KYOCERA SAW Filter

- Wi-Fi 2.4GHz -

Type Name : VF11-2442M5UUA1

co-ext. B7/B40/B41
supported AEC-Q200

May, 1, 2025

KYOCERA Corporation

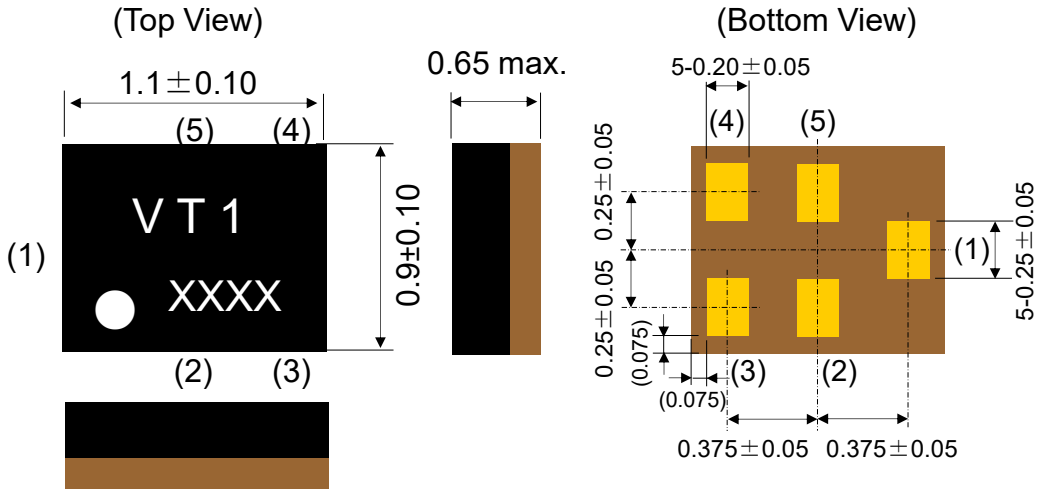
Corporate Electronic Components Group

Electronic Devices Division

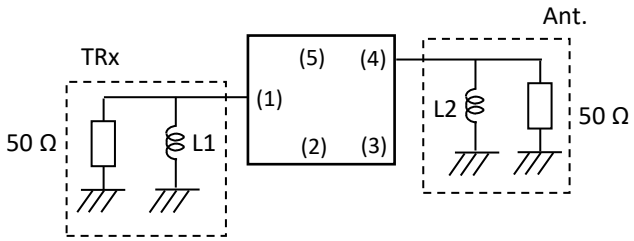
© 2025 KYOCERA Corporation all right reserved

Dimensions & Test Circuit of SAW Filter

Dimensions



Test Circuit



L1 : 7.5nH (Ideal)
L2 : 20nH (Ideal)

Unit	:	mm
V	:	Identification mark
T1	:	Identification no.
●	:	Index mark of pin 1
XXXX	:	Production code

Pin allocation

Pin No.	Function
(1)	Input
(2)	GND
(3)	GND
(4)	Output
(5)	GND

© 2025 KYOCERA Corporation all right reserved

Rating

Items		Rating	Unit	Note
Operating Temperature Range		-40 to 105	deg.C	
Storage Temperature Range		-40 to 105	deg.C	
Max Input Power	Input Port	25	dBm	5,000Hours,Ta=50deg.C ,CW
ESD Level	Human Body Model	100	Volt	Complied to JESD22-A114
Moisture Sensitivity Level		3		Complied to J-STD-033B.1
Input Port Nominal Impedance		50 // 7.5nH	ohm	Unbalance
Output Port Nominal Impedance		50 // 20nH	ohm	Unbalance
AEC-Q200		Grade2		Complied to AEC-Q200

