



MSL1

*Pb Free part

Customer Name	Standard Specification	TAIYO YUDEN Mobile Technology Co., Ltd.	
System	W-LAN / Bluetooth	DATE	Dec. 22, 2017
Part Number	F6HG2G441EG66	Version 1.1aA	Final

Table 1-1 Electrical Specification

Item	Condition (MHz)	Specification			Unit	Remarks
		Min.	Typ.	Max		
Insertion loss Integrated for W-LAN ^{(*1)(*2)}	2402.5 ~ 2421.5	-	1.7	2.3	dB	
	2407.5 ~ 2426.5	-	1.3	1.9	dB	
	2412.5 ~ 2466.5	-	1.3	1.8	dB	
	2452.5 ~ 2471.5	-	1.3	1.8	dB	
	2457.5 ~ 2476.5	-	1.3	2.0	dB	
	2462.5 ~ 2481.5	-	1.5	2.4	dB	
Amplitude Ripple ^(*2)	2402.5 ~ 2481.5	-	0.7	2.0	dB	
VSWR	Input	2402.5 ~ 2481.5	-	1.5	2.0	-
	Output	2402.5 ~ 2481.5	-	1.5	2.0	-
Input Power	2402.5 ~ 2481.5	29dBm Ta=+50°C 10000h, CW			-	
	Other frequency	10dBm Ta=+50°C 5000h, CW			-	Without 2402.5~2481.5MHz
Absolute Attenuation	699 ~ 960	35	44	-	dB	
	1980 ~ 3000	30	39	-	dB	Without 2350~2550MHz
	1425 ~ 2170	35	39	-	dB	
	2300 ~ 2370	46	49	-	dB	(*4)
	2370 ~ 2380	20	46	-	dB	(*4)
	2496 ~ 2500	10	39	-	dB	-30~+20°C(*4)
		20		-	dB	+20~+85°C(*4)
	2500 ~ 2505	23	61	-	dB	-30~-10°C (*4)
		30		-	dB	-10~+25°C (*4)
		42		-	dB	+25~+85°C (*4)
	2505 ~ 2570	47	52	-	dB	-30~-20°C (*4)
		50		-	dB	-20~+85°C (*4)
	2505 ~ 2690	41	44	-	dB	(*4)
	3000 ~ 4000	30	42	-	dB	
	4000 ~ 5000	30	51	-	dB	
	4900 ~ 5805	30	43	-	dB	
	5000 ~ 6000	30	43	-	dB	
	7200 ~ 7500	30	39	-	dB	

Table 1-2 Electrical Specification**TAIYO YUDEN**



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Terminating Impedance	Input port	50//8.2nH(Q=∞)			Ω	
	Output port	50//8.2nH(Q=∞)			Ω	
Operating temperature	-30 to +85			°C		
Maximum DC in all ports	-	-	0	VDC	(*5)	
Maximum ESD	+/-100			V	Human body model	
	+/-500			V	Charged Device Model	
Device size (L typ.x W typ.x H max.)	1.1 x 0.9 x 0.5			mm		

(*1) Specification of Insertion loss excludes loss that comes from the test board.

(*2) The integrated loss over any 19MHz channel within the band.

(*3) The integrated loss over any 1MHz channel within the band.

(*4) The integrated loss over any 5MHz channel within the band.

(*5) DC resistance at all ports might be less than 100 MΩ at operating temperatures.

TYMT recommendation is to put blocking capacitors at all ports.

