

High Frequency Ceramic Solutions

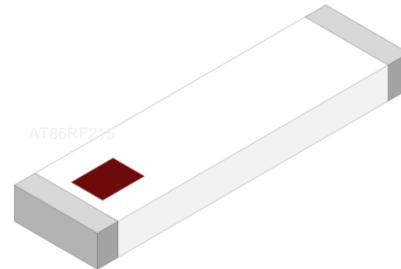
LTE Multi-Band Ceramic Antenna, SMD

P/N: 0830AT54A2200

Detail Specification: 2/19/2018

Page 1 of 9

General Specifications		
Part Number	0830AT54A2200	
Antenna Matching*	Tuning Version 1	Tuning Version 2
Frequency (MHz)	700 - 800	824 - 960
	1700 - 2100	1710 - 2690
Return Loss (dB)	3.5 min.	4.5 min.
Peak Gain (dBi)	2.0 typ.	2.0 typ.
Average Gain (dBi)	-1.6 typ.	-1.0 typ.
Power Capacity (W)	3 max. (CW)	
Quantity/Reel	500	
Operating Temperature	-40°C to +85°C	
Storage Temperature	-40°C to +85°C	
Storage Conditions for unused product on T&R and max shelf period	+5 ~ +35 °C Humidity 45~75%RH 18 mos. Max	



Need help with the layout of the antenna?

We offer 2 free layout reviews!

Contact our applications engineers at:

www.johansontechnology.com/ask-a-question

For more antennas, go to:

www.johansontechnology.com/antennas

*Versions 1 and 2 represent impedance matches optimized for different frequency bands

Part Number Explanation				
P/N Suffix	Packing Style	Bulk	Suffix = S	eg. 0830AT54A2200S
		T & R	Suffix = E	eg. 0830AT54A2200E
		100% Tin	Suffix = None	eg. 0830AT54A2200(E or S)
	Evaluation Board	(Version 1) 0830AT54A2200-EB1SMA, (Version 2) 0830AT54A2200-EB2SMA		

Mechanical Dimensions		
	In	mm
L	0.591 ± 0.008	15.00 ± 0.2
W	0.157 ± 0.008	4.00 ± 0.2
T	0.059 ± 0.008	1.50 ± 0.2
a	0.039 ± 0.012	1.00 ± 0.3

Top View

Side View

Bottom View

Terminal Configuration	
No.	Function
1	FEED
2	NC

Pin 2 must be soldered onto the PCB for mechanical stability

Johanson Technology, Inc. reserves the right to make design changes without notice.

All sales are subject to Johanson Technology, Inc. terms and conditions.



