

Information/entertainment CAN Low
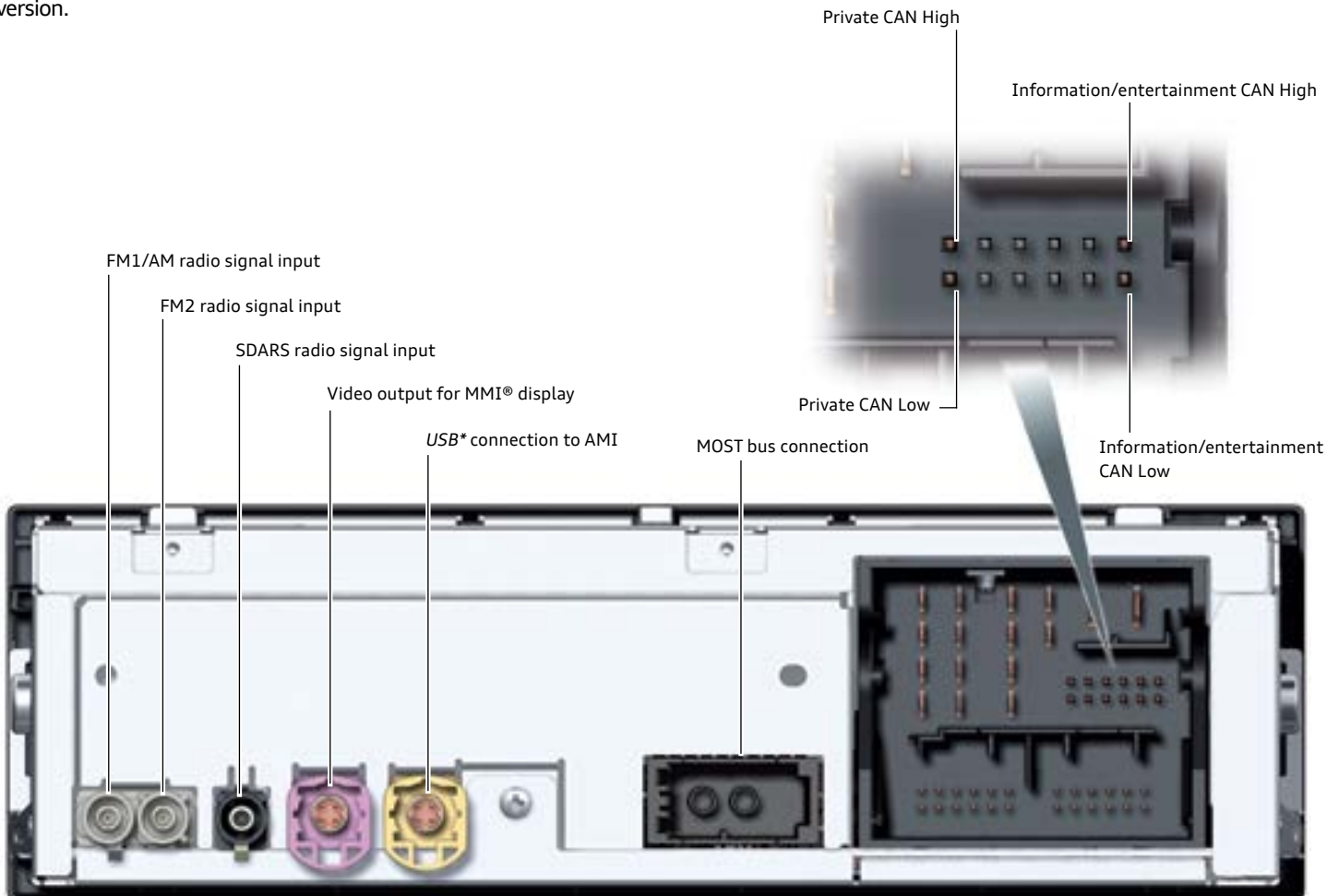
Rear panel of J794 for Standard MIB, (MMI® radio)   *618_018* 3

CAR Functions

The MIB can be used to enter and view settings on various vehicle systems. Listed and illustrated below are the systems and functions currently supported on the 2015 Audi A3.

618_024a

Information Electronics Control Module 1 J794
– Language master >
– GPS time >

Instrument Cluster Control Module J285
– Time master >
– Service interval display
  (for example, oil change service) >
– Learned keys >
– Speed warning <
– Units master (kph/mph, etc.) >

Vehicle Electrical System Control Module J519
– Central locking (for example, easy-open function
  for windows, locking while driving) <
– Ambient lighting <
– Exterior lighting
  (for example, automatic headlights) <

Lane Change Assistance Control Module J769
– Audi side assist <

ABS Control Module J104
– Tire pressure monitoring <

Parallel Parking Assistance Control Module J791
– Park assist <

Driver Assistance Systems Front Camera R242
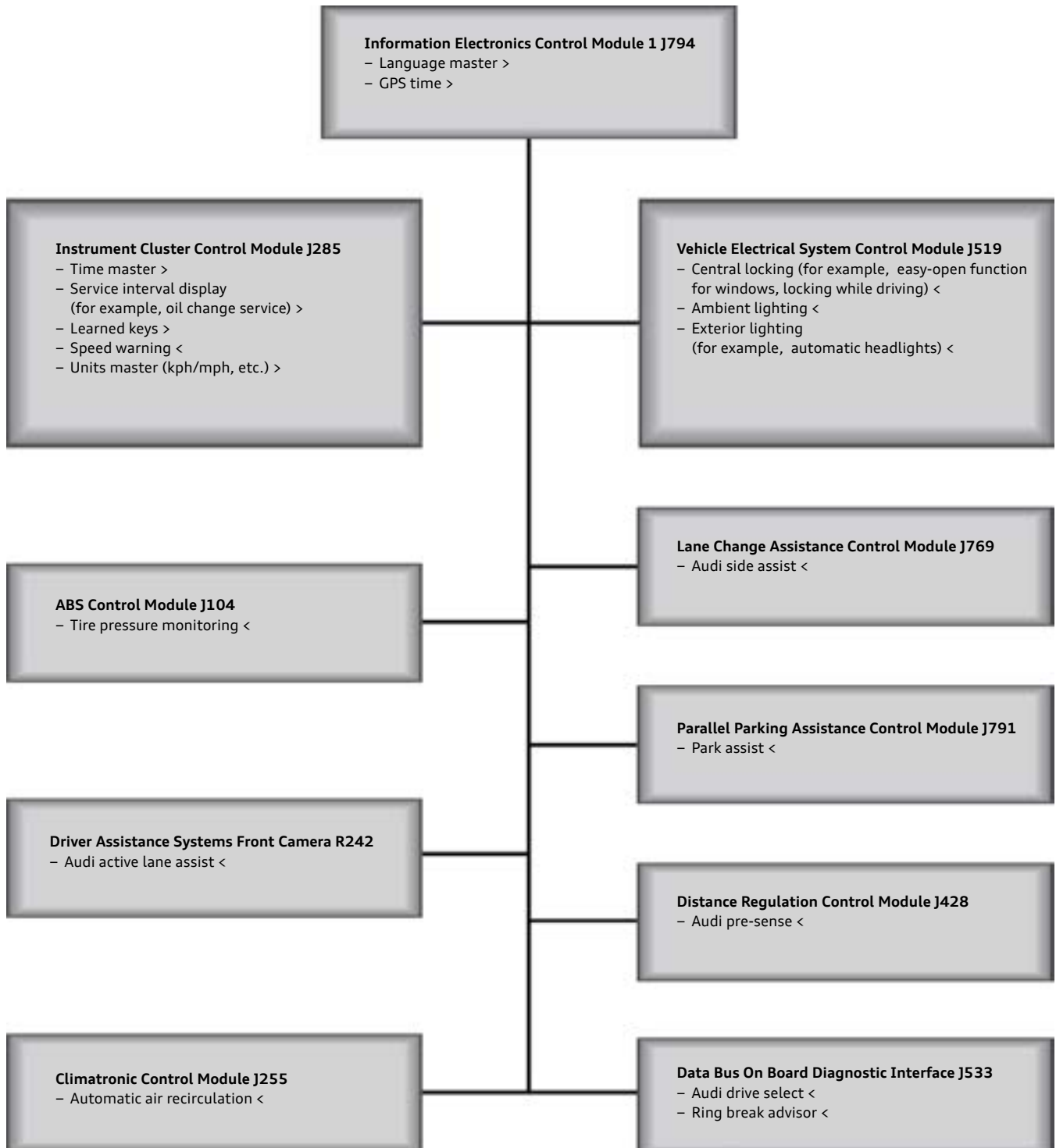– Audi active lane assist <

Distance Regulation Control Module J428
– Audi pre-sense <

Climatronic Control Module J255
– Automatic air recirculation <

Data Bus On Board Diagnostic Interface J533
– Audi drive select <
– Ring break advisor <

618_025

Key:

< Settings can be entered using the MMI®

> Information is provided

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High spec MIB with navigation

The High-spec MIB is the current high-end version of the Modular Infotainment Platform. Two versions will be available in the North American market. In both versions, Information Electronics Control Module 1 J794 has a MOST bus connection. If no other optional equipment requiring a MOST connection is installed on the vehicle, the connection is not used.

The High-spec MIB represents a consistent step forward from the 3G + MMI and features new 3D screen views and *SSD** solid state drive.

As mentioned earlier, Information Electronics Control Module 1 J794 MIB incorporates an Nvidia Tegra processor. It is a multi-core processor that generates ultra-high resolution graphics as well as offering faster rendering of current audio and video formats. The Tegra chip requires substantially less energy than previous multimedia processors and fits perfectly with the Audi efficiency philosophy.

The Tegra chip can display entire cityscapes in three-dimensional views – the driver sees the street that he is driving along in photo-realistic quality.

The High-spec MIB is also the only version of the MIB that can play video files directly.

