

LAN9252 – dsPIC33 SDK Release Notes

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# Introduction

This document contains the LAN9252 –dsPIC33 Slave Controller SDK – firmware samples based on EVB-LAN9252-SPI platform.

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# Terms and abbreviations

IDE - Integrated Development Environment

ESC - EtherCAT Slave Controller

EVB - Engineering Validation Board

HAL - Hardware Abstraction Layer

SPI - Serial Peripheral Interface

ETG - EtherCAT Technology Group

# Prerequisites

The following development tools are required for using this sample for developing EtherCAT application:

## Software

* MPLAB IDE v2.20 or above

(Refer to MPLAB IDE download link: <http://www.microchip.com/pagehandler/en-us/family/mplabx/>)

* MPLAB XC16 Compiler v1.31 only

(Refer to MPLAB XC Compiler download link: <http://www.microchip.com/pagehandler/en-us/devtools/mplabxc/home.html>)

* LAN9252-dsPIC33 sample SDK source code from Microchip.
* SSC v5.11 code from EtherCAT.org.

Note: *For using this slave stack code (SSC), you need to be a member of EtherCAT.org.*

* MPLAB IPE V3.10 or above

(Refer to MPLAB IPE download link: <http://microchip.wikidot.com/ipe:installation>)

* TwinCAT 2.11 or above.

(Refer to Beckhoff site to download TwinCAT <http://beckhoff.com> )

## Hardware

1. EVB-LAN9252-SPI – Get details about EVB-LAN9252-SPI from microchip website (<http://www.microchip.com/DevelopmentTools/ProductDetails.aspx?PartNO=EVB-LAN9252-SPI> )
2. dsPICDEM™ MCLV-2 Development board – Get details from microchip website (<http://www.microchip.com/DevelopmentTools/ProductDetails.aspx?PartNO=DM330021-2#utm_source=MicroSolutions&utm_medium=Link&utm_term=FY17Q1&utm_content=DevTools&utm_campaign=Article> )

# PDI interface

* SPI as PDI interface

# References

* LAN9252 Datasheet
* dsPICDEM MCLV-2 User guide:
* SSC Implementation Guide
* LAN9252 SDK Integration App Notes

# Release notes

## Version 1.0

LAN9252-dsPIC33 –SDK-V1.0, file contains the LAN9252 EtherCAT Slave Controller SDK sample source 1.0 for EVB-LAN9252 SPI and Quick Start Guide.docx.

Please note that the release folder contains:

* SDK - Sample application MPLAB X project setup with LAN9252 hardware abstraction layer
* ESI files – ESI file to be programmed in EVB-LAN9252 –SPI.
* LAN9252-dsPIC33 Quick Start Guide.docx

### Changes

* None

### Bug Fixes

* None

### Features Added

* SSC integrated MPLABX project sample for dsPIC33EP256MC506
* Support to read and write registers using SPI interface
* Support for distributed clocks
* Sample application

### Known limitations

* None.