www.johansontechnology.com

4001 Calle Tecate • Camarillo, CA 93012 • TEL 805.389.1166 FAX 805.389.1821

Ver. 1.0

2018 Johanson Technology, Inc. All Rights Reserved

High Frequency Ceramic Solutions

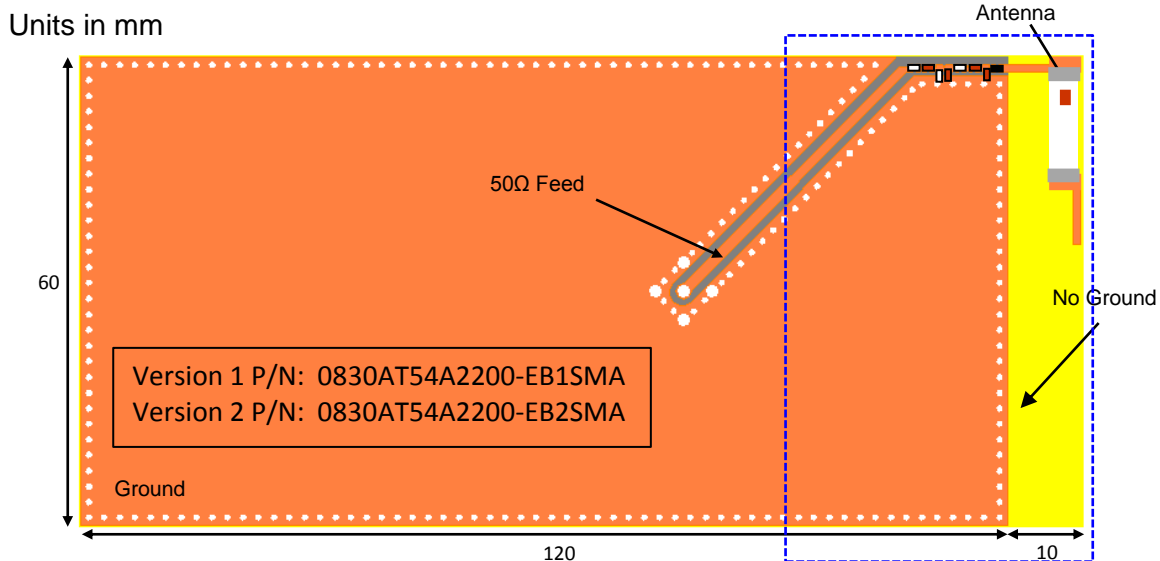
LTE Multi-Band Ceramic Antenna, SMD

P/N: 0830AT54A2200

Detail Specification: 2/19/2018

Page 2 of 9

Mounting Consideration: Evaluation PCB (Versions 1 and 2)

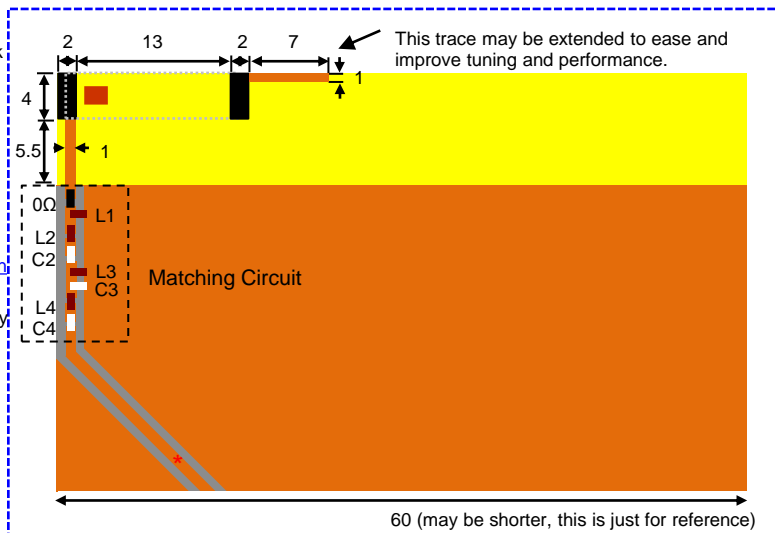


Units in mm

It is recommended that the designer leave available slots for the topology of the network to the right. These particular antenna matching values are used when antenna is mounted on Johanson's evaluation board. The matching values on client's PCB will be different, just leave them empty until final assembly, then tune. Want us to tune it for you and need layout optimization?

www.johansontechnology.com/ask-a-question

Would you like the layout file so you can copy and paste to your desing? Having antenna tuning issues? Contact us by clicking on the link above



Johanson Technology, Inc. reserves the right to make design changes without notice.
All sales are subject to Johanson Technology, Inc. terms and conditions.