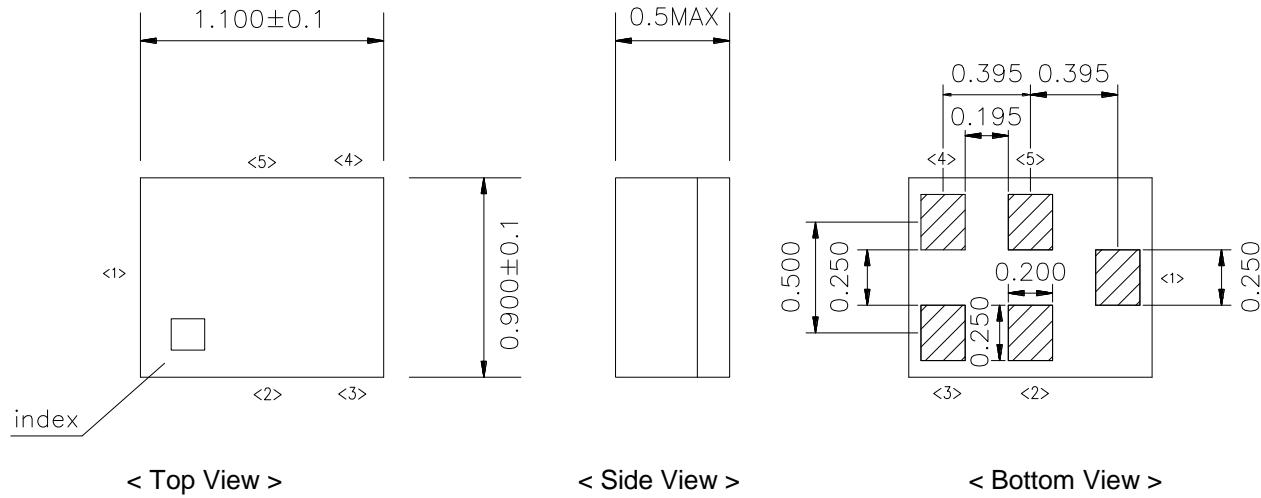


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Dimensions



Unit : mm

Pin assignment

Pin No.	Symbol	Function
1	IN	Input
2	GND	Ground
3	GND	Ground
4	OUT	Output
5	GND	Ground