The High-spec MIB offers the following features:

- Radio with phase diversity module, FM twin tuner (frequency modulation) and AM tuner (amplitude modulation)
- Single DVD drive for audio and video files
- Two SD card readers for audio and video files
- SSD solid state drive (64 GB)
- Jukebox (approximately 11GB on the 2015 Audi A3)
- 3D navigation system with navigation data on SSD (data supplier: Navteq)
- Audi MMI® touch
- Audi music interface
- Car menu
- Bluetooth interface for HFP and A2DP
- Premium interactive voice control system
- Provision of predictive route data
- 7.0-inch motorized TFT display
- Discrete control panel with MMI® touch in center console
- AUX IN socket (UE3)
- SDARS tuner (NAR spec digital radio) (QV3)
- Internal audio amplifier for Audi sound system with 180 watts power (6 channels, 3 x 20W + 3 x 40W) (9VD)

Front panel of J794 for High-spec MIB without Audi connect (MMI® navigation plus)   *618_007*

Rear panel of J794 for High-spec MIB   *618_027*

Front panel of J794 for High-spec MIB with Audi connect (MMI® navigation plus with Audi connect)   *618_008*

Rear panel of J794 for High-spec MIB with Bluetooth and Audi connect   *618_029*

The High-spec MMI® can also be equipped with the following optional features:

▶ DIS with trip computer
▶ Audi connect with online services

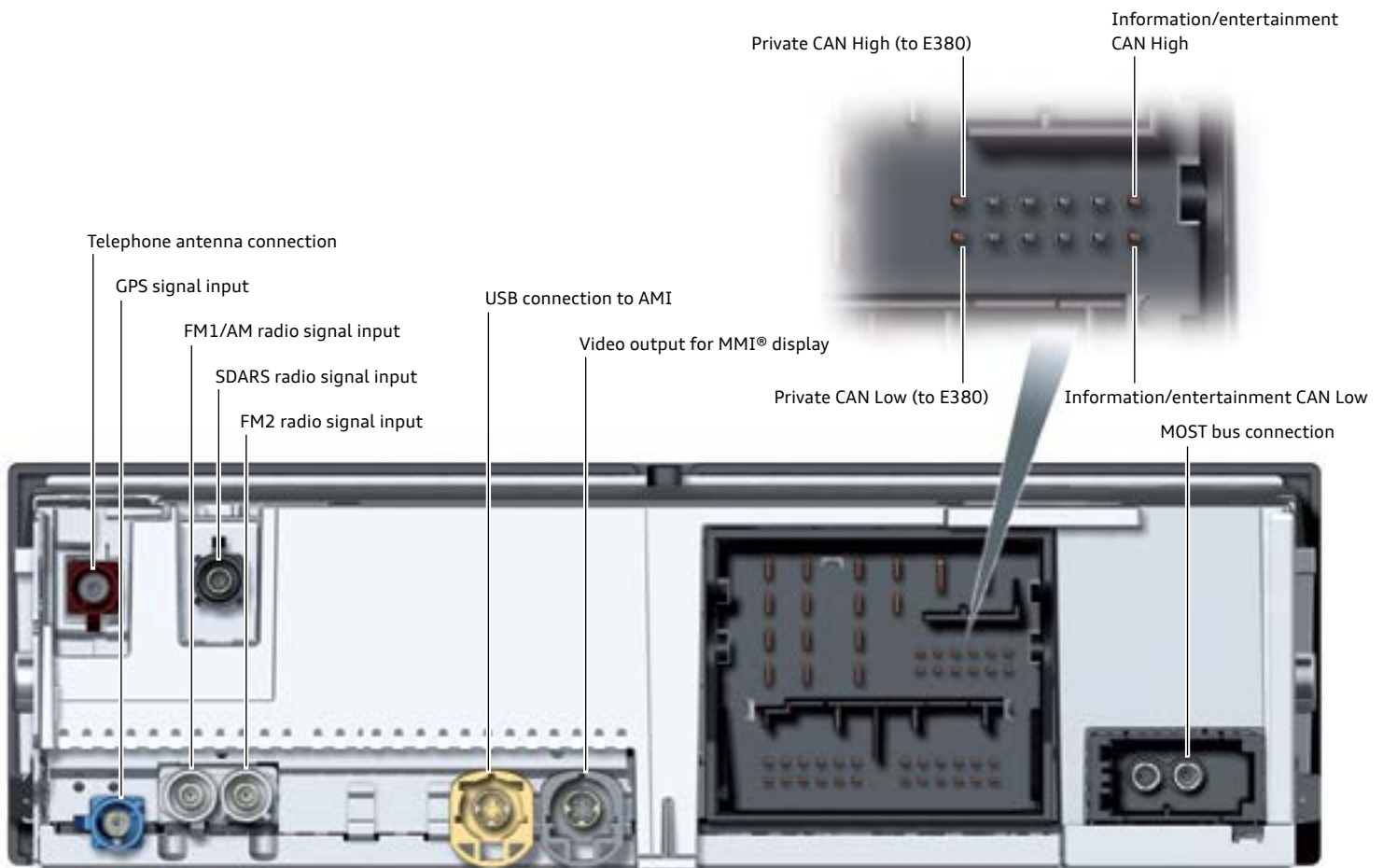The High-spec MIB is identified by the PR numbers I8G and 7UG.

Main menu on High-spec MIB   *618_030a*

Jukebox with Coverflow   *618_031a*

Telephone antenna connection

GPS signal input

FM1/AM radio signal input

SDARS radio signal input

FM2 radio signal input

USB connection to AMI

Video output for MMI® display

Private CAN High (to E380)

Information/entertainment CAN High

Private CAN Low (to E380)

Information/entertainment CAN Low

MOST bus connection

Rear panel of J794 for High-spec MIB   *618_034*

The High-spec MIB features a navigation system with 3D map display. It displays the silhouettes of many city centers as a three-dimensional view. Many places of interest are also shown in 3D.

The navigation map data for the High-spec MIB is stored on the SSD solid state drive. The current map supplier for the High-spec MIB is Navteq. The map data also includes predictive route data. This is sent by Information Electronics Control Module 1 J794 via the MOST bus to Data Bus On Board Diagnostic Interface J533. J533 distributes the data via the various bus systems to the control modules that use the predictive route data.

The navigation system has a voice control facility featuring whole-word entry. The navigation system offers whole sentence destination entry (one-shot entry).

On the High-spec MIB, ten destinations can be entered for each route. In other words, nine intermediate destinations and the final destination. In all, twenty route plans can be created.

The High-spec MIB with the Audi connect option offers the following additional services:

▶ Google Earth™ map
▶ Google Street View™
▶ Points-of-interest search online
▶ Picture destinations
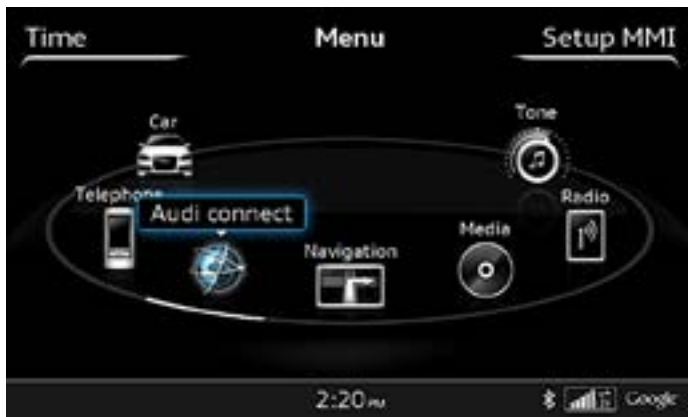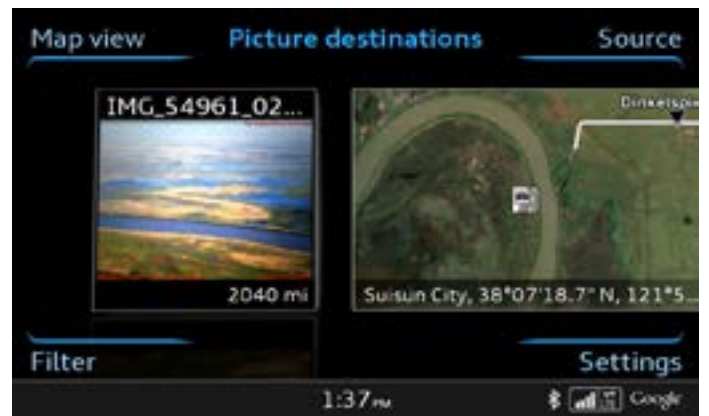

Main menu with navigation map — *618_030b*

Map view on High-spec MIB — *618_033a*

Navigation view with Google Earth map — *618_068a*

Navigation view with Picture destinations — *618_068b*

Radio tuner

The analog radio receiver for the MIB system is always inte-grated in Information Electronics Control Module 1 J794. Depending on vehicle options, J794 may also include the SDARS radio tuner. The radio tuners support most *RDS** services available today. The RDS services available depend on the station being received at the time. The basic design of the radio tuners for the Standard and High-spec MIB ver-sions are explained below.

Analog tuner reception concept

Standard MIB

The analog radio receiver for the Standard MIB (MMI® radio) has a two separate receivers in total.

Tuner 1 is an AM/FM tuner (see schematic diagrams on pages 9 and 10). AM reception is provided exclusively by Tuner 1. Tuner 2 is an additional FM tuner.

If FM reception is poor, the selected station is received simultaneously by Tuner 1 and Tuner 2. The two signals are then merged to form a combined signal.

If the signal received by one of the tuners is good enough to ensure interference-free reception and playback through the speakers is possible, the other tuner is used for the station search function. The best antenna signal is always used for audio output (role swapping).

Because a station search is carried out at regular intervals, the main screen of the FM radio menu is constantly updated with the FM radio stations currently receivable. The station list is thus kept up to date and unavailable stations removed from the list.

The AM station list is also updated in FM mode if the recep-tion conditions allow – in which case Tuner 2 provides the FM audio signal and Tuner 1 performs the AM station search.

The separate station memory can be used to create a person-alized station list. It can store up to 50 stations from any reception area and lists them in the user-defined order.

The radio supports the Radiotext and Radiotext Plus data services. This enables program-related information to be displayed if broadcast by the station concerned (for example, artist, title, current program).

Display of radio menu during FM reception   *618_041a*
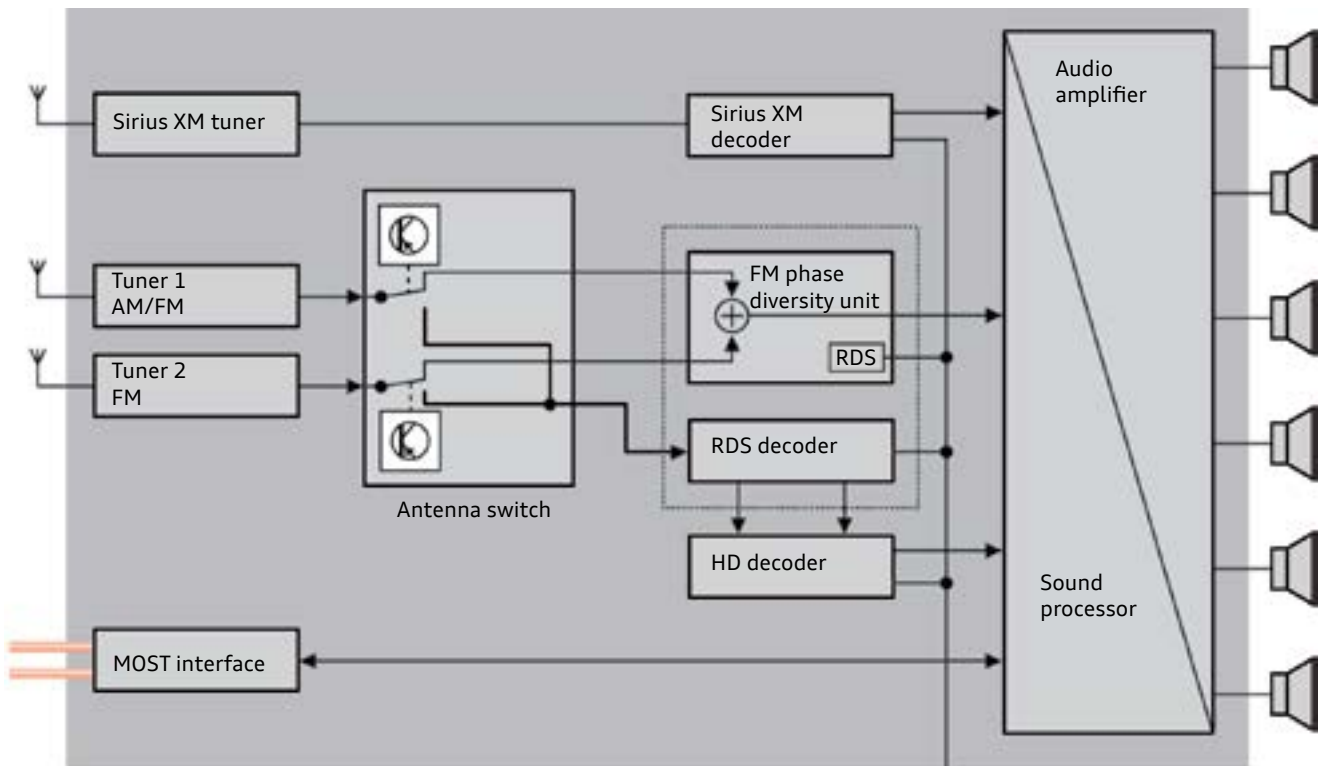
Schematic diagram of radio tuner for Standard MIB (MMI® radio) for NAR market   *618_044*

MMI® display/Driver Information System

High-spec MIB

The analog radio receiver for the High-spec MIB (MMI® Navigation plus and MMI® Navigation plus with Audi connect) has three separate receivers (tuners) in total. That means that both the station search and the diversity antenna function take place simultaneously.

