

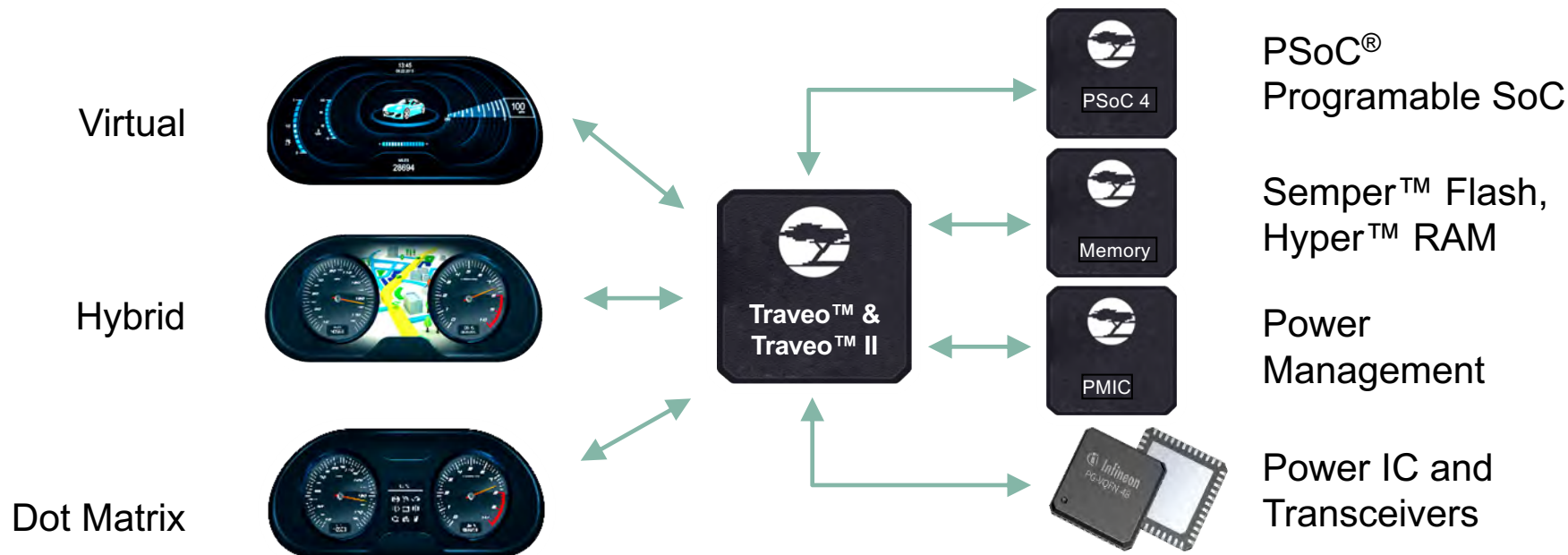


Infineon Solutions for Instrument Cluster

Infineon's virtual show 2020



Infineon's system solution for Instrument Cluster



Dot Matrix & Hybrid Instrument Cluster – block diagram and further product details

