

DUAL BAND DIPLEXER

1. Characteristics (at -40 to +85 °C)

Part Number	LFD182G45MJLE183
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<Low Band >

Pass Band Range	f2		2400.00 ~ 2500.00 MHz
Insertion Loss(dB)	ANT-LB	in f2	0.65 dB max. at 25°C 0.75 dB max. at -40~ +85°C
Attenuation (dB)	ANT-LB	at 3600.00~3750.00 MHz	9.0 dB min.
		at 4800.00~5000.00 MHz	19.0 dB min.
		at 7200.00~7500.00 MHz	20.0 dB min.
		at 9600.00~10000.00 MHz	9.0 dB min.
VSWR	LB	in f2	1.70 max.
	ANT	in f2	1.70 max.

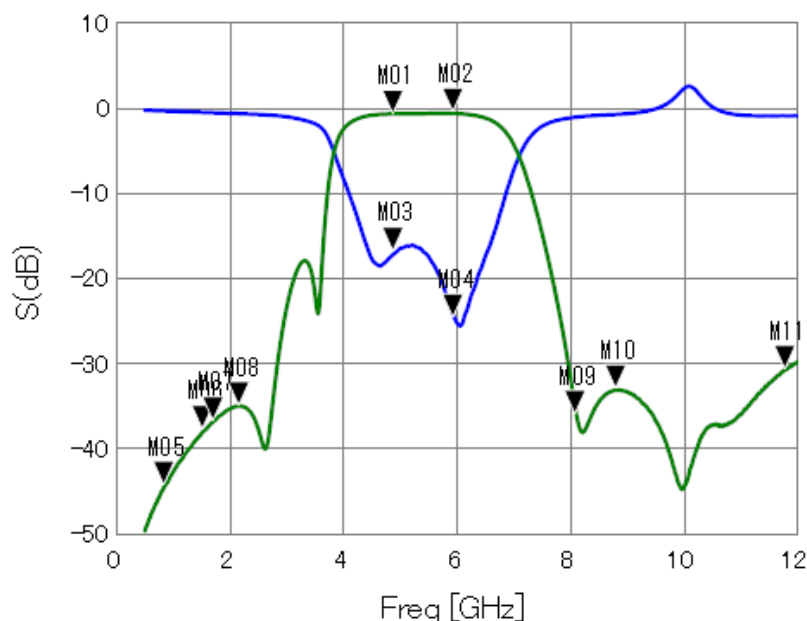
<High Band>

Pass Band Range	f1		4900.00 ~ 5950.00 MHz
Insertion Loss(dB)	ANT-HB	in f1	0.85 dB max. at 25°C 0.95 dB max. at -40~ +85°C
Attenuation (dB)	ANT-HB	at 860.00~960.00 MHz	34.0 dB min.
		at 1545.00~1605.00 MHz	29.0 dB min.
		at 1710.00~1990.00 MHz	29.0 dB min.
		at 2170.00 MHz	29.0 dB min.
		at 8100.00~8800.00 MHz	13.0 dB min.
		at 8820.00~9800.00 MHz	24.0 dB min.
		at 9800.00~11800.00 MHz	22.0 dB min.
VSWR	HB	in f1	1.70 max.
	ANT	in f1	1.70 max.

Isolation (dB)	LB-HB	at 4800.00~5000.00 MHz	19.50 min.
Power Capacity			2 W max.