During FM reception, the selected station is always simultaneously received by Tuners 1a and 1b. The two signals are then merged to form a combined signal. As a result, the best possible reception is obtained.

Tuner 2 functions as a separate tuner for AM/FM station searching and for receiving *TMC*data and monitoring voice traffic reports. It is not used for audio reception of the radio station currently selected. Because the station search function is constantly active, the main screen of the FM radio menu always shows all FM radio stations currently receivable. The station list is thus kept permanently up to date and unavailable stations removed from the list.

AM reception is provided by Tuner 1a. Tuner 2 is an additional AM tuner which constantly updates the AM station list in the background.

The separate station memory can be used to create a personalized station list. It can store up to 50 stations from any reception area and lists them in the user-defined order.

The radio supports the Radiotext and Radiotext Plus data services. This enables program related information (for example, artist, title, current program) to be displayed if broadcast by the station concerned.

Display of radio menu during FM reception *618_045a*
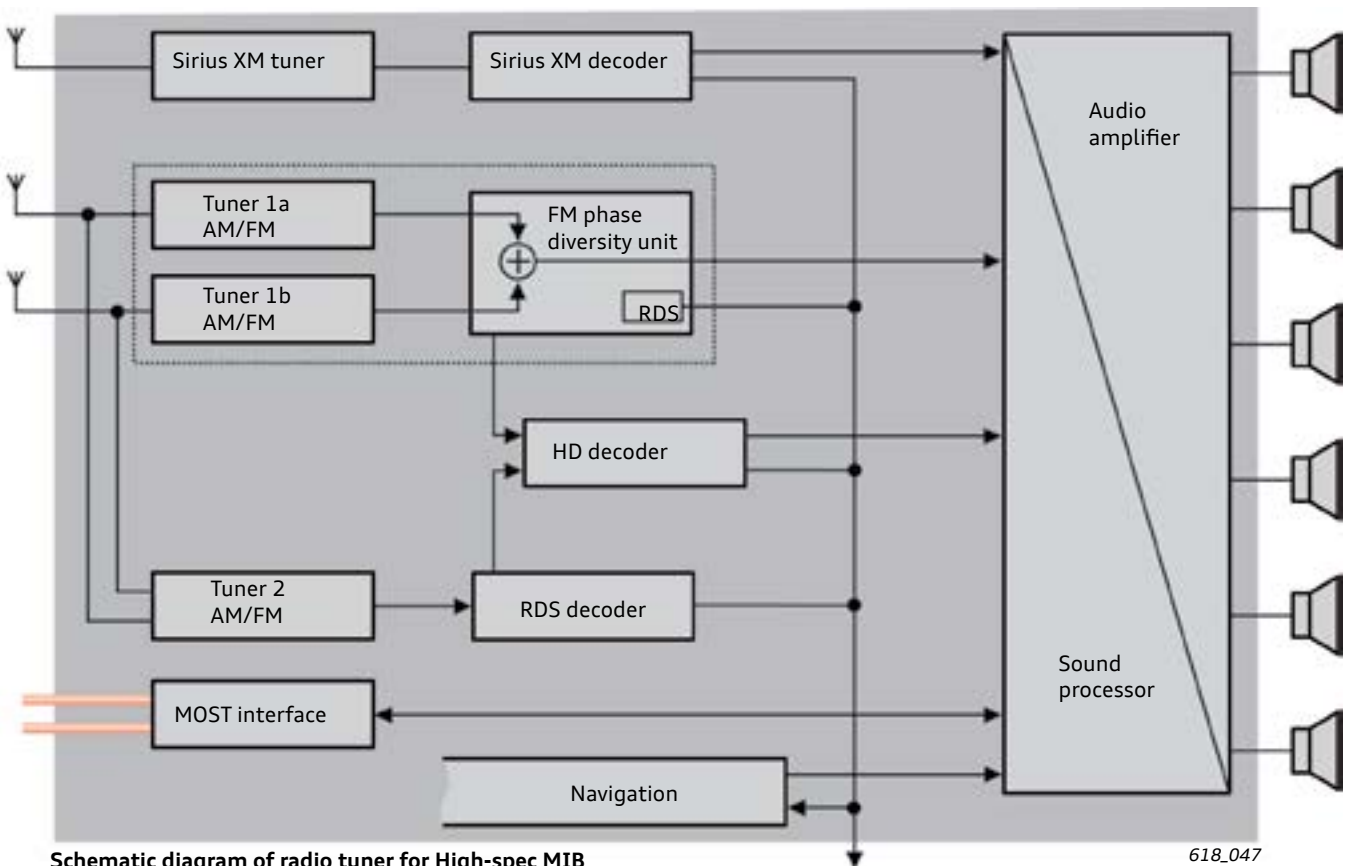
Schematic diagram of radio tuner for High-spec MIB *618_047*

MMI® display/Driver Information System

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Disk drives and storage media

Depending on the MIB version, the following drives and storage media are incorporated in Information Electronics Control Module 1 J794:

- ▶ Optical drive (CD/DVD)
- ▶ Memory card reader
- ▶ SSD solid state drive
- ▶ SIM card reader

In addition, optional features available on the Standard MIB and High-spec MIB allow various storage media (for example, USB sticks) to be used via the Audi music interface.

Front panel of J794 for Standard MIB, (Audi MMI® radio) *618_005*

Front panel of J794 for High-spec MIB without Audi connect (MMI® navigation plus) *618_007*

J794 *618_008*

Media playback

Audio and video files in the most commonly used formats can be played back via the various drives and the Audi music interface.

The list below details the properties of the audio and video files supported.

Audio files								
Format	*MPEG*-1/-2 Layer-3	Windows Media Audio 8 and 9		Windows Media Audio 9 Lossless, WMA 9 pro & WMA 10	AAC-LC, HE-AAC, HE-AACv2	*OGG** Vorbis	*FLAC**	*WAVE**
File extension	.mp3	.wma	.asf*	.wma	*.aac, m4a*, m4b**	.ogg	.flac	.wav
Standard MIB	✓	✓	✓		✓			✓
High-spec MIB	✓	✓		✓	✓	✓	✓	✓

Video files							
Format	*MPEG-1*, MPEG-2**	MPEG-4 (ISO)	*DivX* 4, DivX 5*	*Xvid**	*MPEG-4*-AVC* (H.264)	*WMV9**	MJPEG
File extension	.mpg, mpeg	.mp4, m4v, *.avi**	.avi, divx	.avi	*.mp4*, .m4v**, .mov	.wmf, .asf	.avi, .mov
High-spec MIB	✓	✓	✓	✓	✓	✓	✓

Audi music interface

With the Audi music interface, a video source can be connected directly to the Standard MIB or High-spec MIB. That means that video playback on the MMI® display is also possible on the Standard MIB. There are two adaptors available for this purpose:

▶ AV adaptor cable
▶ iPod adapter cable plus

AV adaptor cable 4F0.051.510.N
618_053

iPod adaptor cable plus 4F0.051.510.R
618_085

! **Note**
DRM* (Digital Rights Management) protected files cannot be played back.

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iPod adapter plus

The iPod adapter plus is more than a cable connection between the AMI and the iPod. Rather it is an active interface with special hardware and software. A special Apple authentication chip is built into the housing of the iPod connector plug in the iPod adapter cable plus. This chip contains the software needed in order to enable additional functions. The authentication chip is used to check which functions the device connected to the iPod Information Electronics Control Module J794 is allowed to use.

The iPod adapter plus can be distinguished from prior versions by a red anti-kink device on the AMI connecting plug as well as a large housing at the iPod connecting plug.

The iPod adapter plus (4F0.051.510R) is available for 2015 and later vehicles with the following optional equipment:

▶ Radio Media Center with Audi music interface (AMI)
▶ MMI® 3G Plus with Audi music interface (AMI)

The iPod adapter plus supports the following functions:

▶ Audio streaming
▶ Cover display
▶ Video streaming

All information embedded in an audio file (for example, track, album, artist) is displayed. If a cover is available for a track currently playing on the iPod, this is also displayed.

The video streaming function can be used to play back video files. Films, broadcasts, music videos, video podcasts and rented films can be played on an iPod.

As a safety precaution, the video screen is disabled while driving.

The following Apple products running the following firmware (FW) version or higher are currently supported:

▶ iPod Nano 5G running FW 1.0.2
▶ iPod Nano 6G running FW 1.0.0
   (limitation: video is not supported)

▶ iPod Touch 1G running FW 3.0.0
▶ iPod Touch 2G running FW 3.0.0
▶ iPod Touch 3G running FW 3.0.0
▶ iPod Touch 4G running FW 4.0.0

▶ iPhone 1G running FW 3.0.0
▶ iPhone 3G running FW 3.0.0
▶ iPhone 3GS running FW 3.0.0
▶ iPhone 4G running FW 4.0.0

▶ iPad 1G and 2G running FW 4.2.1

iPod adapter cable plus   602_085

Audio playback display   602_029a

Video menu display   602_030a

!   **Note**
Further information about supported iPod versions and in-car functions can be found in the Mobile devices database at: www.audi.com/bluetooth or www.audi.com/mp3.

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Optical drive

The optical drive is either a CD drive or a DVD drive, depending on the MIB version.

A CD drive can only play audio files. The CD drives support both single-session and multi-session rewritable CDs.

A DVD drive can play both audio and video files. They also support both single-session and multi-session rewritable CDs. Only single-session recordable DVDs are supported. The list below details the formats supported.

Optical drive   *618_054*

	Audio CD	**CD-ROM**	**Audio DVD**	**Video DVD**	**DVD-ROM**
Supported media	Up to 80 min	CD-R*; CD-RW* Up to 700 MB capacity	"DVD-Video compatible DVD-Audio"		*DVD±R*; DVD±RW**
Standard MIB	✓	✓			
High-spec MIB	✓	✓	✓	✓	✓

SD card reader

The SD card readers support SD*, SDHC* and SDXC* memory cards depending on the MIB version.

Memory card capacity of up to 64 GB is possible depending on MIB version.

SD card reader   *618_055*

! **Note**
If using an SDXC memory card, it must be formatted with the ex*FAT* file system.

