







KY-LOC 1D.03.01 Antenna Description





Document Status

Doc - ID	Doc.- No.: KY.REP.0353 Version: 2.0		
Document Status	Draft		
	X	Finished	
		Name / Function	
		Date	Signature
	Document prepared by	Elefsiniotis, Molzberger / Technical Team	
		17.04.2023	
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		17.04.2023	
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	17.04.2023		
Document released by	Alexandros Elefsiniotis / Product Manager		
	17.04.2023		



Documents Cancellation Notification:

The following documents/versions are cancelled and no longer valid with the release of this document/version.

Doc Number	Version	Name

Document Change Details

Change			Changed Chapters	Description of Change
No.	Date	Version		
1	21.03.2023	1.0	All	Initial Version
2	17.04.2023	2.0	All	Antenna diagrams added

Reference Documents

Siglum	Doc Number	Version	Title
RD1			
RD2			
RD3			
RD4			
RD5			

*Appropriate version to be obtained from supplier



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1 General Information

1.1 Antenna

The device has 3 TX and 3 RX patch antennae

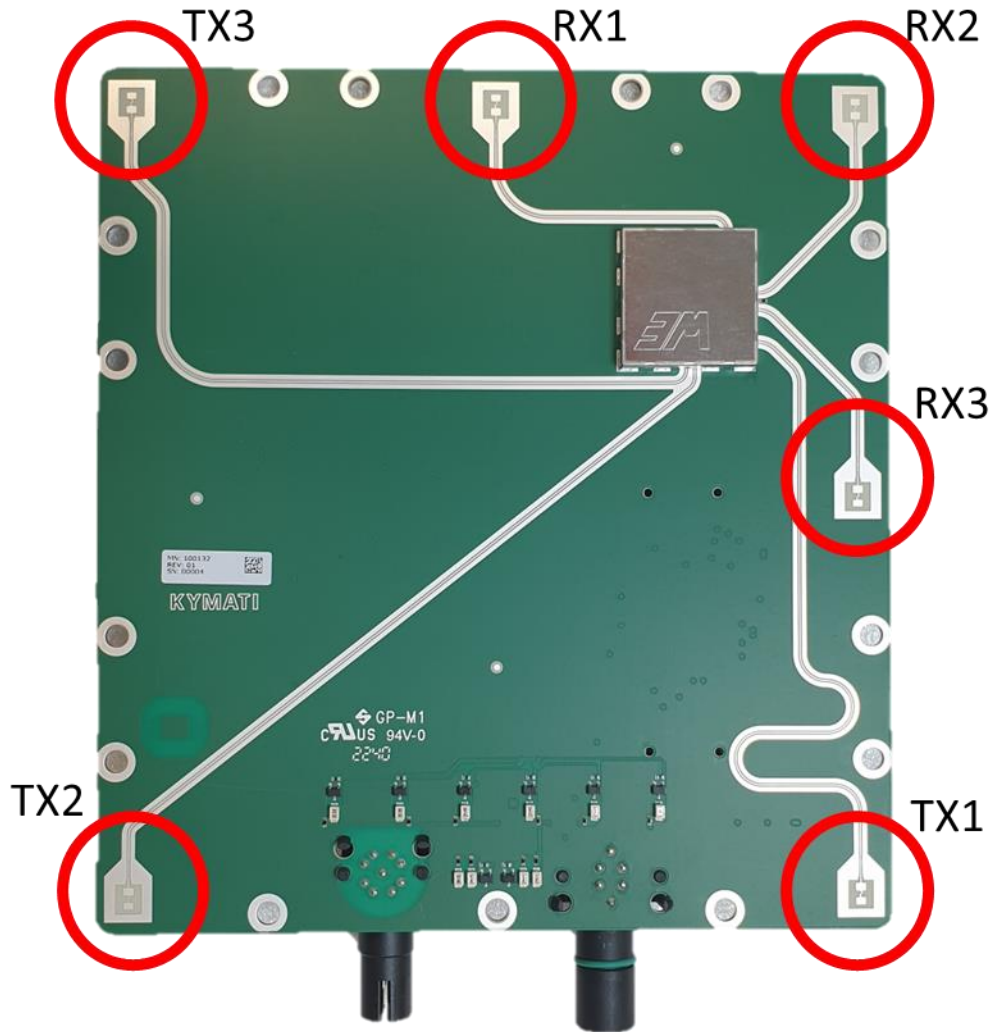


Figure 1: Patch Antennae used

The following figures shows the antenna pattern for different Tx antennae.

