High Frequency Ceramic Solutions

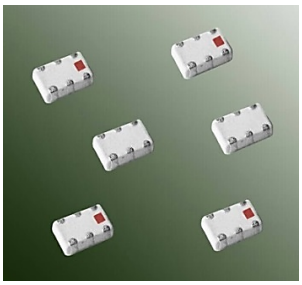
NXP (Freescale) KW40, KW30, and KW20 Impedance Matched Front End Balun + BPF (FCC/ETSI-compliant filter embedded) **P/N: 2450BM15B0026**

Detail Specification: 5/26/2016

AEC-Q200 available

General Specifications

Part Number	2450BM15B0026
Frequency (MHz)	2400-2500
Unbalanced Impedance	50
Balanced Impedance	Conj. match to NXP Freescale KW40/30/20 RF Chipsets*
Insertion Loss	1.0 dBTyp (1.5 dB max.)
Return Loss	9.5 dB min.
Phase Diff.	180±10 deg.
Amp. Diff.	2.0 max.
Attenuation	15 dB min.@ 1170 MHz 22 dB min.@ 4800~5000MHz 18 dB min.@ 7200~7500 MHz
Q'ty/Reel	4,000 pcs
Power Capacity	2W max. CW

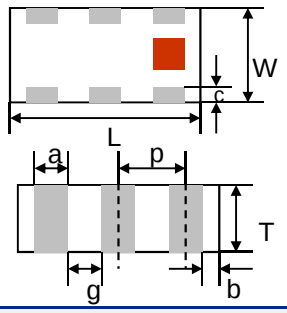


Operating Temperature	-40°C to +85°C
Storage Temperature Range	-40°C to +85°C
Storage Period	18 months max
Recommended Storage Conditions for unused product on T&R	+5 to +35°C, Humidity: 45-75%RH, 18 mos. Max

*Do you need help with the layout (free service)? Send us a message and we'll put you in touch with an RF Engineer!
www.johansontechnology.com/ask-a-question

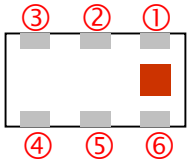
Mechanical Dimensions

	In	mm
L	0.079 ± 0.004	2.00 ± 0.10
W	0.049 ± 0.004	1.25 ± 0.10
T	0.028 ± 0.004	0.70 ± 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 or DC Feed	5	GND
3	Balanced Port	6	GND



Part Number Explanation

P/N Suffix	**Packing Style**	Bulk	Suffix = S	eg. 2450BM15B0026S
		T & R	Suffix = E	eg. 2450BM15B0026E
		100% Tin	Suffix = None	eg. 2450BM15B0026(E or S)

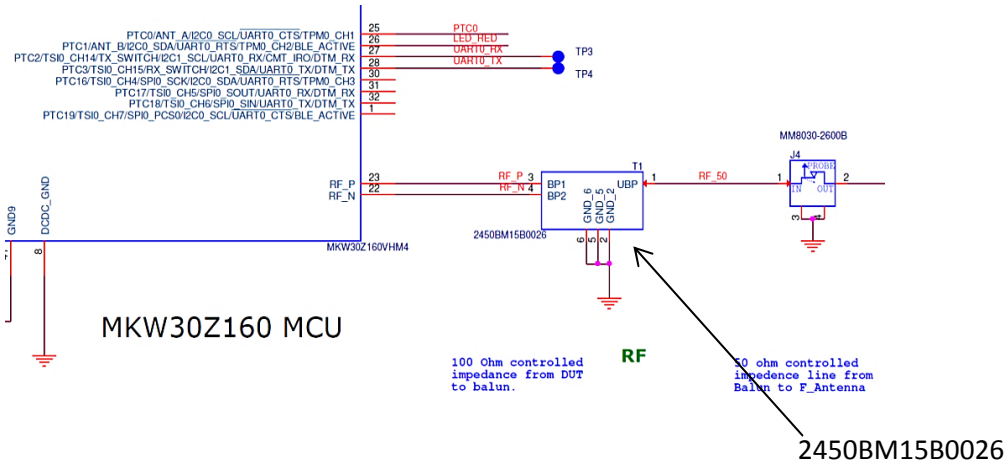
Download the measured s-parameters (to simulate our component), schematic, and gerber/layout files at:
www.johansontechnology.com/nxp

