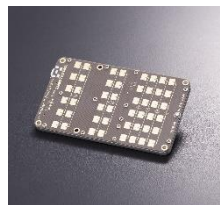


Radar Evaluation platform for CARD

Overview

- Used miRadar® 8 <Card> Radar Sensor
 - Business Card size
 - 24GHz FMCW MIMO radar
 - Tx 2ch, Rx 4ch Virtual 8ch
- Radar processing software runs on Windows PC
- Multiple targets are overlaid with Camera picture
- Possible save data with moving picture and replay



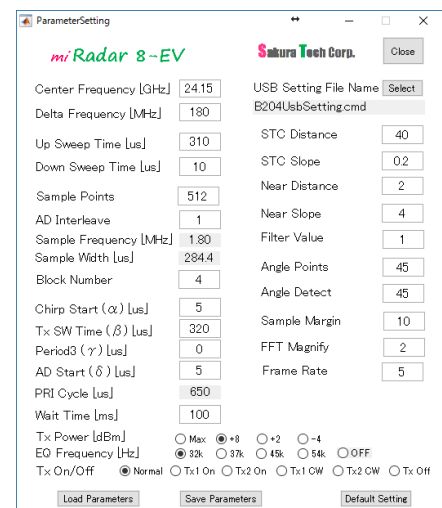
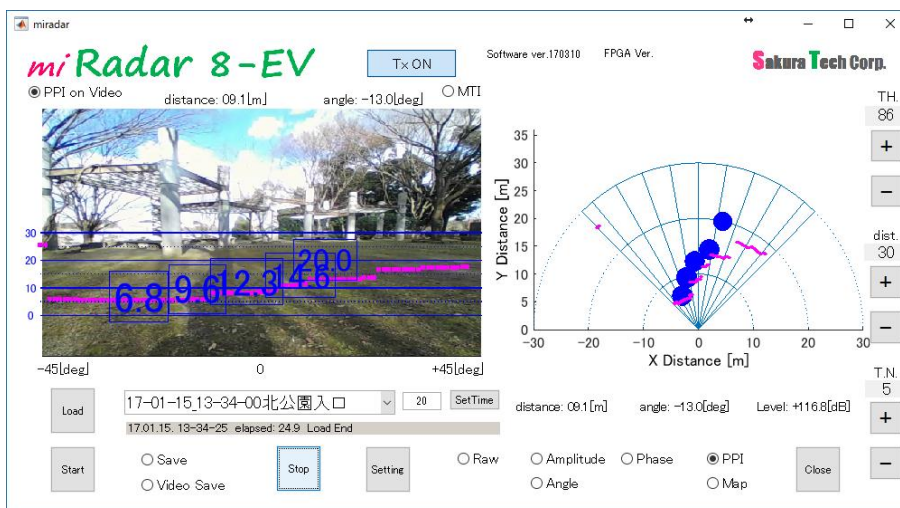
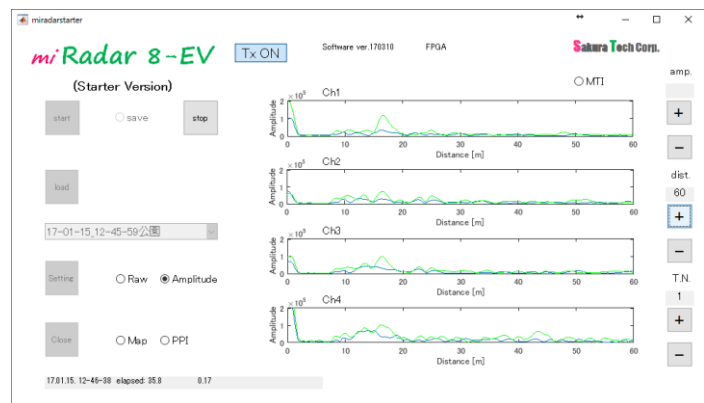
miRadar 8 <Card>



miRadar 8-EV2 <Card>

Radar Evaluation Software

- Consideration of Radar operation and analysis
- Save and Load of measurement data with video enable offline analysis
- MATLAB execution file
- Real-Time graphical display
- Many variety of radar parameters can be changed
- Starter version is available for simple confirmation of radar operation

