

Dk 3.31 Df 0.0023
@14GHz

Tg (DSC) 200°C

T288 (with copper)
>120min

Applications

Network / Wireless

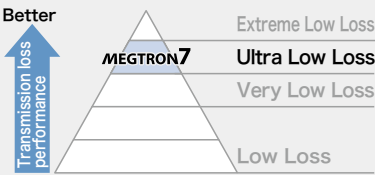
ICT Infrastructure Equipment, Supercomputer,
Measuring Instrument, Antenna (Base Station,
Automotive Millimeter-Wave Radar)

MEGTRON7

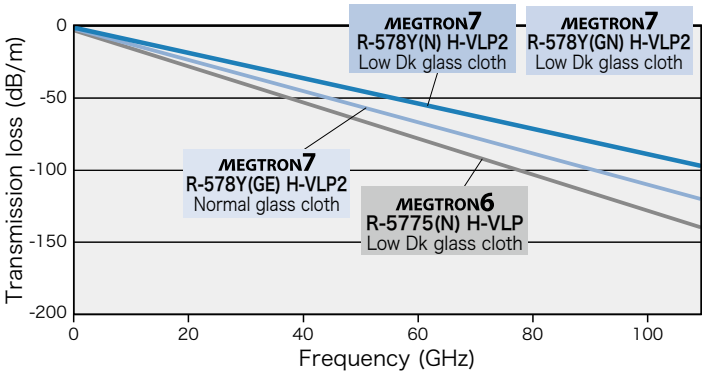
Laminate
R-578Y(N)* R-578Y(GN)* R-578Y(GE)
Prepreg
R-568Y(N)* R-568Y(GN)* R-568Y(GE)
*Low Dk glass cloth type

Ultra-low transmission loss, highly heat-resistant multi-layer circuit board materials

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-layer-count, large-size PCB designs.



Frequency dependence by transmission loss



Heat resistance of high multi-layered Result

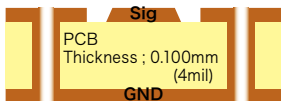
Drill diameter	φ0.3mm		
Wall to wall distance	0.4mm	0.5mm	0.6mm
R-578Y(N) Low Dk glass cloth/H-VLP2	pass	pass	pass
R-578Y(GN) Low Dk glass cloth/H-VLP2	pass	pass	pass

Condition
260°C reflow x 20times

Construction
32 Layers
Board thickness: 4.5mm

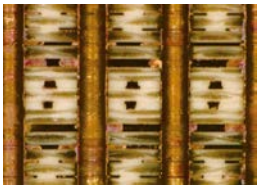
Construction

Microstrip line



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

Layer1: Signal line (line width: 270μm, Cu thickness: 24μm)
Layer2: GND plane (Cu thickness: 24μm)



R-578Y(N)



R-578Y(GN)

General properties

Item		Test method	Condition	Unit	MEGTRON7 R-578Y(N) Low Dk glass cloth	MEGTRON7 R-578Y(GN) Low Dk glass cloth	MEGTRON7 R-578Y(GE) Normal glass cloth
Tg		DSC	A	℃	200	200	200
CTE z-axis	α 1	IPC-TM-650 2.4.24	A	ppm/℃	42	42	42
	α 2				280	280	280
T288(with copper)		IPC-TM-650 2.4.24.1	A	min	>120	>120	>120
Dk	13, 14GHz	Balanced-type circular disk resonator method	C-24/23/50	-	3.31 [14GHz]	3.31 [14GHz]	3.60 [13GHz]
Df					0.0023 [14GHz]	0.0023 [14GHz]	0.0034 [13GHz]
Peel strength*	1oz(35μm)	IPC-TM-650 2.4.8	A	kN/m	0.8	0.8	0.8

The sample thickness is 0.75mm.
* R-578Y(GN), R-578Y(GE): H-VLP2, R-578Y(N): H-VLP Copper
Please see our website for Notes before you use.

The above data are typical values and not guaranteed values.