Solid state drive

The High-spec MIB is equipped with a solid state drive (*SSD**). SSDs are the same type of memory used for example, in USB sticks.

The solid state drive in the High-spec MIB has a theoretical capacity of 64 GB.

The data stored on it includes the following:

▶ Music and video files on the Jukebox
▶ Navigation maps
▶ Voice control files
▶ Google Earth™ image data

Jukebox

The Jukebox is provided for storing music and video files. A maximum of 3,000 files can be stored in the Jukebox. The actual number of files depends on the compression. The capacity of the Jukebox on the 2015 Audi A3 is approximately 11 GB.

The files can be read and imported into the Jukebox via the following interfaces:

▶ DVD drive in J794
▶ SD card reader in J794
▶ Medium connected to USB connection of Audi music interface (USB stick, USB external hard drive etc.)

Music on audio CDs and videos on video DVDs cannot be imported. DRM-protected files cannot be read.

Jukebox menu   *618_057a*

Album browser   *618_031a*

SIM card reader

The mini-SIM card reader is only installed on the High-spec MIB system with the Audi connect option.


SIM card reader   *618_059*

Front Information Display Control Head J685

On the Modular Infotainment System, an *LVDS** signal is used for video transmission from Information Electronics Control Module 1 J794 to Front Information Display Control Head J685.

With the Standard MIB, the video output resolution is 400 x 240 pixels, and on the High-spec MIB 800 x 480 pixels.

J794 is connected to Front Information Display Control Head J685 via a private sub-bus CAN system. This CAN bus has a data transmission rate of 500 kbit/s. J794 uses it to control and monitor system statuses on the MMI® display (for example, On/Off, temperature, error status, etc.)
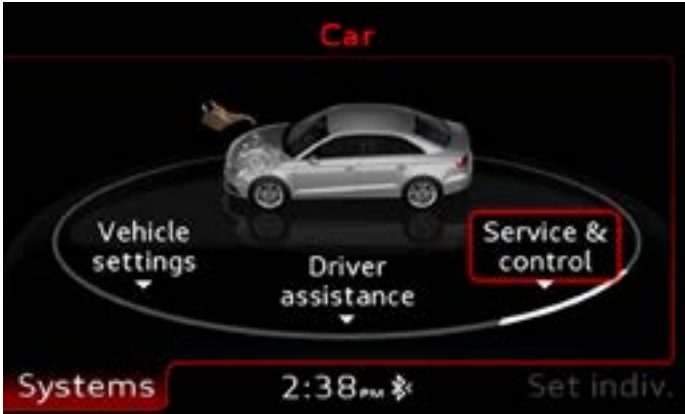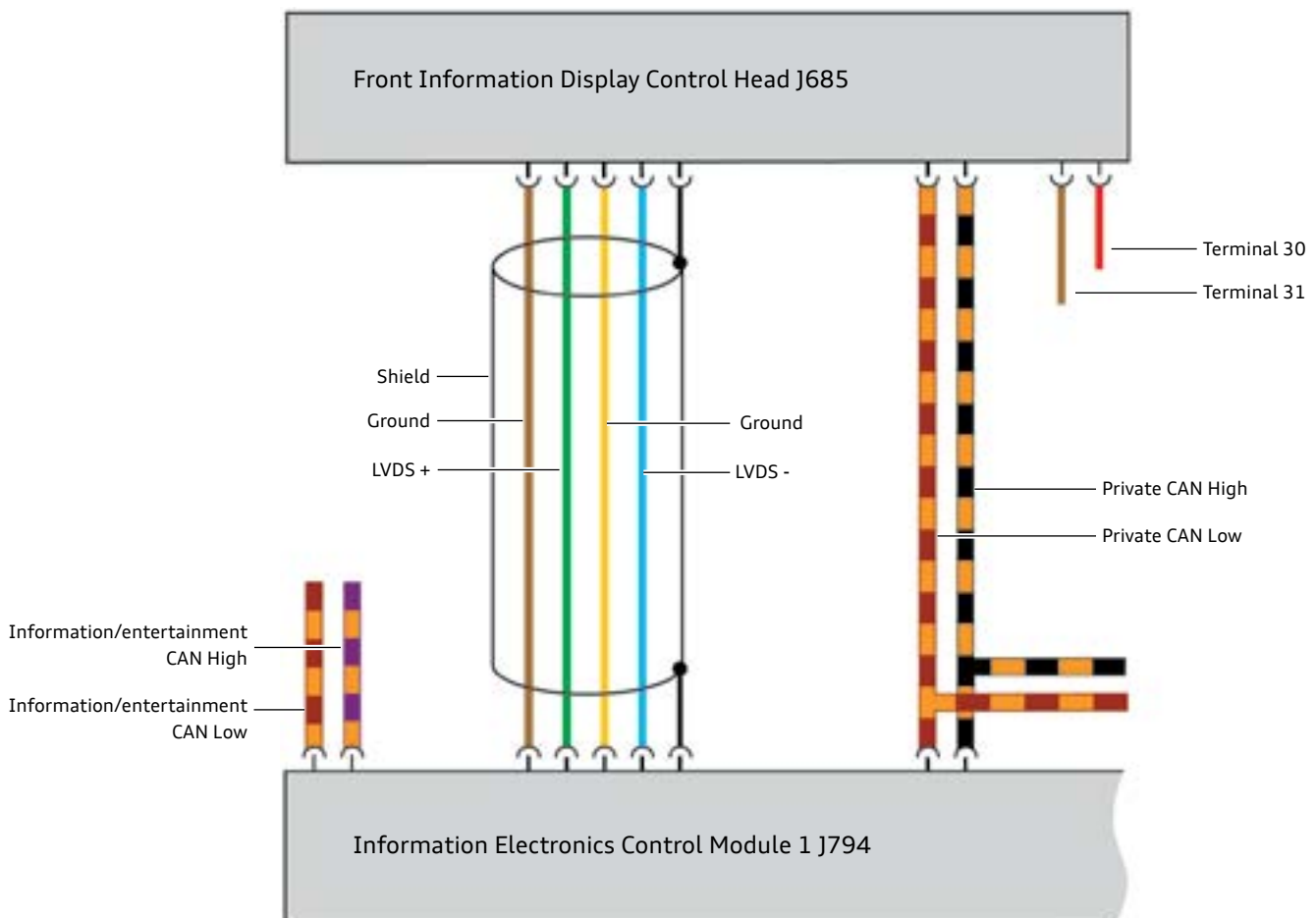

5.8" display for Standard MIB   618_019
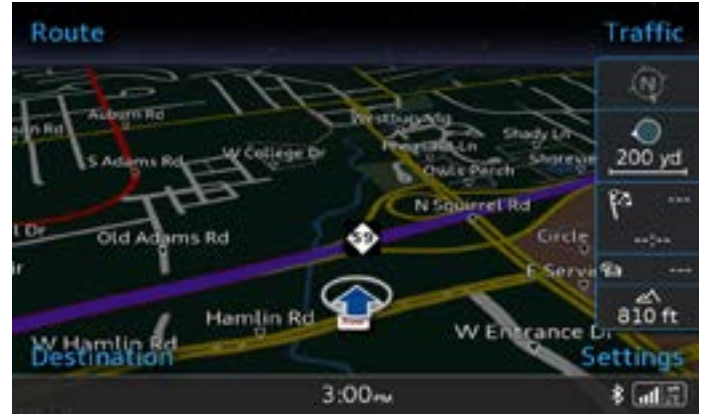
7.0" display for High-spec MIB   618_036

Connection concept for MMI® display J685   618_037

Video transmissions to J794

Video signals from up to four different sources for can be viewed on the MMI® display.

- ▶ TV tuner R78 (not for the US market)
- ▶ DVD changer R161 (High-spec MIB only)
- ▶ A terminal device (for example, iPod) connected to the Audi music interface (AMI)
- ▶ Rear View Camera System Control Module J772

The images from the various sources are transmitted to J794 via different routes.

TV Tuner R78 and DVD Changer R161

The TV Tuner R78 and the DVD Changer R161 send the video signal to J794 via the MOST bus. (TV Tuner R78 is not available in the North American region.)
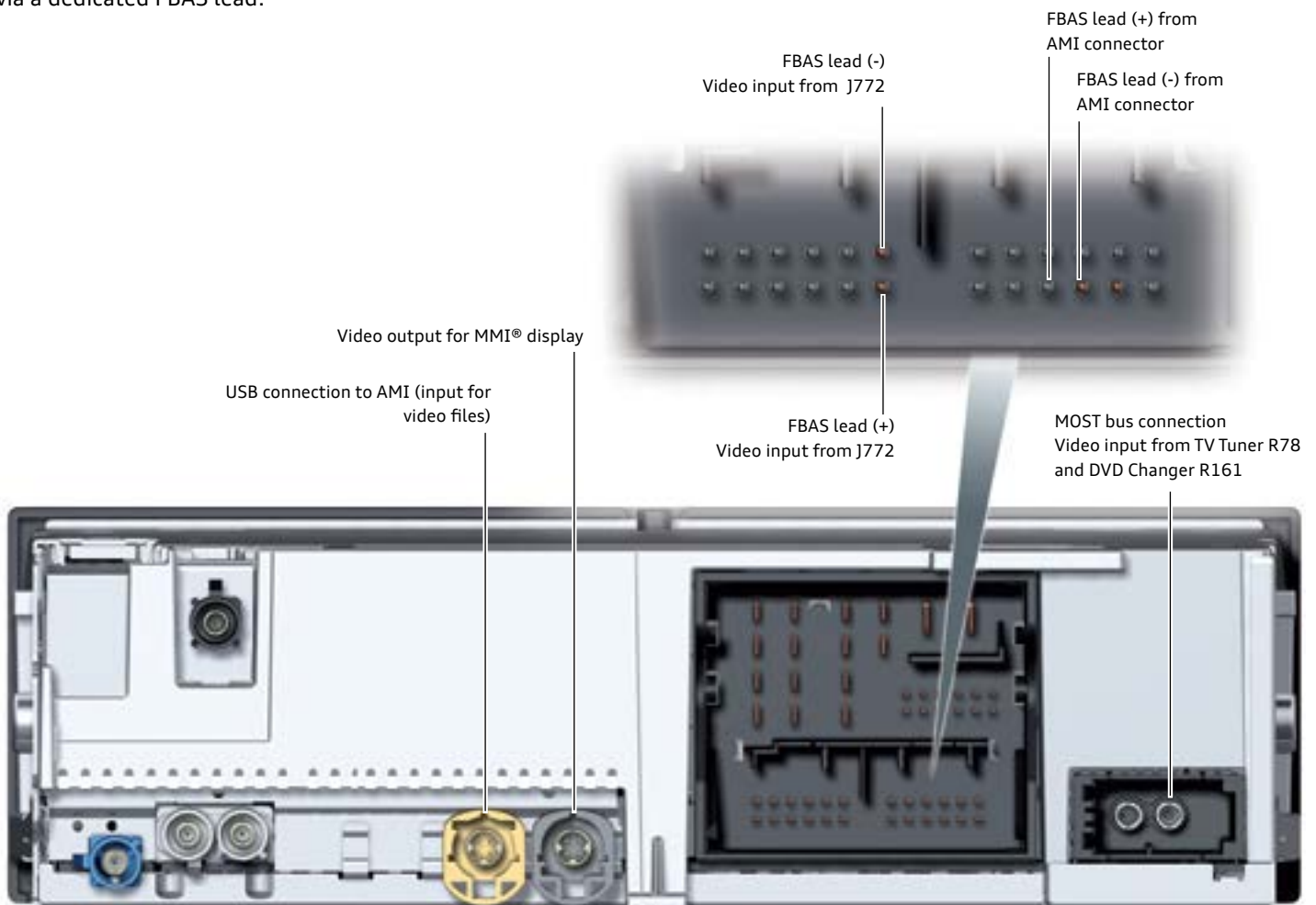
Rear View Camera System Control Module J772

