

**PDQLogic Ltd.**

Unit 15
4 Spring Bridge Road
Ealing
LONDON W5 2AA
UK

 www.pdqlogic.com

 info@pdqlogic.com

Introduction

The STM32-Eval demonstrator board is an optional add-on for the QTrace system and is designed to showcase the QTrace capabilities without requiring an expensive development board or waiting for an in-house PCB to be ready.

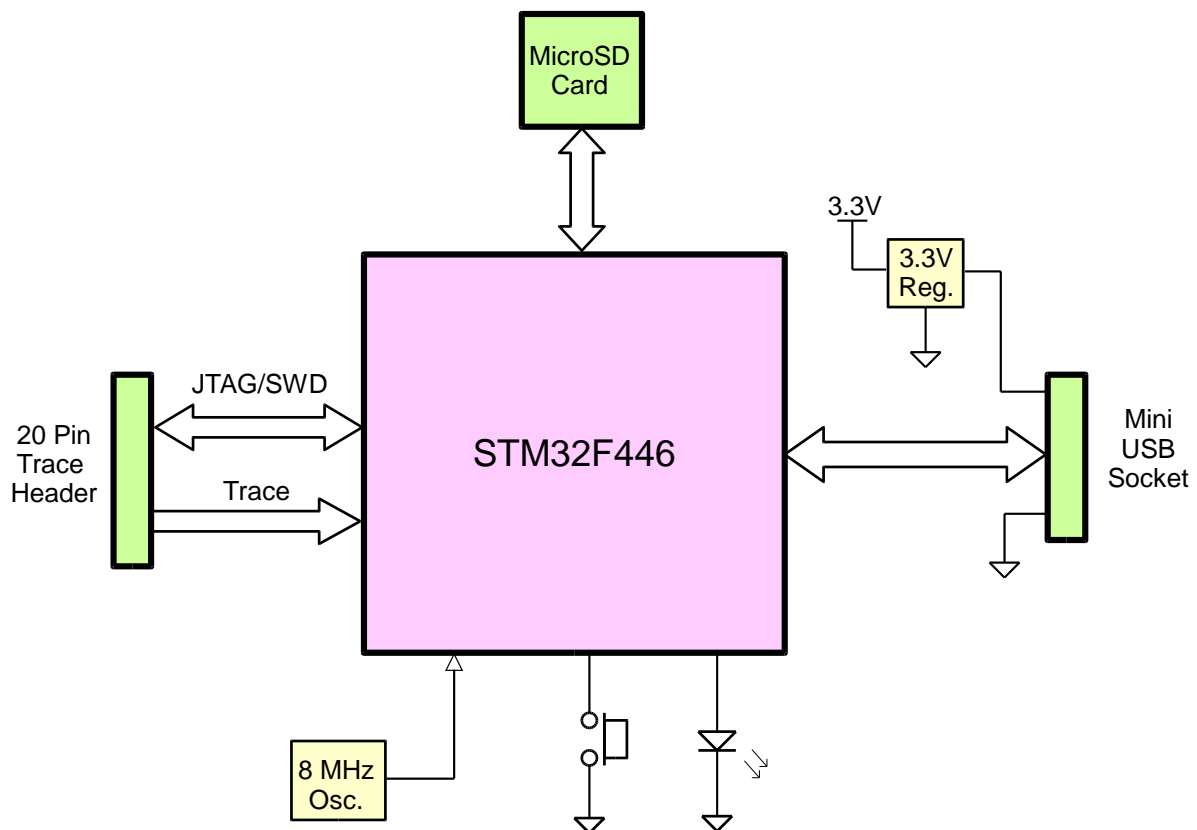
The board contains an ARM Cortex-M4 based microcontroller, a STM32F446 from ST Microelectronics, which has an ETM trace interface connecting to a 20 way trace connector. The board also has a micro-SD card, a USB 2.0 interface, LEDs and button. Together these are used to demonstrate different features of the QTrace system.

The STM32F446 comes pre-loaded with a USB FLASH disk firmware application to provide access to the onboard micro-SD card via USB. The application source, project, trace configuration files, the QTrace Analyser installer and a quick start guide are also on the SD card. This allows the QTrace system to be evaluated with no additional hardware or software.

