RS262 & RS261– BLE (Lyra 24S) – 2402-2480 MHz

Lyra24S PCB Trace Antenna

Datasheet

1 Specifications

Specifications	
Frequency (MHz)	2402-2480
Peak Gain (dBi)	+1.8 @ 2402MHz
Average Efficiency (dB)	> -1.6
VSWR (MHz)	< 2.5:1
Impedance (Ω)	50
Polarization	Linear

Mechanical Specifications	
Antenna Type	PCBA Trace Antenna
Dimensions – mm (inches)	85.0 x 42.0 x 1.5 (3.34 x 1.66 x 0.06)
Weight – g (oz.)	15.0 (0.53)
Color	Blue

Environmental Specifications	
Operating Temperature – °C (°F)	-40 to +85°C (-40 to +185°F)
Material Substance Compliance	RoHS

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Hong Kong: +852-2762-4823

2 Antenna Chamber Test Setup

Antenna measurements such as VSWR and S11 were measured with an Agilent E5071C vector network analyzer. Radiation patterns were measured with a Rohde & Schwarz ZNB8-4PORT vector network analyzer in a Howland Company 3100 chamber equivalent. Phase center is nine inches above the Phi positioner.

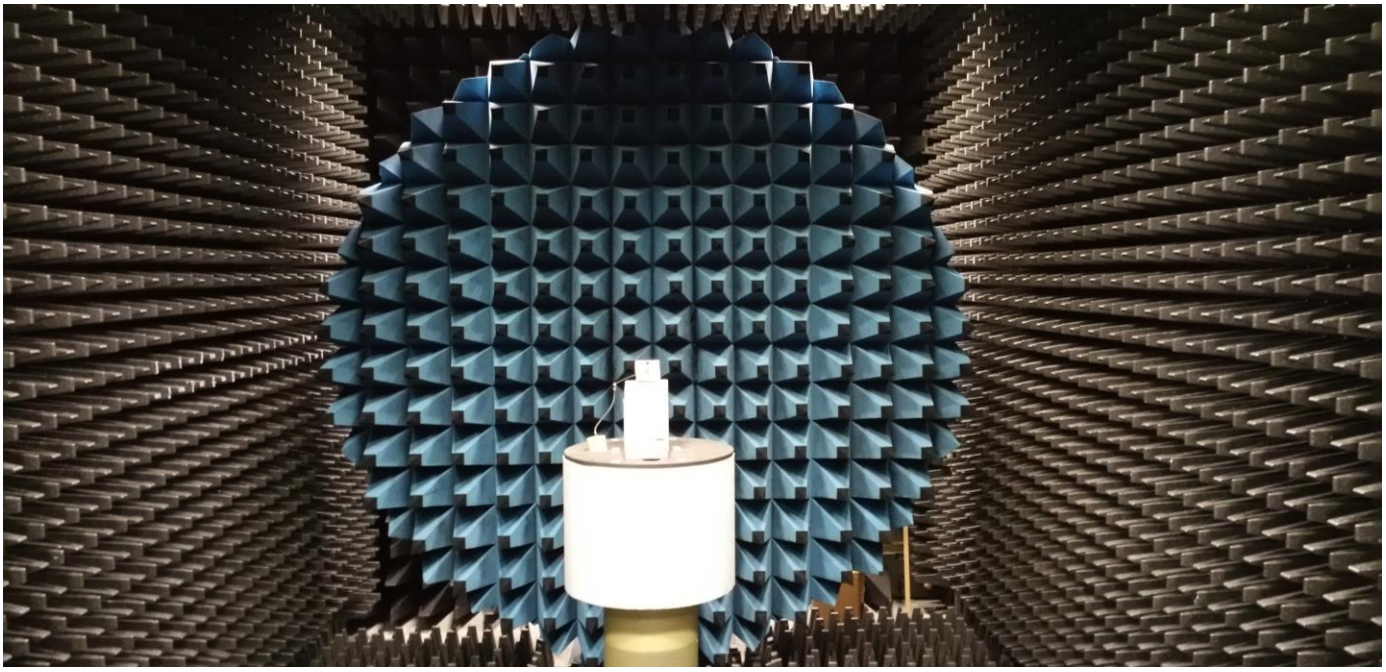

Figure 4: Howland Company 3100 Antenna chamber

3 Antenna Radiation Performance

3.1 RS2xx centered 8in. Above Pedestal

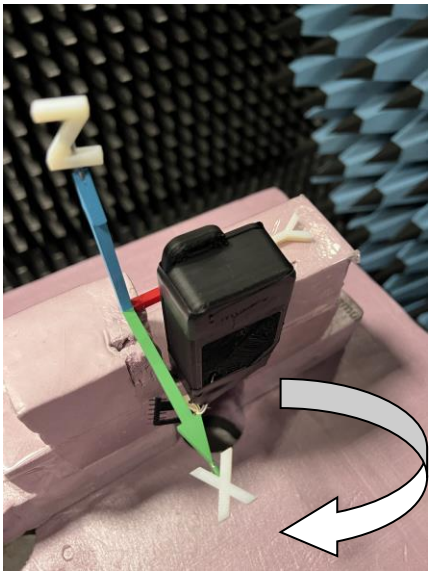

Figure 5: Flat surface setup

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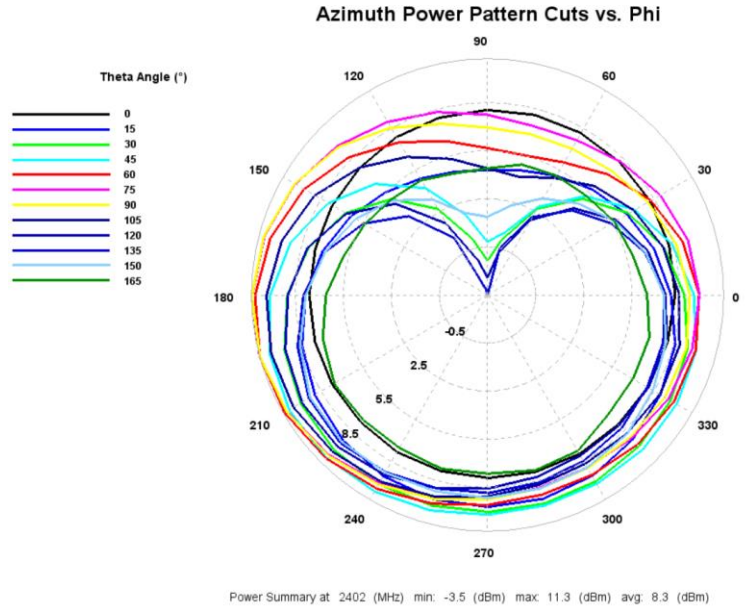
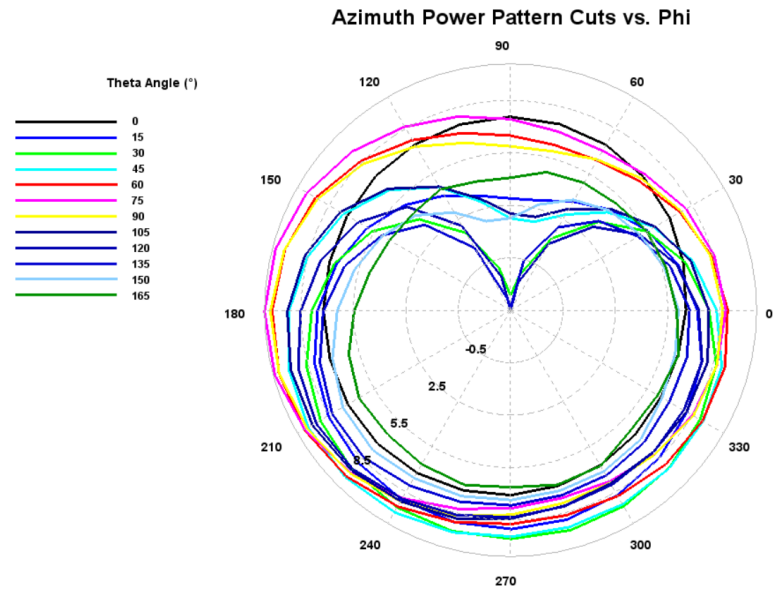
3.2 Radiation Patterns – 2D Plots

