

Antenna Information

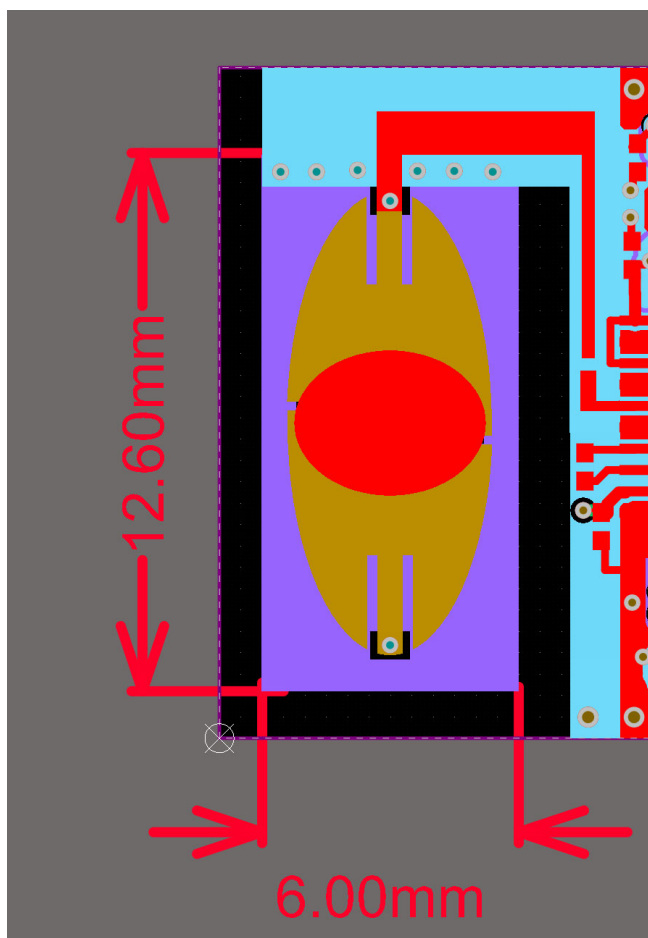
1- Basic information about the antenna (e.g., antenna model, antenna supplier, etc.)

Antenna suppliers: Truesense S.R.L.

Antenna type: On Board PCB Patch Antenna

Antenna Model: Arduino Stella

Antenna Dimension Drawing: 12.6mm * 6.0mm



2- Antenna Parameters

3- frequency band of an antenna

6.0 ~ 8.5GHz

4- Antenna gain

Peak directivity:

