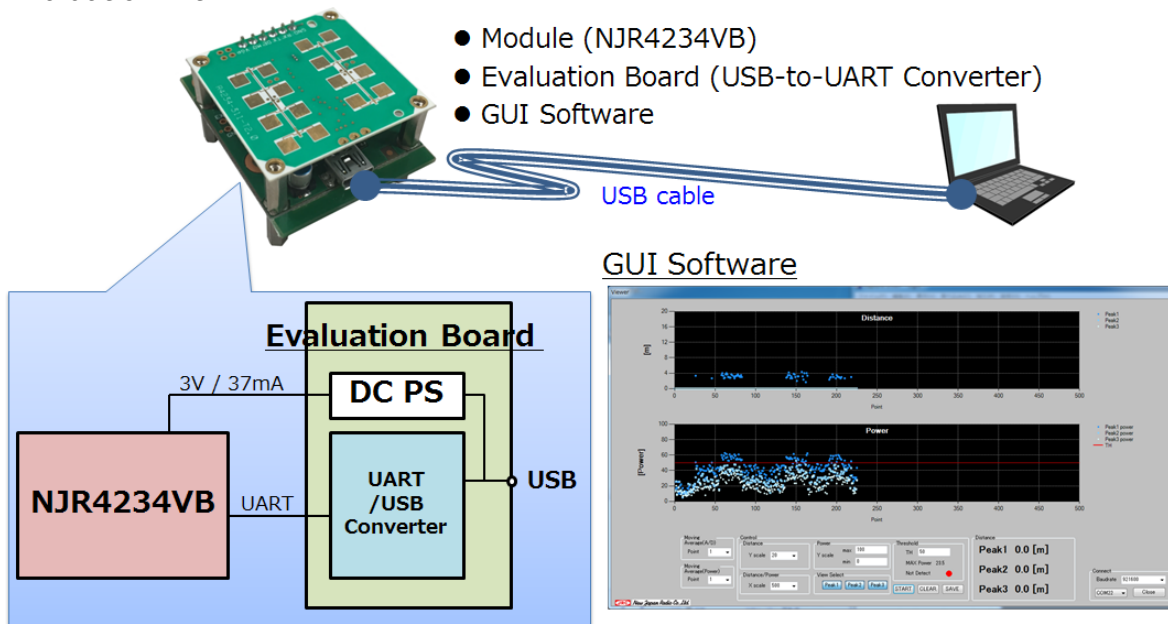


Instructions of NJR4234 Evaluation Kit

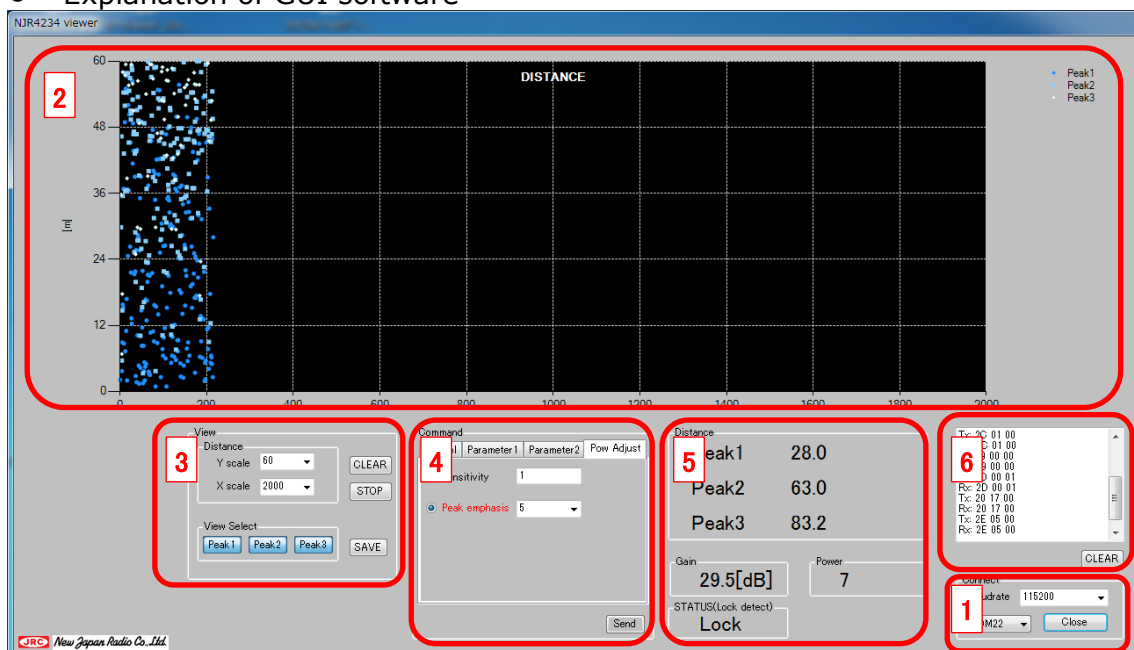
- Evaluation Kit



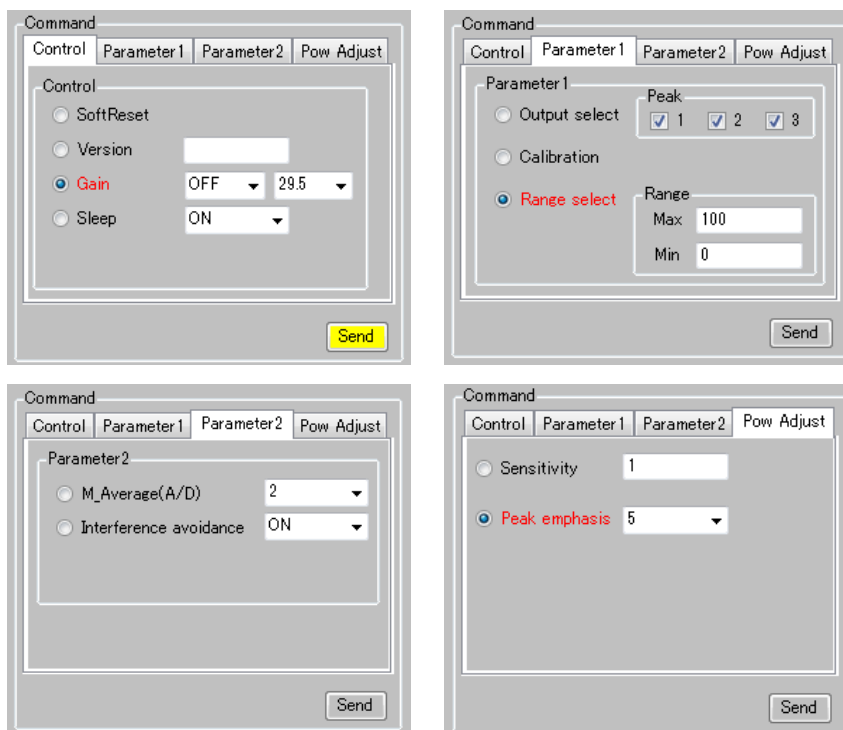
- Preparation

1. Install ".NET Framework (ver 4.5 or latest version)" and CP210x Windows Drivers enclosed.
2. Connect the evaluation kit of NJR4234 to PC with USB cable.
3. Start GUI software of "NJR4234.exe".

- Explanation of GUI software



1. Connection
Select COM port and click Open button (Open button turns to Close button, and WINDOWS CLOSE button hides).
2. Distance graph
Vertical: Distance of peak power on moving objects in meter.
Horizontal: Point of measurement, one point is around 50 msec.
3. Graph Control panel
 - X scale/Y scale: graph scale
 - View Select: select draw point
 - CLEAR: Clear graph
 - STOP/START: Stop/Restart Distance graph
 - SAVE: Save the distance of Peak1/Peak2/Peak3 & power data.
4. Command send panel



Command panel is used to send commands for MCU.

How to use:

1. Select command's radio button (and select parameters).
2. Put "Send button".

- Control panel
 - SoftReset: Software reset command.
 - Version: Read software version.
 - Gain: ON->Auto Gain mode, OFF->Gain fixed right selectbox value(29.5 or 41.5dB)
