



SPECIFICATION GOAL

Preliminary Specification

Diplexer

P/N: [LFD211G65PK1F475](#)



Diplexer (Preliminary)

Part Number : [LFD211G65PK1F475](#)

1. Maximam Ratings

	Ratings	Conditions
Operating Temperature	-40 ~ +85 °C	
Power Capacity	3W	50Ω Load

2. Electrical Characteristics (at -40 ~ +85 °C)

■ Low Band

Item	Frequency (MHz)	SPEC			Unit	
		Min.	Typ.(+25°C)	Max.		
Insertion Loss	at +25°C	617.00 ~ 960.00	-	-	0.30	dB
	at -40~+85°C	617.00 ~ 960.00	-	-	0.35	dB
	at +25°C	1427.00 ~ 1511.00	-	-	0.40	dB
	at -40~+85°C	1427.00 ~ 1511.00	-	-	0.50	dB
	at +25°C	1710.00 ~ 2170.00	-	-	0.50	dB
	at -40~+85°C	1710.00 ~ 2170.00	-	-	0.60	dB
	at +25°C	2300.00 ~ 2496.00	-	-	0.70	dB
	at -40~+85°C	2300.00 ~ 2496.00	-	-	0.80	dB
	at +25°C	2496.00 ~ 2690.00	-	-	0.90	dB
at -40~+85°C	2496.00 ~ 2690.00	-	-	1.08	dB	
VSWR	617.00 ~ 960.00	-	-	1.21	-	
	1427.00 ~ 1511.00	-	-	1.27	-	
	1710.00 ~ 2170.00	-	-	1.27	-	
	2300.00 ~ 2496.00	-	-	1.21	-	
	2496.00 ~ 2690.00	-	-	1.47	-	
Attenuation (Absolute value)	3300.00 ~ 3400.00	16.3	-	-	dB	
	3400.00 ~ 3800.00	19.5	-	-	dB	
	5150.00 ~ 5925.00	27.5	-	-	dB	

■ High Band

Item	Frequency (MHz)	SPEC			Unit	
		Min.	Typ.(+25°C)	Max.		
Insertion Loss	at +25°C	3300.00 ~ 3400.00	-	-	1.00	dB
	at -40~+85°C	3300.00 ~ 3400.00	-	-	1.10	dB
	at +25°C	3400.00 ~ 3800.00	-	-	0.80	dB
	at -40~+85°C	3400.00 ~ 3800.00	-	-	0.90	dB
	at +25°C	5150.00 ~ 5925.00	-	-	0.80	dB
	at -40~+85°C	5150.00 ~ 5925.00	-	-	0.93	dB
VSWR	3300.00 ~ 3400.00	-	-	1.79	-	
	3400.00 ~ 3800.00	-	-	1.58	-	
	5150.00 ~ 5925.00	-	-	2.62	-	
Attenuation (Absolute value)	617.00 ~ 960.00	30.5	-	-	dB	
	1427.00 ~ 1511.00	22.5	-	-	dB	
	1710.00 ~ 2170.00	17.5	-	-	dB	
	2300.00 ~ 2496.00	17.0	-	-	dB	
	2496.00 ~ 2690.00	14.0	-	-	dB	
	10300.00 ~ 11850.00	23.5	-	-	dB	
	15450.00 ~ 17775.00	1.0	-	-	dB	



■ Common

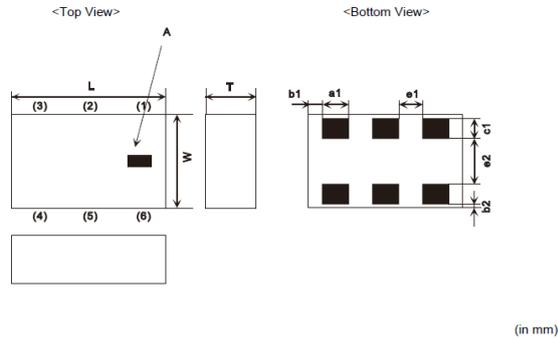
Item	Frequency (MHz)	SPEC			Unit
		Min.	Typ.(+25°C)	Max.	
VSWR	617.00 ~ 960.00	-	-	1.21	-
	1427.00 ~ 1511.00	-	-	1.27	-
	1710.00 ~ 2170.00	-	-	1.31	-
	2300.00 ~ 2496.00	-	-	1.27	-
	2496.00 ~ 2690.00	-	-	1.47	-
	3300.00 ~ 3400.00	-	-	1.79	-
	3400.00 ~ 3800.00	-	-	1.58	-
	5150.00 ~ 5925.00	-	-	2.62	-

■ Isolation

Item	Frequency (MHz)	SPEC			Unit
		Min.	Typ.(+25°C)	Max.	
Isolation LB-HB	617.00 ~ 960.00	30.5	-	-	dB
	1427.00 ~ 1511.00	22.5	-	-	dB
	1710.00 ~ 2170.00	17.5	-	-	dB
	2300.00 ~ 2496.00	17.0	-	-	dB
	2496.00 ~ 2690.00	15.0	-	-	dB
	3300.00 ~ 3400.00	16.3	-	-	dB
	3400.00 ~ 3800.00	19.5	-	-	dB
	5150.00 ~ 5925.00	27.5	-	-	dB
Impedance Common (Nominal)		-	50	-	Ω
Impedance LB (Nominal)		-	50	-	Ω
Impedance HB (Nominal)		-	50	-	Ω



3. Construction, Dimensions & Marking



Mark	Meaning
A	Directional Input Mark

(in mm)