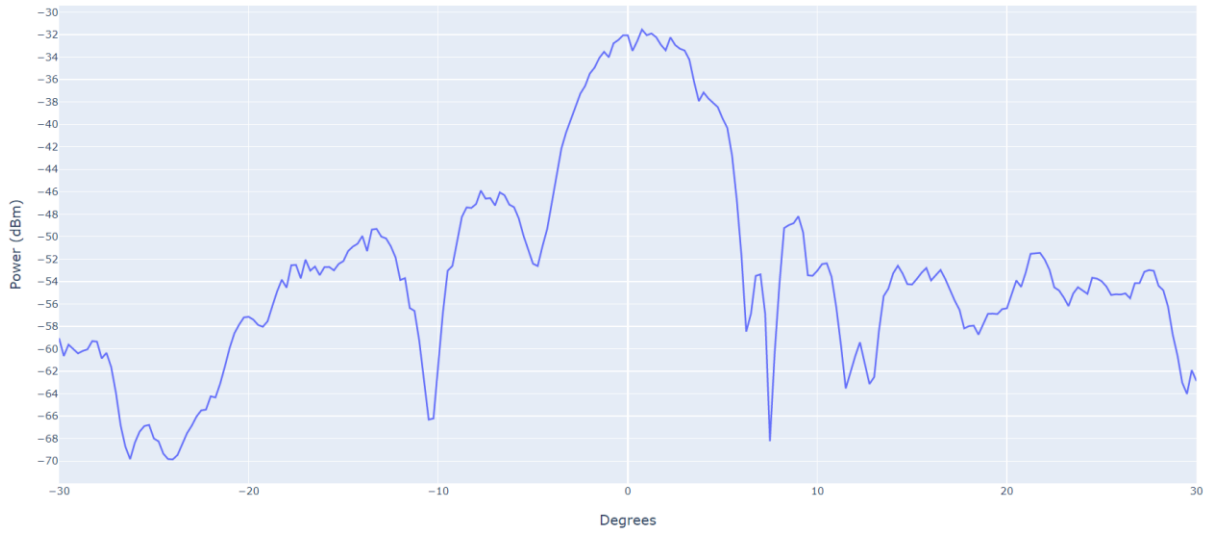


Figure 2: TX1 Antenna diagram - Azimuth

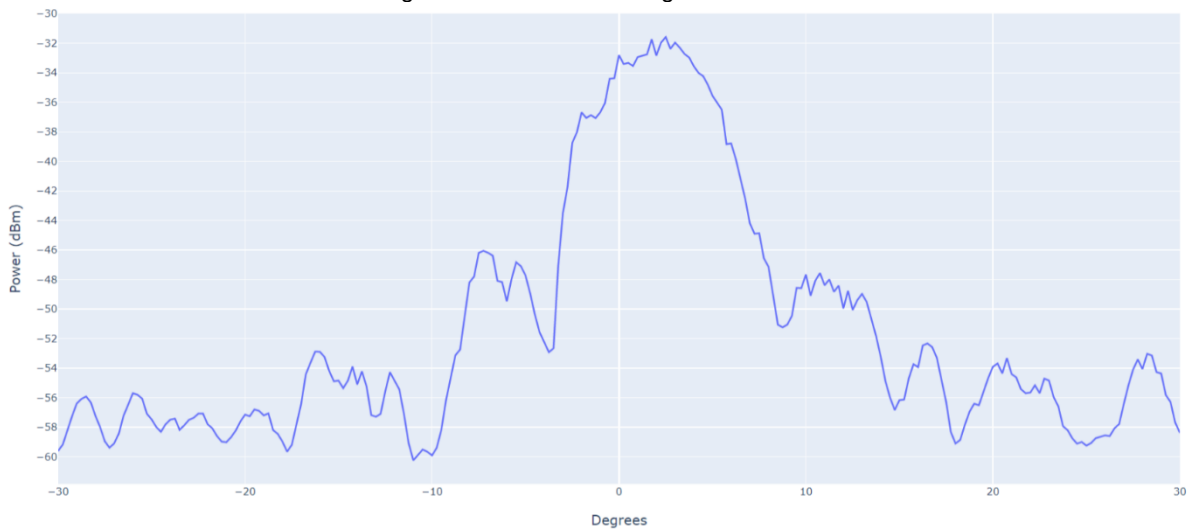


Figure 3: TX1 Antenna diagram - Elevation

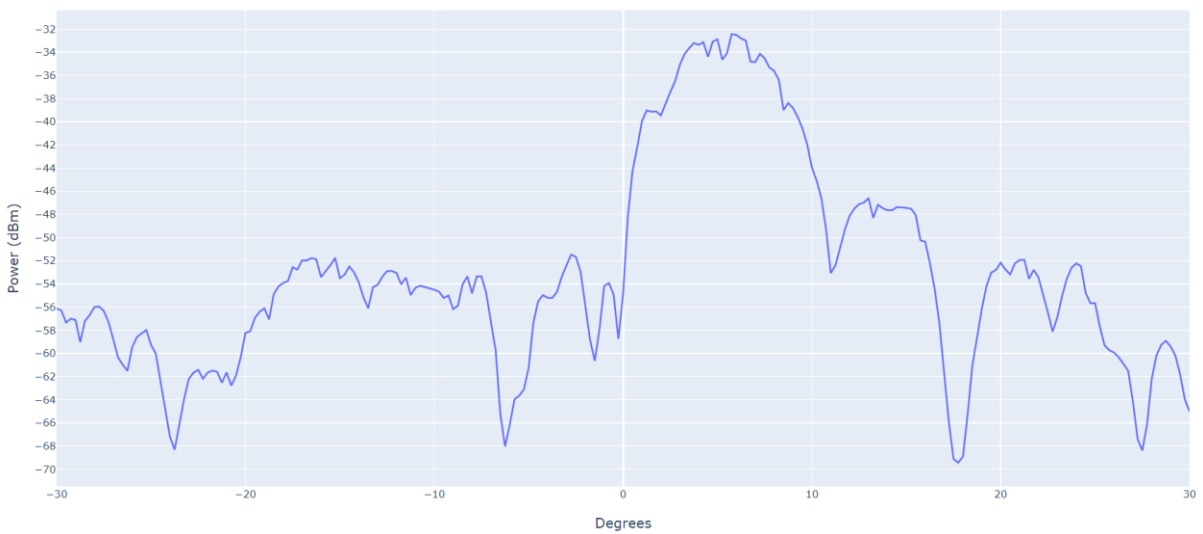


Figure 4: TX2 Antenna diagram - Azimuth

