Data communication protocol

Description of the data communication protocol between FRDM-KL25Z board and the PC application.

Sensor value from FRDM-KL25Z to PC-app

The size of a valid frame is four characters.

Start character for synchronisation	**Three digit sensor value in ASCII representation. Leading zeros are added if a sensor value is only one or two digits.**		
\r	Sensor value hundreds	Sensor value tens	Sensor value units

Examples.

Integer sensor value	**Frame**			
1	'\r'	'0'	'0'	'1'
20	'\r'	'0'	'2'	'0'
505	'\r'	'5'	'0'	'5'
999	'\r'	'9'	'9'	'9'

RGB on/off from PC-app to FRDM-KL25Z

The size of a valid frame is four characters.

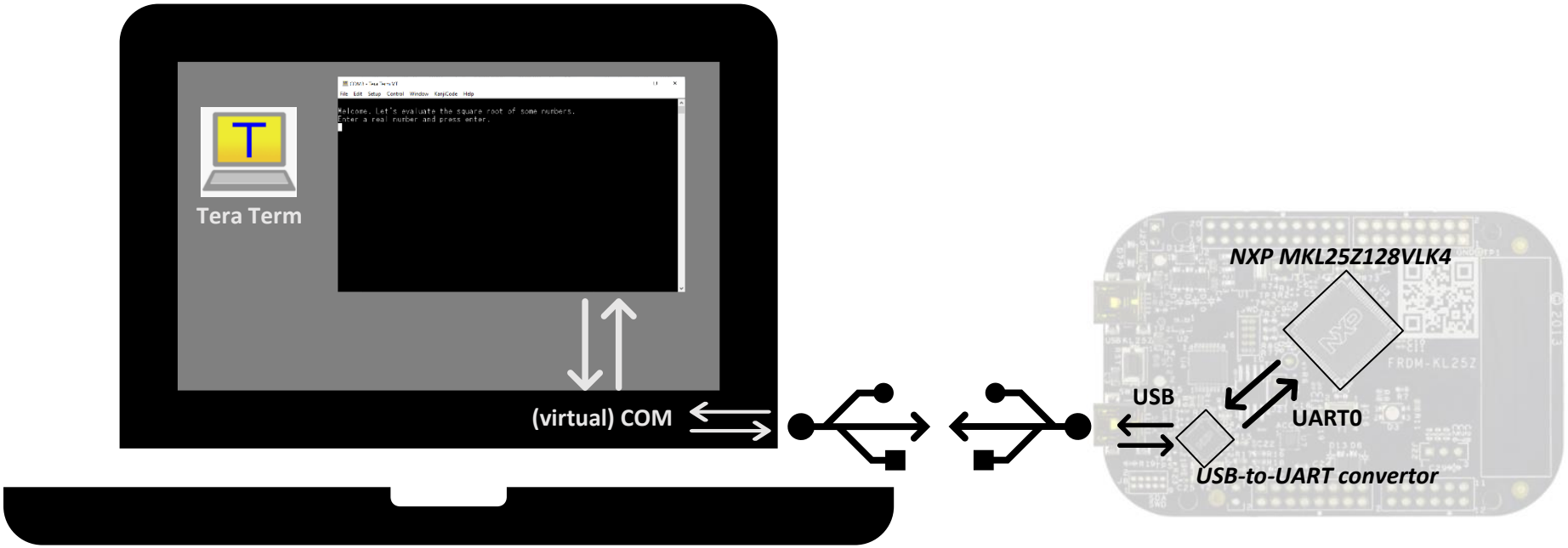
Start character for synchronisation	**Three digit RGB on/off values in ASCII representation. 0: LED off 1: LED on**		
\r	Red	Green	Blue

Examples.

