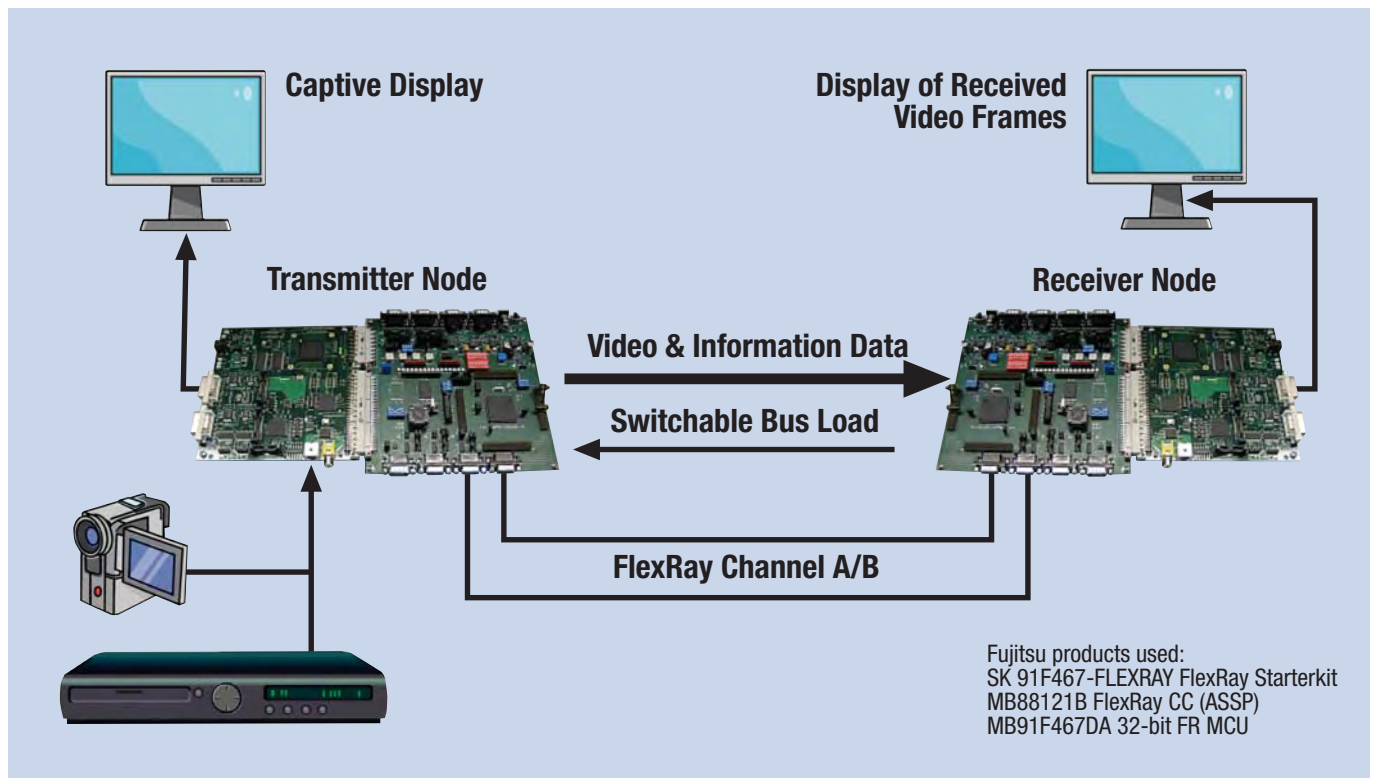


VIDEO VIA FLEXRAY for image data transfer in camera and navigation systems



Demonstrator 1: Video Transfer via FlexRay.

Description

Demonstrator 1 shows how uncompressed real-time image data can be passed through the FlexRay bus system without using all of its bandwidth.

Demonstrator 2 illustrates that even navigation display data can be transmitted efficiently on the FlexRay bus.

