

High Frequency Ceramic Solutions

**Atmel AT86RF215 868/915/928 MHz Impedance Matched Balun + LPF
(FCC/ETSI compliant) integrated Passive Component**

P/N: 0896BM15E0025

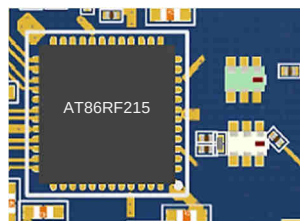
Detail Specification: 3/10/2016

Page 1 of 5

For the 2.4G Balun-filter, go to: www.johansontechnology.com/atmel

General Specifications

Part Number	0896BM15E0025
Frequency (MHz)	863-928
Unbalanced Impedance	50
Balanced Impedance	Conjugate match to Atmel's AT86RF215, AT86RF215M, AT86RF215IQ chipsets
Insertion Loss	1.25dB Typ. (1.6dB max.)
Return Loss	2.0 max.
Phase Diff.	180±10
Amp. Diff.	2.0 max.
Attenuation	40Typ. 30 min.@ 1726~1856 MHz 45Typ. 34 min.@ 2589~2784 MHz 45Typ. 42 min.@ 3452~3712 MHz 45Typ. 34 min.@ 4315~4640 MHz 54Typ. 31 min.@ 5178~5568 MHz
Power Capacity	1W max. CW



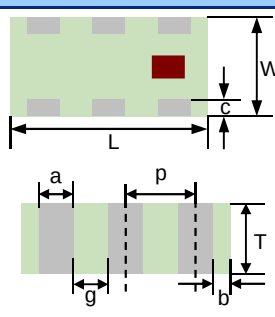
Q'ty/Reel	4,000 pcs
Operating Temperature	-40°C to +85°C
Storage Temperature Range	-40°C to +85°C
Storage Period	18 months max
Recommended Storage Conditions for unused T&R product	+5 ~ +35 °C, Humidity 45~75%RH, 18 mos. max

Part Number Explanation

P/N Suffix	Packing Style	Bulk	Suffix = S	eg. 0896BM15E0025S
		T & R	Suffix = E	eg. 0896BM15E0025E
		100% Tin	Suffix = None	eg. 0896BM15E0025(E or S)

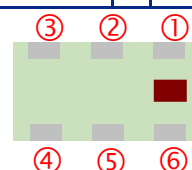
Mechanical Dimensions

	In	mm
L	0.079 ± 0.004	2.00 ± 0.10
W	0.049 ± 0.004	1.25 ± 0.10
T	0.037 ± 0.004	0.95 ± 0.10
a	0.012 ± 0.004	0.30 ± 0.10
b	0.008 ± 0.004	0.20 ± 0.10
c	0.012 +.004/-.008	0.30 +0.1/-0.2
g	0.014 ± 0.004	0.35 ± 0.10
p	0.026 ± 0.002	0.65 ± 0.05



Terminal Configuration

No.	Function	No.	Function
1	Unbalanced Port	4	Balanced Port
2	GND	5	GND
3	Balanced Port	6	GND



Would you like us to review your layout for free and, if needed, recommend you an small antenna solution 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. 1.2

2016 Johanson Technology, Inc. All Rights Reserved

High Frequency Ceramic Solutions

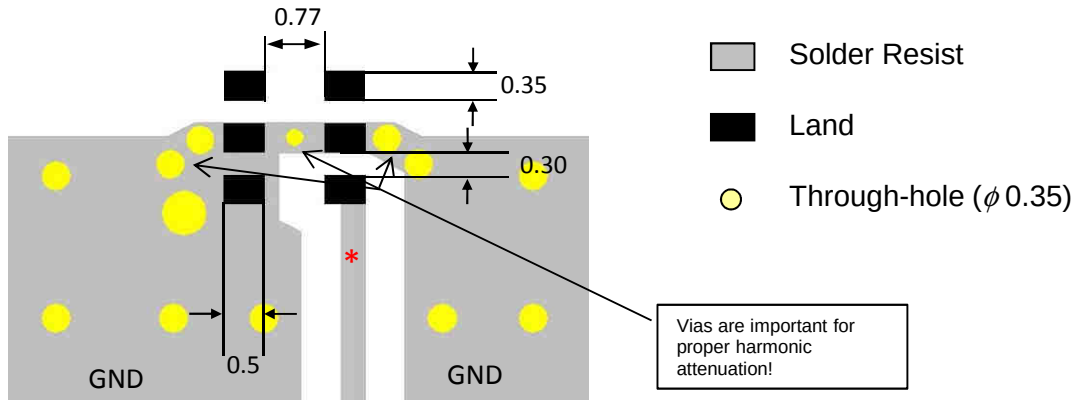
Atmel AT86RF215 868/915/928 MHz Impedance Matched Balun + LPF
(FCC/ETSI compliant) integrated Passive Component