Figure 1. Dimensions and Pin assignment

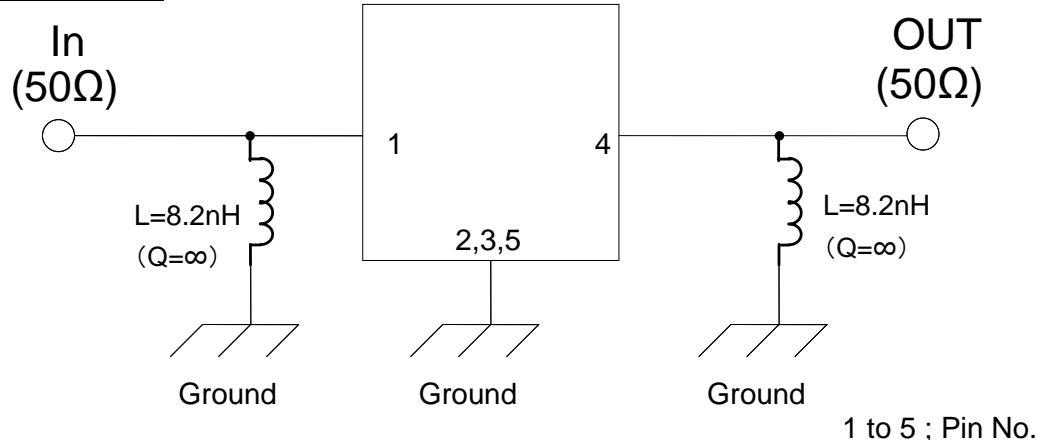


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Evaluation Circuit



Recommended foot print pattern

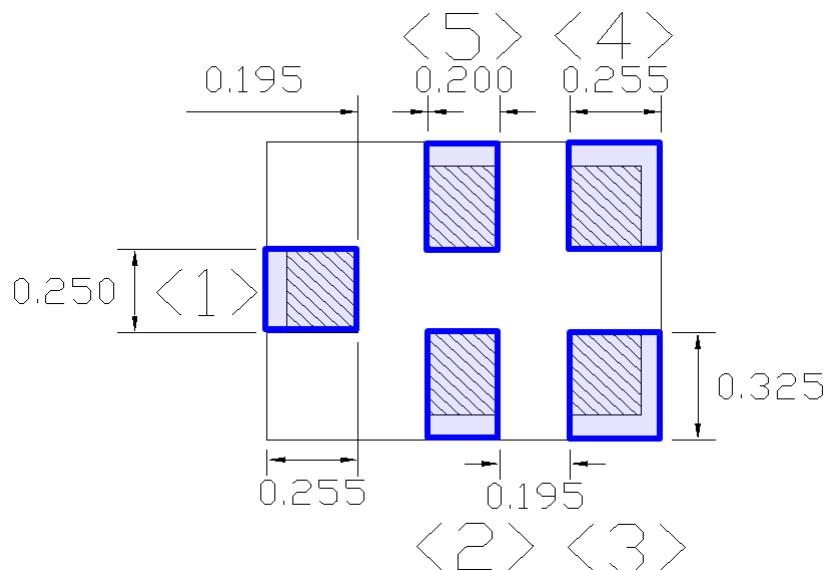


Figure 2. Recommended foot print pattern

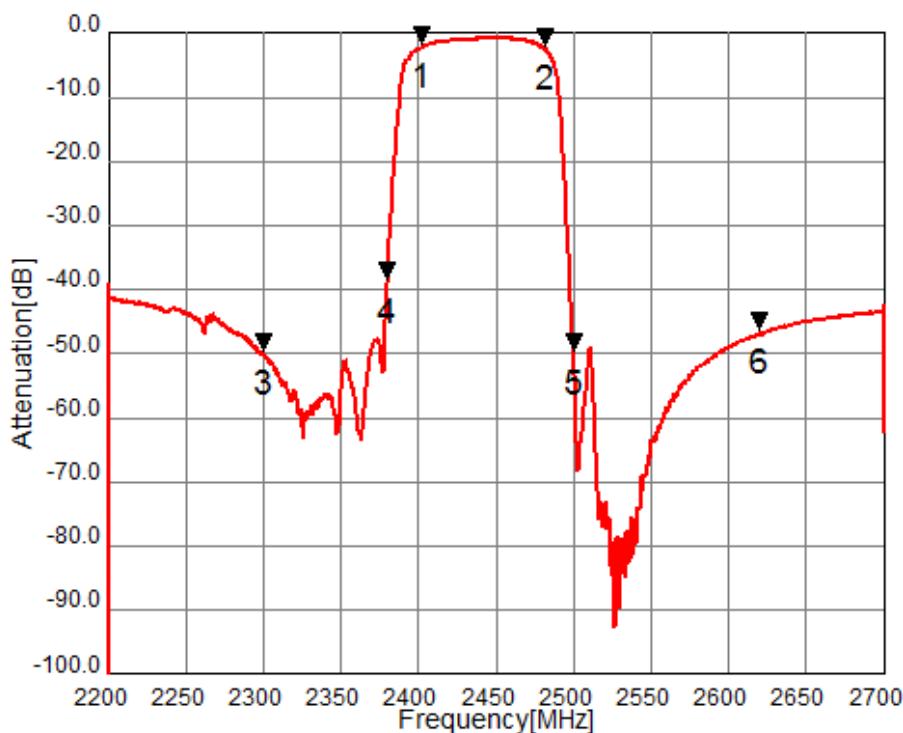


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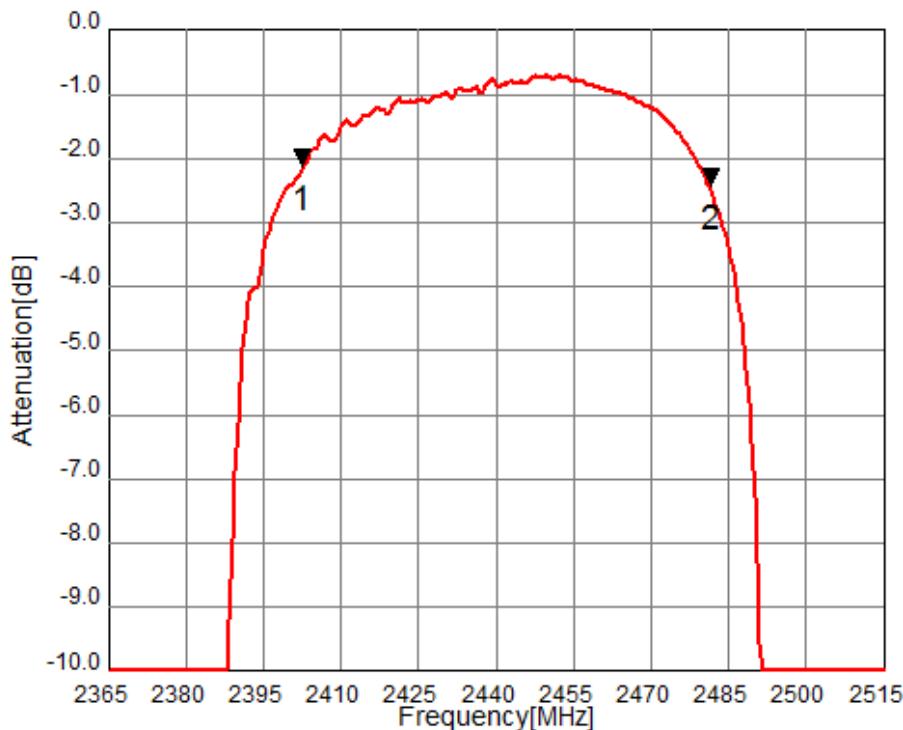
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Passband



