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TDK Antenna Measurement

TDK Corporation
Electronic Components Business Company
Communication Devices Business Group

Dec.22th,2025

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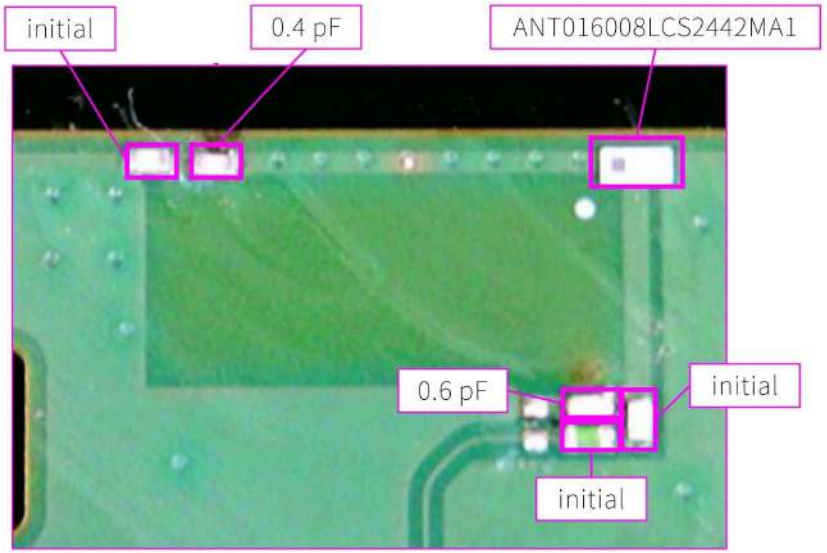
Measurement Setup

►Measurement Setup

Type of antenna	Chip Antenna
Model name of antenna	ANT016008LCS2442MA1
Brand name of antenna	TDK
Manufacturer, Address of antenna	TDK Corporation Honjo Factory(East site) 1-8, Manganji, Yurihonjo-shi, Akita 015-0064, Japan
Antenna Gain	1.5dBi
Frequency	2425 to 2475 MHz

Element value after tuning



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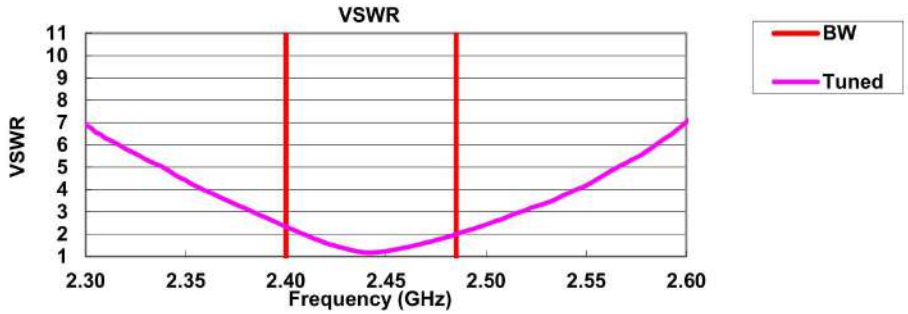
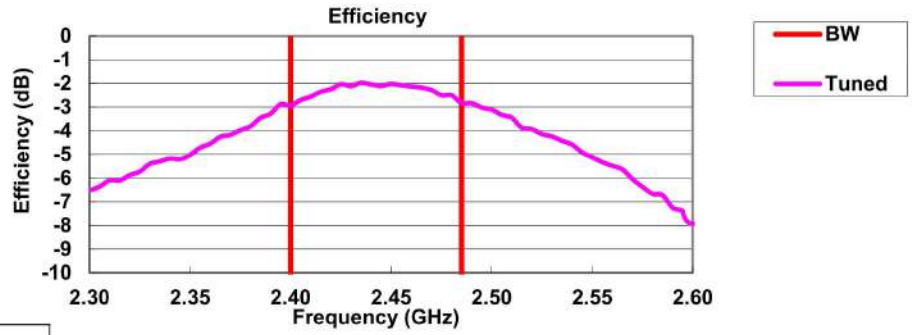
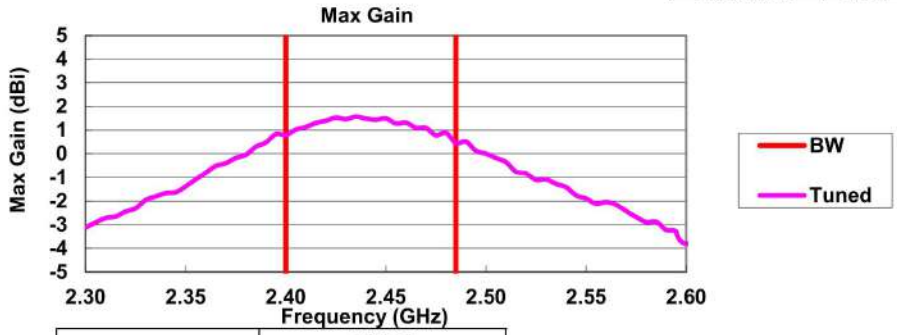
Measurement Results