www.johansontechnology.com

4001 Calle Tecate • Camarillo, CA 93012 • TEL 805.389.1166 FAX 805.389.1821

Ver. 1.0

2018 Johanson Technology, Inc. All Rights Reserved

High Frequency Ceramic Solutions

LTE Multi-Band Ceramic Antenna, SMD

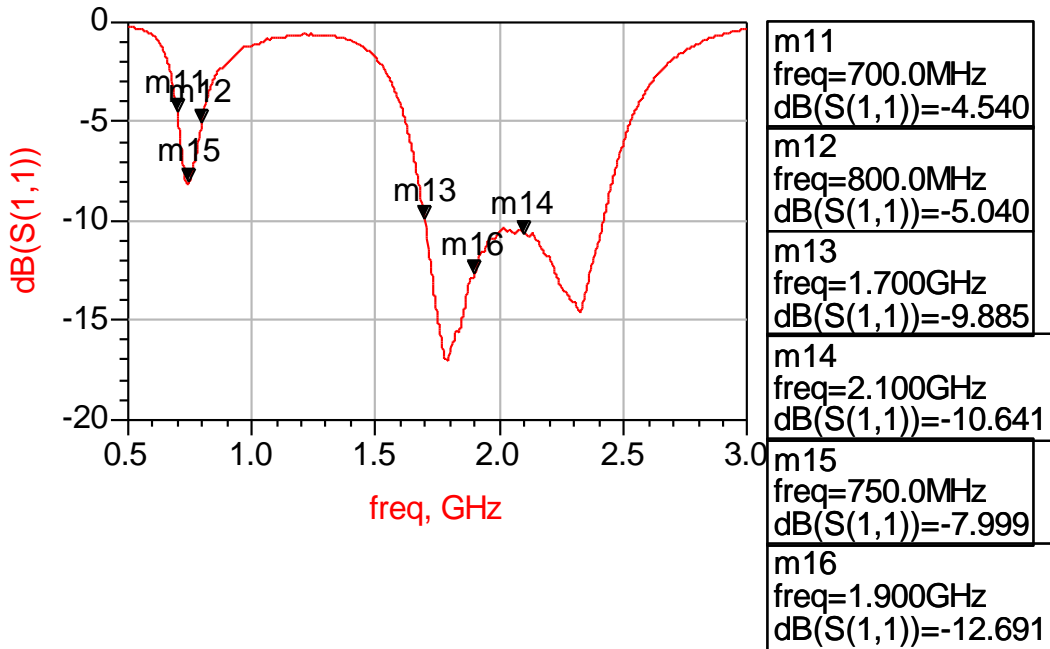
P/N: 0830AT54A2200

Detail Specification: 2/19/2018

Page 3 of 9

Typical Electrical Characteristics (T=25°C)

"Version 1" Evaluation PCB 0830AT54A2200-EB1SMA



To order a pre-tuned 50Ω EVB with a female SMA connector for "Tuning Version 1" click here: www.johansontechnology.com/request-a-sample
Reference p/n: 0830AT54A2200-EB1SMA

Johanson Technology, Inc. reserves the right to make design changes without notice.
All sales are subject to Johanson Technology, Inc. terms and conditions.



