

DATA SHEET

WIRELESS COMPONENTS

Diplexer
DPX1608LL83R2455A

2.4 AND 5.0 GHZ
1608 Series



FEATURES

- Compact size design
- RoHS compliant

APPLICATIONS

- WLAN, 802.11a/b/g/n
- ISM Band

ORDERING INFORMATION

All part numbers are identified by the series, packing type, material, size, antenna type, working frequency and packing quantity.

PART NUMBER

DPX 1608 LL 83 R 2455A
(1) (2) (3) (4) (5) (6)

(1) PRODUCT

DPX = Diplexer

(2) SIZE

1608 = 1.6 × 0.8 mm

(3) MATERIALS

Material Code LL

(4) TYPE

83 = Type 83

(5) PACKING STYLE

R = Tape and Reel

(6) WORKING FREQUENCY

2455 = 2.4/5.0 GHz

SPECIFICATION

Table 1

DESCRIPTION	VALUE	
Pass Band	Low Band	High Band
	2400 ~ 2500 MHz	4900 ~ 5950 MHz
Insertion Loss	0.5 dB (Max.)	1.0 dB (Max.)
V.S.W.R/ Return-Loss	2.0 (Max) / 10.0dB (Min)	2.0 (Max) / 10.0dB (Min)
Attenuation	25 dB Min@4800 ~ 5000 MHz 25 dB Min@7200 ~ 7500 MHz	32 dB Min. @ 30 ~ 2700 MHz 15 dB Min. @ 9800 ~ 11900 MHz 11 dB Min. @ 14700 ~ 17850 MHz
Isolation	35dB Typ. @2400~2500MHz 28dB Typ. @4900~5950MHz	
Operating Temperature	-40 ~ 85°C	

DIMENSIONS

Table 2 Mechanical Dimension

	DIMENSION
L (mm)	1.60±0.15
W (mm)	0.80±0.15
T (mm)	0.60 ±0.15
P1 (mm)	0.20 ±0.15
P2 (mm)	0.20 ±0.15
P3 (mm)	0.20 ±0.15
P4 (mm)	0.20 ±0.15
P5 (mm)	0.20 ±0.15
P6 (mm)	0.20 ±0.15
D1 (mm)	0.20 ±0.15
D2 (mm)	0.30 ±0.10
D3 (mm)	0.15 ±0.10

OUTLINES

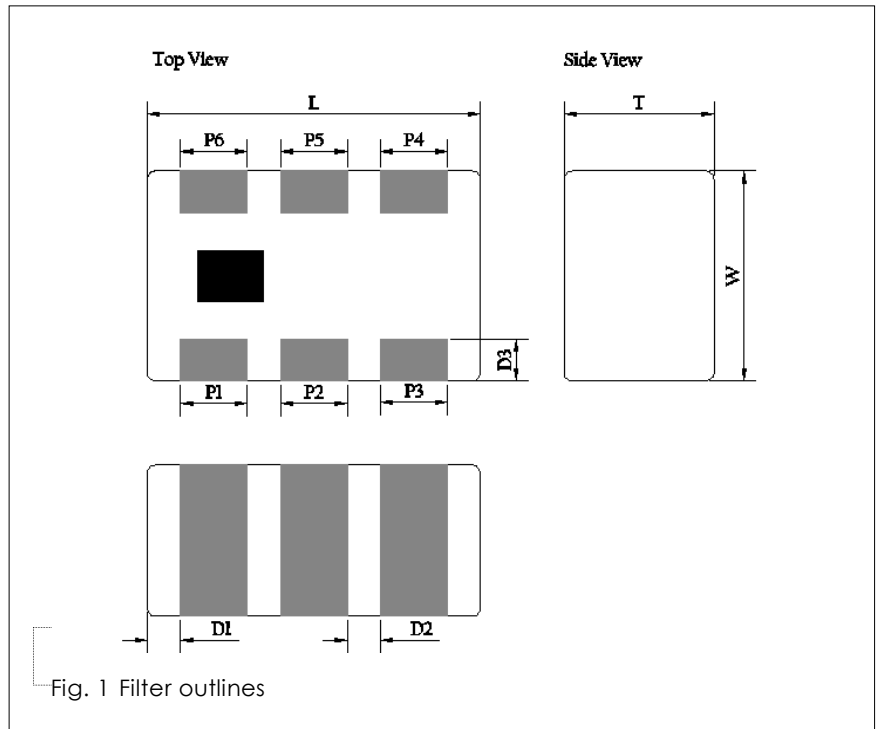
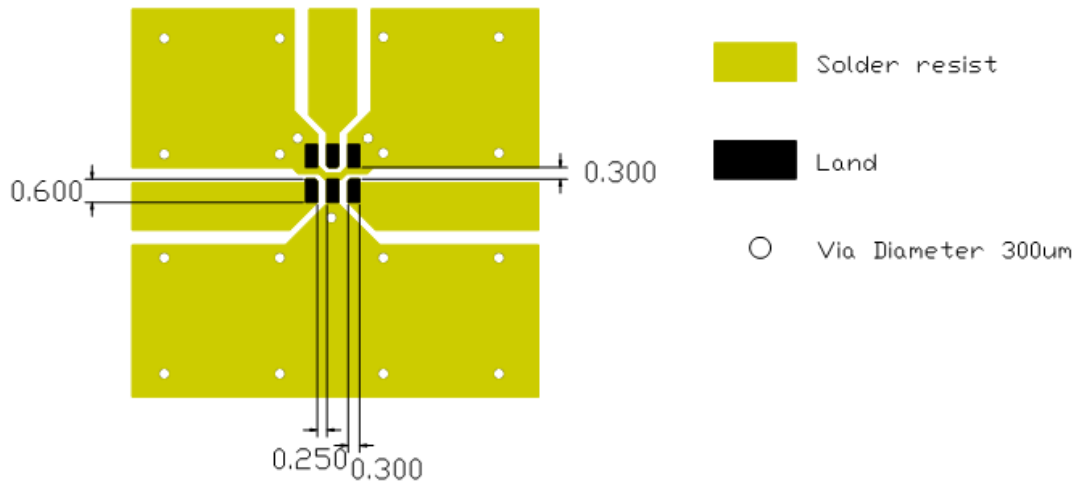