►VSWR & Efficiency





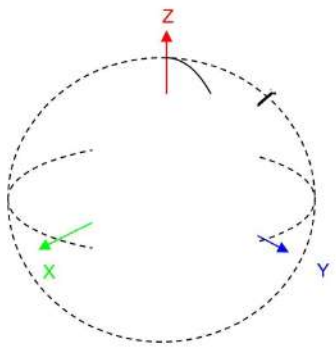
	Tuned		
Frequency[GHz]	2.4	2.442	2.485
VSWR	2.33	1.18	1.98
Efficiency[dB]	−2.94	−2.04	−2.83



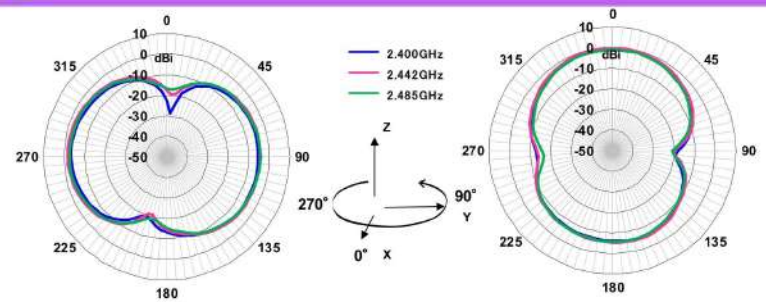
	Tuned		
Frequency[GHz]	2.4	2.442	2.485
Peak Gain[dBi]	0.79	1.49	0.44

Radiation Pattern (2.4GHz Band) Tuned

PRODUCT ORIENTATIONS



X-Y PLANE



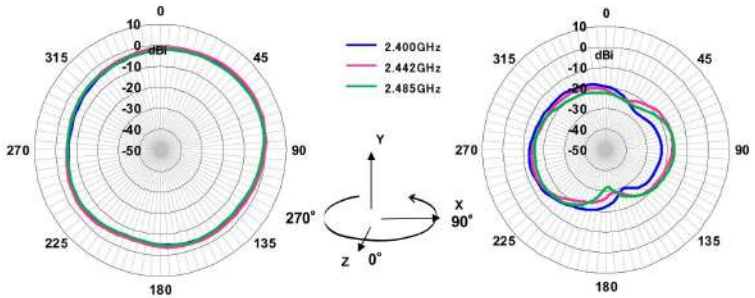
Horizontal Polarization

	2.400GHz	2.442GHz	2.485GHz
Average[dBi]	-7.0	-5.7	-6.2
Maximum[dBi]	-3.3	-1.7	-2.6
Minimum[dBi]	-28.8	-20.8	-19.1

Vertical Polarization

	2.400GHz	2.442GHz	2.485GHz
Average[dBi]	-5.1	-4.6	-5.5
Maximum[dBi]	-0.5	-0.1	-0.9
Minimum[dBi]	-19.2	-19.9	-20.7