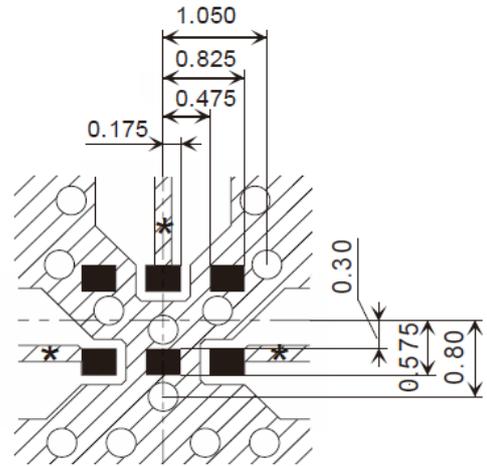
Mark	Dimension	Mark	Dimension	Mark	Dimension
L	2.00±0.10	a1	0.350±0.050	c1	0.275±0.050
W	1.25±0.10	b1	0.175±0.100	e1	0.300±0.050
T	0.70 max.	b2	0.050±0.050	e2	0.60±0.05

TERMINAL CONFIGURATION

Terminal No.	Terminal Name	Terminal No.	Terminal Name
(1)	GND	(4)	P1(*1)
(2)	P3(*3)	(5)	GND
(3)	GND	(6)	P2(*2)

- (*1)High Band
- (*2)Low Band
- (*3)Common

4. Land Pattern



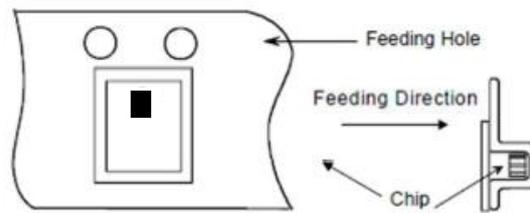
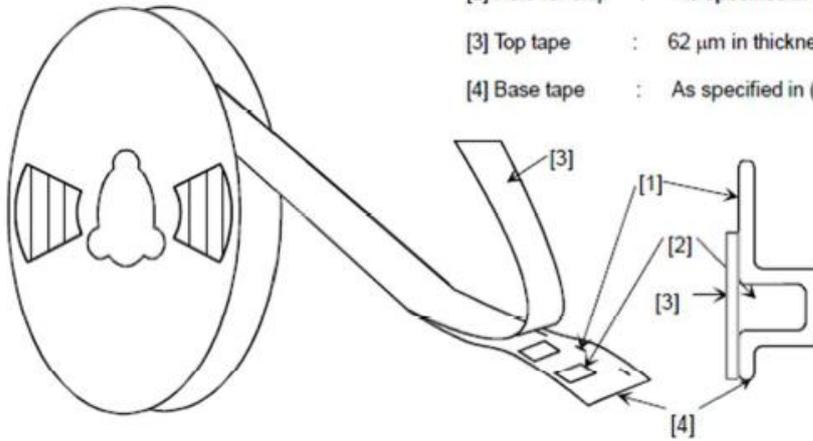
- Land
- Solder resist
- No pattern Solder resist
- Through Hole ϕ 0.30

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



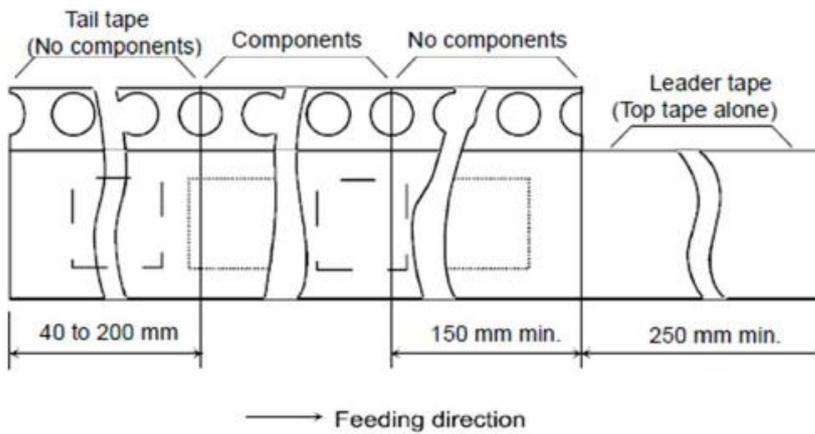
(3) Taping Diagrams

- [1] Feeding Hole : As specified in (1)
- [2] Hole for chip : As specified in (1)
- [3] Top tape : 62 μm in thickness
- [4] Base tape : As specified in (1)



Package chips

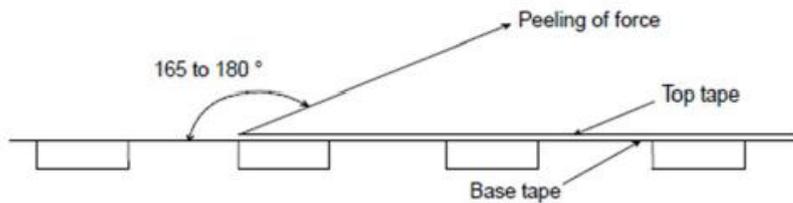
(4) Leader and Tail tape





- (5) The tape for chips are wound clockwise, the feeding holes to the right side as the tape is pulled toward the user.
- (6) The top tape and base tape are not adhered at no components area for 250 mm min.
- (7) Tear off strength against pulling of top tape : 5 N min.
- (8) Packaging unit : 4000 pcs. / reel
- (9) Material : Base tapePlastic
ReelPlastic
- (10) Peeling of force : in the direction of peeling as shown below.
Peeling speed : 300mm/min \pm 10mm/min

Tape width	Peeling of force (max)
8mm	1.0N
12-56mm	1.3N
72-200mm	1.5N





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- Application of similar complexity and/ or reliability requirements to the applications listed in the above.

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