RF Components

Diplexers
For Dual Band

DP-X32-10 Series

FEATURES

- Sheet multilayer construction has resulted in the miniaturized, light weight chip diplexers(L3.2× W2.5×T1.2mm, 31mg).
- 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 stopband attenuation.
- This series provides a choice of two product types corresponding to the most typical dual band systems:AMPS/PCS1900(USA) and GSM/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.
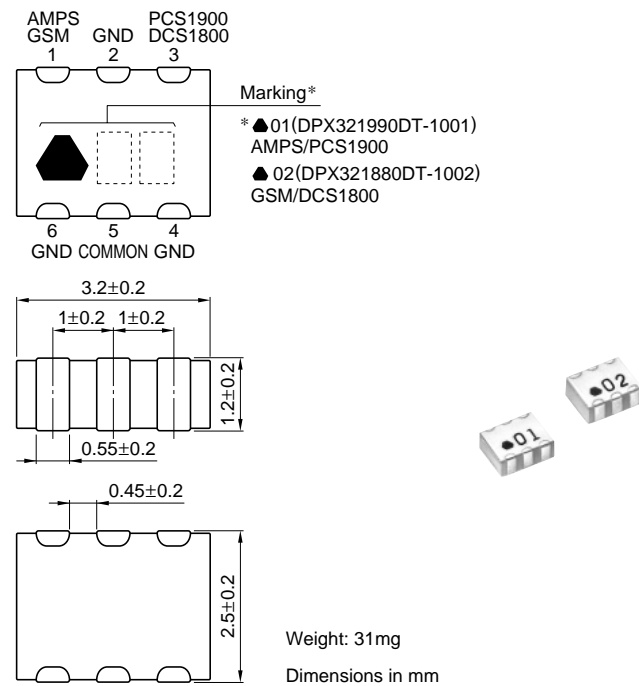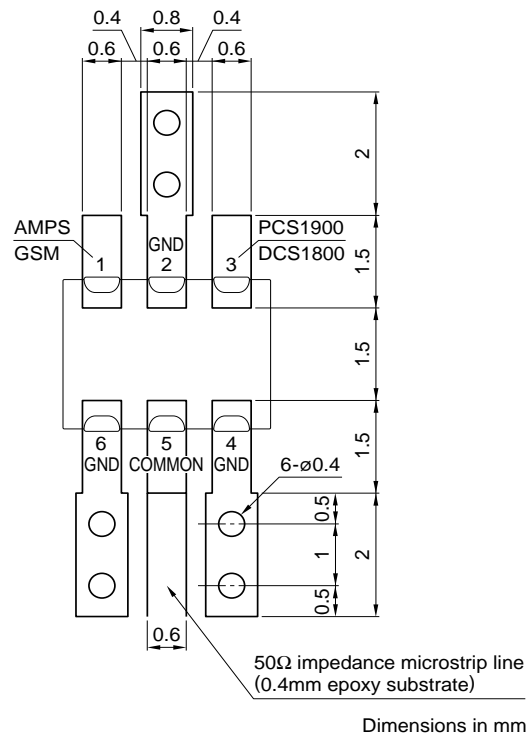
APPLICATIONS

Dual band/dual mode cellular use
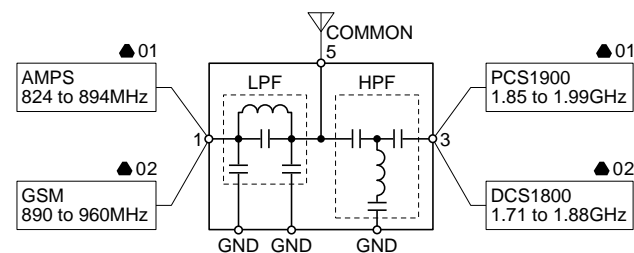
TEMPERATURE RANGES

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

SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM

Marking*

* ♠01(DPX321990DT-1001) AMPS/PCS1900
  ♠ 02(DPX321880DT-1002) GSM/DCS1800

Weight: 31mg

Dimensions in mm

EQUIVALENT CIRCUIT DIAGRAM

RECOMMENDED PC BOARD PATTERN
REFLOW SOLDERING

50Ω impedance microstrip line
(0.4mm epoxy substrate)

Dimensions in mm

RECOMMENDED REFLOW SOLDERING CONDITIONS
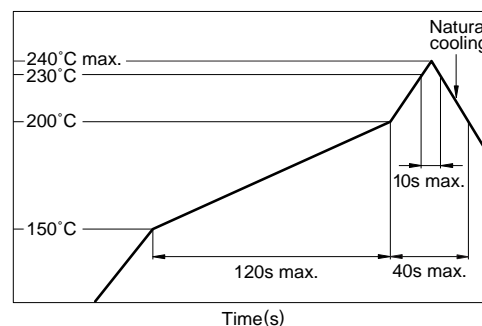
• All specifications are subject to change without notice.

⚝TDK.

RF Components

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ELECTRICAL CHARACTERISTICS

DPX321990DT-1001

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	0.5dB max.
Stop band attenuation		
COMMON to AMPS	1.85 to 1.99GHz	25dB min.
COMMON to PCS1900	824 to 894MHz	25dB min.

DPX321880DT-1002

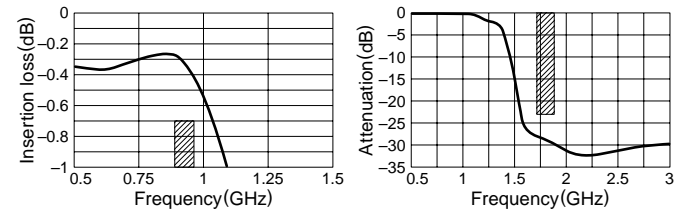| Application	GSM/DCS1800 Dual Band System	
Insertion loss		
COMMON to GSM	890 to 960MHz	0.7dB max.
COMMON to DCS1800	1.71 to 1.88GHz	0.7dB max.
Stop band attenuation		
COMMON to GSM	1.71 to 1.88GHz	23dB min.
COMMON to DCS1800	890 to 960MHz	23dB min.

TYPICAL ELECTRICAL CHARACTERISTICS

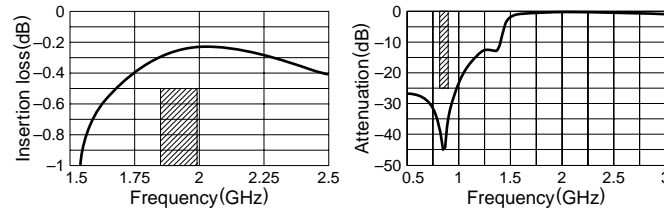### FREQUENCY CHARACTERISTICS   DPX321990DT-1001

COMMON to AMPS
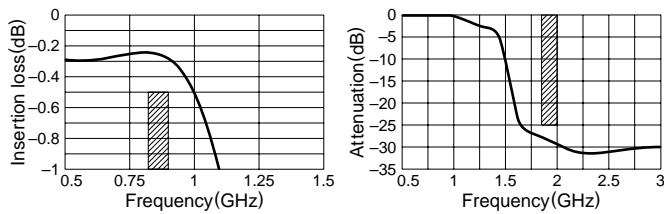
COMMON to PCS1900

FREQUENCY CHARACTERISTICS   DPX321880DT-1002

COMMON to GSM

COMMON to DCS1800

APPLICATION EXAMPLE

GSM/DCS1800 Dual Band System

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