X-Z PLANE



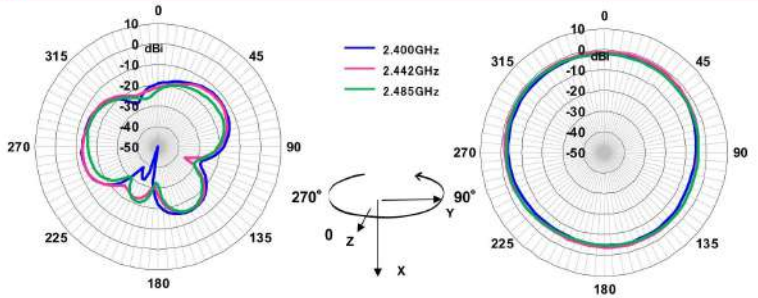
Horizontal Polarization

	2.400GHz	2.442GHz	2.485GHz
Average[dBi]	-2.8	-2.0	-3.0
Maximum[dBi]	0.8	1.4	0.4
Minimum[dBi]	-6.4	-5.5	-6.4

Vertical Polarization

	2.400GHz	2.442GHz	2.485GHz
Average[dBi]	-17.86	-18.30	-18.80
Maximum[dBi]	-12.57	-13.57	-15.05
Minimum[dBi]	-29.14	-29.10	-31.69

Y-Z PLANE



Horizontal Polarization

	2.400GHz	2.442GHz	2.485GHz
Average[dBi]	-16.4	-16.9	-18.6
Maximum[dBi]	-12.5	-13.0	-14.7
Minimum[dBi]	-52.6	-35.7	-32.5

Vertical Polarization

	2.400GHz	2.442GHz	2.485GHz
Average[dBi]	-3.7	-2.5	-3.1
Maximum[dBi]	-2.0	-1.0	-1.3
Minimum[dBi]	-5.8	-4.5	-5.4

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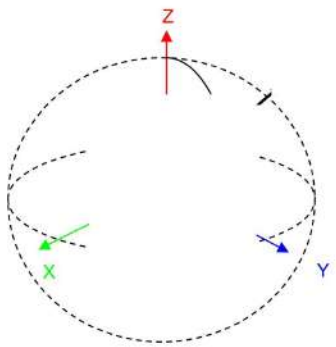
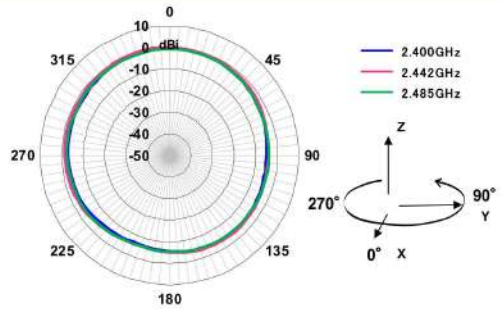
Total Power (2.4GHz Band)

Tuned

PRODUCT ORIENTATIONS



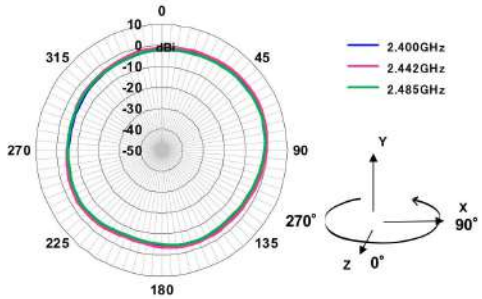
X-Y PLANE



Total Power

	2.400GHz	2.442GHz	2.485GHz
Average[dBi]	-2.9	-2.1	-2.8
Maximum[dBi]	-0.4	0.1	-0.8
Minimum[dBi]	-6.5	-5.8	-5.7

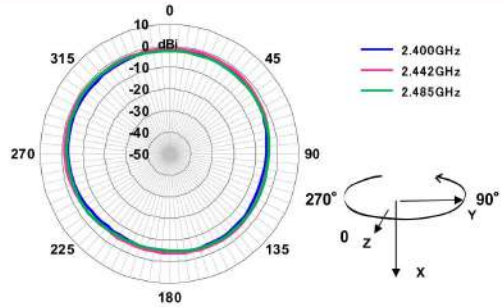
X-Z PLANE



Total Power

	2.400GHz	2.442GHz	2.485GHz
Average[dBi]	-2.6	-1.9	-2.9
Maximum[dBi]	0.8	1.5	0.4
Minimum[dBi]	-5.9	-5.2	-6.3

Y-Z PLANE



Total Power

	2.400GHz	2.442GHz	2.485GHz
Average[dBi]	-3.4	-2.3	-3.0
Maximum[dBi]	-1.9	-0.8	-1.2
Minimum[dBi]	-5.8	-4.5	-5.3

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