Automotive microcontrollers

Traveo™, Traveo™ II

PSoC® 4

Automotive power ICs

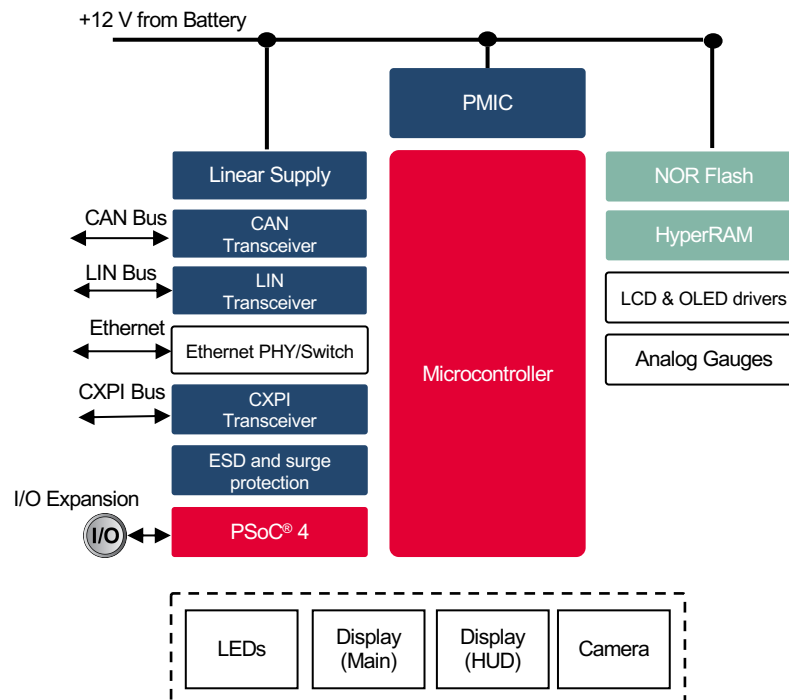
PMICs: OPTIREG™ & S6BPxxx

Linear supplies: OPTIREG™

Connectivity ICs

Automotive Transceiver

ESD and surge protection*



Automotive memory

Semper™ NOR Flash

HyperRAM™ 2.0

Entry Virtual Instrument Cluster – block diagram and further product details

Automotive microcontrollers

Traveo™ II

PSoC® 4

Automotive power ICs

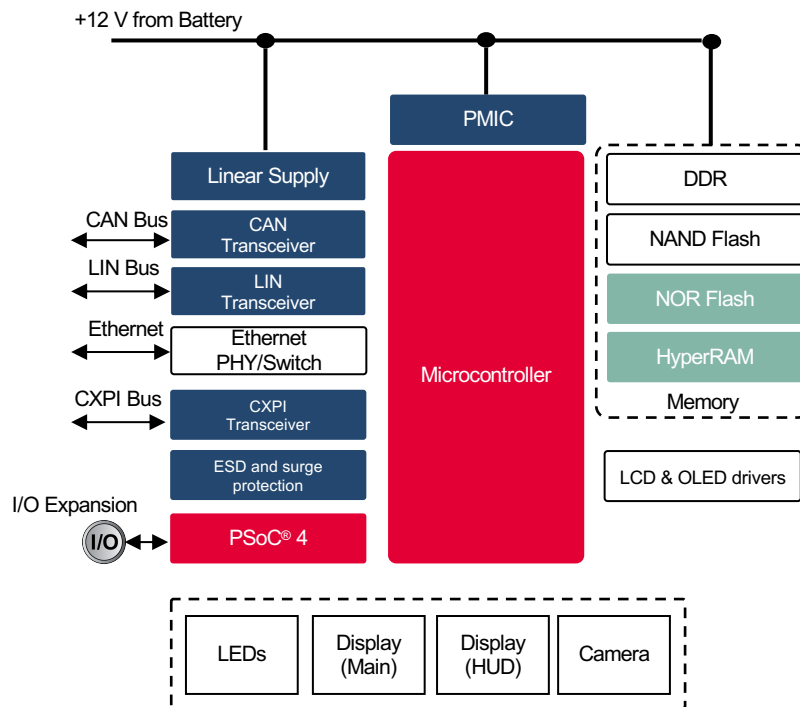
PMICs: OPTIREG™ & S6BPxxx

Linear supplies: OPTIREG™

Connectivity ICs

Automotive Transceiver

ESD and surge protection*



Automotive memory

Semper™ NOR Flash

HyperRAM™ 2.0

High-end Virtual Instrument Cluster – block diagram and further product details

Automotive microcontrollers

Traveo™ II

Automotive power ICs

PMICs: OPTIREG™ & S6BPxxx

Linear supplies: OPTIREG™

System Basis Chip (SBC)