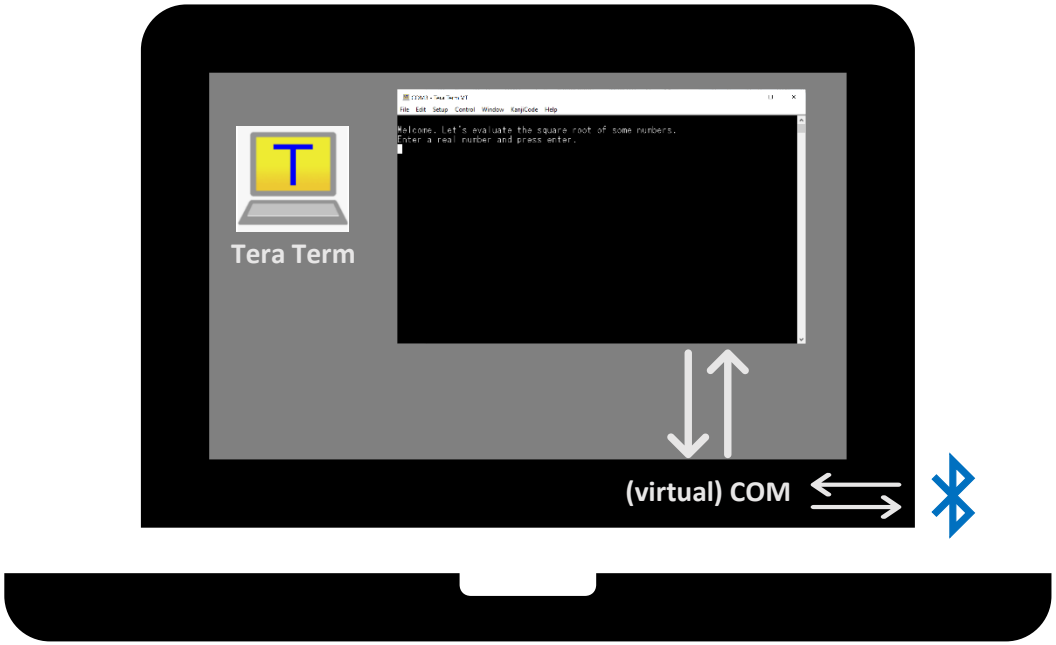
Red	**Green**	**Blue**	**Frame**			
Off	Off	Off	'\r'	'0'	'0'	'0'
Off	On	Off	'\r'	'0'	'1'	'0'
On	On	On	'\r'	'1'	'1'	'1'

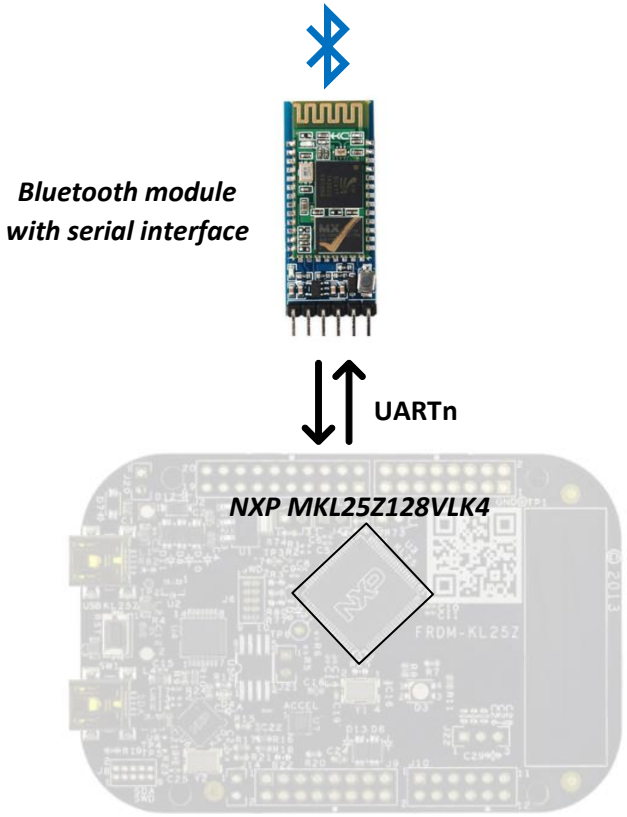
The remainder of this document visualizes several options for communication interfaces and PC applications.