JOHANSON TECHNOLOGY

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

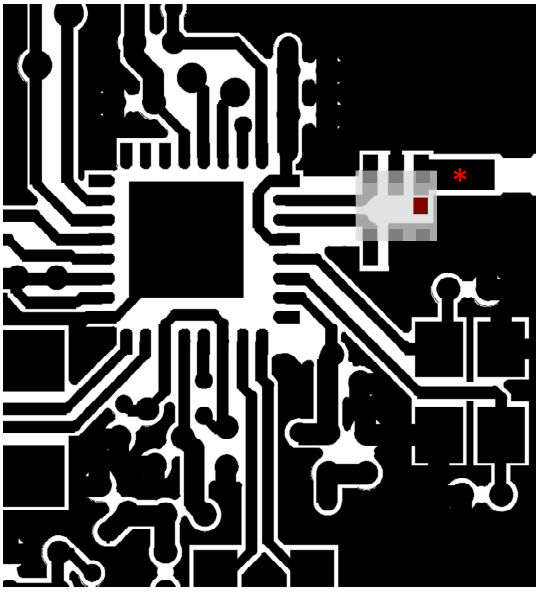
AEC-Q200 available

Schematic



Download the schematic and gerber/layout files at: www.johansontechnology.com/nxp

Layout Mounting Considerations



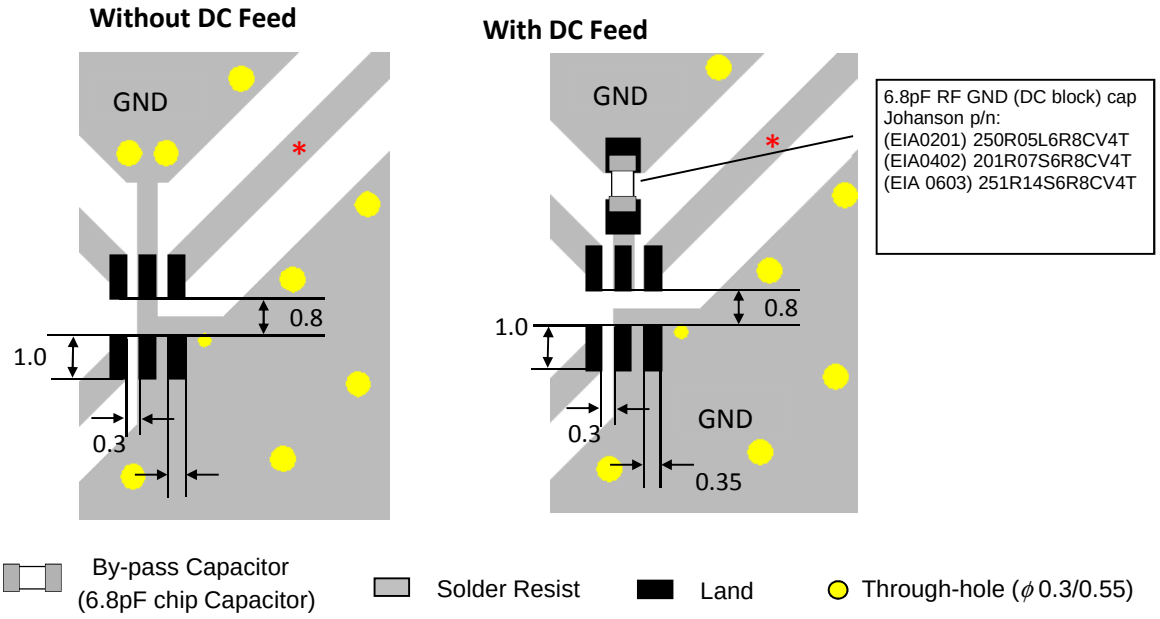
Need help with the layout of the component or help choosing a mini 2.4GHz antenna? Contact us at: www.johansontechnology.com/ask-a-question

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

Download the complete layout file at at: www.johansontechnology.com/nxp

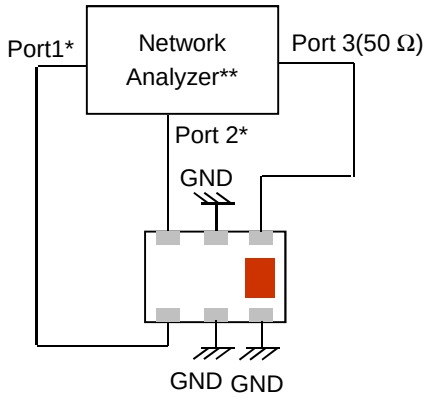
AEC-Q200 available

Mounting Considerations



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

Mounting Diagram



Port 3:Unbalanced Port
Ports 1 and 2: Balanced Port
IL=Sds21
RL=Sss11,Sdd22
Amp_balance = dB(S(2,3)/S(1,3))
Phase_balance = Phase(S(2,3)/S(1,3))

*Impedance for ports 1 and 2
= Conjugate to Balanced Impedance/2
**E5071B from Agilent