Automotive memory

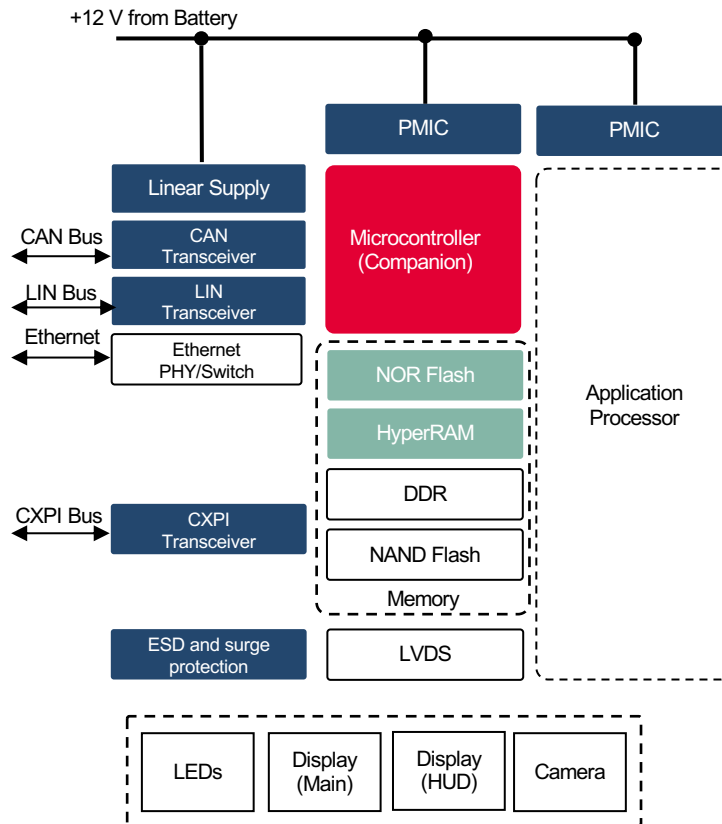
Semper™ NOR Flash

HyperRAM™ 2.0

Connectivity ICs

Automotive Transceiver

ESD and surge protection*



TVII family scales across E/E architecture

most scalable in performance, memory & peripherals



Key features TVII family

Key value



Scalability

Flexible solution with respect to performance, package, memory, peripherals, security & safety implementation



Scalability **optimizes variant costs**



High performance

Single M4 up to dual M7 cores, with dedicated M0+ for security (HSM). Optimized 2.5D graphics engine



Superior graphic performance with low system cost



Low power consumption

Ultra low power consumption in active mode, deep sleep mode, hibernate mode



Save power consumption for system



Functional safety

Functional safety concept enabling ISO26262 ASIL-B full functional safety in both hardware and software



Reliable for both hardware and software



Secured updatability

HSM-Level Security and Read-while-write memory, allowing execution of software (read) while programming (write) for True Firmware-Over-The-Air (FOTA) update



Increased **vehicle updatability** in secure environment

Focus product / Semper™ Flash – safe, reliable, and high-performance flash memory solution



Key features Semper™ Flash family



Functional safety

World's first ISO 26262 ASIL-B functional safety
Compliant Flash memory



Reliability

EnduraFlex™ architecture offering 1+ million
program/erase endurance cycles and 25 years data
retention



High Performance

JEDEC standard xSPI interfaces up to 400 MB/s read
bandwidth and Quad SPI interface up to 102 MB/s



Easy of design

Broad support from chipsets and ecosystem partners.
Semper SDK provides production-grade drivers



Scalability

Density range from 256 Mb to 4 Gb, supporting 1.8 V
and 3 V interfaces, with common feature set

Key value

➤ **Safe storage** for boot code
and ADAS algorithms

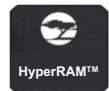
➤ **Reliable data-integrity** for
grades up to +125°C

➤ **Instant-on boot** performance
for instrument clusters and
other systems

➤ Reduce design effort and
Fast time-to-market

➤ Scalability **enables code and
data size changes** without
board re-design

Focus product / HyperRAM™ 2.0 – low-pin-count, high-performance expansion memory solution



Key features HyperRAM™ 2.0 family



Flexibility

Offers both HyperBus and OctalSPI interfaces



Low-pin-count

12-pins interface vs. 40+ pins for parallel interface solutions



Compatibility

Compatible with NOR flash HyperBus interface



Small footprint

Offers a small FBGA package vs. larger packages for parallel interface solutions



Performance

Industry leading HyperBus/OctalSPI performance

Key value

➤ Flexibility **enables multiple chipset options**

➤ **Reduces chipset pin-count** required to interface with memory

➤ **Enables a shared bus to further reduce pin-count**

➤ **Reduces PCB area**

➤ **Best throughput** for expansion memory

Support material



Learn more on our [webpage](#)



Please contact your local Infineon sales office for more details



Part of your life. Part of tomorrow.