

1. Features

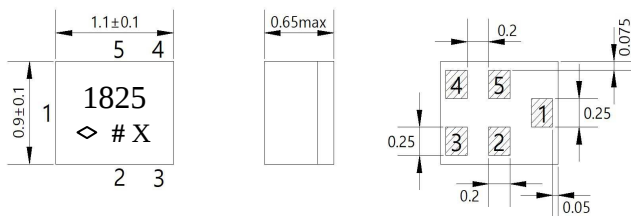
- RF bandpass filter
- Usable bandwidth 25.0 MHz
- Chip Scale Package (CSP) (1.1mm X 0.9mm)
- RoHS/RoHS2 (2015/863/EU) Compliant
- This part is compliant with AEC-Q200

RoHS Compliant

Tested by SGS Testing Korea

2. Package Dimension & Matching Configuration

S1109 Package Dimension



<Top View>

<Side View>

<Bottom View>

1825 ¹⁾

◇ ²⁾ # ³⁾ X ⁴⁾

1) Part Number

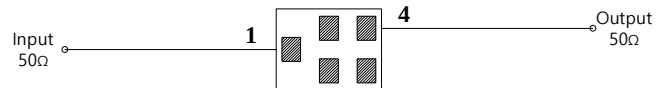
2) ◇ : Dot Marking

3) # : Day Code (Follow the table)

4) X : Year/Month Code (Follow the table)

* Ink or Laser Marking available

Matching Schematic



Pin Configuration			
Input	1	Others	Ground
Output	4		

Due to variances in a PCB layout and parasitics,
actual matching values may have to be changed accordingly.

3. Marking Configuration

1) Table 1 “#” : Day Code

Day	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	
Code	A	B	C	D	E	F	G	H	J	K	
Day	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th	
Code	L	M	N	P	Q	R	S	T	U	V	
Day	21th	22th	23th	24th	25th	26th	27th	28th	29th	30th	
Code	W	X	Y	Z	a	b	h	d	e	f	
											g

2) Table 2 “X” : Year/Month Code

2018	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2022												
2026	A	B	C	D	E	F	G	J	J	K	L	M
2030												
2019	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2023												
2027	N	P	Q	R	S	T	U	V	W	X	Y	Z
2031												
2020	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2024												
2028	a	b	c	d	e	f	g	h	j	0	1	m
2032												
2021	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2025												
2029	n	2	3	4	5	6	7	8	9	q	r	t
2033												

4. Electrical Specifications

Source and Load Impedance = 50Ω

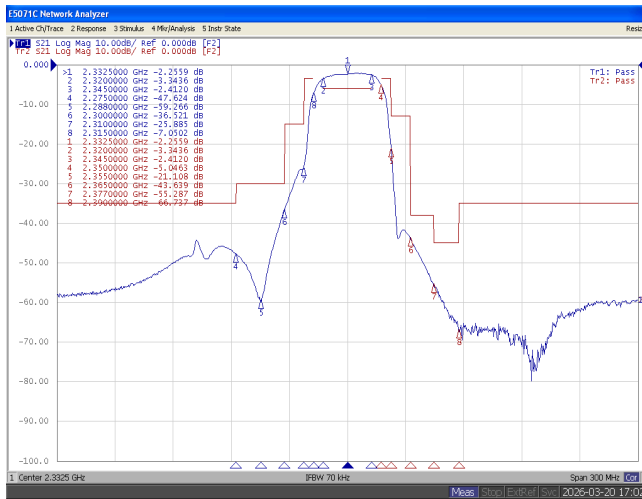
Operating Temperature : -40℃ ~ +105℃			Minimum	Typical(*)	Maximum
Center Frequency (fo)		MHz	-	2332.5	-
Min. Insertion Loss (#)	2320.0 MHz ~ 2345.0 MHz	dB	-	2.3	-
Insertion Loss(+25℃) (#)	2320.0 MHz ~ 2345.0 MHz	dB	-	4.0	6.0
Insertion Loss(-40℃~+125℃) (#)	2320.0 MHz ~ 2345.0 MHz	dB	-	4.0	6.5
Amplitude Ripple	2320.0 MHz ~ 2324.5 MHz	dB	-	1.0	1.6
	2324.5 MHz ~ 2328.2 MHz	dB	-	0.6	1.2
	2328.2 MHz ~ 2332.5 MHz	dB	-	0.5	1.2
	2332.5 MHz ~ 2334.4 MHz	dB	-	0.5	1.2
	2334.4 MHz ~ 2336.3 MHz	dB	-	0.5	1.2
	2336.3 MHz ~ 2337.8 MHz	dB	-	0.5	1.2
	2337.8 MHz ~ 2341.3 MHz	dB	-	0.5	1.2
	2341.3 MHz ~ 2343.1 MHz	dB	-	0.5	1.2
	2343.1 MHz ~ 2345.0 MHz	dB	-	0.7	1.6
Input VSWR	2320.0 MHz ~ 2345.0 MHz	-	-	1.6	2.2
Output VSWR	2320.0 MHz ~ 2345.0 MHz	-	-	1.6	2.2
Absolute Attenuation	10.0 MHz ~ 800.0 MHz	dB	40	58	-
	800.0 MHz ~ 2100.0 MHz	dB	35	55	-
	2100.0 MHz ~ 2275.0 MHz	dB	35	38	-
	2275.0 MHz ~ 2288.0 MHz	dB	30	35	-
	2288.0 MHz ~ 2300.0 MHz	dB	30	35	-
	2300.0 MHz ~ 2310.0 MHz	dB	15	23	-
	2310.0 MHz ~ 2315.0 MHz	dB	3.5	6	-
	2350.0 MHz ~ 2355.0 MHz	dB	3.5	6	-
	2355.0 MHz ~ 2365.0 MHz	dB	13	20	-
	2365.0 MHz ~ 2377.0 MHz	dB	38	45	-
	2377.0 MHz ~ 2390.0 MHz	dB	45	50	-
	2390.0 MHz ~ 2700.0 MHz	dB	35	50	-
	2700.0 MHz ~ 2800.0 MHz	dB	35	48	-
	2800.0 MHz ~ 2920.0 MHz	dB	35	40	-
	2920.0 MHz ~ 4000.0 MHz	dB	40	45	-
	4000.0 MHz ~ 6000.0 MHz	dB	30	40	-
	6000.0 MHz ~ 8000.0 MHz	dB	25	30	-