Mk1: 2402.5MHz
S21=-2.180dB
Mk2: 2481.5MHz
S21=-2.476dB
Mk3: 2300.0MHz
S21=-50.238dB
Mk4: 2380.0MHz
S21=-39.000dB
Mk5: 2500.0MHz
S21=-50.211dB
Mk6: 2620.0MHz
S21=-46.833dB



Mk1: 2402.5MHz
S21=-2.180dB
Mk2: 2481.5MHz
S21=-2.476dB

Figure 3-1. Electrical Characteristics

These data excludes loss that comes from the test board.



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Input Port

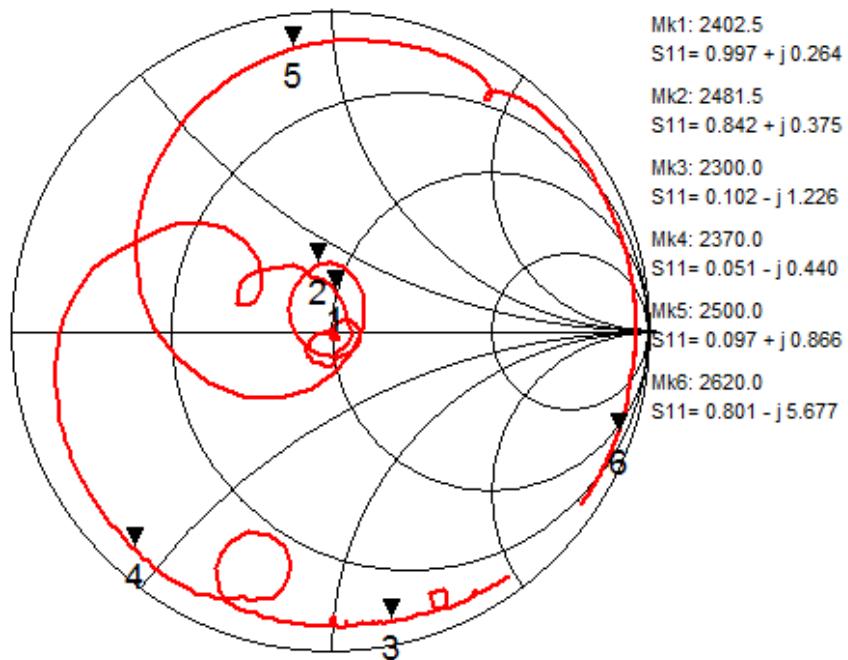
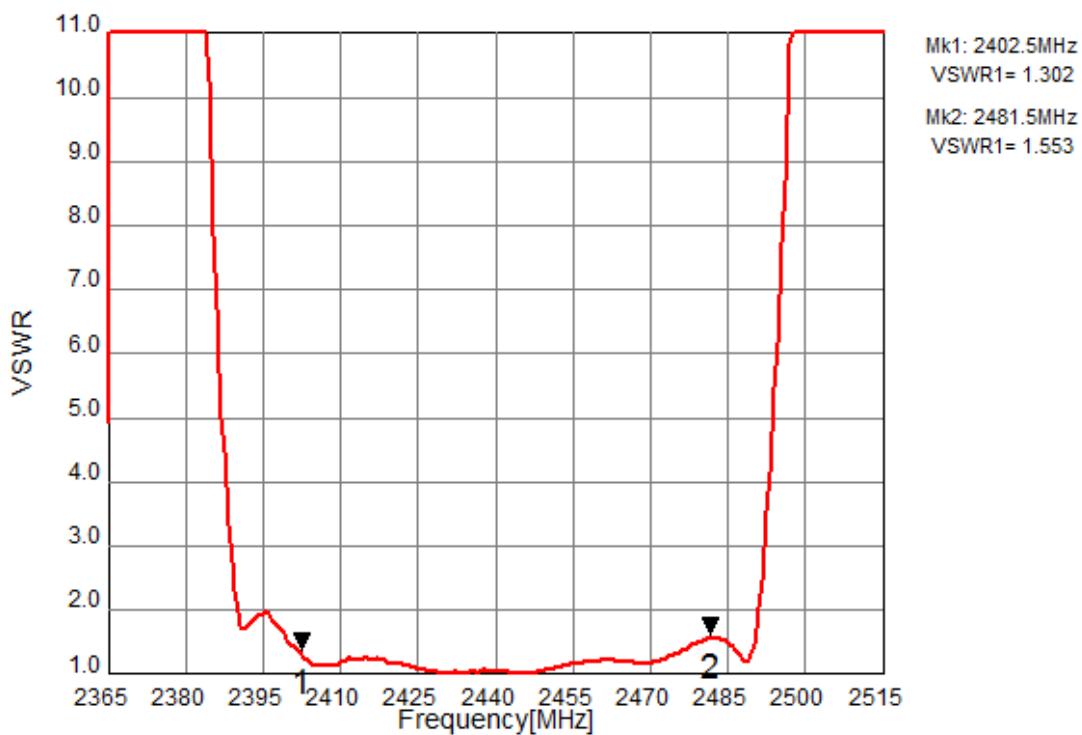