www.johansontechnology.com

4001 Calle Tecate • Camarillo, CA 93012 • TEL 805.389.1166 FAX 805.389.1821

Ver. 1.0

2018 Johanson Technology, Inc. All Rights Reserved

High Frequency Ceramic Solutions

LTE Multi-Band Ceramic Antenna, SMD

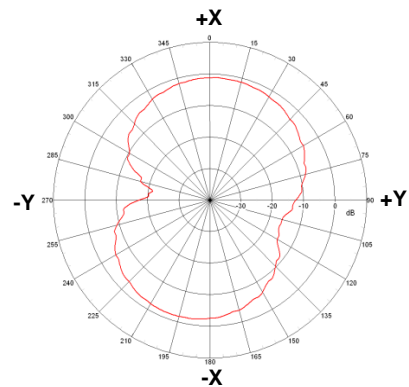
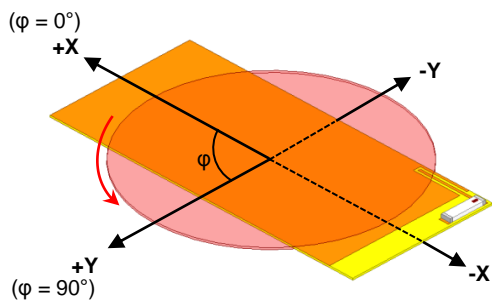
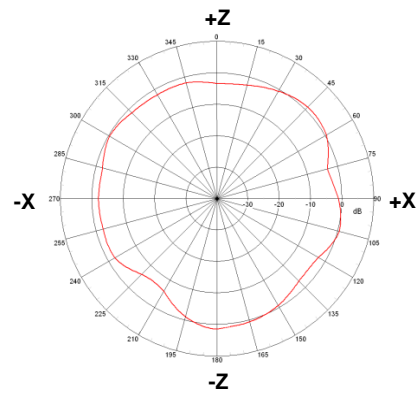
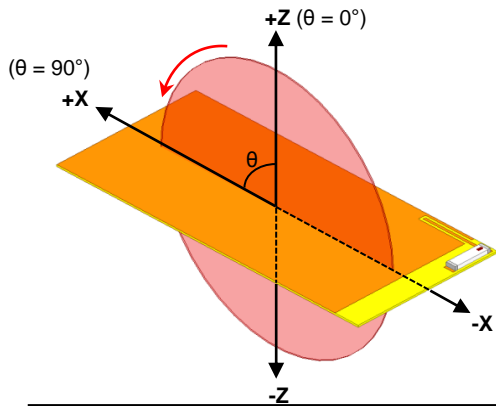
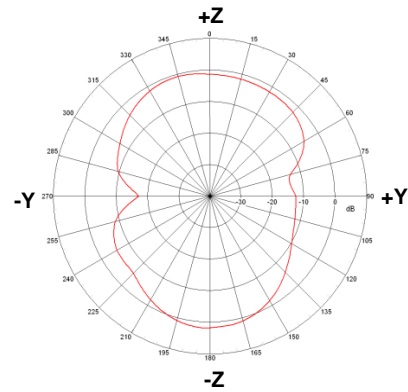
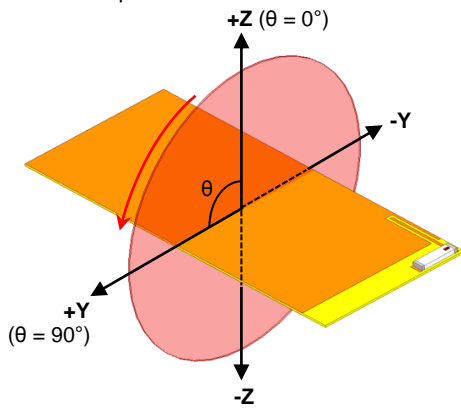
P/N: 0830AT54A2200

Detail Specification: 2/19/2018

Page 4 of 9

Mounting Consideration: Evaluation PCB "Version 1" P/N 0830AT54A2200-EB1SMA

Typical 2D radiation patterns @ 750MHz



Johanson Technology, Inc. reserves the right to make design changes without notice.
All sales are subject to Johanson Technology, Inc. terms and conditions.