© 2025 KYOCERA Corporation all right reserved

Characteristic table

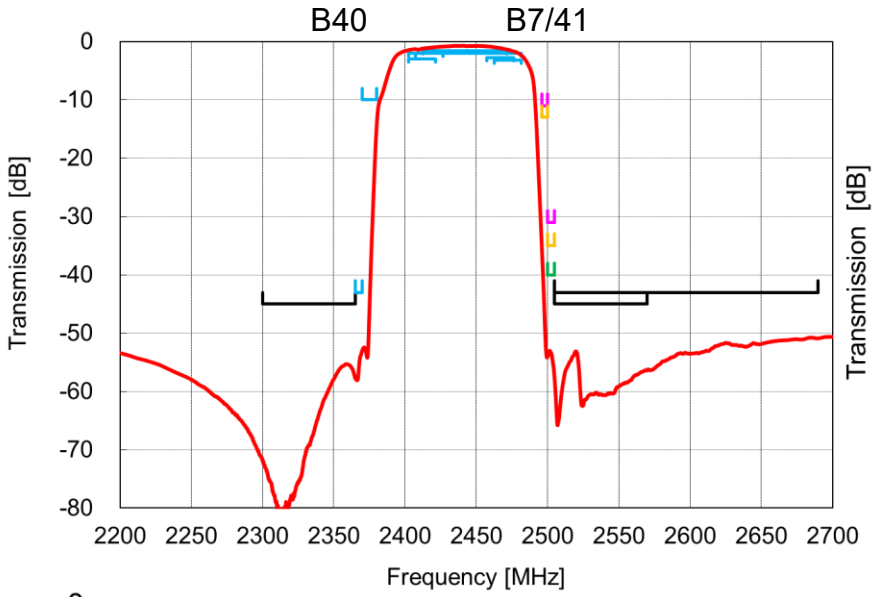
Items	Frequency [MHz]			Unit	Kyocera Specification			Note
					min.	typ.	max.	
Integrated Insertion Loss	2402.5	to	2421.5	dBint	-	1.2	3.0	(※1) , CH1
	2407.5	to	2426.5	dBint	-	1.1	2.0	(※1) , CH2
	2412.5	to	2471.5	dBint	-	1.0	1.6	(※1) , CH3 to 11
	2457.5	to	2476.5	dBint	-	1.1	2.8	(※1) , CH12
	2462.5	to	2481.5	dBint	-	1.4	3.2	(※1) , CH13
	2402.5	to	2481.5	dBint	-	1.4	2.0	(※1) , +25℃
Ripple	2402.5	to	2481.5	dB	-	1.5	3.5	Any19MHz
Input VSWR	2402.5	to	2481.5		-	1.5	2.2	
Output VSWR	2402.5	to	2481.5		-	1.5	2.2	
Attenuation	699	to	960	dB	45	50	-	
	1425	to	2170	dB	43	46	-	
	2300	to	2365	dB	45	56	-	B40
	2365	to	2370	dBint	43	56	-	B40(※2)
	2370	to	2380	dBint	10	23	-	B40(※2)
	2496	to	2500	dBint	11	45	-	B41(※2) , -30 to +105℃
	2496	to	2500	dBint	13	45	-	B41(※2) , -20 to +105℃
	2500	to	2505	dBint	31	54	-	B41(※2) , -30 to +105℃
	2500	to	2505	dBint	35	54	-	B41(※2) , -20 to +105℃
	2500	to	2505	dBint	40	54	-	B41/7(※2) , -10 to +105℃
	2505	to	2570	dB	45	53	-	B41/7
	2505	to	2690	dB	43	51	-	B41/7
	4900	to	5805	dB	40	59	-	
	7200	to	7500	dB	25	38	-	

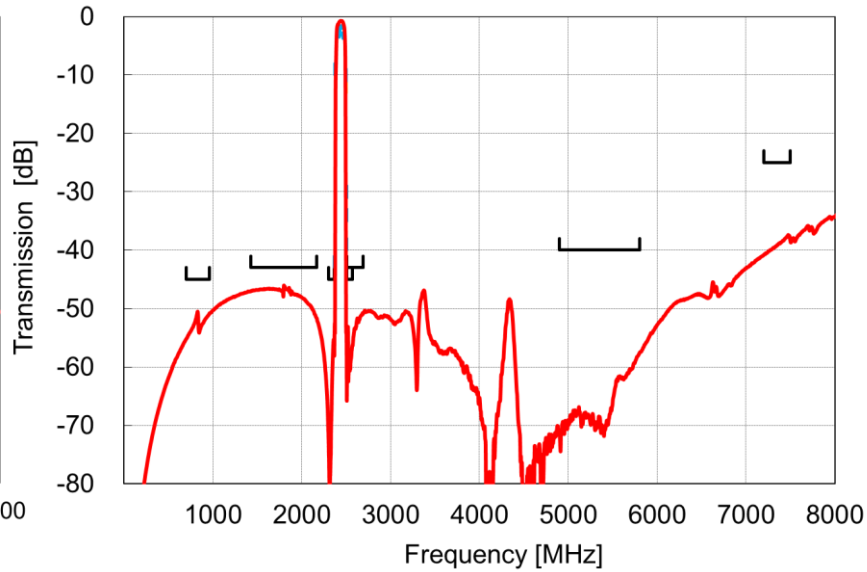
(*1)Integrated Insertion Loss over 19MHz