4.5dBi @CH5

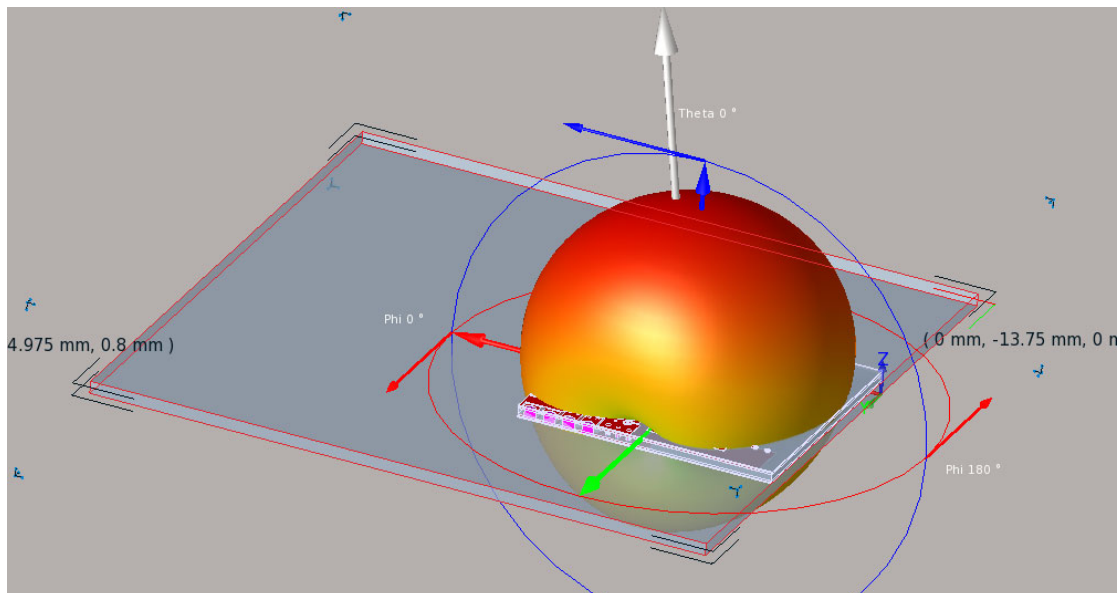
3.8dBi @CH9

5-Antenna test frequency data

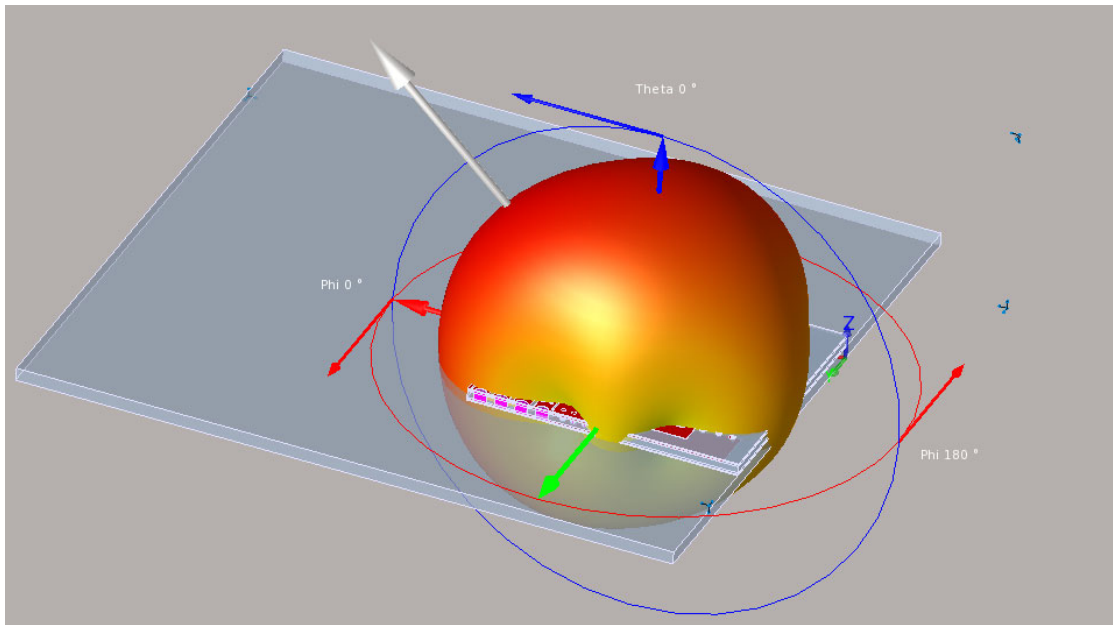
	6.5GHz	7GHz	7.5GHz	8GHz	8.5GHz
PeakDirectivity (dBi)	4.5	4.4	4.2	3.8	3.3
Efficiency	60%	65%	72%	77%	70%

