Quick Start Guide

S32G-VNP-EVB3

S32G is a vehicle network processor delivering high levels of real-time and applications processing, supporting CAN/LIN/FlexRay networking and Gigabit Ethernet interfaces with hardware acceleration and delivering a high level of embedded security and ASIL D functional safety capabilities.
GET TO KNOW THE S32G-VNP-EVB3

S32G-VNP-EVB3

The NXP S32G-VNP-EVB3 supports development, evaluation and demonstrations with the NXP S32G2x and S32G3x Vehicle Network Processor (VNP).

S32G targets applications such as:
• Central gateways and domain controllers
• Firmware Over-The-Air (FOTA) updates
• Secure key management, Smart antennas
• High-performance central compute nodes
GET TO KNOW THE S32G-PROCESSOR MODULE

Figure 2: S32G-PROCEVB3-S Processor Module
Figure 3: S32G-VNP-EVB3 Block Diagram
STEP-BY-STEP INSTRUCTIONS

1 Install S32G and Heatsink

Follow the instructions in the S32G-PROCEVB3-S – Silicon mounting guide to install the S32G and heat sink.
For fan usage instructions refer to the S32G3-VNP-EVB User Guide

2 Connect the Power Supply

When the S32G-PROCEVB3-S is stacked on the S32GRV-PLATEVB: Jumper J96 on the S32G-PROCEVB3-S should be in position 1-2, and only the S32GRV-PLATEVB needs to be powered. Connect power supply to the 12V power jack P3 on S32GRV-PLATEVB.

When the S32G-PROCEVB3-S is used standalone: Jumper 96 should be in position 2-3. Connect power supply to the 12V power jack P1 on S32G-PROCEVB3-S.

3 Install Software

Install the following….
✓ Tera Term for console
✓ FTDI CDM v2.12.28 WHQL driver for serial configuration.
✓ Win32 Disk Imager
✓ Packet Sender Application

4 Setup Tera Term Console

Open Tera Term on Windows PC. Select the serial port to which the micro–USB J58 of the S32G-PROCEVB3-S is connected and click OK. Go to Setup → Serial Port and select 115200 as the baud rate.

5 Power ON the S32G-VNP-EVB3

Switch ON the power switch SW1 on the S32GRV-PLATEVB and power switch SW10 on the S32G-PROCEVB3-S.

6 Diagnostics Utility

The Diagnostics Utility is auto executed from the SD card. Console display on Tera Term shows the status of the diagnostic tests.
Useful Documents and Projects

• DocStore
  o S32G-PROCEVB3-S – Silicon mounting guide
  o S32G-PROCEVB3-S-Rev A-Schematics-Layout
  o S32G3 Hardware Design Guide
  o S32G3 Boot Process Application Note
  o S32G3-VNP-EVB User Guide

• NXP web
  o S32 VNP EVB Platform Board design details

• Flexera
  o SW32G_EVBDIAG_0.8.7 Board Diagnostics
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