S12ZVH Mixed-Signal Microcontrollers

S12 MagniV Single-Chip Solution for Automotive Instrument Clusters

Product One-Sheet

Get Sample **Data Sheet** **Tools**

S12Z core architecture—16-bit microcontroller at 32 MHz bus

Cluster integration—single-chip instrument cluster solution integrates an automotive voltage regulator operating between 5 and 18 volts

Connectivity—CAN, LIN, SPI, I²C, analog comparators, multiple timers with PWM functionality

Connectivity—CAN/LIN physical layers, LCD display controller and instrument cluster gauge drivers with stepper stall detection (SSD)

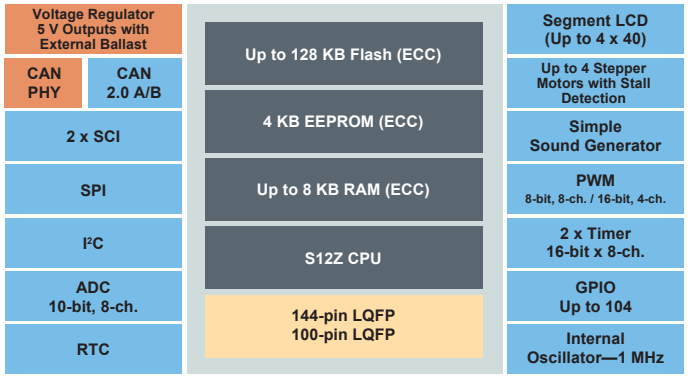
S12ZVH Specifications

PART NUMBER	S12ZVH128CLQ	S12ZVH128CLL	S12ZVHL64CLQ	S12ZVHL64CLL
PACKAGE DESCRIPTION	LQFP 144 20*20*1.4P0.5	LQFP 100 14*14*1.4P0.5	LQFP 144 20*20*1.4P0.5	LQFP 100 14*14*1.4P0.5
INTERNAL FLASH	128 KB	128 KB	64 KB	64 KB
RAM	8 KB	8 KB	4 KB	4 KB
EEPROM	4 KB	4 KB	2 KB	2 KB
STEPPER MOTOR CONTROLLER	4	2	2	2
LCD SEGMENTS	40 x 4	32 x 4	40 x 4	32 x 4
CAN PHY	1	–	–	–
LIN PHY	–	–	1	1

Features

- S12Z core, 32 MHz bus
- CAN/LIN physical layer
- 4 KB EEPROM, 128 KB flash with ECC
- Built-in automotive voltage regulator from 5 to 18 V at -40°C to +105°C
- 4 up-to-four stepper motor drivers with stall detect
- Real-time clock with calendaring

S12ZVH: S12 MagniV Mixed-Signal MCU Block Diagram



Energy Efficient Solutions by Freescale

Product Longevity

Target Applications

- Automotive instrument clusters
- Heating ventilation and air conditioning (HVAC)

Enablement Tools

- S12ZVH low-cost evaluation board
  - Part number: TRK-S12ZVH128
  - Custom 4 x 40 LCD glass
  - CAN connector interfaced with MCU internal CAN PHY
  - Serial communications LIN, SCI, SPI and I²C
  - LEDs connected to PWM channels
  - Four pushbuttons connected to KBI inputs
  - Four motor control headers, 4 x 1 pins
  - 32 kHz oscillator for real-time counter
  - Piezoelectric speaker with amplification circuit
- P&E MULTILINK
- CodeWarrior development tool suite
- Cosmic software

www.nxp.com/S12ZVH

Document Number: S12ZVHFS REV 1

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for 16-bit Microcontrollers - MCU ***category:***

Click to view products by NXP ***manufacturer:***

Other Similar products are found below :

M30302FCPFP#U3 MB90F036APMC-GSE1 MB90F428GCPFR-GSE1 MB96F683RBPMC-GSAE1 R5F10MMGDFB#30 R5F111PGGFB#30 R5F117BCGNA#20 DF3026XBL25V DF36014GFTV DF36014GFXV DF36024GFTV DF36034GFPV R5F11B7EANA#U0 R5F21172DSP#U0 MB90092PF-G-BNDE1 MB90F335APMC1-G-SPE1 MB90F345CAPFR-GSE1 MB90F568PMCR-GE1 MB90F882ASPMC-GE1 MB96F395RSAPMC-GSE2 DF36024GFXV UPD78F1018F1-BA4-A MB96F018RBPMC-GSE1 MB90F867ASPFR-GE1 DF2239FA20IV R5F117BCGFP#30 LC88F58B0AU-SQFPH MB90F548GPF-GE1 MB90214PF-GT-310-BND-AE1 MB90F342CESPQC-GSE2 MB90F428GAPF-GSE1 ML620Q504H-NNNTBWBX S912ZVH128F2VLL UPD78F1500AGK-GAK-AX HD64F3337SF16V MB90F428GCPF-GSE1 MB90F342ESPMC-G-JNE1 MB90022PF-GS-358E1 MB96F395RWAPMC-GSE2 MB96395RSAPMC-GS-110E2 MB90F883CSPMC-GE1 S912ZVHY64F1CLL S912ZVHY64F1VLQ ST10F280 MB96F338RSAPMCR-GK5E2 CY90096PF-G-002-BND-ERE1 ML62Q1569-NNNGAZ0AX ML62Q1739-NNNGAZ0AX ML62Q1749-NNNGAZ0AX ML62Q1579-NNNGAZ0AX