5- Antenna field strength diagram

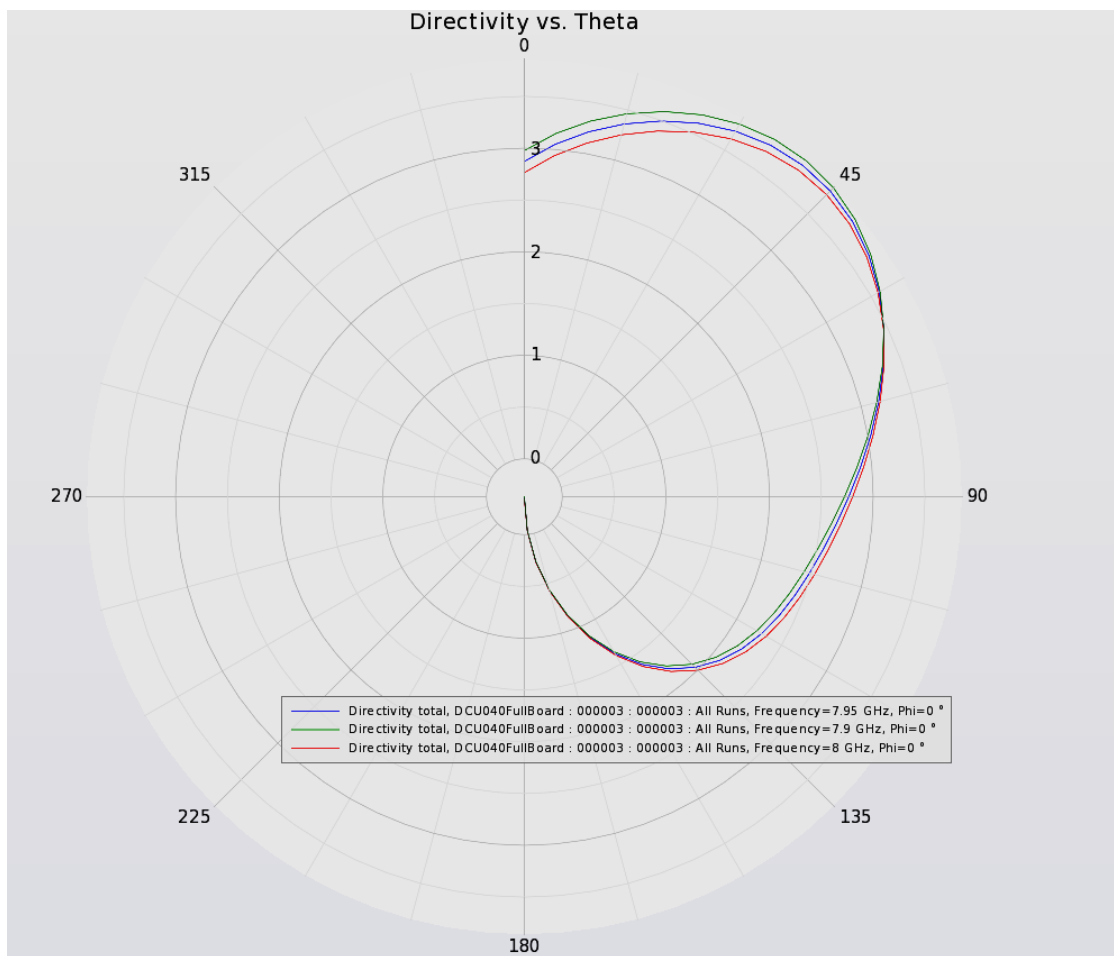
Directivity at Channel 5



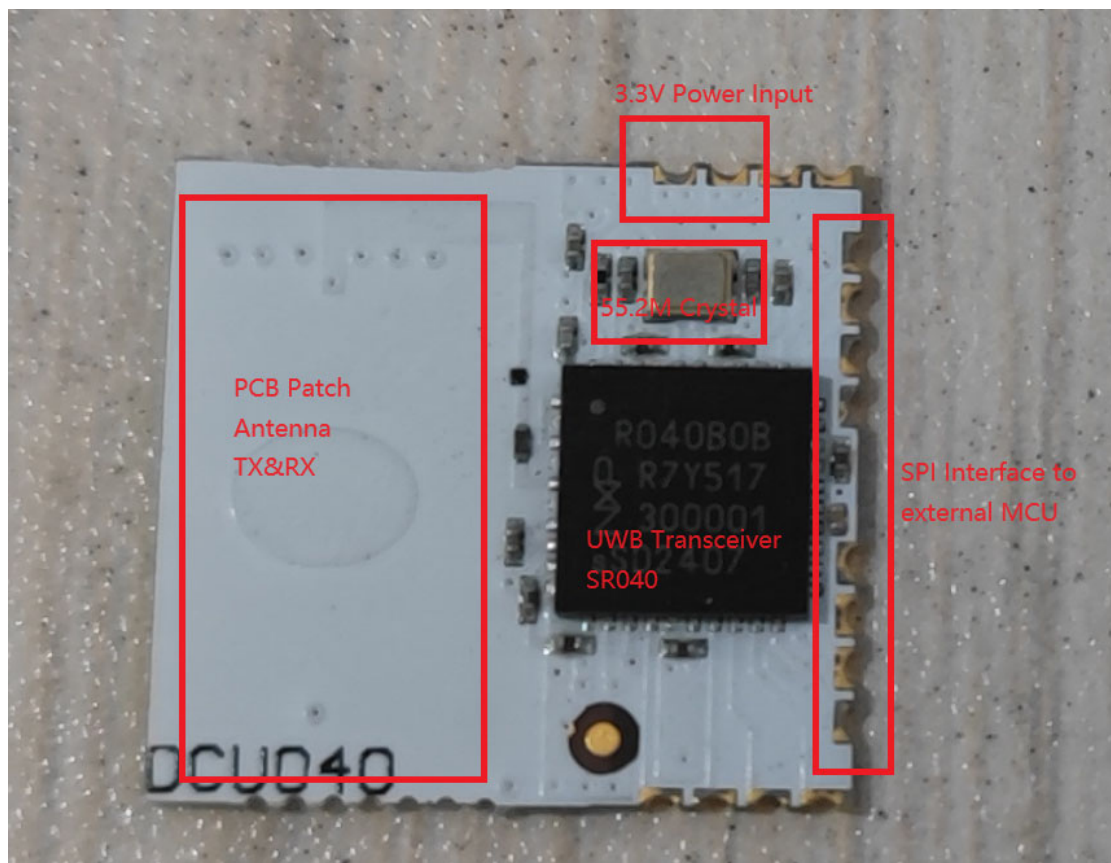
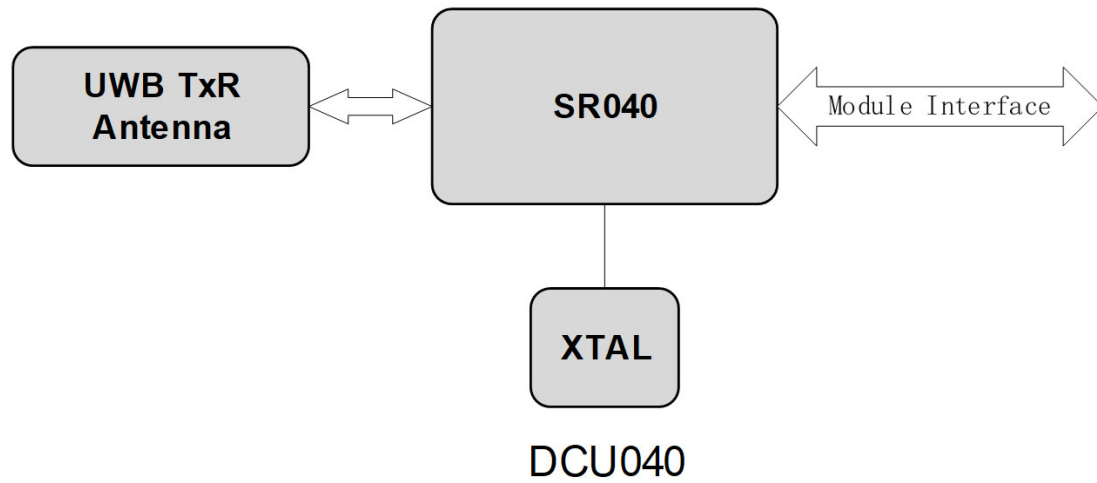
Directivity at Channel 9



Directivity at channel 9 center frequency and ch9 center frequency ± 500 MHz



OPS



DCU040 module is comprised of below key parts:

- 1, NXP UWB Transceiver IC – SR040;
- 2, 55.2MHz Crystal for system clock;
- 3, 1x PCB patch antenna for TX&RX;
- 4, SPI interface connected to external MCU;
- 5, 3.3V power supply input.

With Truesense UWB firmware in DCU040, after powered with 3.3V&55.2MHz clock worked, external MCU can communicate with DCU040 through SPI interface, and then do ranging operations (TX&RX) through the PCB patch antenna.

Antenna Manufacturer: Truesense S.R.L.
Address: Viale Lombardia, 217 - 20900, Monza, Italy
Antenna Type: Arduino Stella