High Frequency Ceramic Solutions

LTE Multi-Band Ceramic Antenna, SMD

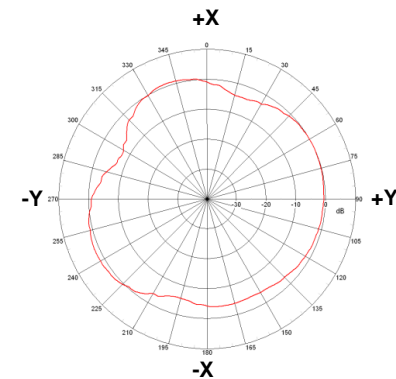
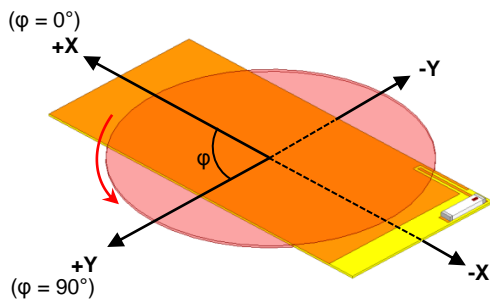
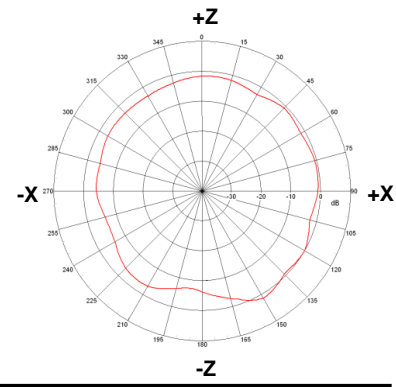
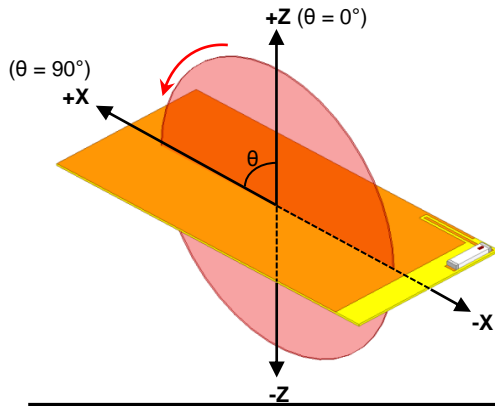
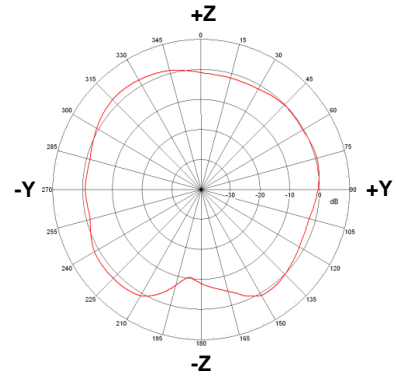
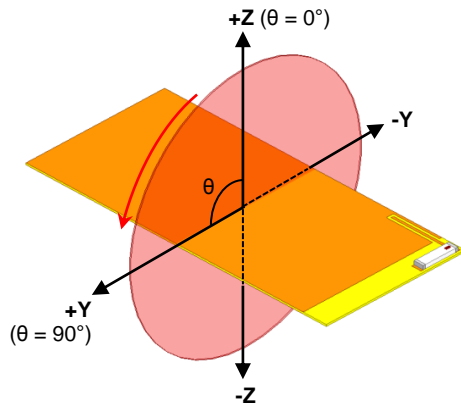
P/N: 0830AT54A2200

Detail Specification: 2/19/2018

Page 5 of 9

Mounting Consideration: Evaluation PCB "Version 1" P/N 0830AT54A2200-EB1SMA

Typical 2D radiation patterns @ 1900MHz



Johanson Technology, Inc. reserves the right to make design changes without notice.
All sales are subject to Johanson Technology, Inc. terms and conditions.