P/N: 0896BM15E0025

Detail Specification: 3/10/2016

Page 2 of 5

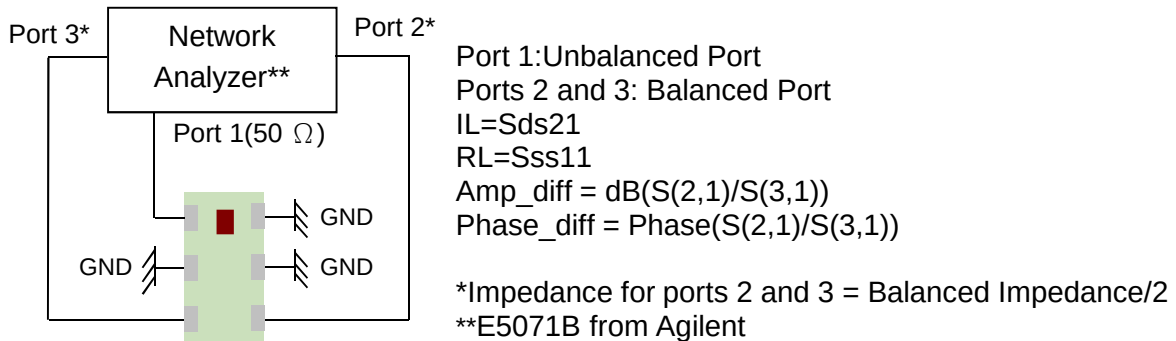
Pad-Soldermask Guidelines



* Line width should be designed to match 50ohm characteristic impedance, depending on PCB material and thickness. Grounded CPWG is recommended.

Schematic and layout (gerber) file download info at: www.johansontechnology.com/atmel

Measurement Diagram



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. 1.2 2016 Johanson Technology, Inc. All Rights Reserved

High Frequency Ceramic Solutions

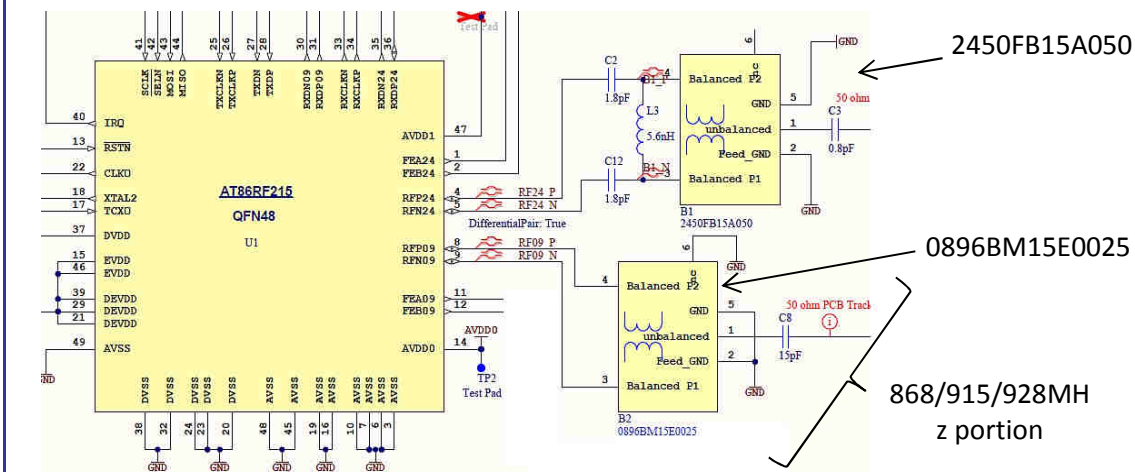
Atmel AT86RF215 868/915/928 MHz Impedance Matched Balun + LPF
(FCC/ETSI compliant) integrated Passive Component