Figure 3-2. Electrical Characteristics



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Output Port

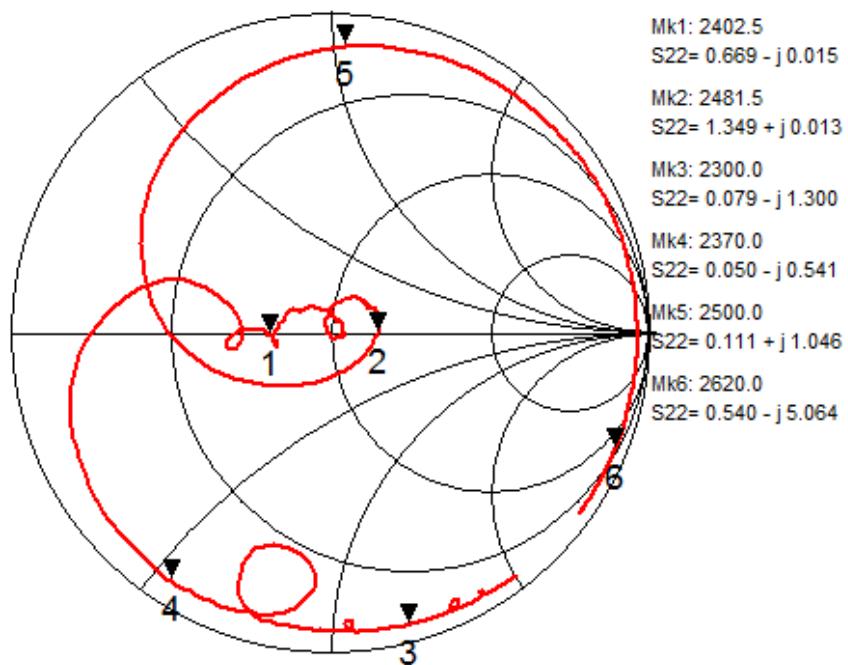
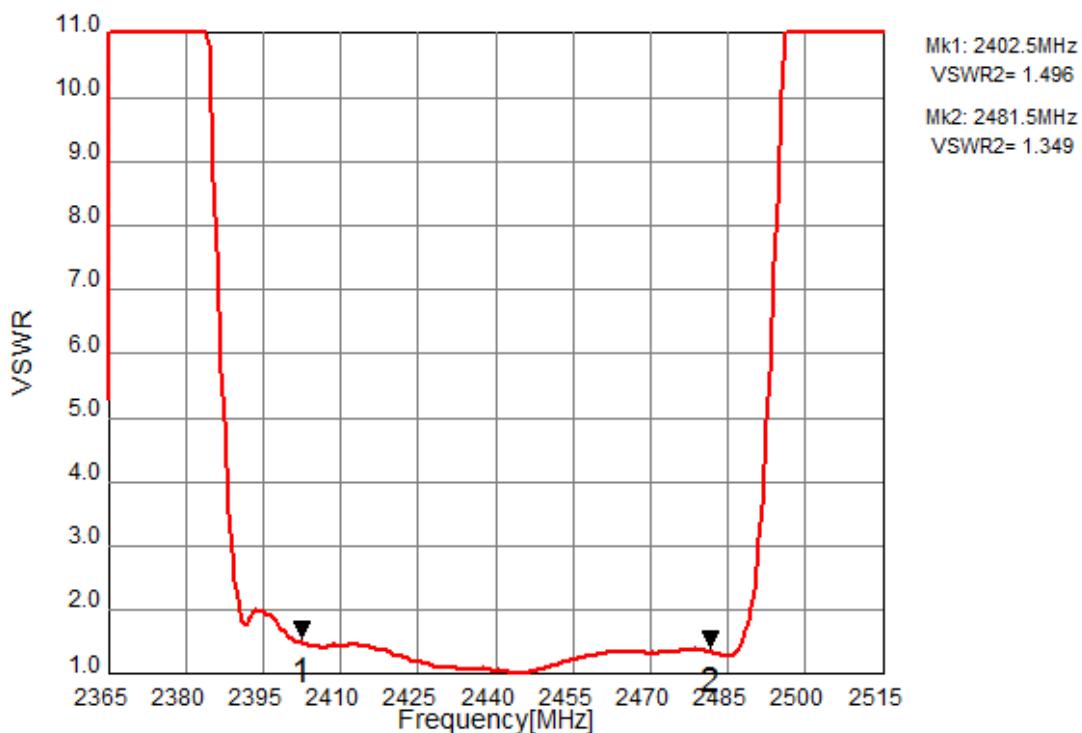