High Frequency Ceramic Solutions

LTE Multi-Band Ceramic Antenna, SMD

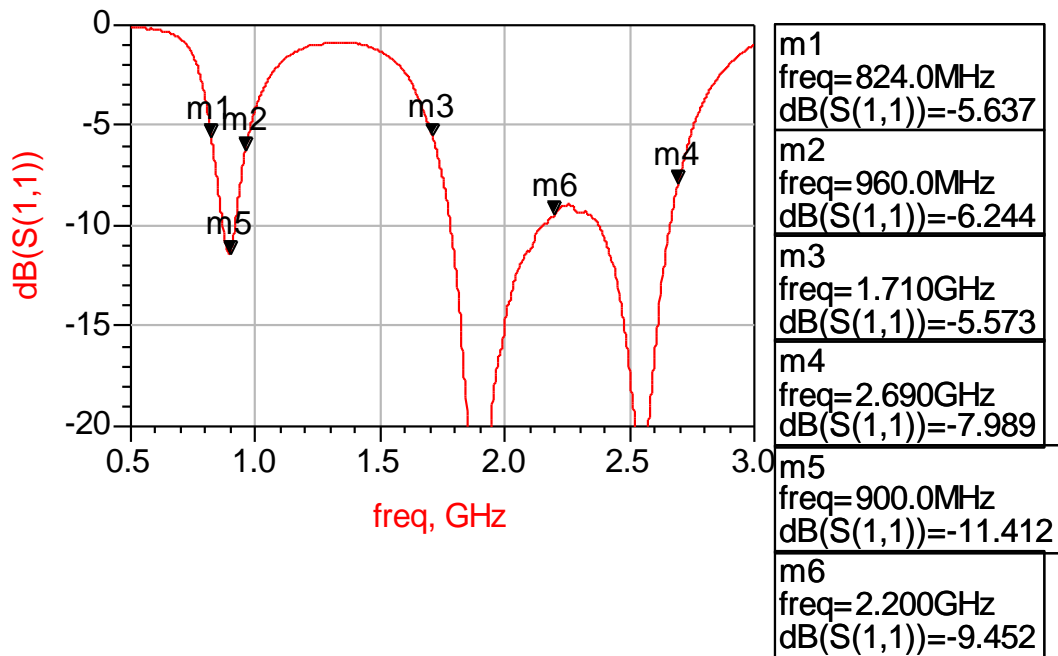
P/N: 0830AT54A2200

Detail Specification: 2/19/2018

Page 6 of 9

Typical Electrical Characteristics (T=25°C)

"Version 2" Evaluation Board 0830AT54A2200-EB2SMA



To order a pre-tuned 50Ω EVB with a female SMA connector for "Tuning Version 2" click here: www.johansontechnology.com/request-a-sample
Reference p/n: 0830AT54A2200-EB2SMA

Johanson Technology, Inc. reserves the right to make design changes without notice.
All sales are subject to Johanson Technology, Inc. terms and conditions.