The images from J772 are sent to J794 as finished images via a dedicated FBAS lead.
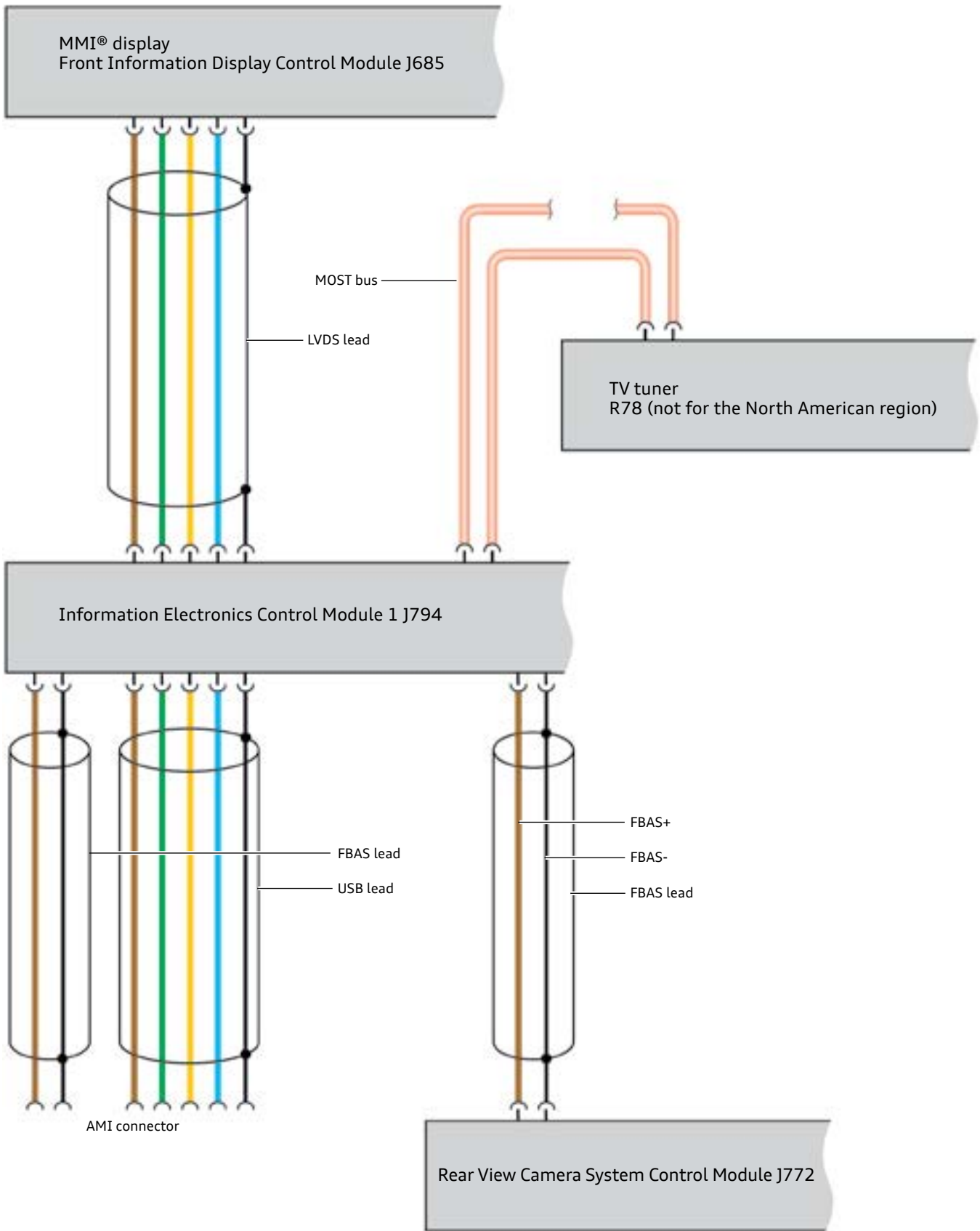
Terminal device on Audi music interface (AMI)

With the AMI, a distinction is made between two possible video sources. They transmit the video signal by two different routes:

1. Video sources that provide finished images as an *FBAS** signal. Example: an image transferred from an iPod using the iPod adapter plus (red kink preventer) to the J794 via the FBAS connection on the AMI connector.

2. Video sources that provide a video file. Example: a video file on a USB stick is transferred to the J794 using the USB adapter connected to the USB socket on the AMI. The J794 then converts the file into a video.

FBAS lead (+) from AMI connector

FBAS lead (-) Video input from J772

FBAS lead (-) from AMI connector

Video output for MMI® display

USB connection to AMI (input for video files)

FBAS lead (+) Video input from J772

MOST bus connection Video input from TV Tuner R78 and DVD Changer R161

Video inputs on J794

618_038

MMI® display
Front Information Display Control Module J685

MOST bus

LVDS lead

TV tuner
R78 (not for the North American region)

Information Electronics Control Module 1 J794

FBAS lead

USB lead

FBAS+

FBAS-

FBAS lead

AMI connector

Rear View Camera System Control Module J772

618_039

Schematic diagram of video transmission to J794

Multimedia System Control Head E380

Two different versions of Multimedia System Control Head E380 are available in the North American market. To allow even more intuitive operation, the number of buttons on the control units has been optimized compared to the previous systems. There are now two new rocker buttons which can be used to choose between two menus in each case.

The volume control also has a right/left rocker action. It can be used to skip backwards or forwards to the previous/next track on the Music menu, for example.

The control panels are connected to Information Electronics Control Module 1 J794 via a private CAN bus.

If the vehicle is equipped with MIB Standard (MMI® radio), the following functions are available:

- Tone
- CAR
- Phone
- Media

If the vehicle is equipped with the High-spec MIB system (MMI® navigation plus, MMI® navigation plus with Audi connect), the left rocker button is used to choose between Telephone and Navigation. The rotary push button is larger than that used on the MIB Standard version.

Integrated in the rotary push-button is the touch-sensitive input zone (Audi MMI® touch). This can be used to control the following functions:

- Entry of letters, numbers and characters using automatic hand-writing recognition
- Scrolling through album covers
- Operating DVD main menu
- Moving the navigation map

The combination of rotary push-button and MMI® touch is also referred to as the "touchwheel".

MMI® Standard control panel

618_060

High-spec control panel on vehicles with NAV (Audi MMI® touch is standard)

618_062

Key combinations for service on E380

System reset

To restart (reset), the following buttons must be briefly pressed simultaneously:

- Rotary push button
- Top right soft key
- MENU

Engineering menu

The Engineering menu is required, for example, to install a software update. To access the menu, the following buttons must be pressed one after the other and held down:

- BACK
- Top left softkey

Button combination for system reset

618_063

Button combinations for the Engineering menu

618_064

Screenshot

Screenshots of the current MMI display can be taken and saved. To save them, an SD card must be inserted in the SD card reader. There are different procedures depending on the MMI system installed in the vehicle.

After inserting an SD card into the SD reader, press and hold the following keys one after another.

▶ The bottom left soft key
▶ The bottom right soft key

The display screen will turn white when the screenshot is being saved to the SD card.

618_060

MMI® Standard control panel

Press and hold the following keys one after another.

▶ The bottom left soft key
▶ The bottom right soft key

The display screen will turn white while the screenshot is being saved. The screenshots are saved to the solid state drive (SSD) on these systems.

To download these screenshots, two special script files must first be loaded on an SD card. When the SD card is inserted into the SD reader, the screenshots will download automatically. When they have finished downloading, the following text message will be displayed on a green background: completed successfully

618_065

MMI Navigation plus
MMI Navigation plus with Audi connect

There is only space for 50 screenshots allotted on the SSD. The 51st screenshot will overwrite the first screen shot taken and so on.

The script files needed to download screenshots from these systems will be made available to the dealer network at a later date.
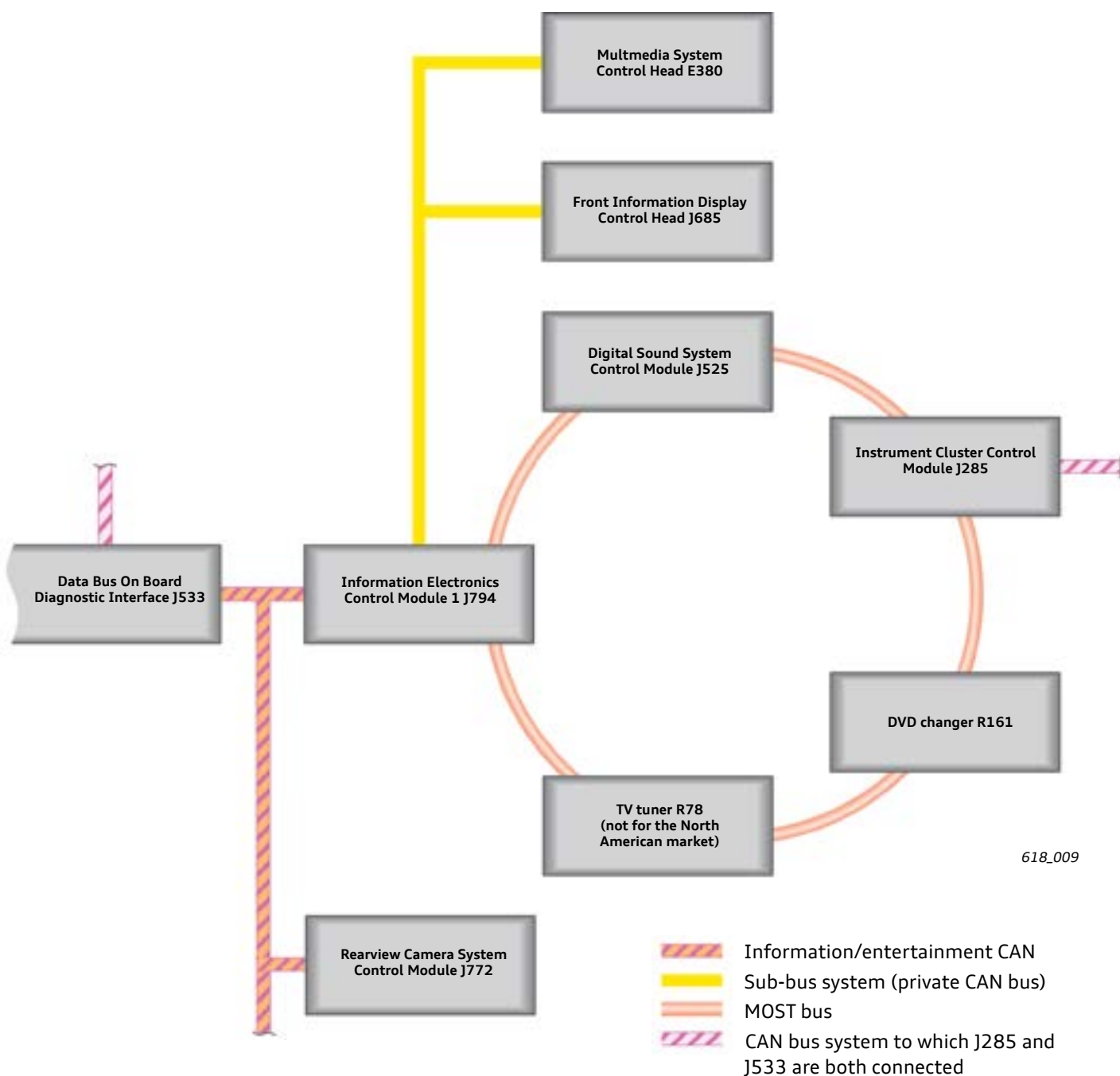
Network systems

Information Electronics Control Module 1 J794 is connected to Data Bus On Board Diagnostic Interface J533 via the Information/Entertainment CAN on all versions of the MIB. This is a high speed bus with a data transfer rate of 500 kbit/s.