Table 3 Termination configuration

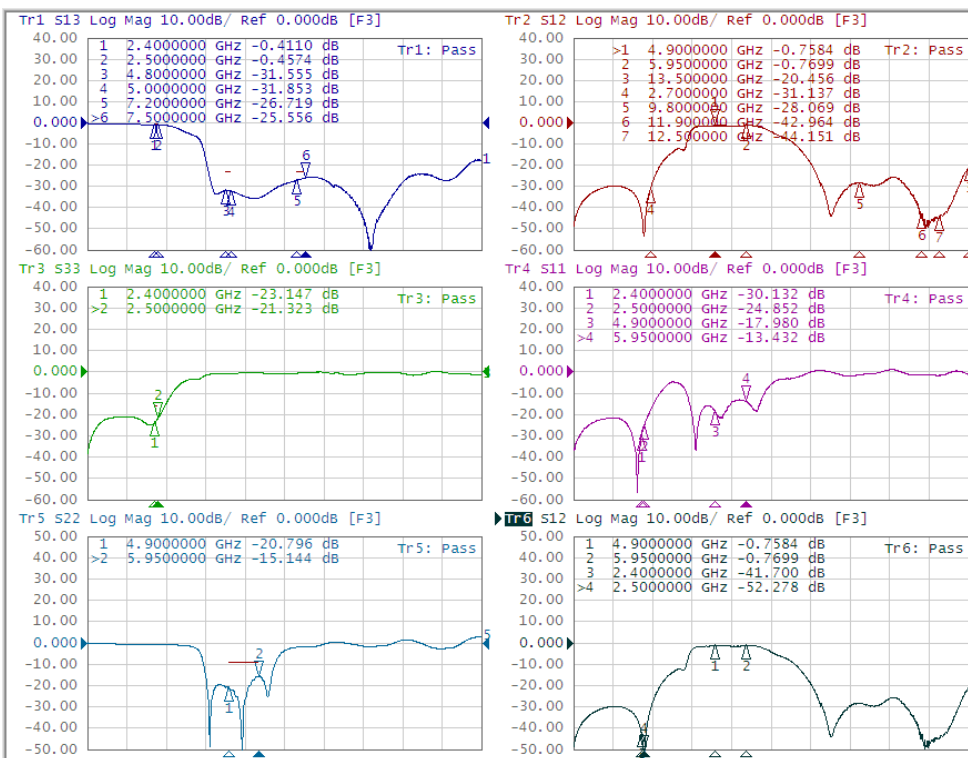
TERMINAL NAME	FUNCTION
P1	GND
P2	Common
P3	GND
P4	High-Band
P5	GND
P6	Low-Band



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

Fig. 2 Reference design of evaluation board

ELECTRICAL PERFORMANCES



- Measured on Agilent E5071C Network Analyzer
- Common port : Port 1 (Return loss : S22)
- Low band port : Port 3 (Low band Insertion loss S13, and attenuation at high band)
- High band port : Port 2 (High band Insertion loss S12, and attenuation at low band)

Fig. 3 Frequency Characteristics

REVISION HISTORY

REVISION	DATE	CHANGE NOTIFICATION	DESCRIPTION
Version 2	Mar. 23, 2018		-Includes isolation spec.
Version 1	Jan. 09, 2018		-Correct dimension L.
Version 0	Dec. 05, 2016 -		- New data sheet for Diplexer, 2.4/5.0 GHz application, 1608 series