LB : Low Band Port
HB : High Band Port
ANT : Common Port

ANT-High Band



M01 : S(1,3)
Freq 4.900G Hz
S(dB) -0.624

M03 : S(1,1)
Freq 4.900G Hz
S(dB) -16.974

M02 : S(1,3)
Freq 5.950G Hz
S(dB) -0.583

M04 : S(1,1)
Freq 5.950G Hz
S(dB) -24.576

M05 : S(1,3)
Freq 8.60000M Hz
S(dB) -44.214

M08 : S(1,3)
Freq 8.100G Hz
S(dB) -36.029

M06 : S(1,3)
Freq 1.545G Hz
S(dB) -37.825

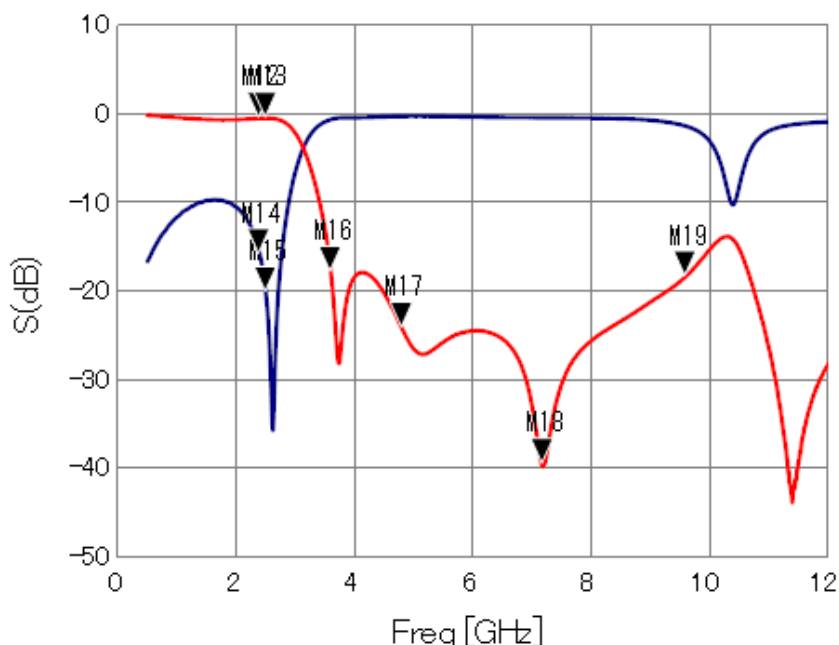
M10 : S(1,3)
Freq 8.830G Hz
S(dB) -33.092

M07 : S(1,3)
Freq 1.710G Hz
S(dB) -36.709

M11 : S(1,3)
Freq 11.800G Hz
S(dB) -30.607

M08 : S(1,3)
Freq 2.170G Hz
S(dB) -34.953

ANT-Low Band



M12 : S(2,3)
Freq 2.400G Hz
S(dB) -0.495

M14 : S(2,2)
Freq 2.400G Hz
S(dB) -15.879

M13 : S(2,3)
Freq 2.500G Hz
S(dB) -0.469

M15 : S(2,2)
Freq 2.500G Hz
S(dB) -20.181

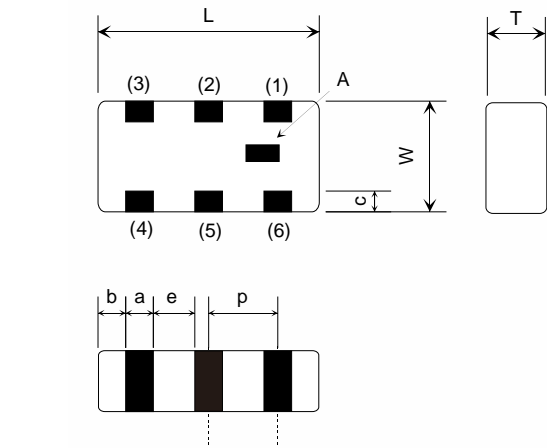
M16 : S(2,3)
Freq 3.600G Hz
S(dB) -17.923

M17 : S(2,3)
Freq 4.800G Hz
S(dB) -24.167

M18 : S(2,3)
Freq 7.200G Hz
S(dB) -39.585

M19 : S(2,3)
Freq 9.600G Hz
S(dB) -18.323

2. Construction, Dimensions & Marking



Mark	Meaning
A	Directional Input Mark

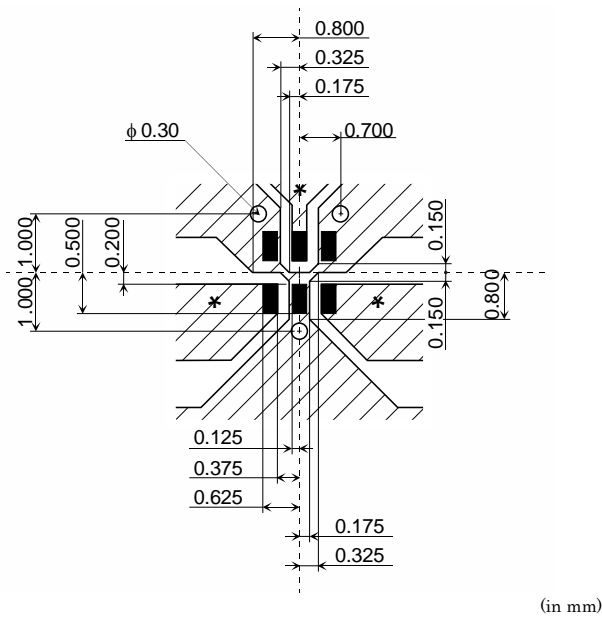
(in mm)

Mark	Dimension	Mark	Dimension	Mark	Dimension
L	1.6 ± 0.1	a	0.2 ± 0.1	e	0.3 ± 0.1
W	0.8 ± 0.1	b	0.20 ± 0.15	p	0.50 ± 0.05
T	0.70 max.	c	0.15 ± 0.10	-	-

TERMINAL CONFIGURATION

Terminal No.	Terminal Name	Terminal No.	Terminal Name
(1)	Hig Band Port (P1)	(4)	GND
(2)	GND	(5)	Common Port (P3)
(3)	Lower Band Port (P2)	(6)	GND

3. Land Pattern



- Land
- Solder resist
- No pattern Solder resist
- Through Hole $\phi 0.30$

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

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- Traffic signal equipment.
- Burning / explosion control equipment
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