For the first time, Front Information Display Control Head J685 and Multimedia System Control Head E380 are connected to J794 via a private CAN bus. This is also a high speed bus with a data transfer rate of 500 kbit/s.

If Digital Sound System Control Module J525 is installed, the system is also equipped with a MOST bus. This is the first time an Audi vehicle will have both the Information/Entertainment CAN and the MOST bus.

Due to the combination of the information/entertainment CAN and the MOST bus, a break on the MOST bus does not result in complete failure of the MMI®. All functions which are carried out directly on the J794 remain available. However, audio signal output via an external amplifier would not be possible.

Block	Label
Multmedia System Control Head E380	
Front Information Display Control Head J685	
Digital Sound System Control Module J525	
Instrument Cluster Control Module J285	
Data Bus On Board Diagnostic Interface J533	
Information Electronics Control Module 1 J794	
DVD changer R161	
TV tuner R78 (not for the North American market)	
Rearview Camera System Control Module J772	

618_009

Information/entertainment CAN
Sub-bus system (private CAN bus)
MOST bus
CAN bus system to which J285 and J533 are both connected

Optical data bus system MOST150

History

The first optical data bus, MOST25, was introduced on the 2004 Audi A8. The data bus system was named after a group known as the "Media Oriented Systems Transport (MOST) Cooperation". This group is made up of various automobile manufacturers, their components suppliers and software companies, who joined forces to create a standardized high-speed data transfer system.

The term "Media Oriented Systems Transport" refers to a network designed for transmission of media-based data. This means that, unlike in the CAN data bus, address-oriented messages are sent to a specific recipient. This technology is used in Audi vehicles to transfer data within the infotainment system. The data transfer rate on the MOST25 bus is approximately. 25 Mbit/s.

MOST150

With the arrival of the Modular Infotainment System, the MOST150 is being used by Audi for the first time. This developmental stage in MOST technology is six times faster than the MOST25 bus. The development process necessitated various modifications to MOST components. The transmitter and receiver units had to be adapted, for example. Other components such as the optical connectors, the fiber-optic cables or the electrical connectors for the control units are identical to those for the MOST25.

With the advent of the MOST150, the video signal from the DVD Changer R161 is transmitted directly via the optical data bus for the first time. A separate FBAS connection on J794 as with the MOST25 is no longer installed.

System and diagnostics manager

With the Modular Infotainment System, a maximum of five control units are connected to the MOST bus:

▶ Information Electronics System Control Module 1 J794
▶ Digital Sound System Control Module J525
▶ TV tuner R78 (not for the North American market)
▶ DVD changer R161
▶ Instrument Cluster Control Module J285

With the MIB, J794 performs the function of the system manager for the MOST bus as well as being the diagnostics manager. That was previously the job of J533.

Diagnosis

The Address Word for J794 is 5F. It is the same for all MIB versions.

The Modular Infotainment System J794 is also the diagnostics manager for ring break diagnosis.

Ring break diagnostics

The procedure for ring break diagnosis is the same as with the previous MOST bus system. However, with the MIB, the testing program for ring break diagnosis is accessed using Address Word 5F.

Although the ring break diagnosis sequence has remained the same, new special tool VAS 6778 must be used.

Optical substitute control unit VAS 6778   *618_067*

Bluetooth interfaces

The Modular Infotainment Platform offers two different ways of using a phone and other Bluetooth devices in the car. They are:

▶ Bluetooth interface for MMI® radio
▶ Bluetooth interface for MMI® navigation plus and MMI® navigation plus and Audi connect

HFP   A2DP

618_069

Simultaneous connection of two devices to MMI® using Bluetooth
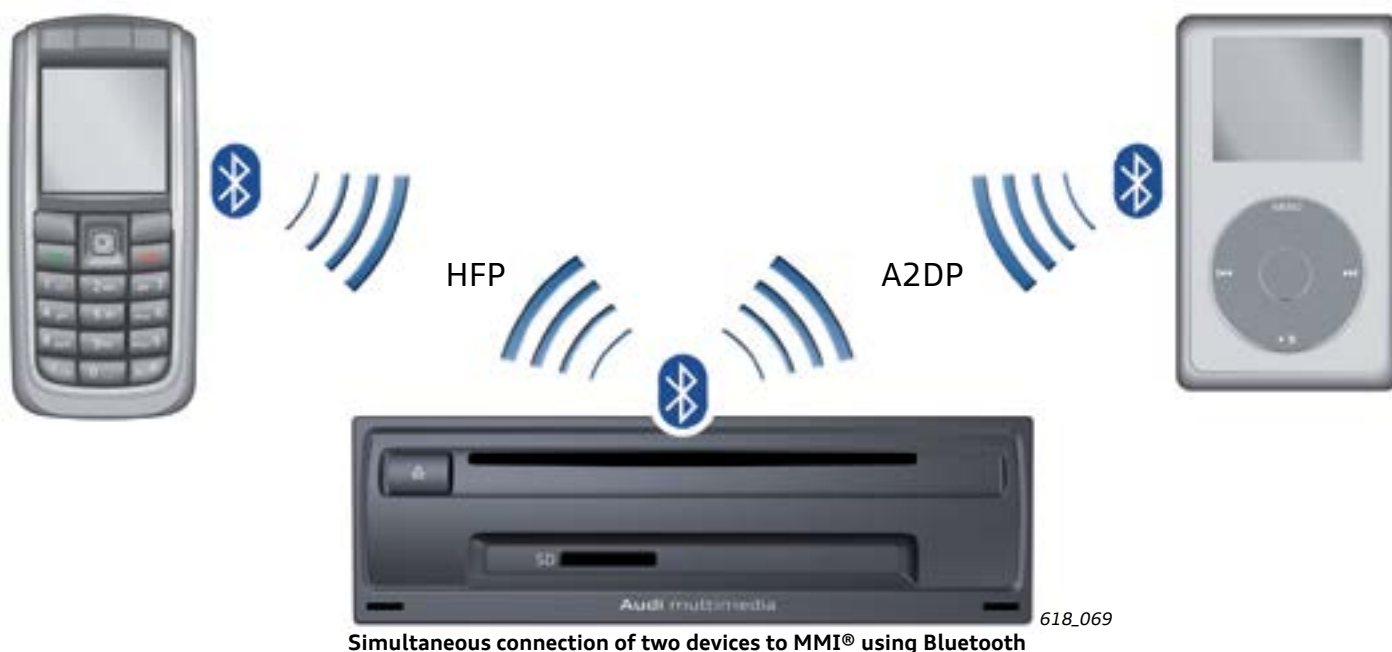
Bluetooth interface for MMI® radio

Using the Bluetooth interface, a mobile phone can be paired with the MMI® by means of the Hands-Free Profile (HFP). With this connection method, the mobile phone's address book is also imported using the Phonebook Access Profile (*PbAP**). Using the voice control facility, drivers can make phone calls without taking their hands of the steering wheel.

The Bluetooth interface also supports Bluetooth audio streaming. This requires connection of a Bluetooth-enabled device to the MMI via the A2DP Bluetooth profile.

The Bluetooth-enabled device can also be controlled via the *AVRCP** Bluetooth profile. The AVRCP specification supported by the MIB is 1.3.

If a mobile phone is connected using HFP, a second device can be simultaneously connected using A2DP.

The PR number for the Bluetooth interface is 9ZX.

! **Note**
The functions of the telephone option 9ZX are also supported by options 9ZE and 9ZK.

📖 **Reference**
Information on which functions of various mobile terminal devices are supported by Audi vehicles can be found in the database for mobile terminal devices at www.audi.com/bluetooth

Bluetooth interface for MMI® navigation plus and MMI® navigation plus with Audi connect

If a vehicle is equipped with MMI® navigation plus, Information Electronics Control Module 1 J794 is not equipped with a telephone module. If a vehicle is equipped with MMI® navigation plus with Audi connect, Information Electronics Control Module 1 J794 is equipped with a telephone module and a SIM card reader.

This option also incorporates all the Bluetooth interface functions. For example, a mobile phone can be connected by means of the Hands Free Profile (*HFP**). In this case, the telephone module in J794 is not used.

The telephone module installed in the J794 is designed for *GSM** and *UMTS** networks. On vehicles with MMI® navigation plus with Audi connect, this is done by inserting a SIM card in the SIM card reader.

The mobile network standard currently in use is displayed at the bottom right of the MMI® screen. For the GSM network it shows 2G and for the UMTS network it shows 3G. If a data connection is also active, a two-headed arrow also appears.

Telephone module in J794

618_072

J794 with SIM card reader

618_059

Indication of mobile phone network

618_074a

GSM reception

Data connection

UMTS reception
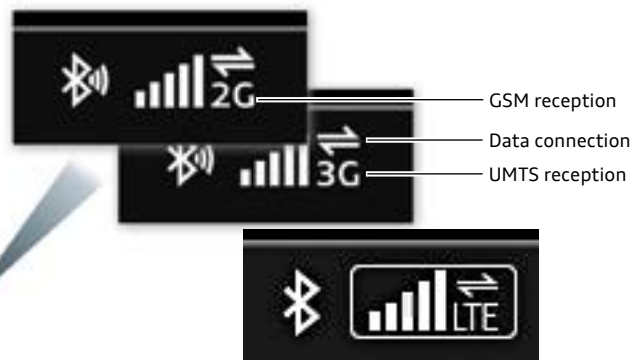
! **Note**
To be able to receive data from the internet for Audi Connect services, the sim card inserted in the J794 must be activated.

Reference
Information on which mobile phones support the SIM Access Profile can be found in the database for mobile terminal devices at www.audi.com/bluetooth

List of Bluetooth profiles supported

Bluetooth profile	Hands-Free Profile HFP	Phonebook Access Profile PbAP	SIM Access Profile SAP	Advanced Audio Distribution Profile A2DP	Message Access Profile for *SMS* MAP	Message Access Profile for e-mail MAP
Telephone option						
Bluetooth interface (9ZX)	✓	✓		✓		
Audi Connect (9ZK)	✓	✓	✓	✓	✓ 1)	✓ 1)
[1] = only with High-spec MIB						

Bluetooth profile symbols on Telephone menu

! **Note**
The MMI® only shows the Bluetooth profiles (connections) supported by the mobile phone.