 - Sleep: ON->Sleep mode, OFF->Sleep mode is ended.

- Parameter1 panel
 - Output select: Select output peak data(Unselected peak become 0xffff).
 - Calibration: Send calibration command (DC offset is canceled).
 - Range select: Select target search range (170~0m).
 - Parameter2 panel
 - M_Average(A/D): Moving average number of A/D signal.
(0: Not used, 1: 2 times, 2: 4times)
 - Interference avoidance:
 - ON->Processing cycle(50ms)+random time(0~10ms, 10ms/256 step)
 - OFF-> Processing cycle fixed(50ms).
 - Pow Adjust

Power Adjuster is function to fix FFT peak power, and ignore low-power signal.

 - Sensitivity: If input signal power under this value, processing is not done.
 - Peak emphasis: Largest peak is emphasized. This number is ratio of largest peak and other peaks. Peaks that under ratio are ignored.
5. Output data
- There are output data of NJR4234.
- Distance: Distance to target. MAX 3 targets (=FFT peaks).
 - Gain: The present value of Gain.
 - Power: Power of A/D signal. This value compared to "Sensitivity" value.
 - STATUS(Lock detect):If PLL is unlocked, this field change "Unlock".
6. TEXT BOX and CLEAR button
- To check command (Tx and Rx). Put CLEAR button to clear TEXT BOX.
- Other
 - Setting is recorded in a 'NJR4234.ini' file.