3.2.1 2D Azimuth Cuts at 2402 MHz (Tx = +10dBm)



Power Summary at 2402 (MHz) min: -3.5 (dBm) max: 11.3 (dBm) avg: 8.3 (dBm)

3.2.2 2D Azimuth Cuts at 2440 MHz (Tx = +10dBm)



Power Summary at 2440 (MHz) min: -3.5 (dBm) max: 10.6 (dBm) avg: 7.4 (dBm)

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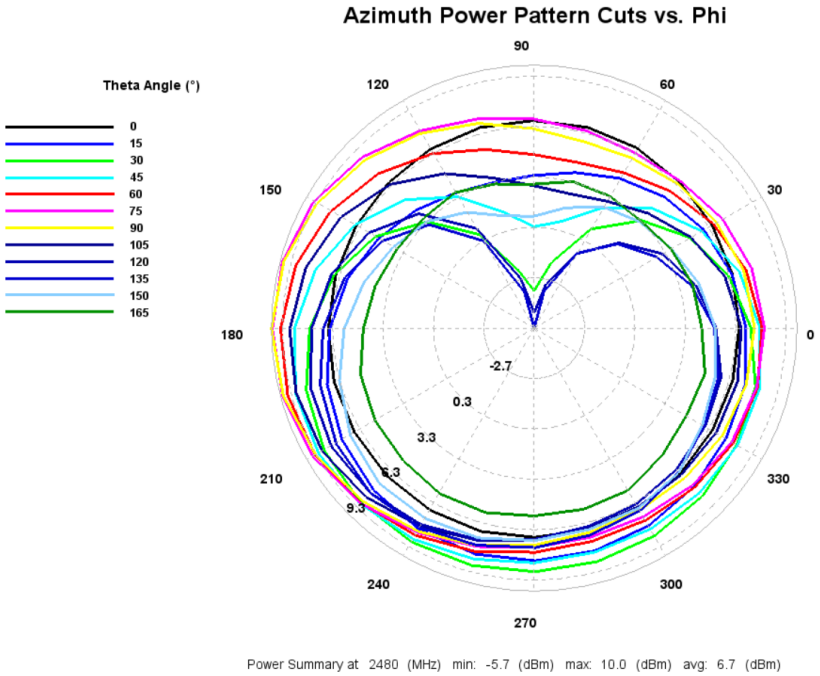
3.2.3 2D Azimuth Cuts at 2480MHz (Tx = +10dBm)



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3.3 Radiation Patterns – 3D Plots

3.3.1 3D Plots at 2402 MHz

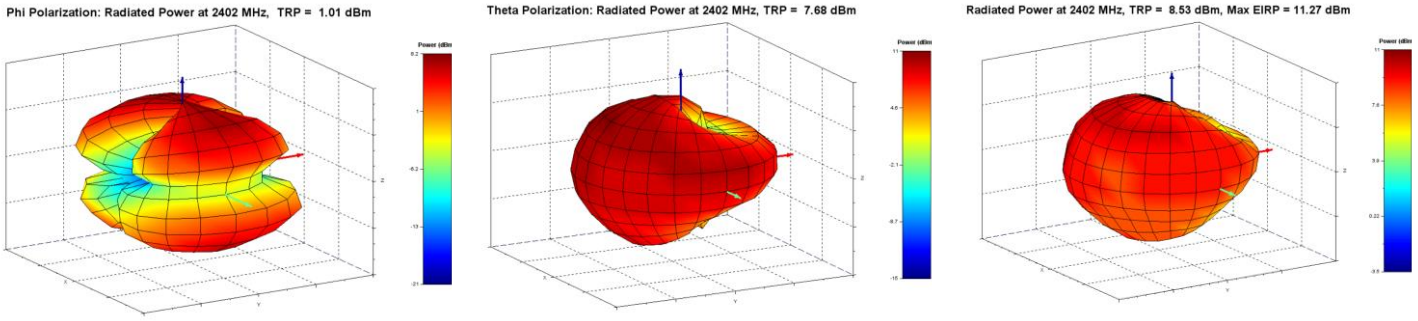

Figure 6: Phi polarization, Theta polarization and, and total gain plots – 2402 MHz