Audi Connect

Overview

Audi connect is a wireless/internet-based system which brings together applications that connect present-day and future Audi models with the internet. Audi connect brings the benefits of an increasingly networked world into the vehicle; services supported by Audi connect are tailored for in-vehicle use. They offer the driver more information with a great level of precision, permit intuitive operation through MMI® Navigation plus interface and can make driving even more comfortable.

618_077b
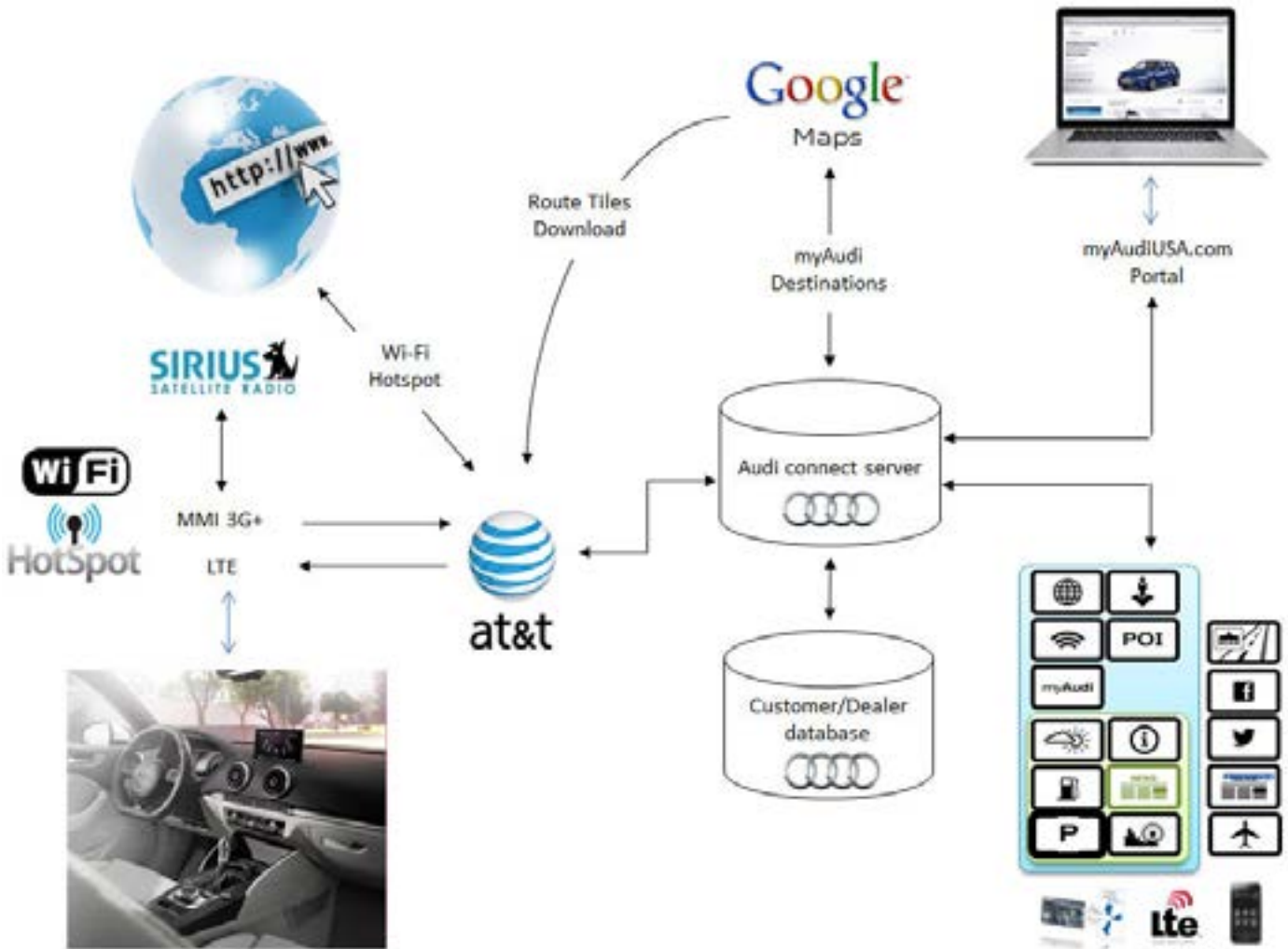
618_077c

Audi connect requirements

The following requirements must be met in order to use Audi connect services:

▶ Audi MMI® Navigation plus with Audi connect

▶ The vehicle must be in an area covered by the current service provider.

▶ A SIM card configured for Audi connect services with a data package from the current service provider must be inserted in the SIM card reader.

Communication with the internet is via the integral roof antenna, over the vehicle's own UMTS or *LTE** data module. One advantage of the integral roof antenna is that it provides the best connection possibility when driving.

618_077d

Audi connect advantages

▶ **Always online**: the internet connection is wireless.

▶ **Relevant content**: Audi connect in the vehicle exclusively delivers applications and services that enhance driving pleasure and comfort.

▶ **Speed**: UMTS and LTE assure swift data transmission and are also capable of handling complex, data intensive services.

▶ **Intuitive control**: all Audi connect services must meet the criterion of being easy to operate, while assuring high driving safety.

▶ **More information**: the vehicle's connectivity provides access to real-time information, such as weather and news.

▶ **More comfort**: many services make driving simpler because they are tailored entirely to the everyday processes that need to be carried out in the vehicle - for example, navigation.

▶ **More infotainment**: access to the wide range of online based services permits an almost limitless selection of entertainment and information sources.

▶ **More communication**: Audi connect makes it possible to stay in touch even while driving.

Audi connect availability

Audi connect is available to the customer in the following models:

▶ MMI® 3G+ system: Audi A4, A5, A6, A7, A8, Q5, Q7

▶ Modular infotainment platform (MIB) system: Audi A3

With the introduction of the MIB on the 2015 Audi A3, more features are available to the customer.

Audi connect feature overview

		MMI® 3G +	MIB
🌐	Google Earth	X	X
⬇	Google Street View	X	X
POI	Google Voice Local Search	X	X
POI	Google Local Search	X	X
📶	Wi-Fi Hotspot	X	X
myAudi	myAudi Destinations	X	X
☀	Weather	X	X
ⓘ	Travel Information	X	X
⛽	Fuel Prices	X	X
NEWS	News	X	
P	Parking Information	X	X
🎡	City Events	X	X
🖼	Picture Navigation		X
✈	Flight Information		X
f	Facebook		X
🐦	Twitter		X
NEWS	Personalized News		X
SiriusXM	SiriusXM Traffic	X	X
	Audi connect Mobile Application (not available at launch)		X
	3G Data Connection Capability	X	
📶	LTE Data Connection Capability		X
	MapCare-SD Card Navigation Map Updates		X

myAudi

myAudi is the personal area of the Audi website where a wide range of services is available. The website is the central point of contact for using and configuring the services supported by Audi connect. For example, myAudi can be used as a platform for transferring navigation destinations from the home PC to the car.

Many of the services supported by Audi connect can be personalized further through my Audi. With the 2015 Audi A3, these services include access to Facebook and Twitter, individual news online and much more.

Various services supported by Audi connect can be adapted by every myAudi user to meet their individual requirements. This is even possible if two or more people use a vehicle. In this scenario, each driver with a myAudi account can personalize the Audi connect services and then use them in the vehicle. For example, the top priority for one driver may be to access Facebook and Twitter in the vehicle, while another driver may want individual news online with personalized *RSS** feeds.

618_077e

Audi connect app (2015 Audi A3)

The Audi MMI® connect app completes the range of Audi connect services and makes a selection of theses services available outside the vehicle. The app is available for a wide range of smartphones and supports both Android (from 4.0) and iOS (from iOS6) systems. Its use requires an existing myAudi user account in which the corresponding vehicle is registered. After installing the app on a smartphone it will support the following services:

▶ **Online destinations**: for the point of interest (*POI**) search via Google maps. This allows transferring points of interest from myAudi or Google maps so they can be used as destination points.

▶ **Picture book navigation**: for managing and synchronizing the photo box. This provides the option of saving photos with geo-positioning data and sending them to the vehicle.

▶ **Audi music stream**: allows searching for and listening to online radio stations as well as access to the smartphone media library. To use this service, an active Wi-Fi connection between the customer's smartphone and the MMI® navigation plus is needed.

618_077f

618_077g

Navigation and mobility

Destination entry via myAudi or Google Maps

The internet platform of myAudi in conjunction with Google Maps allows you to send individual navigation destinations to the vehicle. These are loaded into the MMI® navigation plus at the start of a trip.

Note: mobile route planning is also possible when away from the vehicle through the Audi connect app. The customer can transfer navigation destinations to their Audi directly from the app.

Navigation with Google Earth and Google Street View

Google Earth images, with high-resolution aerial and satellite pictures, photos, terrain information, roads and business entries can be used to determine driver destination routes. With Google Street View, the destination can already be explored virtually before and during the journey in the MMI® display, with a genuine 360° view.

In the A3, Google Street View is linked to the picturebook navigation Audi connect service. Current Google Street View images can then be saved and used for picturebook navigation.

myAudi special destinations

The special destinations feature of myAudi allows the navigation system to be used as a personal road atlas. POI lists such as preferred shops, ATMs, pharmacies, danger spots, filling stations, and Audi dealers or ones downloaded from the internet can be managed via myAudi. In addition, each destination list can be allocated a separate symbol so they are easily recognized.

Picturebook navigation

Customers will be able to save photos with GPS data from their camera, mobile phone and PC on the hard drive of the MMI® navigation plus (with MMI® touch) and use them as navigation destinations. Using the Audi MMI® connect app, the pictures are transferred directly from the smartphone, via myAudi, from an SD card or USB stick. Google Street ViewTM* images can also be transferred directly to the vehicle. Once saved in the photo box, all the destinations can be simply browsed using Cover Flow. Then the desired photo can be chosen for navigation and the journey can begin.

Map update service

For the 2015 Audi A3, five free navigation updates will be provided. Updates are released twice a year and they will be downloaded from the myAudi platform at www.audi.com/myAudi to a personal computer and then transferred to the vehicle via SD card.

Flight information

On vehicles equipped with the MIB platform (2015 A3) the flight information service supported by Audi connect supplies all relevant data such as departure and arrival times, reported delays and the gate number directly to the MMI® display.

⛽ Fuel prices

The fuel prices function supported by Audi connect uses an online database to list the cheapest gas stations at the destination or at the current location. The results can be sorted by price or distance if desired. In the Audi A3 (MIB), the results can also be read out at the push of a button or adopted as a destination. The latest Audi A3 family even takes into account the correct fuel type before starting a search.

P Parking information

The Audi connect service parking information allows the driver to look for vacant parking spaces and multi-story car parks at the current location, destination or any other location. The results are shown together with detailed, up-to-the-minute information in the display of the MMI® or can also be listened to in vehicles with the MIB platform. In addition to showing the address and price details, the system shows information on how many parking spaces there are and how many are currently free.

Traffic information - Sirius

Current traffic data for main roads, secondary roads and expressways is updated by the minute through the Sirius radio service. Color-coding (red, orange or green depending on traffic volume) of sections of the route simplifies navigation by alerting the driver of traffic jams or slowdowns.

