

Common Mode Filters(SMD) For USB3.0/DisplayPort

Conformity to RoHS Directive

TCM Series TCM1210U Type

FEATURES

- These are thin-film, wideband common mode filters that are compatible with high-speed differential signal interfaces such as USB3.0.
- A wider bandwidth was achieved for differential transmission making it possible to reduce noise emission without affecting the high-speed differential signal.
- The differential mode cut-off frequency is 8.00GHz or higher, making it optimal for high-speed differential transmission lines such as USB 3.0 and DisplayPort.

APPLICATIONS

- USB3.0, DisplayPort, etc.

TEMPERATURE RANGE

Operating	-25 to +85°C
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PACKAGING STYLE AND QUANTITIES

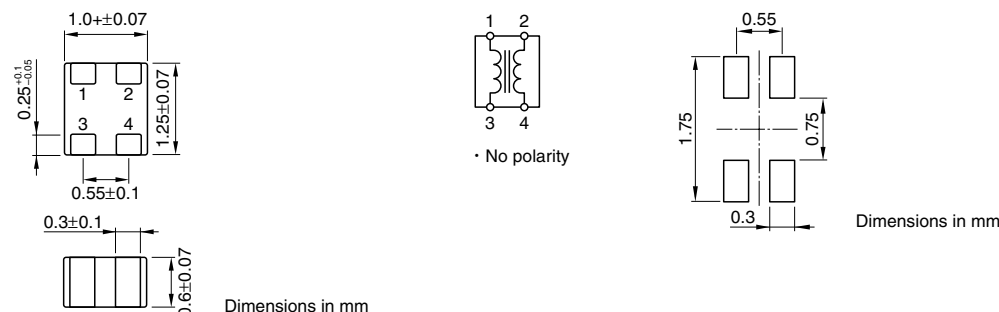
Packaging style	Quantity
Taping	4000 pieces/reel

PRODUCT IDENTIFICATION

TCM	1210	U	-	500	-	2P	-	T	□□□
(1)	(2)	(3)	(4)	(5)	(6)	(7)			

- (1) Series name
- (2) Dimensions L×W
- (3) Product identification number
- (4) Impedance[at 100MHz]
500: 50Ω
- (5) Number of line
2P: 2-line
- (6) Packaging style
T: ø180mm reel taping
- (7) TDK internal code

SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM/RECOMMENDED PC BOARD PATTERN



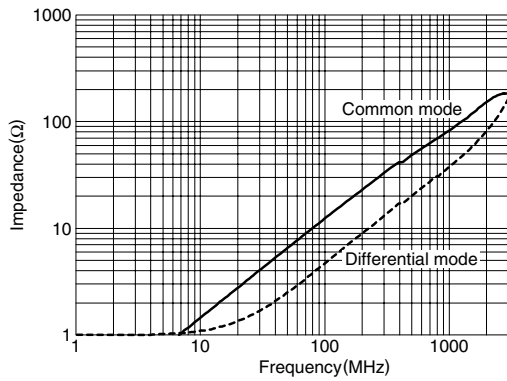
ELECTRICAL CHARACTERISTICS

Part No.	Common mode impedance (Ω)[at 100MHz]	Cut-off frequency (GHz)	DC resistance (Ω)max. [1 line]	Rated current Idc (mA)max.	Rated voltage Edc (V)max.	Insulation resistance (MΩ)min.
TCM1210U-120-2P	12±5	8.5typ.	0.70	100	10	10
TCM1210U-300-2P	30±10	8.5typ.	0.75	100	10	10
TCM1210U-500-2P	50±20	8.0typ.	1.70	100	10	10

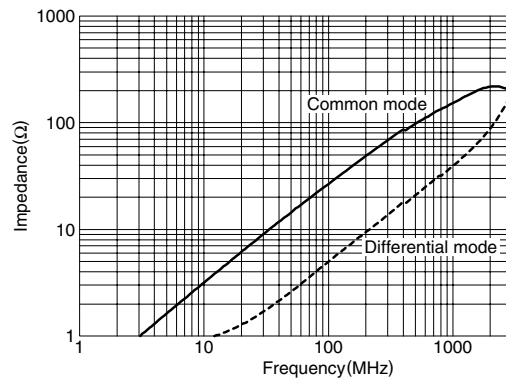
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

- All specifications are subject to change without notice.

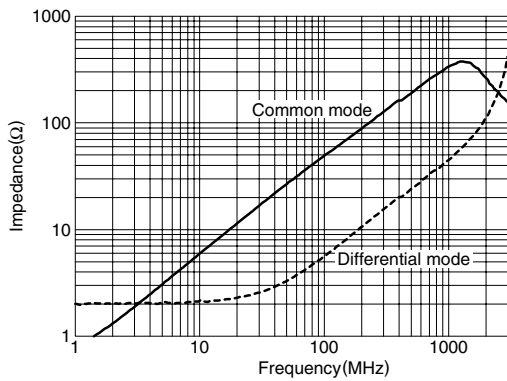
TYPICAL ELECTRICAL CHARACTERISTICS IMPEDANCE vs. FREQUENCY CHARACTERISTICS TCM1210U-120-2P



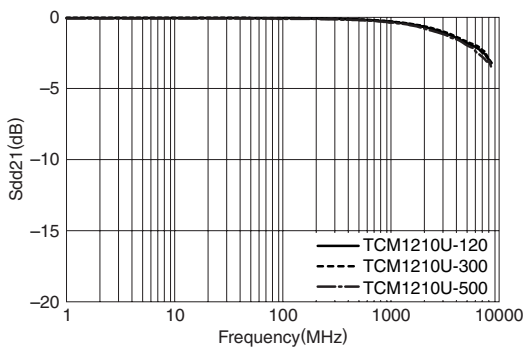
TCM1210U-300-2P



TCM1210U-500-2P



INSERTION LOSS vs. FREQUENCY CHARACTERISTICS



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