

# Common Mode Filters(SMD) For HDMI/S-ATA

**Conformity to RoHS Directive** 

### TCM Series TCM2010H Type

#### **FEATURES**

- TCM2010H is thin film common mode filter array type developed for high speed differential signal interfaces, such as HDMI™, S-ATA.
- TCM2010H is the product which constructed with two circuits in a small one chip of L2.0×W1.0mm.
- TCM2010H suppress the radiated emission without the distortion of differential signal.
- The cut-off frequency of TCM2010H for differential signal mode is 6GHz, so this couldn't interfere higher-speed differential signals such as HDMI<sup>TM</sup>, S-ATA.

#### **APPLICATIONS**

HDMI™, S-ATA etc.

#### **TEMPERATURE RANGE**

Operating	−25 to +85°C

#### **PACKAGING STYLE AND QUANTITIES**

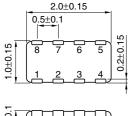
Packaging style	Quantity
Taping	4000 pieces/reel

#### PRODUCT IDENTIFICATION

TCM	2010	Н -	900	-	4P	-	Т	
(1)	(2)	(3)	(4)		(5)	-	(6)	(7)

- (1) Series name
- (2) Dimensions L×W
- (3) Product identification number
- (4) Impedance[at 100MHz]  $900: 90\Omega$
- (5) Number of line 4P: 4-line
- (6) Packaging style
  T: ø180mm reel taping
- (7) TDK internal code

#### SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM/RECOMMENDED PC BOARD PATTERN



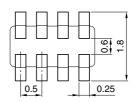


Weight: 8mg Dimensions in mm



· No polarity





Dimensions in mm

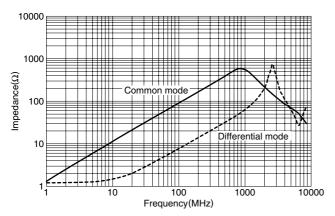
#### **ELECTRICAL CHARACTERISTICS**

Part No.	Common mode impedance $(\Omega)$ [at 100MHz]	Cut-off frequency (GHz)	DC resistance (Ω)max. [1 line]	Rated current Idc (mA)max.	Rated voltage Edc (V)max.	Insulation resistance $(M\Omega)$ min.
TCM2010H-900-2P	90±25	6typ.	1	100	10	10

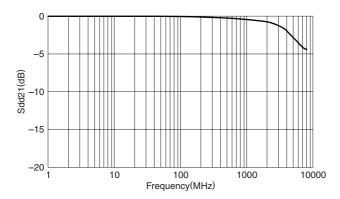
- HDMI™ is trademark of HDMI Licensing, LLC.
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.



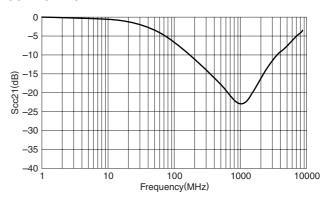
## TYPICAL ELECTRICAL CHARACTERISTICS IMPEDANCE vs. FREQUENCY CHARACTERISTICS



### INSERTION LOSS vs. FREQUENCY CHARACTERISTICS DIFFERENTIAL MODE



#### **COMMON MODE**



<sup>•</sup> All specifications are subject to change without notice.