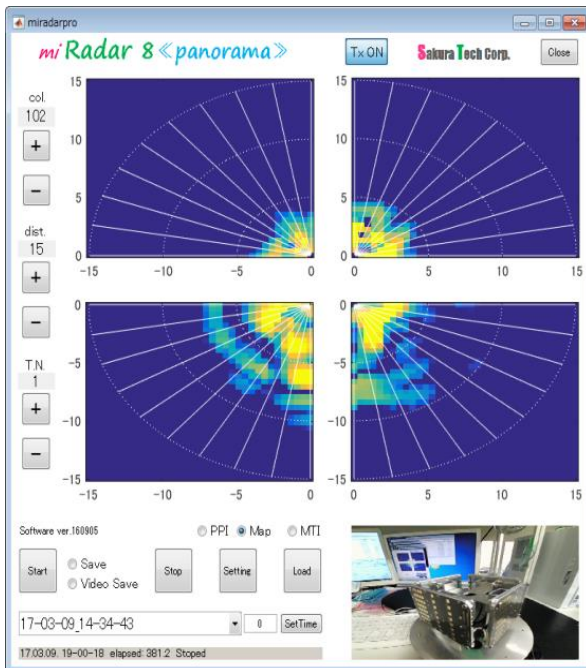
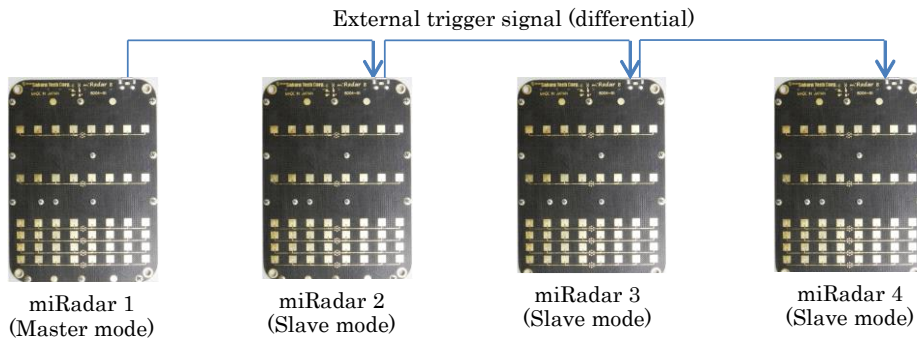


Evaluation software (Professional Version) (B279-SW004)

Although four miRadar8 modules can detect targets in an entire circumference (360°), simultaneously operating multiple radars at close range will generally produce radio wave interference. To prevent this, coordinating operation can be controlled to output transmissions of multiple miRadar8 with their timing shifted so they do not overlap.



Connecting external trigger I/O signals enables multiple miRadars to operate in synchronization. miRadar1 is set to master mode because it does not have an external trigger signal input. miRadar2, 3, and 4 are set to slave mode, which operates in synchronization by an external trigger signal input. Please contact us to order a trigger signal cable.



Evaluation software (Professional Version) is a Matlab execution file that controls coordinating operation for a maximum of four miRadar8 and displays processing results.

A chart for the following data can be displayed:
(1) Color mapping data after azimuth detection processing
(2) PPI data symbolized from azimuth detection results.

As with the Standard Version, a mechanism is provided to output processing results in files to interface them with other software. This enables software to be created for conducting post-processing of radar detection results.

Note 1) When miRadar module is connected via a USB hub, self-power feeding of 3A or more is required per four ports.

Note 2) With an increased number of modules, a PC with a higher processing capacity of Core-i7, etc., and a larger number of cores is required.

C++ USB interface SDK [Windows] (B279-OP001-01)

Visual Studio 2015 C++ edition

The instruction manual for C++ SDK is included in the USB interface library of the module. If a unique signal processing software is created, SDK is required to use the USB interface for module.

This supports Windows Visual Studio 2015. SDK is Static Library. SDK with source code for Library section is available. Please use it if necessary.

C++ USB interface SDK [Linux] (B279-OP001-02)

Linux(ubuntu x86/64) g++ edition

Linux edition for the above C++ SDK. This supports x86/x64 Ubuntu. Only Linux edition with source code is available.

Matlab SDK software (Professional Version) (B279-SW005)

This allows a system software prototype to be developed with signal processing results of multiple radars.

This SDK is a release for which Matlab p-code and m-code are mixed in the above Professional edition. The signal processing core section, etc. are in p-code and the interface section, etc. are in m-code. Adding the system software code allows prototypes to be developed in a short time.

Matlab SDK software (Pro1 Version) (B279-SW006)

Software limited to one radar processing for Professional Version of software supporting multiple radars. This allows system software prototypes to be developed with radar signal processing results of evaluation software.

This is a release for which Matlab p-code and m-code are mixed. The signal processing core section, etc. are in p-code and the interface section, etc. are in m-code. Adding the system software code allows prototypes to be developed in a short time.

Ordering Guide

Product Name	Product Number	Comments
miRadar®8-EV2 <Card>	B279-01-EV2	Radar Evaluation hardware bundled B279-SW002
Radar Evaluation software	B279-SW002	Radar Evaluation software
Evaluation software (360°)	B279-SW004	360° , Evaluation software
C++ USB Interface SDK	B279-OP001-01	Windows
C++ USB Interface SDK	B279-OP001-02	Linux
Matlab SDK software	B279-SW005	360° , Development system software, multiple targets
Radar SDK software (Matlab)	B279-SW006	SDK for Radar application

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