(*) : Typical value at 25±2℃

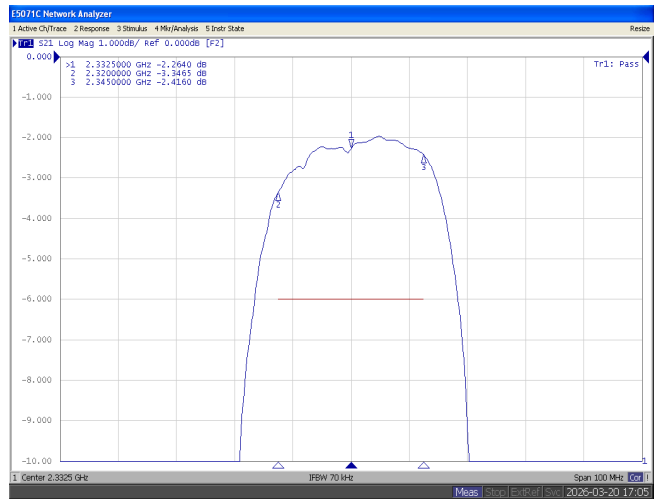
(#) : PCB Loss is de-embedded

5. Typical Performance (at +25°C)

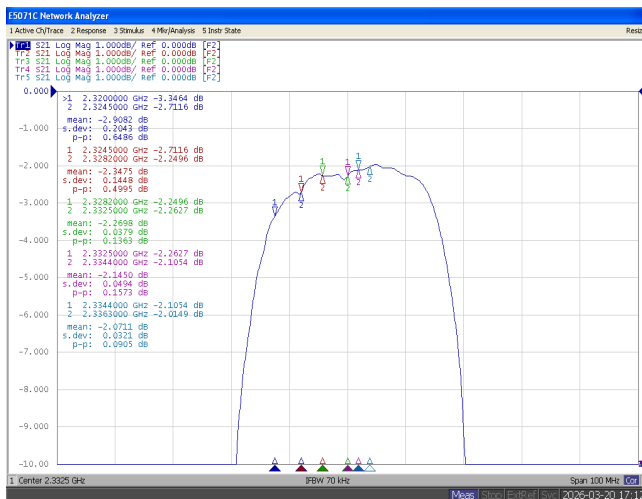
Attenuation (10dB Scale)



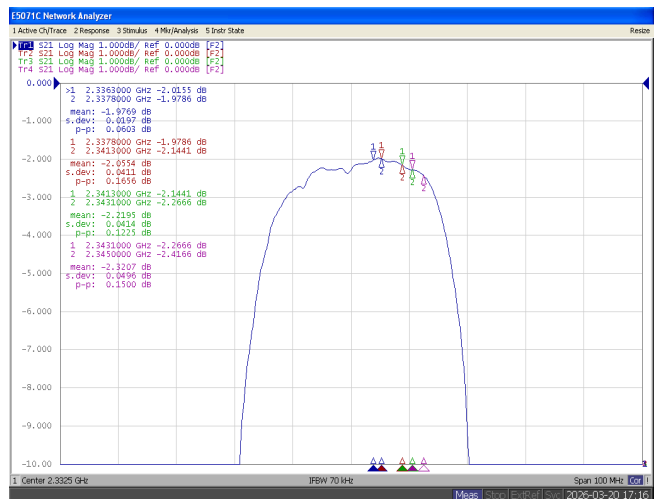
Insertion Loss (1dB Scale)



Ripple (1dB Scale)