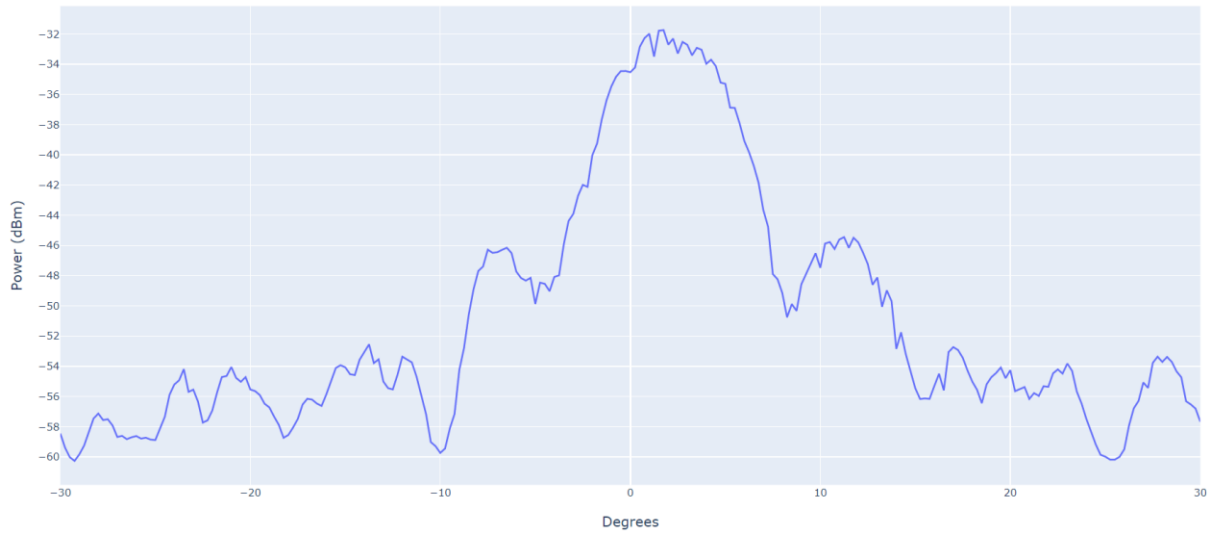


Figure 5: TX2 Antenna diagram – Elevation

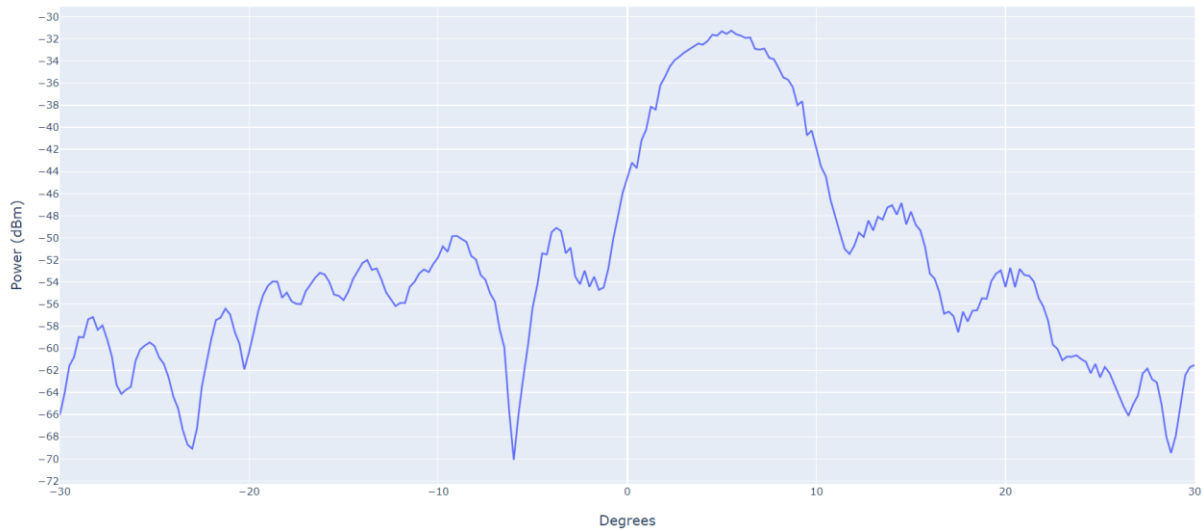


Figure 6: TX3 Antenna diagram - Azimuth

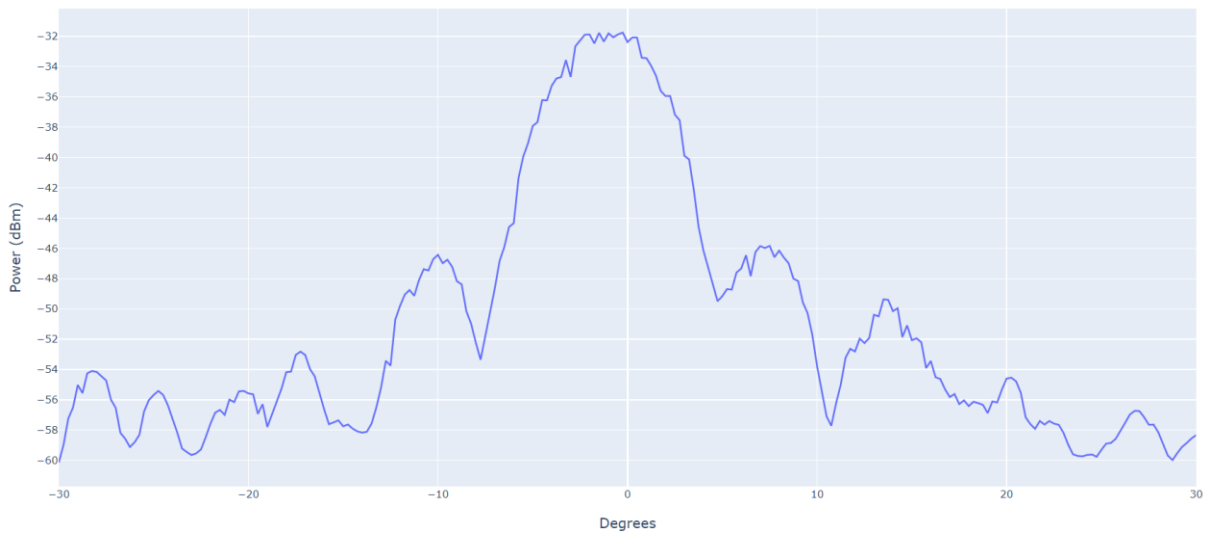