www.johansontechnology.com

4001 Calle Tecate • Camarillo, CA 93012 • TEL 805.389.1166 FAX 805.389.1821

Ver. 1.0

2018 Johanson Technology, Inc. All Rights Reserved

High Frequency Ceramic Solutions

LTE Multi-Band Ceramic Antenna, SMD

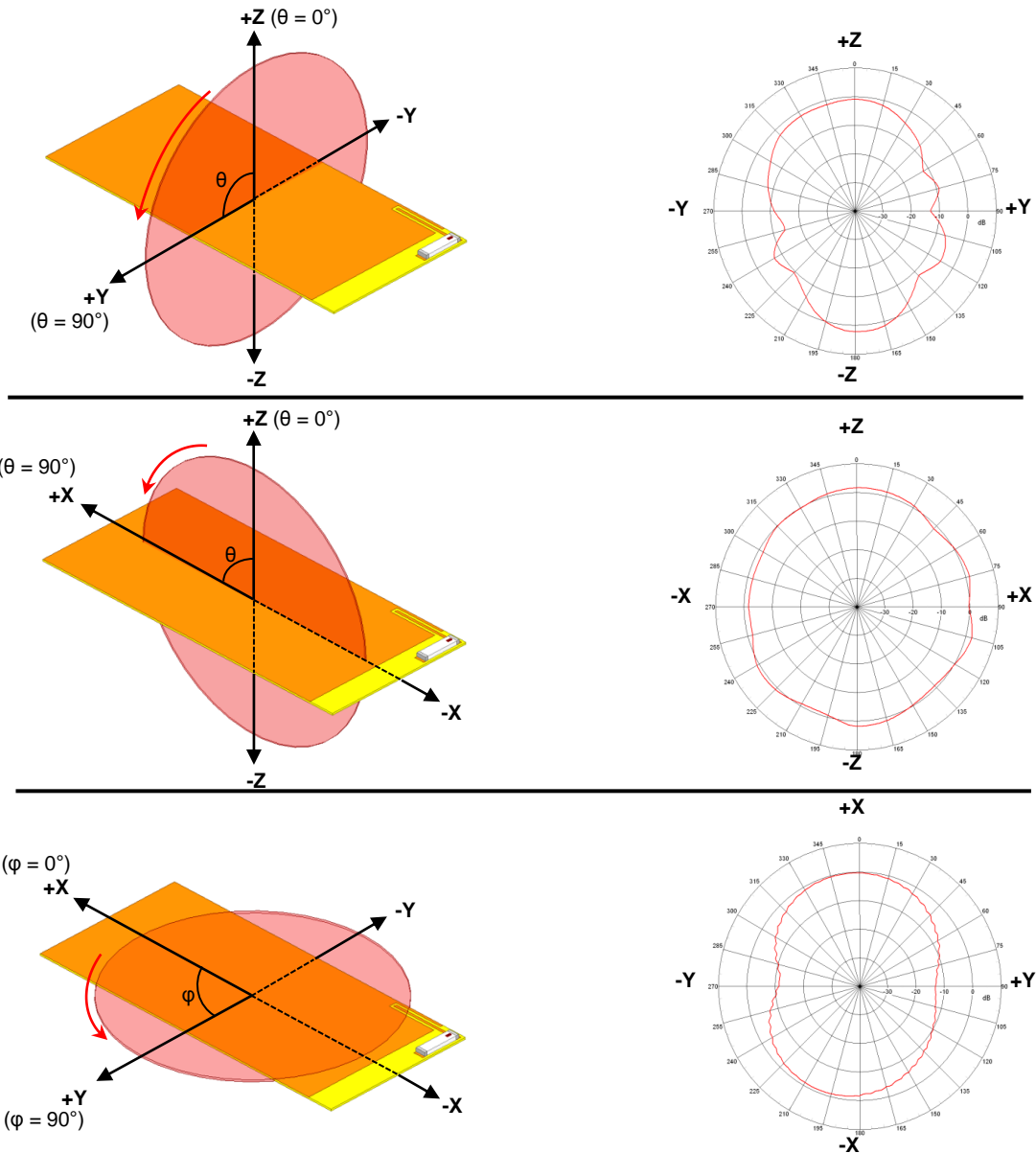
P/N: 0830AT54A2200

Detail Specification: 2/19/2018

Page 7 of 9

Mounting Consideration: Evaluation PCB "Version 2" P/N 0830AT54A2200-EB2SMA

Typical 2D radiation patterns @ 900MHz



Johanson Technology, Inc. reserves the right to make design changes without notice.

All sales are subject to Johanson Technology, Inc. terms and conditions.