UART0 and Tera Term

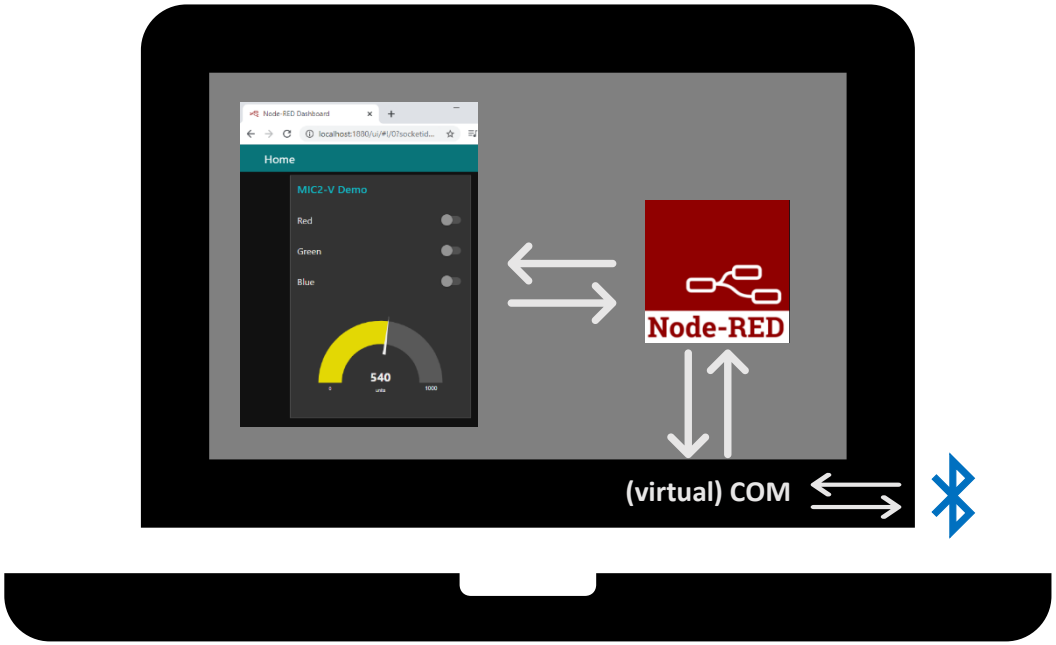


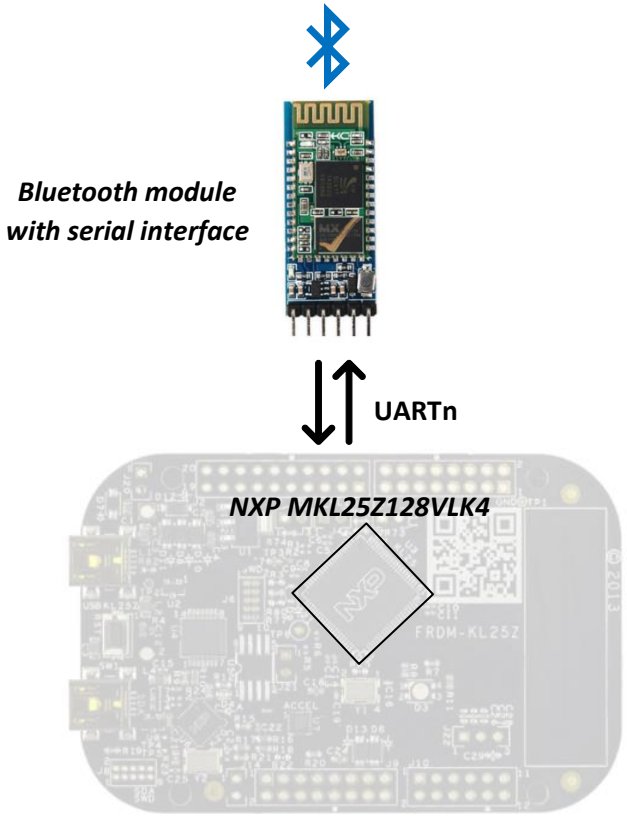
UARTn and Tera Term



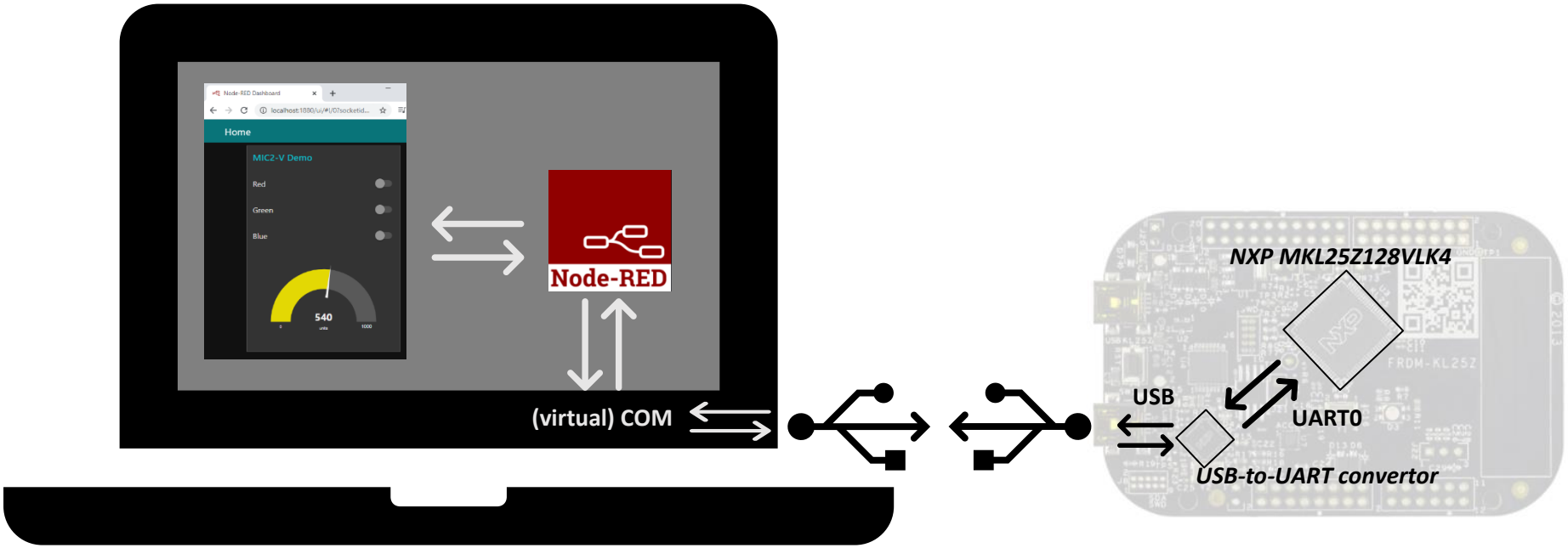


UARTn and Node-RED