Figure 7: TX3 Antenna diagram – Elevation



1.2 Antenna Gain

All antennae have a gain of 28 dBi over the used frequency range of 60.0 ... 64.0 GHz (based on simulations).

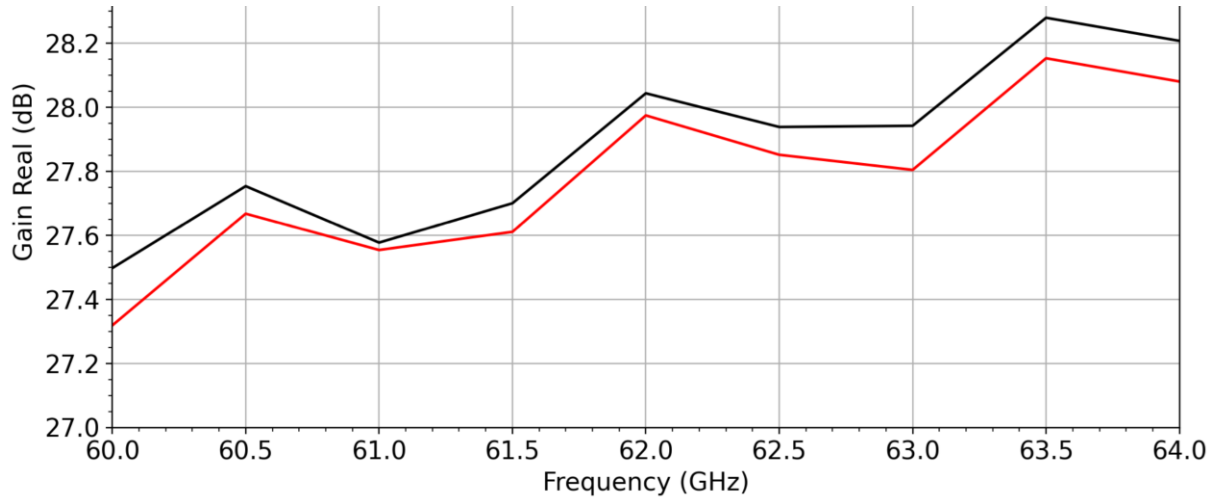


Figure 8: Antenna Gain over Frequency

1.3 Reference to Similar Device

Besides the KY-LOC 1D.03.01 Secondary Radar Device Kymati also offers a similar KY-RAY 1D.03.01 Primary Radar Device. Both devices are totally equal, only the measurement principle is different.