P/N: 0896BM15E0025

Detail Specification: 3/10/2016

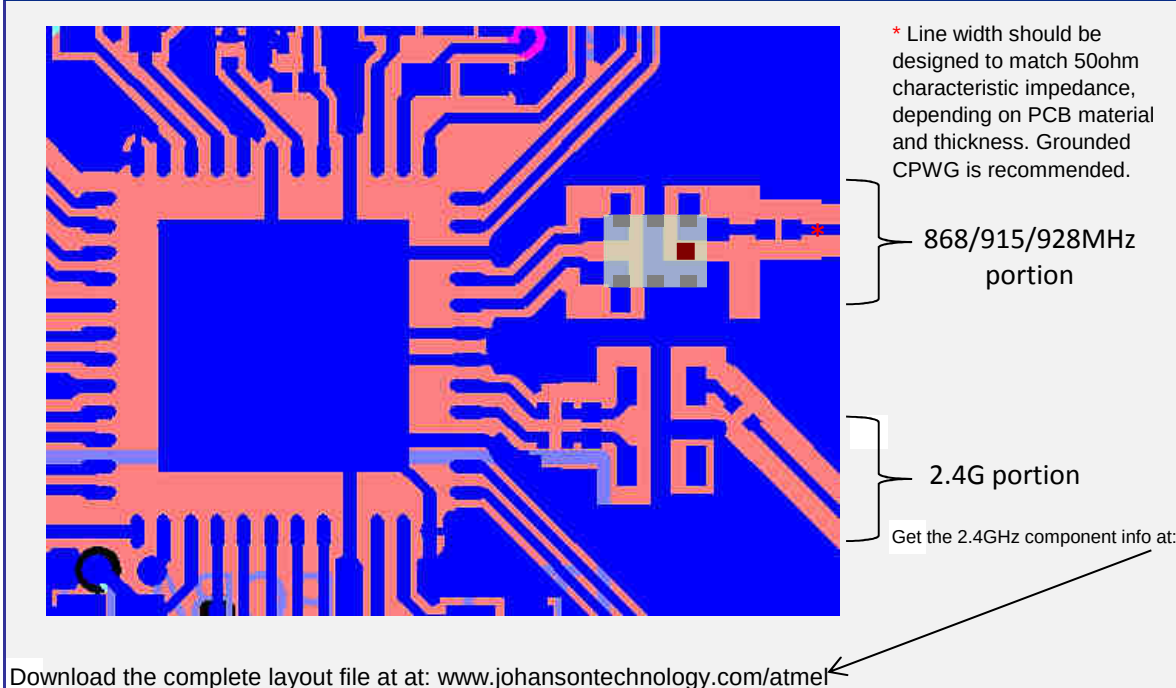
Page 3 of 5

Schematic



Schematic and layout (gerber) file download info at: www.johansontechnology.com/atmel