Feature Summary

- ARM Cortex-M4F STM32F446 microcontroller from ST Micro
- Runs up to 180MHz
- 20 way ETM trace connector
- USB 2.0 port for power & data
- Micro SD-Card containing example projects
- Push-button and LEDs for user interaction
- Pre-programmed as a USB FLASH disk

Block Diagram



Firmware

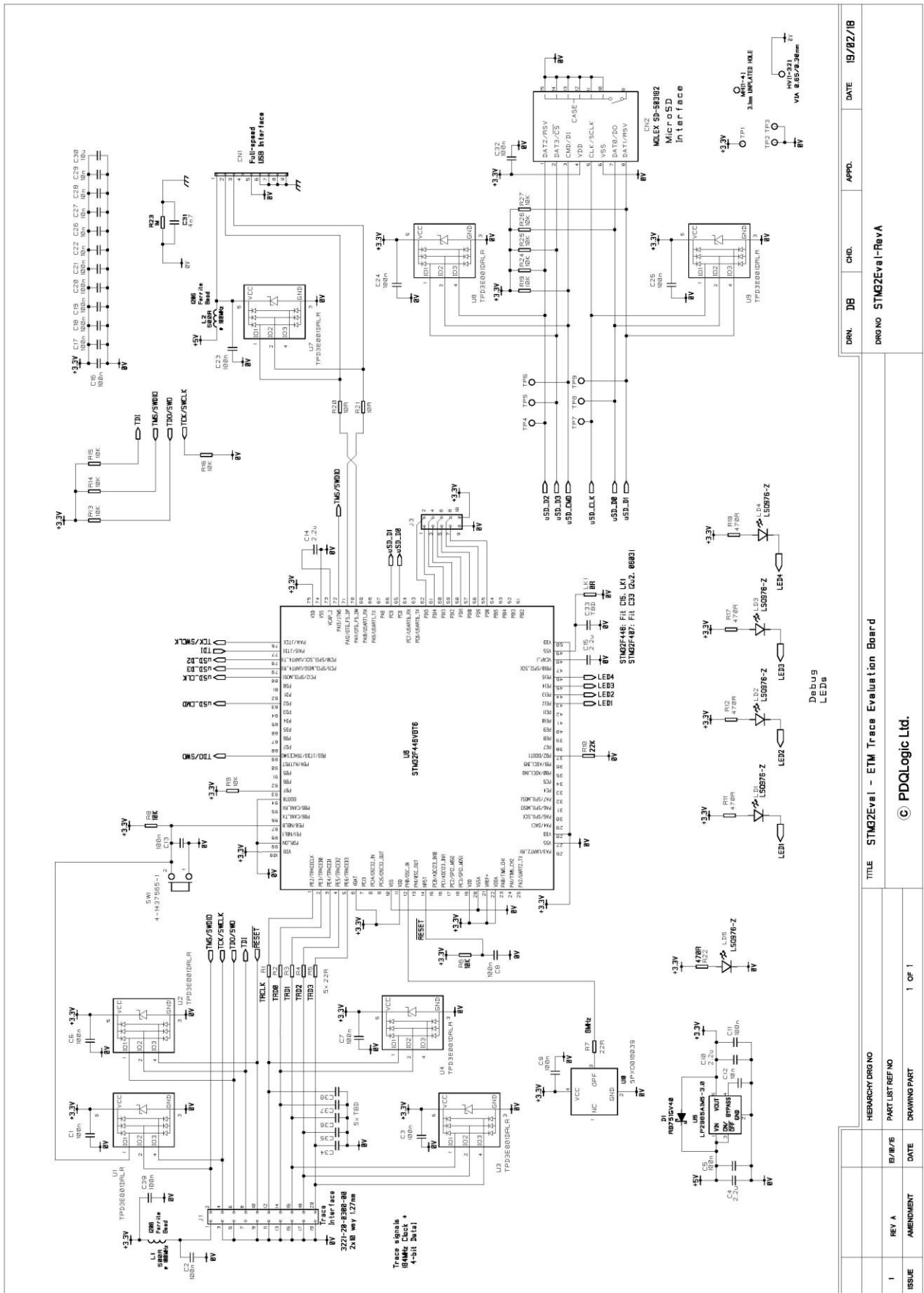
The STM32-Eval board is supplied pre-programmed with a USB FLASH disk application. The application is based on FreeRTOS and FatFS and also incorporates the USB MSD class driver from ST Micro.

The source code is also supplied and includes projects and debugger scripts for tracing with QTrace using the following IDEs:

- Atollic TrueSTUDIO
- IAR Embedded Workbench
- Keil MDK
- Segger Embedded Studio
- ST System Workbench
- VisualGDB

The multi-threaded application gives a good demonstration of the main features of the QTrace system. The code operates multiple high speed serial interfaces, the results of which can be traced unobtrusively in real-time with ease using the QTrace Analyser.

See www.pdqlogic.com for further details of the QTrace system.



STM32-EVAL Schematic

REV A		HERARCHY DRG NO	TITLE STM32Eval - ETM Trace Evaluation Board		DRN. DB	CHD.	APPO.	DATE 19/02/18
1	ISSUE	AMBIENT	REV A	PART LIST REFNO	DRAWING PART			
				1 OF 1		© PDQLogic Ltd.		
						DRGNO STM32Eval-R6VA		