3.3.2 3D Plots at 2440 MHz

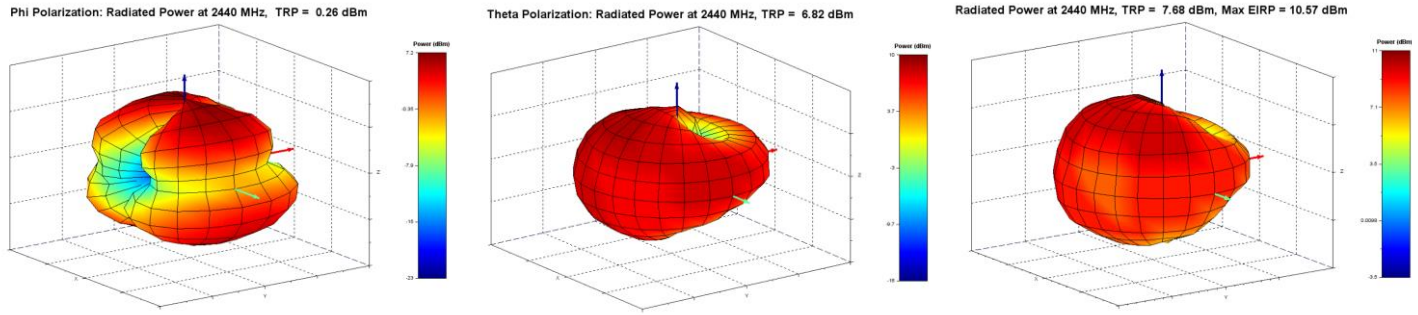

Figure 7: Phi polarization, Theta polarization and, and total gain plots – 2440 MHz

3.3.3 3D Plots at 2480 MHz

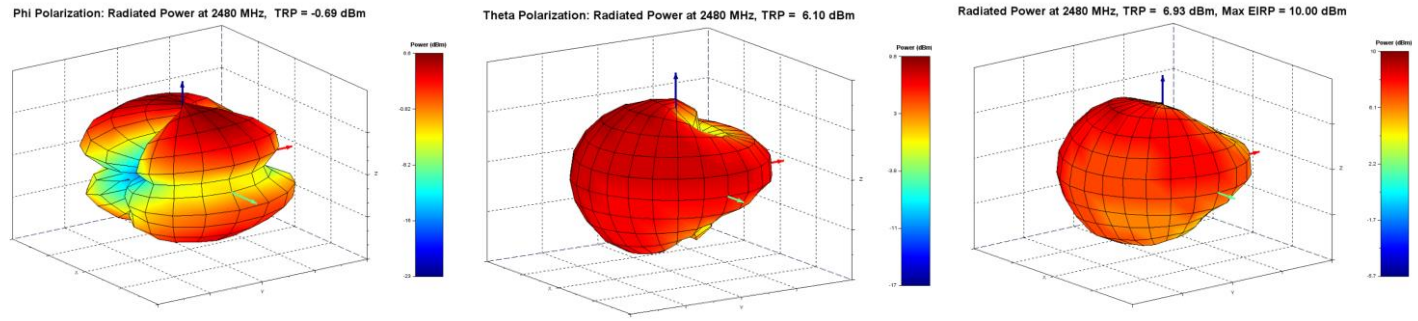

Figure 8: Phi polarization, Theta polarization and, and total gain plots –2480 MHz

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3.4 Efficiency, Gain, EIRP, & TRP Summary

f(MHz)	Antenna P (dBm)	TRP (dBm)	Max EIRP (dBm)	Efficiency (dB)	Gain (dBi)
2402	**9.5**	**8.5**	**11.3**	**-1.0**	**1.8**
2440	**9.3**	**7.7**	**10.6**	**-1.7**	**1.2**
2480	**9.1**	**6.9**	**10.0**	**-2.2**	**0.9**

Figure 7: Antenna Efficiency, Gain, EIRP, and TRP measured in ABS enclosure.

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4 Additional Information

Please contact your local sales representative or our support team for further assistance:

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Note: Information contained in this document is subject to change.