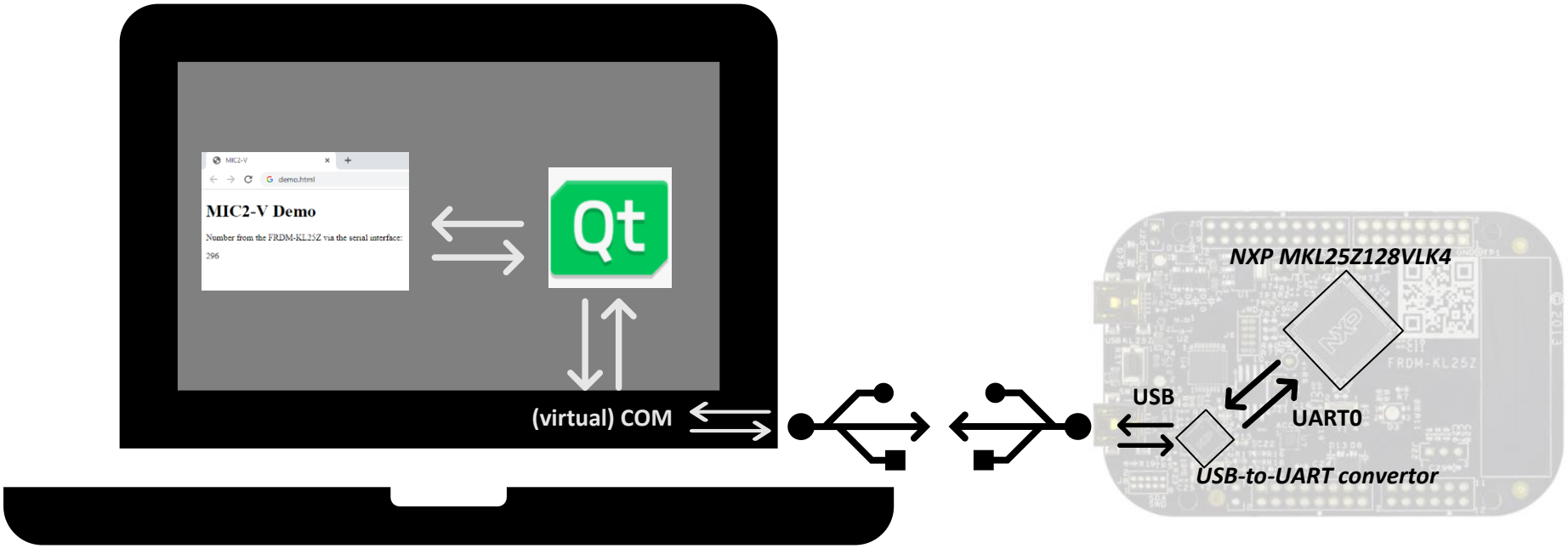




UART0 and Node-RED



UART0 and Qt


MIC2-V
demo.html
MIC2-V Demo
Number from the FRDM-KL25Z via the serial interface:
296
Qt
(virtual) COM
NXP MKL25Z128VLK4
USB
UART0
USB-to-UART convertor