



Ultra-low transmission loss Highly heat resistant Multi-layer circuit board materials

超低伝送損失・高耐熱多層基板材料

MEGTRON7

Laminate R-5785(N)* R-5785(GN)* R-5785(GE) R-5785(R)*
Prepreg R-5680(N)* R-5680(GN)* R-5680(GE)

*Low Dk glass cloth type R-5785(R): Buried Resistor Copper Foil

Applications 用途

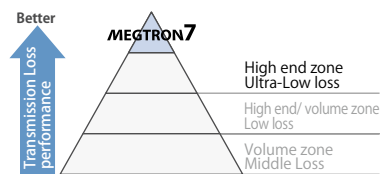
ICT infrastructure equipment, Supercomputer, Measuring instrument, Antenna(Base station, Automotive millimeter-wave radar), Etc.

ICT インフラ機器 (スーパーコンピュータ、計測用機器)、アンテナ (基地局、車載ミリ波レーダ)、高周波用途など



Due to our industry leading low dielectric constant and dissipation factor, these materials are suitable for high-speed data transmission by servers and routers using high-layercount, large-size PCB designs.

業界最高クラスの低誘電率・低誘電正接により大容量・高速伝送に対応し、大型高速サーバの性能向上に貢献。超高多層化・基板サイズの大型化にも対応

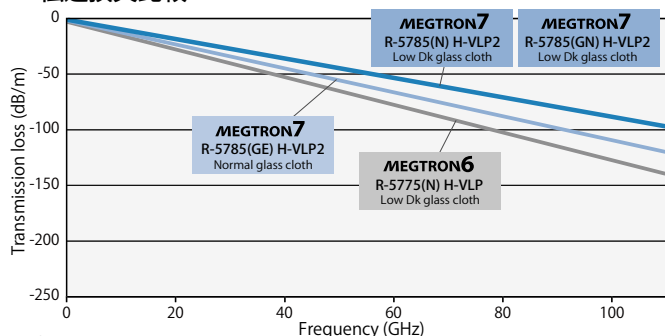


Dk 3.4 Df 0.002
@12GHz

Tg (DSC)
200°C

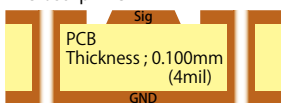
T288 (with copper)
>120min

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

		φ0.3mm		
		0.4mm	0.5mm	0.6mm
R-5785(N)	Low Dk glass cloth/H-VLP2	pass	pass	pass
R-5785(GN)	Low Dk glass cloth/H-VLP2	pass	pass	pass

Condition

260°C reflow x 20times

Construction

32 Layers
Board thickness: 4.5mm



R-5785 (N)



R-5785 (GN)

General properties 一般特性

Item	Test method	Condition	Unit	MEGTRON7 R-5785(N) Low Dk glass cloth	MEGTRON7 R-5785(GN) Low Dk glass cloth	MEGTRON7 R-5785(GE) Normal glass cloth	MEGTRON7 R-5785(R) Low Dk glass cloth Buried Resistor Copper Foil
Tg	DSC	A	°C	200	200	200	200
CTE z-axis	α1	IPC-TM-650 2.4.24	A	ppm/°C	42	42	42
					α2	280	280
T288(with copper)	IPC-TM-650 2.4.24.1	A	min	>120	>120	>120	>120
Dk	12GHz	Balanced-type circular disk resonator	C-24/23/50	-	3.4	3.4	3.4
Df					0.002	0.002	0.003
Peel strength*1	1oz(35 μm)	IPC-TM-650 2.4.8	A	kN/m	0.8	0.8	0.8*2

The sample thickness is 0.75mm.

*1 R-5785(GN), R-5785(GE): H-VLP2, R-5785(N): H-VLP Copper *2 Buried Resistor Copper Foil 1/2oz (18 μm)

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。

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