Communication

Wi-Fi hotspot

The WiFi hotspot gives your vehicle occupants internet access inside the vehicle. They can then use the internet to Skype, chat, play online games or check emails on their tablet or laptop. Depending on the service area, they can connect at the transmission rates of UMTS or LTE.

Access to Facebook and Twitter

Audi connect supports the popular social media services Facebook and Twitter on vehicles with the MIB structure. Posts received can now be read out while driving, and drivers can compose their own posts using prepared text modules.

City events

The city events service from Audi connect simplifies planning leisure activities. Users can search for concerts, theatre events, cinemas, tours and activities, museums and galleries, sports events, trade shows, clubs and night life, as well as places of interest. Not just at the destination or current location, but at any chosen location. The search results include the venue's address, the linear distance from the current location, the event's start time, plus, where available, the telephone number for the venue.

News online (individual)

The service displays news in picture and text form in the MMI® display. In the vehicles with the MIB structure (2015 Audi A3) it is possible to adapt news sources to personal preferences (using web-based RSS feeds). The users sees only news items of personal interest on the MMI® display, or optionally has them read aloud provided the news content provider supports this function. The user can choose from leading international news content providers for this function.

Travel information

Travel information from Audi connect provides content about places of interest at the destination or any other place. A search engine draws on the content of an online database to supply background information, photos and the addresses for the most popular places at the destination. A list of alternative places of interest, arranged in order of distance, is also shown.

Weather

Audi connect supplies precise information on the weather at the current location or destination – and also shows what weather to expect over the next few days. With detailed temperature and cloud levels information, along with precipitation radar images.

Glossary

Here are the explanations of all the terms written in italics and marked with an asterisk in this eSelf-Study Program.
It also lists other abbreviations used in the field of information and entertainment systems.

(ID3) tag
Additional information (for example , title, artist) in an MP3 file.

A2DP (Advanced Audio Distribution Profile)
Bluetooth profile for transmission (streaming) of hi-fi audio signals via a Bluetooth channel.

AAC (Advanced Audio Codec)
Compression standard for audio files used by online music stores (for example, iTunes) or internet radios.

ASF (Advanced Streaming Format)
A digital audio and video format developed by Microsoft and designed specially for streaming.

ASX (Advanced Stream Redirecting)
Enables playback and combination of WMV or WMA files in Windows Media Player.

Aux-In
Signal input on audio amplifiers to which any device with line output can be connected.

AV input (audio/video input)
Signal input on video players.

AVI (Audio Video Interleave)
A video format defined by Microsoft that stores audio and video files in interleaved format.

AVRCP (Audio Video Remote Control Profile)
Bluetooth profile for controlling audio and video devices.

CD (Compact Disc)
Optical storage medium consisting of a metal-coated plastic disc onto which data is written using a laser.

CD-R (Compact Disc Recordable)
CD onto which data can be written once only.

CD-RW (Compact Disc ReWritable)
Rewritable CD.

DAB (Digital Audio Broadcasting)
Digital transmission standard for terrestrial reception of radio stations.

DAB+
Advanced version of DAB which enables more radio stations per frequency.

DivX
A form of video compression that is used primarily to highly compress large files without loss of quality.

DMB (Digital Multimedia Broadcasting)
Digital transmission standard for terrestrial reception of video and audio transmissions.

DRM (Digital Rights Management)
Means of protecting or charging for media (for example, Napster on the internet).

DVBT (Digital Video Broadcasting – Terrestrial)
Digital transmission standard for terrestrial TV signals (i.e. signals transmitted on the ground).

DVD (Digital Versatile Disc)
Advanced version of the CD with a capacity of 4.7 GB in the case of DVDs single-coated on one side.

DVD±R
DVD-R and DVD+R are once-only recordable versions of the DVD.

DVD±RW
DVD-R and DVD+R are rewritable versions of the DVD.

EDGE (Enhanced Data Rates for GSM Evolution) Extended GSM standard for data transmission. Data rate of up to 220 kbit/s.

exFAT (Extended File Allocation Table)
File system developed especially for SSD solid state drives.

FAT (File Allocation Table)
File system developed by Microsoft. FAT16 is used for most types of portable data media up to a capacity of 2 GB.

FAT32 (File Allocation Table)
File system developed by Microsoft. FAT32 is used for portable data media with a capacity of between 2 GB and 32 GB.

FBAS (Farb-Bild-Austast-Synchron-Signal)
Video transmission format in which all signals are transmitted via a single cable.

FLAC (Free Lossless Audio Codec)
Refers to a codec for lossless compression of data.

FM (Frequency Modulation)
Modulation method in which the carrier frequency is modulated by the signal to be transmitted. The frequency is in the range of 30 kHz to 300 kHz.

GIF (Graphics Interchange Format)
Special graphics format for compressing images with low color depth.

Gracenote
Database owned by the company Gracenote. It contains details of the audio CDs currently on the market (for example, title, artist, genre, playback time).

GSM (Global System for Mobile Communications)
International standard for digital mobile phone networks that is used mainly for telephony but also for data transmission and text messages.

HFP (Hands Free Profile)
Bluetooth profile that allows a mobile phone to be associated with the vehicle's hands-free system.

HSDPA (High Speed Downlink Packet Access)
Extended UMTS standard with data transmission rates of up to 7.2 Mbit/s.

HSP (Headset Profile)
Bluetooth profile that enables communication with a headset.

JPEG (Joint Photographic Expert Group)
Special image data format used for compressing image files.

LTE (Long Term Evolution)
A standard for wireless communication of high-speed data for mobile phones and data terminals.

LVDS (Low Voltage Differential Signaling)
File transmission format in which the signals are transmitted via two low-voltage cables.

M3U
Open-source playlist file format used for saving playlists.

m4a (MPEG-4 audio)
MPEG-4 file for audio content

m4b (MPEG-4 audio book)
MPEG-4 file format for audio books

m4v (MPEG-4 video)
MPEG-4 file for video content

MIB (Modular Infotainment System)
Name of a cross-platform modular system for information and entertainment system components.

MMC (Multi Media Card)
Digital memory card

MPEG (Moving Pictures Expert Group)
Expert group concerned with the standardization of video compression methods.

MPEG-1/-2 Layer 3
File format for compression of audio files with minimal impairment of sound quality. The commonly used file extension is ".mp3".

MPEG-2/-4
MPEG-2/-4 formats are used for video and audio compression for applications such as DVDs (MPEG-2) and mobile phones (MPEG-4).

MPEG-4 H.264 (AVC)
Standard for highly efficient video compression that can be used for numerous applications such as HDTV, digicams or portable video (for example, mobile phones, iPod).

MW (medium wave)
Electromagnetic waves in which the signal to be transmitted produces amplitude modulation (AM). The frequency is in the range of 300 kHz to 3000 kHz.

NTFS (New Technology File System)
File system developed by Microsoft.

OGG
(Also known as OGG Vorbis) File format for multimedia files.

OPP (Object Push Profile)
Bluetooth profile for sending individual files (for example, address cards or images).

PAL (Phase Alternation Line)
Method of analogue transmission for color TVs. For every second screen line the red color difference signal is transmitted with a 180° phase shift from the previous line. This makes transmission errors less noticeable to the viewer.

PBAP (Phone Book Access Profile)
Bluetooth profile that enables transmission of phone book/contact entries.

PIN (Personal Identification Number)
The numerical code used, for example, , on mobile phones as a password for enabling association and access to the phone data.

POI (Point of Interest)
A specific point location that someone may find useful or interesting.

Podcast (made-up word from "iPod" and "broadcast")
A podcast is a downloadable internet media file (audio or video) which users can also subscribe to.

PR. No. (primary feature number)
Number used to identify the individual equipment features of a vehicle.

IMEI (International Mobile Station Equipment Identity)
The IMEI is a unique 15-digit serial number by which every GSM or UMTS terminal device can be uniquely identified.

PLS (playlist)
File format used for saving playlists.

PNG (Portable Network Graphics)
Special graphics format developed for lossless compression.

RDS (Radio Data System)
Radio data system

RSS (Rich Site Summary or Really Simple Syndication)
Format for broadcasting information and changes to it on the internet.

RSS feed
Refers to RSS pages on the internet.

SAP (SIM Access Profile)
Bluetooth profile that directly accesses the data on the mobile phone's SIM card. Also known as rSAP (remote SIM Access Profile).

SD (Secure Digital Memory Card)
Secure digital memory card, for example, used for MP3 players, digital cameras

SDARS (Satellite Digital Audio Radio Services)
Digital radio standard for commercial satellite radio in North America.

SDHC (SD High Capacity)
Special SD cards with capacities up to 32 GB based on an extension of the standard. The performance class stated on the card provides an indication of the storage speed.

SDXC (SD eXtended Capacity)
Special SD cards with capacities up to 2 TB (2,048 GB) based on an extension of the standard and a storage rate of up to 104 MB/s.

Secam (Séquentiel couleur à mémoire)
(English: Sequential Color with Memory) Television standard for analogue transmissions used mainly in France an eastern Europe.

SIM card (Subscriber Identity Module card)
Chip card for mobile phones. Identifies the user on the network.

Multi-SIM
Refers to SIM cards that use the same telephone number and phone contract. In Germany, for example, this allows up to three devices to be used on one phone number (for example, mobile phone, Audi connect and laptop).

SMS (Short Message Service)
Service for sending and receiving text messages.

SSD (Solid State Drive)
Digital memory module which supersedes the hard disks so far used.

SSID (Service Set Identifier)
User-definable name for a wireless network.

TFT (Thin Film Transistor)
Technology used for TFT screens, on which three transistors are used to represent each pixel.

TMC (Traffic Message Channel)
Channel for reception of radio traffic data for dynamic navigation.

UDF (Universal Disk Format)
File system for disks.

Universal mobile phone preparation (UHV)
On the MIB also called the Audi Phone Box, has the PR number 9ZE.

UMTS (Universal Mobile Telecommunications System)
Third-generation mobile telecommunications standard (3G) which enables data transmission rates of up to 384 kbit/s.

UPnP (Universal Plug and Play)
The UPnP data protocol is used for controlling devices in a network.

USB (Universal Serial Bus)
Universal serial interface for data communication between a computer and another device.

vCard (electronic address card)
File format used for address cards so that they can be copied directly to an e-mail program. The usual file extension is ".vcf".

WAVE
Compression standard for digital storage of audio files.

WLAN (Wireless Local Area Network)
Wireless local computer network.

wma (Windows Media Audio)
Special audio format for Microsoft Windows.

wmv (Windows Media Video)
Method of video file compression developed by Microsoft. Usual file extensions are ".asf" and ".wmv".

WPL (Windows Media Player Playlist)
Audio file playlist for Windows Media Player.

XviD
A freeware video file compression method based on the MPEG-4 format.

Knowledge Assessment

An On-Line Knowledge Assessment (exam) is Available for this eSelf-Study Program.

The Knowledge Assessment is required for Certification.

You can find this Knowledge Assessment at:
www.accessaudi.com

From the **accessaudi.com** Homepage:

▶ Click on the "ACADEMY" tab
▶ Click on the "Academy site" link
▶ Click on the Course Catalog Search and select "970143 - Modular Infotainment Platform (MIB)

Please submit any questions or inquiries via the Academy CRC Online Support Form
which is located under the "Support" tab or the "Contact Us" tab of the Academy CRC.

Thank you for reading this eSelf-Study Program and taking the assessment.

970143