

RF Components

Diplexers

For Dual Band

DP-X31-30 Series

FEATURES

- Sheet multilayer construction has resulted light weight chip diplexers(L3.2×W1.6×T1.1mm, 18mg).
- The industry's smallest class diplexers maintain high grade, high stability characteristics for dual band/dual mode cellular transmission and reception. These diplexers have good separation characteristics, achieving both low insertion loss and high stop-band attenuation.
- This series provides a choice of two product types corresponding to the most typical dual band systems:AMPS/PCS1900(USA) and EGSM/DCS1800(Europe).
- Since these diplexers are provided with outstanding resistance to damage from the physical and chemical environment, stable characteristics are maintained, even for cellular applications under severe conditions.

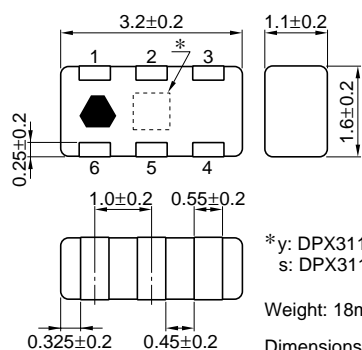
APPLICATIONS

Dual band/dual mode cellular use

TEMPERATURE RANGES

Operating	-30 to +80°C
Storage	-40 to +85°C

SHAPES AND DIMENSIONS



Terminal connections

Part No.	DPX311990DT-3001	DPX311880DT-3002
No.1	AMPS	EGSM
No.2	GND	GND
No.3	PCS	DCS
No.4	GND	GND
No.5	COMMON	COMMON
No.6	GND	GND

*y: DPX311990DT-3001
s: DPX311880DT-3002

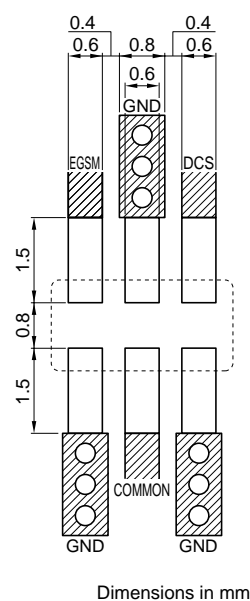
Weight: 18mg

Dimensions in mm



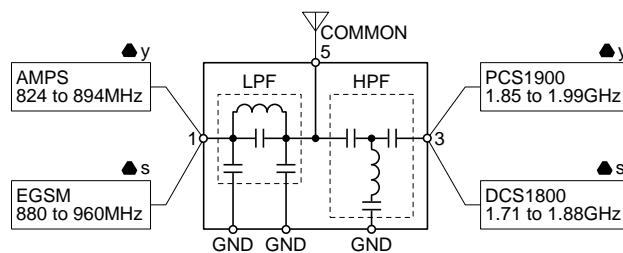
RECOMMENDED PC BOARD PATTERN

REFLOW SOLDERING

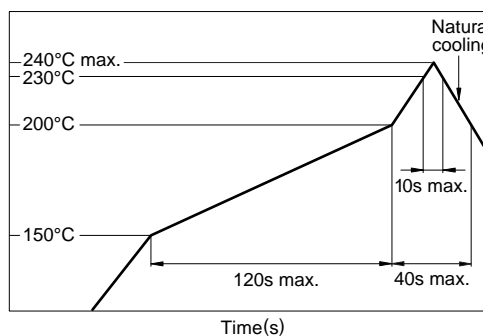


Dimensions in mm

EQUIVALENT CIRCUIT DIAGRAM



RECOMMENDED REFLOW SOLDERING CONDITIONS



Time(s)

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ELECTRICAL CHARACTERISTICS

DPX311990DT-3001

Application	AMPS/PCS1900 Dual Band System	
Insertion loss		
COMMON to AMPS	824 to 894MHz	0.5dB max.
COMMON to PCS1900	1.85 to 1.99GHz	0.65dB max.
Stop band attenuation		
COMMON to AMPS	1.85 to 1.99GHz	20dB min.
COMMON to PCS1900	824 to 894MHz	20dB min.

DPX311880DT-3002

Application	EGSM/DCS1800 Dual Band System	
Insertion loss		
COMMON to EGSM	880 to 960MHz	0.6dB max.
COMMON to DCS1800	1.71 to 1.88GHz	0.65dB max.
Stop band attenuation		
COMMON to EGSM	1.71 to 1.88GHz	20dB min.
COMMON to DCS1800	890 to 960MHz	25dB min.