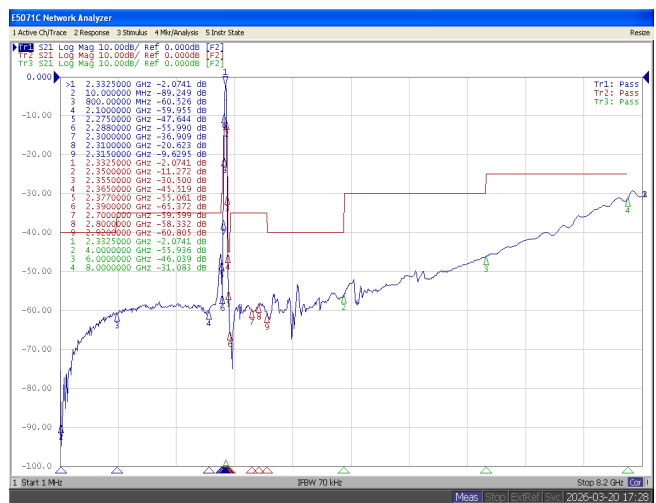
Ripple (1dB Scale)



VSWR (S11 & S22)



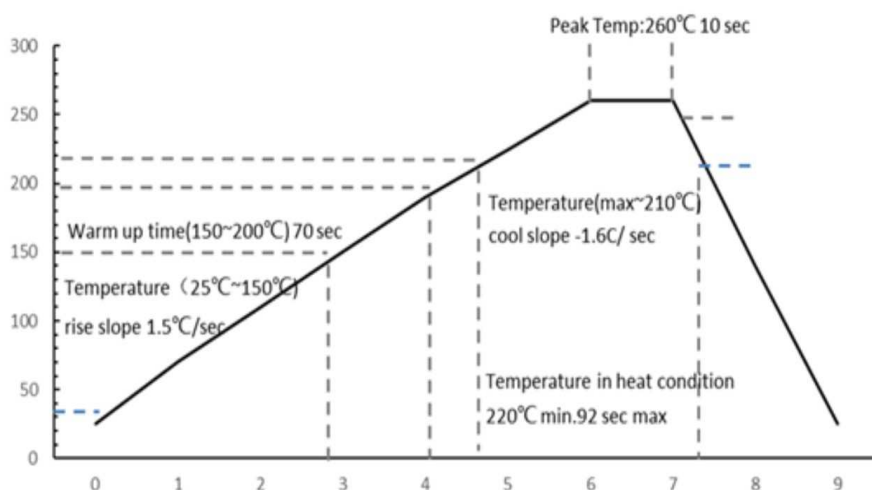
Wide band Properties



6. Maximum Ratings

Parameter	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-40	-	+105
Storage Temperature Range	°C	-55	-	+125
Maximum Input Power : (5000h+55 deg.C applicable for W-CDMA, SC-FDMA, DFT-s-OFDM)	dBm	-	-	25
Maximum DC Voltage	V	-	-	3

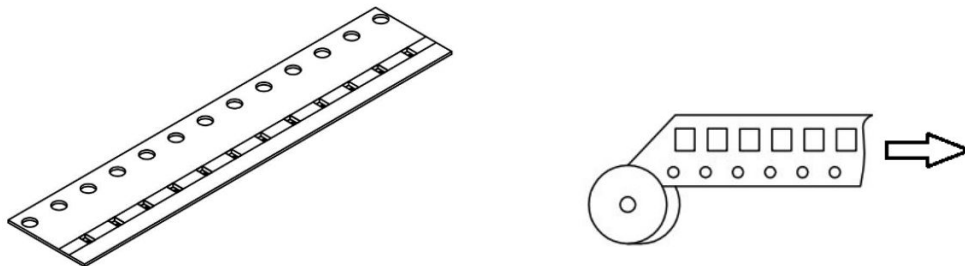
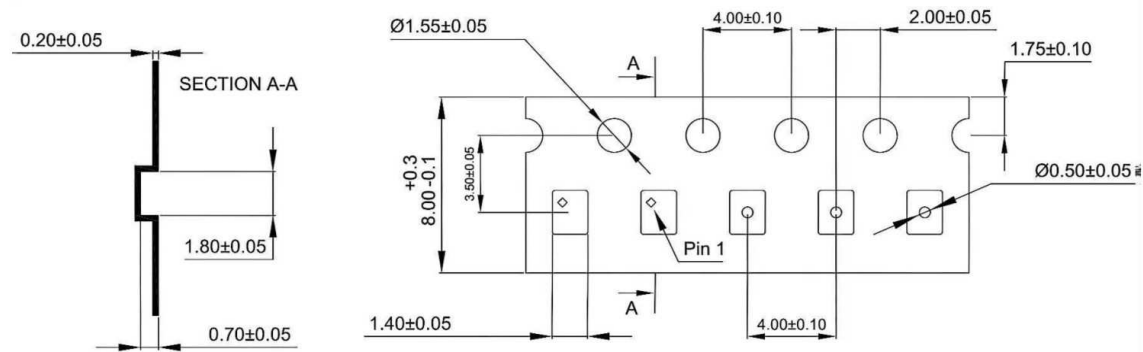
7. Reflow Condition



8. Packing Material

1. Reeling Quantity 5000 pcs/reel $\Phi 178\text{mm}$

8.1 Tape Specification



Reel discharging direction as shown above

8.2 Reel with Diameter of 178 mm