Figure 3-3. Electrical Characteristics



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Wideband

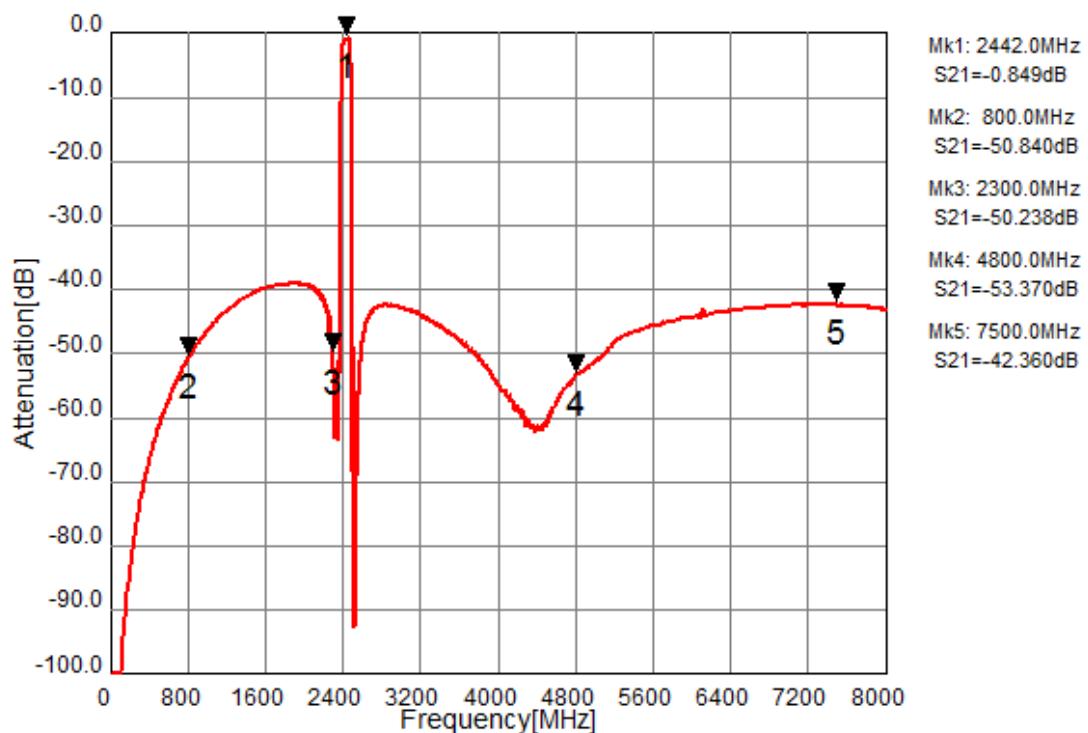


Figure 3-4. Electrical Characteristics



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Ordering Code

Ordering Code	Packing	Reel size	Status
F6HG2G441EG66-J	Tape & Reel	5,000 pcs.	MP
F6HG2G441EG66-JA	Tape & Reel	less than 5000 pcs.	MP
F6HG2G441EG66-Y	Tape & Reel	15,000 pcs.	MP
F6HG2G441EG66-YA	Tape & Reel	less than 15,000 pcs.	MP
F6HG2G441EG66-Q	Bulk	few pcs.	MP

*Minimum order quantity (MOQ) is assigned for each inquiry, Please contact to Sales Representatives.

*MP : Mass Production.

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