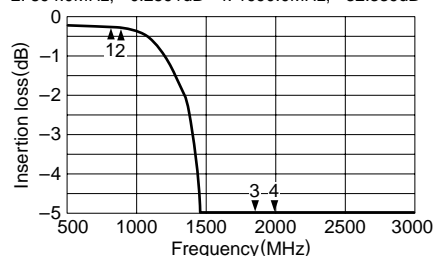
TYPICAL ELECTRICAL CHARACTERISTICS

FREQUENCY CHARACTERISTICS

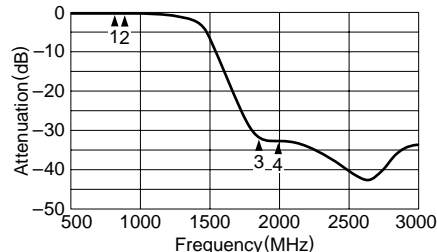
DPX321990DT-1001

COMMON to AMPS

- 1: 824.0MHz, -0.2659dB 3: 1850.0MHz, -31.562dB
2: 894.0MHz, -0.2591dB 4: 1990.0MHz, -32.339dB



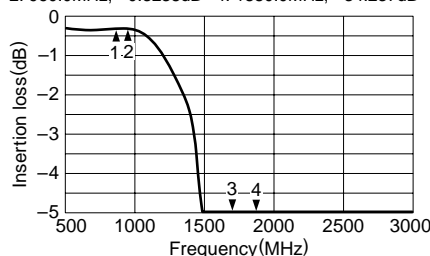
- 1: 824.0MHz, -0.2659dB 3: 1850.0MHz, -31.562dB
2: 894.0MHz, -0.2591dB 4: 1990.0MHz, -32.339dB



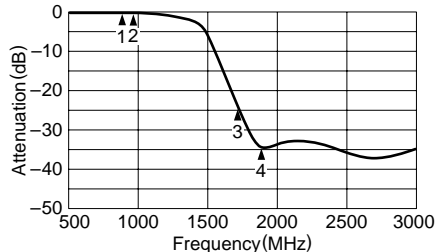
DPX321880DT-1002

COMMON to EGSM

- 1: 880.0MHz, -0.3200dB 3: 1710.0MHz, -23.678dB
2: 960.0MHz, -0.3238dB 4: 1880.0MHz, -34.237dB

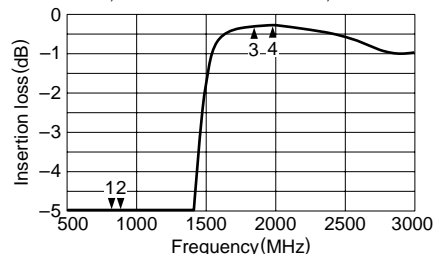


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2: 960.0MHz, -0.3238dB 4: 1880.0MHz, -34.237dB

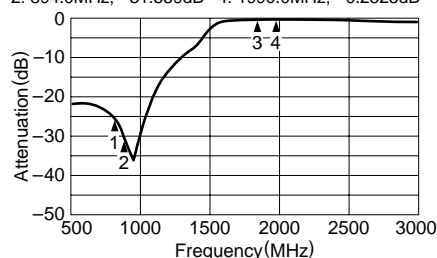


COMMON to PCS1900

- 1: 824.0MHz, -26.191dB 3: 1850.0MHz, -0.2650dB
2: 894.0MHz, -31.559dB 4: 1990.0MHz, -0.2525dB

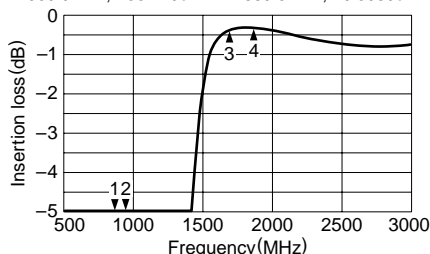


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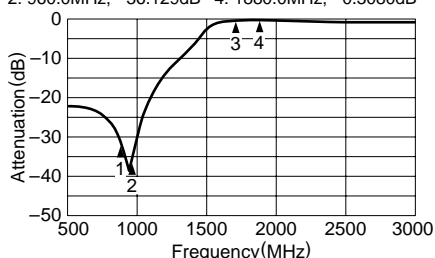


COMMON to DCS1800

- 1: 880.0MHz, -31.401dB 3: 1710.0MHz, -0.3716dB
2: 960.0MHz, -36.129dB 4: 1880.0MHz, -0.3080dB



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2: 960.0MHz, -36.129dB 4: 1880.0MHz, -0.3080dB



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APPLICATION EXAMPLE

