

Common Mode Filters(SMD) For High-speed Differential Signal Line

Conformity to RoHS Directive

TCM Series TCM1210H Type

FEATURES

- TCM1210H is thin-film broad band common-mode filter which developed for high-speed differential signal interface such as HDMI™, S-ATA.
- TCM1210H exercises suppression effect of radiated noise without generating distortion in signal because it realized a broad band of differential mode transmission.
- The differential mode cut-off frequency is 6.0GHz. Therefore, it hardly interferes for high-speed differential signal such as HDMI™, S-ATA.

APPLICATIONS

- EMI countermeasures of interface-HDMI™ of digital image equipment such as digital TVs, DVD recorders.
- EMI countermeasures of high-speed differential signal interface such as image signal interface S-ATA adopted to personal computers

TEMPERATURE RANGE

| | |
|-----------|--------------|
| Operating | -25 to +85°C |
|-----------|--------------|

PACKAGING STYLE AND QUANTITIES

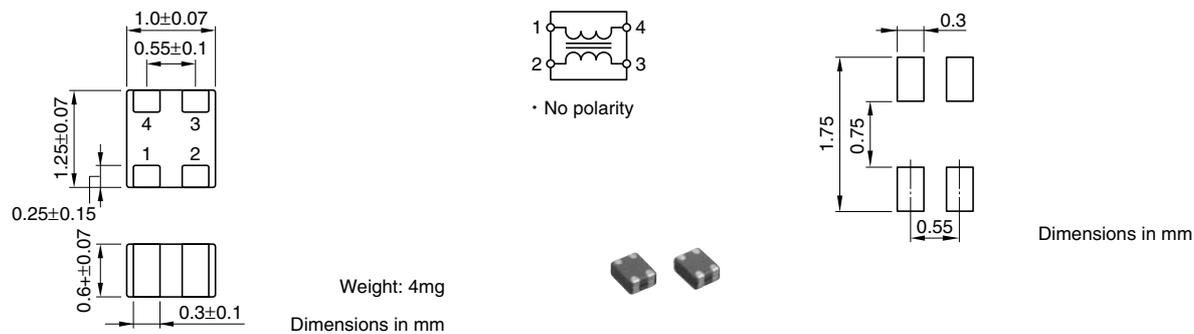
| | |
|-----------------|------------------|
| Packaging style | Quantity |
| Taping | 4000 pieces/reel |

PRODUCT IDENTIFICATION

| | | | | | | |
|-----|------|-----|-------|------|-----|-----|
| TCM | 1210 | H | - 900 | - 2P | - T | □□□ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |

- (1) Series name
- (2) Dimensions L×W
- (3) Product identification number
- (4) Impedance[at 100MHz]
900: 90Ω
- (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

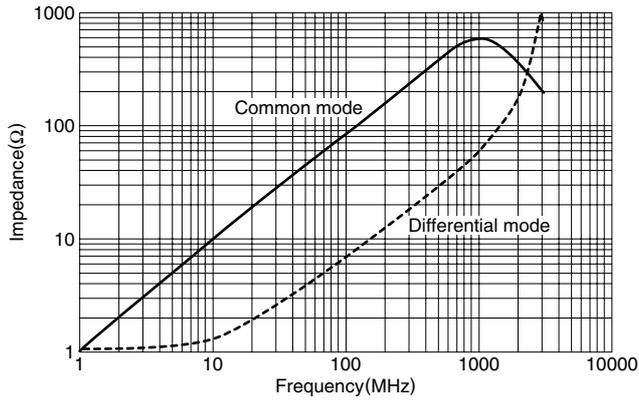
| Part No. | Common mode impedance (Ω) [at 100MHz] | Cut-off frequency (GHz) | DC resistance (Ω)max. [1 line] | Rated current I _{dc} (mA)max. | Rated voltage E _{dc} (V)max. | Insulation resistance (MΩ)min. |
|-----------------|---------------------------------------|-------------------------|--------------------------------|--|---------------------------------------|--------------------------------|
| TCM1210H-900-2P | 90±25 | 6typ. | 0.85 | 100 | 10 | 10 |

- HDMI™ is trademark of HDMI Licensing, LLC.

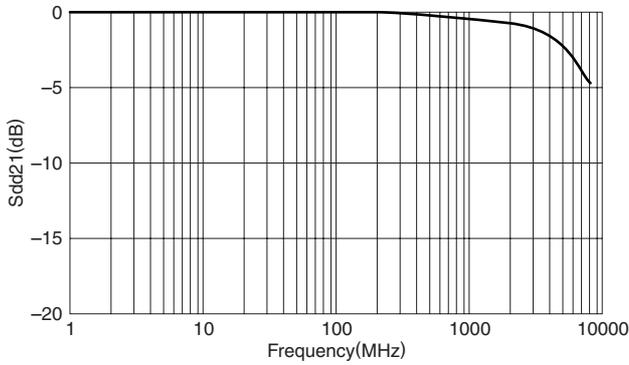
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

- All specifications are subject to change without notice.

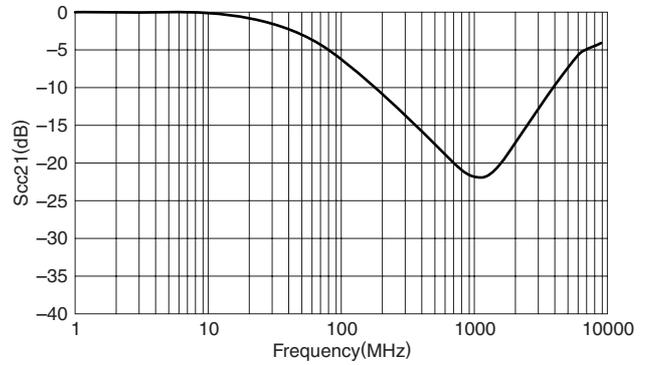
TYPICAL ELECTRICAL CHARACTERISTICS IMPEDANCE vs. FREQUENCY CHARACTERISTICS



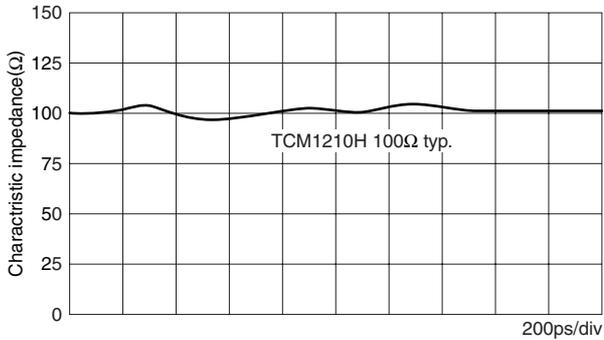
INSERTION LOSS vs. FREQUENCY CHARACTERISTICS DIFFERENTIAL MODE



COMMON MODE



CHARACTERISTIC IMPEDANCE MEASURED ACCORDING TO TDR



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