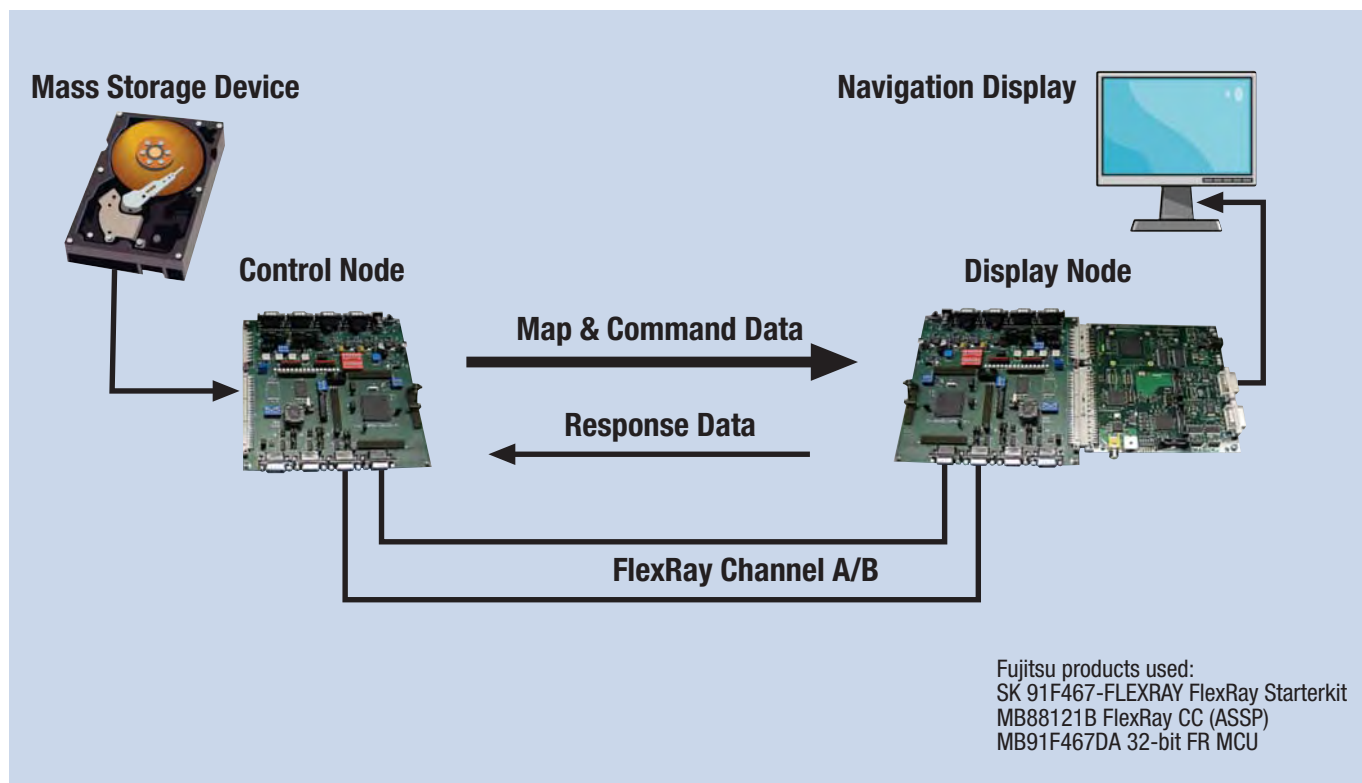
Both demonstrators have been developed in co-operation with the Laboratory for Embedded Systems at the University of Applied Sciences, Aschaffenburg.

Features

- Uncompressed video transmission
 - Selectable dimensions (64 x 48 up to 320 x 240)
 - fps 34,8 fps / 92,5 fps (optimised)
 - 16-bit colour depth
 - PAL video input capturing
- Operation modes
 - Image data via static segment
 - Image data via dynamic segment
 - Different prioritisation schemes (high, middle, low)
 - Semi-redundant transmission
 - Utilising full bandwidth
- Display of
 - Video data
 - Configuration data
 - Statistical (measured) data
- Areas of applications:
 - Low-cost low resolution image data display



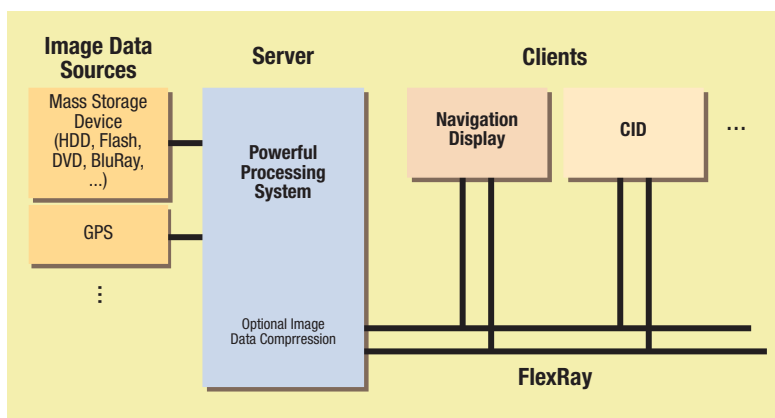
FACTSHEET
IMAGE DATA TRANSFER VIA
FLEXRAY



Demonstrator 2: Navigation display data via FlexRay.

Features

- System Architecture
 - Client-Server architecture
 - Control node providing map data
 - Display node
 - 10Mbit/s, 2-channel FlexRay bus system
- Transmission of map data
 - Only changed data is updated
- Efficient bandwidth utilisation
 - 32kbit/s average for static segment
 - 90kbit/s average when using dynamic segment
- Display of map data
 - 320x240 resolution
 - higher resolution possible
 - 16-bit colour depth
- Area of application
 - Low cost navigation systems



System Block diagram: Image data processing with FlexRay.

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