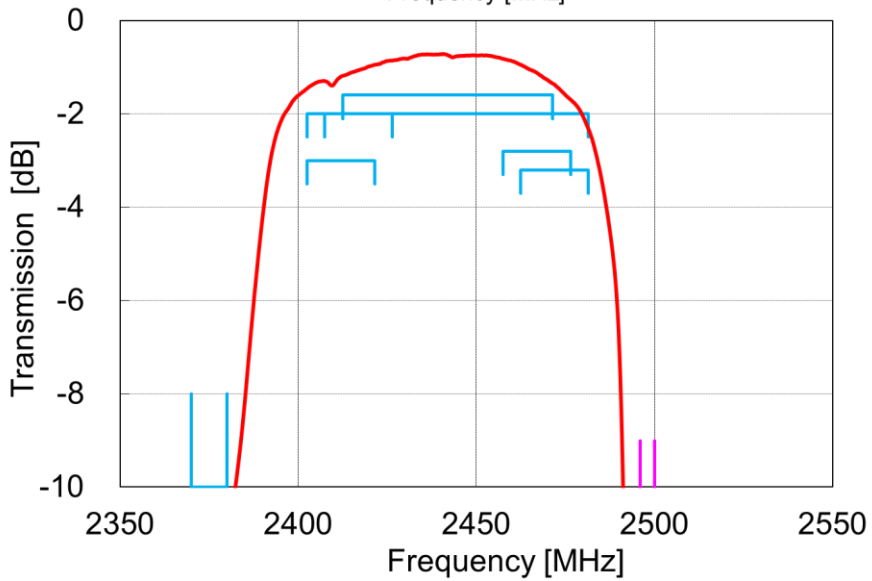
(*2)Integrated Attenuation over 5MHz

© 2025 KYOCERA Corporation all right reserved

Curve Data







VF11-2442M5UUA1
Measured Data

Specification

dBint Specification , -40 to +105deg.C

dBint Specification , -30 to +105deg.C

dBint Specification , -20 to +105deg.C

dBint Specification , -10 to +105deg.C

© 2025 KYOCERA Corporation all right reserved

Notice

1. Characteristics described in this datasheet are for references specifications shall be based on written documents agreed by each party.

2. Contents in this datasheet are subject to change without notice. It is recommended to confirm the latest information at the time of usage. Also, this datasheet is revised once a year. We may not be able to accept requests based on old datasheets.

3. Products in this datasheet are intended to be used in general electronic equipment such as office equipment, audio and visual equipment, communication equipment, measurement instrument and home appliances. It is absolutely recommended to consult with our sales representatives in advance upon planning to use our products in applications which require extremely high quality and reliability such as aircraft and aerospace equipment, traffic systems, safety systems, power plant and medical equipment including life maintenance systems.

4. Even though we strive for improvements of quality and reliability of products, it is requested to design with enough safety margin in equipment or systems in order not to threaten human lives directly or damage human bodies or properties by an accidental result of products.

5. It is requested to design based on guaranteed specifications for such as maximum ratings, operating voltage and operating temperature. It is not the scope of our guarantee for unsatisfactory results due to misuse or inadequate usage of products in the datasheet.

6. Operation summaries and circuit examples in this datasheet are intended to explain typical operation and usage of the product. It is recommended to perform circuit and assembly design considering surrounding conditions upon using products in this datasheet.

7. Technical information described in this datasheet is meant to explain typical operations and applications of products, and it is not intended to guarantee or license intellectual properties or other industrial rights of the third party or Kyocera.

8. Trademarks, logos and brand names used in this datasheet are owned by Kyocera or the corresponding third party.

9. Certain products in this datasheet are subject to the Foreign Exchange and Foreign Trade Control Act of Japan, and require the license from Japanese Government upon exporting the restricted products and technical information under the law. Besides, it is requested not to use products and technical information in the datasheet for the development and/or manufacture of weapons of mass destruction or other conventional weapons, nor to provide them to any third party with the possibility of having such purposes.

10. It is prohibited to reprint and reproduce a part or whole of this datasheet without permission.

© 2025 KYOCERA Corporation all right reserved