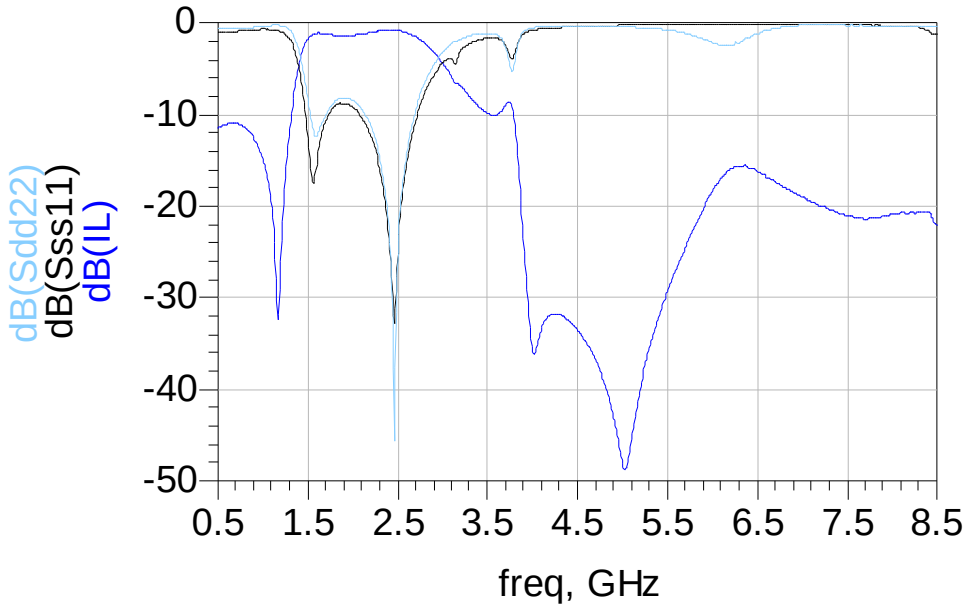
JOHANSON TECHNOLOGY

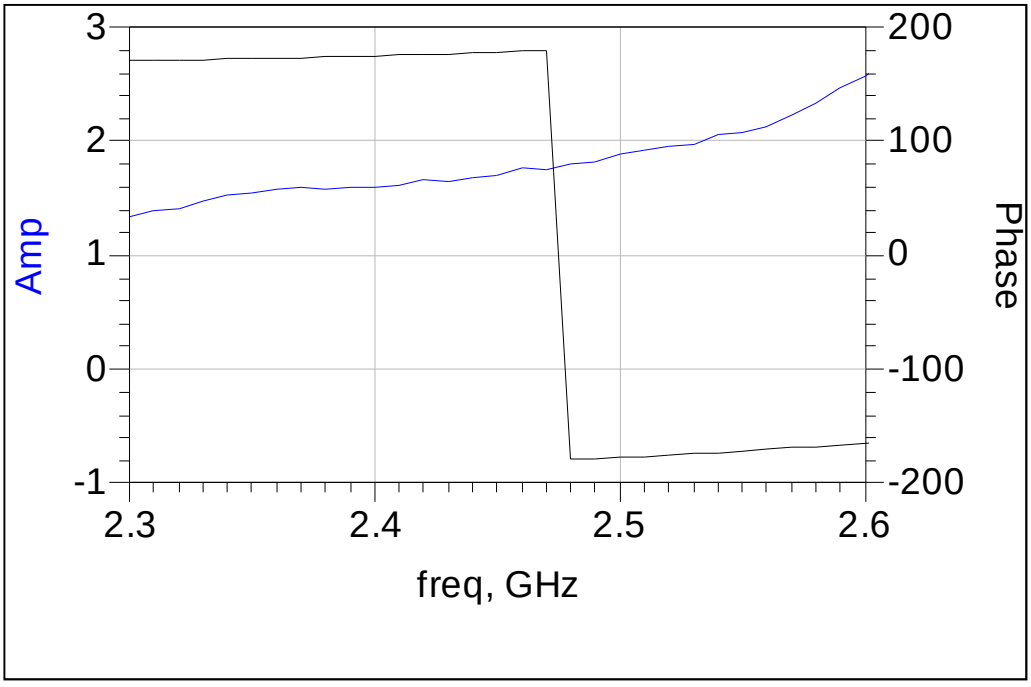
www.johansontechnology.com

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

AEC-Q200 available

Typical Electrical Characteristics (T=25°C)





AEC-Q200 available

Application Notes, Layout Files, and more
www.johansontechnology.com/nxp

Mini Antennas for BLE applications
www.johansontechnology.com/antennas

Antenna layout and tuning techniques
www.johansontechnology.com/tuning

Antenna layout review, tuning, and characterization services
www.johansontechnology.com/ipc-antenna-services.html

Soldering Information
www.johansontechnology.com/ipcsoldering-profile

MSL Info
www.johansontechnology.com/msl-rating

Recommneded Storage Condition and Max Shelf Life
http://www.johansontechnology.com/recommended-storage-conditions

Packaging information
www.johansontechnology.com/ipcpackaging.html

RoHS Compliance
www.johansontechnology.com/rohs-compliance

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