www.johansontechnology.com

4001 Calle Tecate • Camarillo, CA 93012 • TEL 805.389.1166 FAX 805.389.1821

Ver. 1.0

2018 Johanson Technology, Inc. All Rights Reserved

High Frequency Ceramic Solutions

LTE Multi-Band Ceramic Antenna, SMD

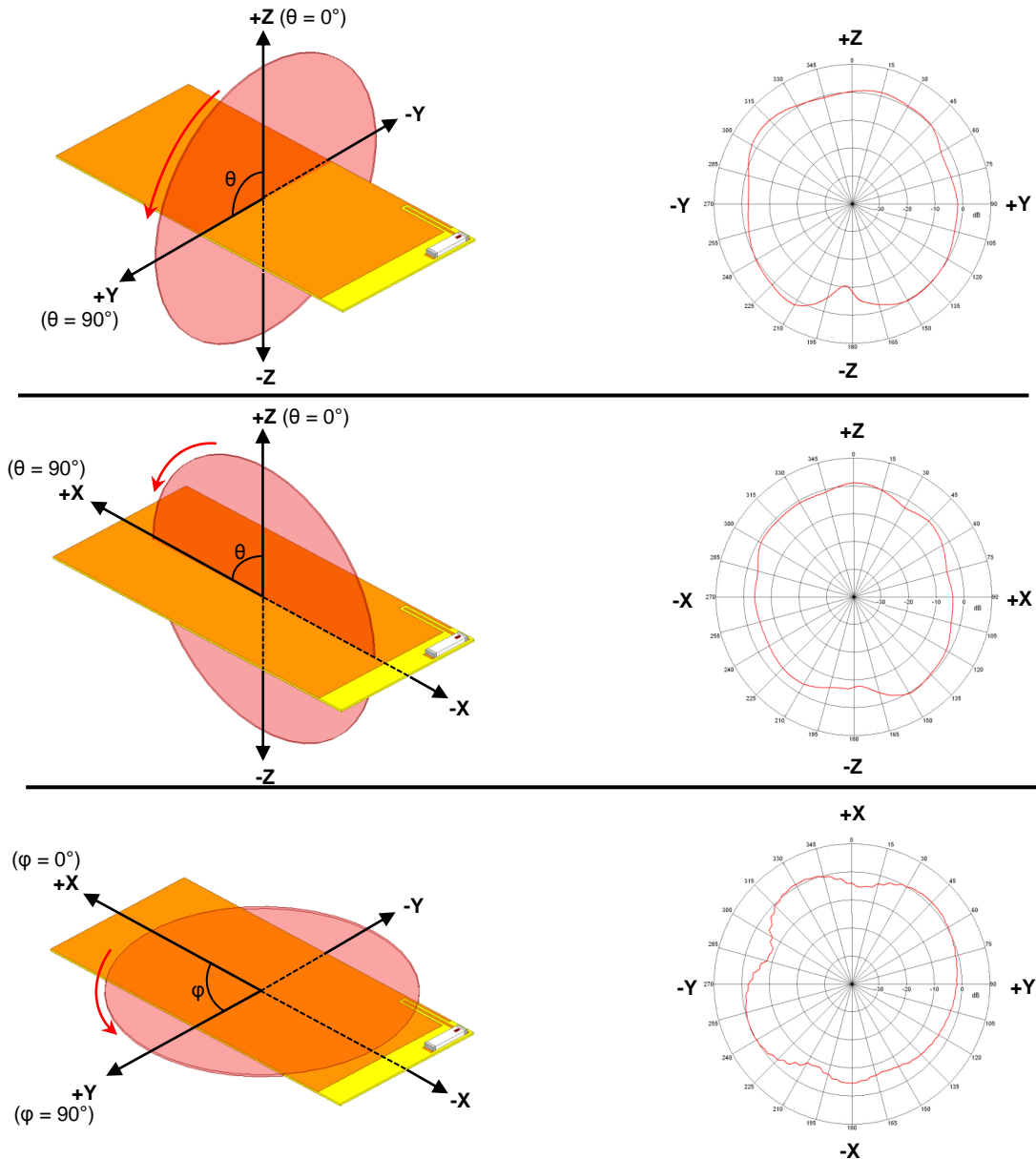
P/N: 0830AT54A2200

Detail Specification: 2/19/2018

Page 8 of 9

Mounting Consideration: Evaluation PCB "Version 2" P/N 0830AT54A2200-EB2SMA

Typical 2D radiation patterns @ 2200MHz



Johanson Technology, Inc. reserves the right to make design changes without notice.
All sales are subject to Johanson Technology, Inc. terms and conditions.



www.johansontechnology.com

4001 Calle Tecate • Camarillo, CA 93012 • TEL 805.389.1166 FAX 805.389.1821

Ver. 1.0

2018 Johanson Technology, Inc. All Rights Reserved

High Frequency Ceramic Solutions

LTE Multi-Band Ceramic Antenna, SMD

P/N: 0830AT54A2200

Detail Specification: 2/19/2018

Page 9 of 9

Antenna tuning, optimization, and validation services:

www.johansontechnology.com/ipc-antenna-services

For more antennas and to download measured S-parameters, go to:

www.johansontechnology.com/antennas

Soldering Information

www.johansontechnology.com/ipcsoldering-profile

MSL Info

www.johansontechnology.com/msl-rating

Packaging information

www.johansontechnology.com/tape-reel-packaging

For layout review contact our Applications Team at:

www.johansontechnology.com/ask-a-question

RoHS Compliance

www.johansontechnology.com/rohs-compliance

Would you like us to review your layout for free? Need an embedded antenna recommendation for your application?

Contact us at:

www.johansontechnology.com/ask-a-question

Johanson Technology, Inc. reserves the right to make design changes without notice.

All sales are subject to Johanson Technology, Inc. terms and conditions.



www.johansontechnology.com
4001 Calle Tecate • Camarillo, CA 93012 • TEL 805.389.1166 FAX 805.389.1821

Ver. 1.0

2018 Johanson Technology, Inc. All Rights Reserved

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:

moschip.ru

moschip.ru_4

moschip.ru_6

moschip.ru_9