



# Low transmission loss Highly heat resistant Multi-layer circuit board materials

低伝送損失・高耐熱多層基板材料

**MEGTRON4 MEGTRON4S MEGTRONM**  
Laminate **R-5725 R-5725S R-5735**  
Prepreg **R-5620 R-5620S R-5630**

## Applications 用途

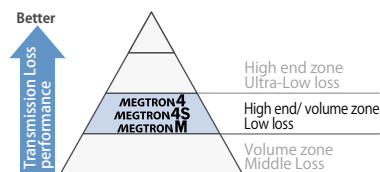
ICT infrastructure equipment, Supercomputer, Measuring instrument, Antenna, Etc.

ICT インフラ機器、スーパーコンピュータ、計測用機器、通信アンテナなど



Suitable for high-speed large-volume data transmission by servers and routers at high-end and volume designs.

大容量データの伝送速度の高速化に対応。  
高多層や基板加工時のリフロー工程に対応した耐熱性を向上 (MEGTRON4S/MEGTRON M)

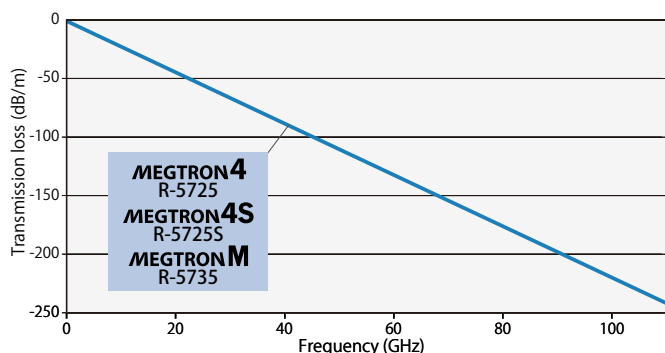


Dk 3.8 Df 0.007  
@10GHz

Tg (DSC)  
176°C

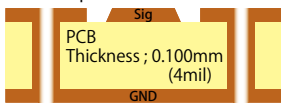
T288 (with copper)  
30min

## Frequency dependence by Transmission loss 伝送損失比較



### Construction

Microstrip line



Layer1 : Signal Line  
(line width : 270 μm)  
(Cu thickness : 24 μm)

Layer2 : GND Plane  
(Cu thickness : 24 μm)

Measurement	2 port S-Parameter
Frequency	10MHz-110GHz
De-embedded	Multiline TRL method
Measurement line	adjust to 50Ω(Zo)

## Heat resistance of High Multi-layered 高多層耐熱性

### Result

Drill diameter	φ0.3mm	
Wall to wall distance	0.6mm	0.7mm
<b>MEGTRON4</b>	pass	pass
<b>MEGTRON4S</b>	pass	pass
<b>MEGTRONM</b>	pass	pass

### Condition

260°C reflow x 10times

### Construction

28 Layers  
Board thickness: 3.8mm



## General properties 一般特性

Item	Test method	Condition	Unit	<b>MEGTRON4</b> R-5725	<b>MEGTRON4S</b> R-5725S	<b>MEGTRONM</b> R-5735
Glass transition temp.(Tg)	DSC	A	°C	176	200	195
CTE z-axis	α1	IPC-TM-650 2.4.24	A	ppm/°C	35	31
					α2	265
T288(with copper)	IPC-TM-650 2.4.24.1	A	min	30	50	35
Dielectric constant(Dk)	10GHz	IPC-TM-650 2.5.5.5	C-24/23/50	-	3.8	3.9
Dissipation factor(Df)					0.007	0.007
Peel strength*	1oz(35 μm)	IPC-TM-650 2.4.8	A	kN/m	1.1	1.2

The sample thickness is 0.8mm.

\* RT Copper

The above data are typical values and not guaranteed values. 上記データは当社測定による代表値であり、保証値ではありません。

Please see the page for "Notes before you use" 商品のご採用に当たっての注意事項は [こちら](#)