Simple Guide to NCV75215 Qt Software

After running the file P215.exe, you will get following window – Figure 1:



It consists of 2 main windows, NCV75215 Configuration window and NCV75215 Measurement window – Figure 2:



Open both these windows (NCV75215 Configuration Window as well as NCV75215 Measurement Window)

You can select Configuration File provided together with this GUI – file names are P215_conf_MA48CF15.bench and P215_conf_MA58MF14.bench, based on used transducer – Figure 3.



Now you can configure NCV75215 GUI by opening NCV75215 Configuration window: - Figure 4

Status registers (R only)		feasurement registers (R only
Index 0	Index 7	Functional only when ADV_IO_ENA = 1
TEMP[8b] 0 -75 C	RX_GAIN_CODE [7b] 0 0.00 dB DYN_GAIN_ENA	Index 13 S_RES_SHR_SENSOR_STATUS [86] 0
Index 1 Sensor status Acoustic Noise Flag VULVedex veloces or	NOISE_THR [6b] 0 NOISE_FLOOR [6b] 0	MEAS_RES_SHR_TOF1 [10b] 0
Over-voltage during TX TX Period Update Required	Index 10 0 0.00 us REVERB_MON_DUR [8b] 0 50.00 m/ TX_CURR [6b] 0 50.00 m/	Undex 14 Write command Read command \starset Write Write Read \starset S.RES_UKG_SENSOR_STATUS [8b] 0 0
Unexpected Decay Time	EVERB_PER_VAR_LIMIT [2b] 2.34 % MON_WIN_START [12b] 0 0.00 us MON_WIN_START [12b] 25.6 us •	MEAS_RES_LING_TOF1 [10b] 0 Index [4b] Index [4b] MEAS_RES_LING_TOF2 [10b] 0 Data Data
EEPROM Two-Bit Error or EEPROM CRC Error or POR flag	CARRIER_PER_AUTO_ENA NOISE_SUPP_ENA	I dex 148 - accessible when WIDTH_PEAK_ENA = AS_RES_LNG_SENSOR_STATUS [8b] Bits to writ Bits to rea MEAS_RES_LNG_TOFI [10b] Data accepted (Ar CRC Match (succe
ASURED_REVERB_PER [11b] 0 inf kHz	IOF_CALIB [66] 0 0.00 us END_OF_REVERB [2b] 60 us ▼ QF_SEL [2b] 5 ▼	MEAS_RES_LNG_PEAK1 [6b] 0 MEAS_RES_LNG_WIDTH1 [6b] 0 Send wrong CRC
Index 2 Index 2A - accessible when TX_RX_PER_ENA = 0	AUTO_QF_CTRL_ENA	
CARRIER_PER [11b] 0.00 us Calculated Carrier frequency: inf kHz	IO_SLP_FAST	Read Configuration 2. Read Read-Only Regs. 5
Index 2B - accessible when TX_RX_PER_ENA = 1 DTX_PER [8b] 0 0.00 us DRX_PER [8b] 0 0.00 us	TREC1_THR_CTRL_ENA	Single Measurement 3.
Actual calculated RX/TX frequency Actual TX frequency 47483648 Hz	END_OF_REVERB_THR IO_ECHO_PULSE_ENA PARASTIC PEAK MAG [2b] 0	
Actual RX frequency 47483648 Hz Valid range: 30 kHz to 95 kHz	TX_RX_PER_ENA U	
Index 3 BURST_PULSE_CNT [5b] 0	Index 15 CMD [8b] 0	

Figure 4

In this window, you have access to all configuration registers.

You can configure NCV75215 by clicking on button Write Configuration (item 1 on the picture).

You can read back configuration registers of NCV75215 by clicking on button Read Configuration (**item 2**).

Then you can already start measurement by clicking on button Single Measurement (item 3).

When a measurement was performed, you can read Measurement registers (index 13 and 14) – by clicking on Read Measurement regs (item 4).

By clicking on Read Read-only regs (item 5), you can get chip's junction temperature.



Figure 5

Main Measurement window is present in Figure 5.

You can perform single measurement by clicking on Item1.

Item 2 selects the direct / indirect measurement.

Item 3 starts periodic measurements with period 200, 500 or 1000 ms.

Item 4 enables Magnitude data at each measurement

Item 5 updates Sensor status at each measurement

Item 6 saves magnitude data into the csv file

Item 7 contains Measured distance

Item 8 selects Debugging output on TST0 to TST3In Item 9 you can read back chip's temperatureItem 10 shows sensor status