KING OF THE ROAD: DESIGNING FOR THE FUTURE OF AUTO TRAVEL

CONNECTED VEHICLE PERFORMANCE

DEPENDS ON COMPUTING HORSEPOWER AND INTEGRATED CIRCUIT INNOVATION FUELED BY THE VALUE CHAIN. ADVANCED ENERGY'S PRECISION POWER TECHNOLOGIES ENABLES THE MANUFACTURING ECOSYSTEM — FROM DESIGN ENGINEERS TO CHIP MAKERS — TO KEEP PACE WITH THE EVER-INCREASING DEMAND FOR ACCELERATED MEMORY AND LOGIC DRIVEN BY TODAY'S SMART CARS.

Long-range RADAR

- ADAPTIVE CRUISE CONTROL
- EMERGENCY BRAKING
- PEDESTRIAN DETECTION

DATA DEMAND™
- 10-100 KB/sec data processing[2]

Driver/Car HMI

- VOICE RECOGNITION
- HEADS-UP DISPLAY

VIRTUAL INTERFACE™
- High-bandwidth memory stack designs
- Analog-to-digital conversion

LiDAR

- ENVIRONMENTAL MAPPING
- BLIND SPOT DETECTION

CHIP DRIVER™
- finFET solid-state LiDAR (SSL) integrated circuit (IC)[1]
- 10-70 MB/sec data processing[2]

Communications

- V2V, V2I, V2X

H2M2M2H CONNECTIVITY™
- Global systems compatibility
- Data encryption and on-chip security intelligence

Cameras

- LANE DEPARTURE WARNING
- TRAFFIC SIGN RECOGNITION
- SURROUND VIEW
- DIGITAL SIDE MIRROR
- PARK ASSIST
- REAR VIEW MIRROR

DATA DEMAND™
- 20-40 MB/sec data processing[2]
- Co-processor architecture
- Ultrasonic processing (parking)

Infotainment

- DATA STREAMING
- STORAGE

HIGH BANDWIDTH/ CAPACITY™
- 1000BASE-T1 Gigabit Ethernet (GbE)[4]
- 280 petabytes daily; 280 million gigabytes per year[5]

In-Vehicle Computing

- CPU/SYSTEM INTELLIGENCE

ARTIFICIAL INTELLIGENCE DEMAND™
- 64-bit multi-core processors[3]
- 3D DRAM, NAND flash data storage[3]

Short- & Medium- Range RADAR

- CROSS-TRAFFIC ALERT
- REAR COLLISION WARNING

DATA DEMAND™
- 10-100 KB/sec data processing[2]

Advanced Energy

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