Layout Mounting Considerations



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. 1.2

2016 Johanson Technology, Inc. All Rights Reserved

High Frequency Ceramic Solutions

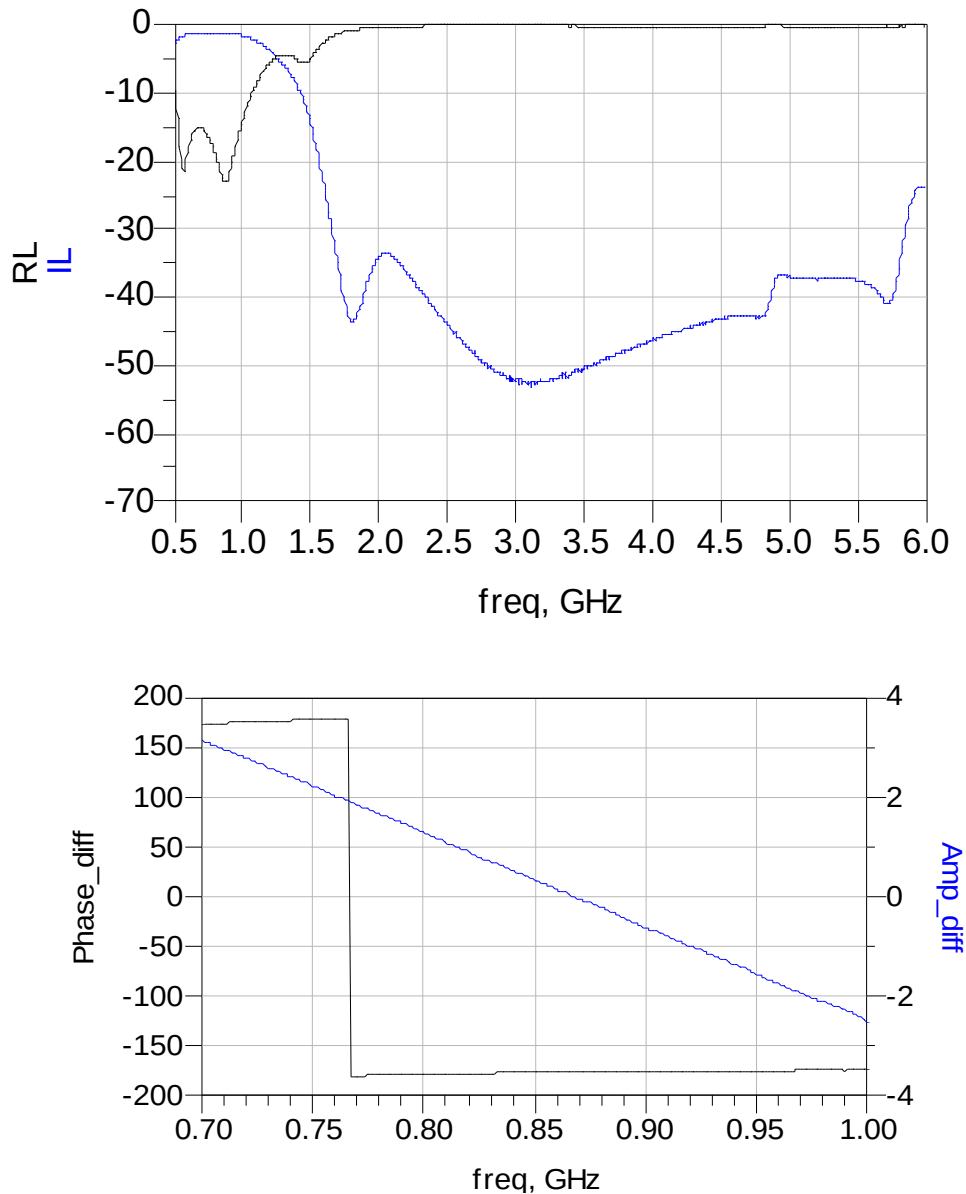
Atmel AT86RF215 868/915/928 MHz Impedance Matched Balun + LPF
(FCC/ETSI compliant) integrated Passive Component

P/N: 0896BM15E0025

Detail Specification: 3/10/2016

Page 4 of 5

Typical Electrical Characteristics (T=25°C)



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. 1.2 2016 Johanson Technology, Inc. All Rights Reserved

"High Frequency Ceramic Solutions"

Atmel AT86RF215 868/915/928 MHz Impedance Matched Balun + LPF
(FCC/ETSI compliant) integrated Passive Component

P/N: 0896BM15E0025

Detail Specification: 3/10/2016

Page 5 of 5

Application Notes, Layout Files, and more

www.johansontechnology.com/atmel

RoHS Compliance

www.johansontechnology.com/technical-notes/rohs-compliance.html

Soldering Information

www.johansontechnology.com/ipcsoldering-profile

Antenna layout and tuning techniques

www.johansontechnology.com/tuning

Antenna layout review, tuning, and characterization services

www.johansontechnology.com/ipcantennaservices

MSL Info

www.johansontechnology.com/technical-notes/msl-rating.html

Recommended Storage Condition and Max Shelf Life

www.johansontechnology.com/ipcstorage-shelflife

Packaging information

www.johansontechnology.com/ipcpackaging.html

Would you like us to review your layout for free and, if needed, recommend you an small antenna solution 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. 1.2

2016 Johanson Technology, Inc. All Rights Reserved