



Design and Manufacturing Services (DMS) for vehicle display unit

Vehical Display Unit Reference Design Features

- ARM-based Display Computing Unit**
Android or Linux-based Platform for SW
- Automotive rade Power**
Load Dump, Short/Reverse Protection, Overstress
- Outdoor Rugged Display & Touchscreen**
Sunlight readability and glow touch support
- Rugged Design for Vehicle**
Wide-Temperature & Vibration proof
- Wireless Connectivity**
GNSS, VTV, AM/FM, BLE for connectivity
- Digital Inputs**
Positive/Negative Trigger config by SW
- CAN Bus Communication Interface**
Vehicle data communication
- Analog Inputs**
Voltage/Resistive Mode config by SW

Vehicle display units come in various shapes and sizes. Some are compact so they can be mounted in vehicles during factory installation. Others are large displays up to 7-inch to showcase applications, maps, graphics, or others. The display unit needs to have IP67 sealing and must be able to withstand extreme vibration as well as temperature. All the displays have to be readable under the sunlight either from backlight enhancement or optical bonding, Projected Capacitive multi-touch is a must-have function in the vehicle display unit.

The unit will run custom applications under Windows, Linux, or Android. Running Windows operating system on an ARM architecture-based processor is the next big thing. To meet the market's trend and provide customers in the automotive industry, Sysgration has early access support for Windows on the ARM architecture platform from NXP and Qualcomm. A display unit mounted on the vehicle use vehicle power directly from the vehicle battery or through the converters and DC power input is designed to handle transient voltage conditions, load dump, and cold cranking. We designed our power input with wide voltage input ignition sense and short reverse polarity protection to withstand the transient in-vehicle power.

Why Sysgration is your best partner for Design Manufacturing and Services?

Sysgration provides leading-edge technologies and know how to provide design and engineering services including hardware, software, Firmware, Mechanical, Thermal, RF, and Power Designs at component, sub-assembly, and system level. In addition, to ensure constant quality throughout the supply chain, Sysgration as one of the leading Design Manufacturing and Services company for Tier-1 automotive manufacture hold the IATF 16949 certification. All major manufacturing sites have ISO-9001:2008, ISO 14001-2004, SA 8000, IECQ QC 08000, and Sysgration's NanKang factory also awarded with Volkswagen A+ rating (92 points).

